2010

Social Panorama
of Latin America

UNITED NATIONS

ECLAC

Alicia Bárcena
Executive Secretary

Antonio Prado
Deputy Executive Secretary

Martín Hopenhayn
Director of the Social Development Division

Luis Beccaria
Director of the Statistics and Economic Projections Division

Dirk Jaspers_Faijer
Director of the Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC

Sonia Montaño
Director of the Division for Gender Affairs

Ricardo Pérez
Director of the Documents and Publications Division

The *Social Panorama of Latin America* is prepared each year by the Social Development Division and the Statistics and Economic Projections Division of the Economic Commission for Latin America and the Caribbean (ECLAC), under the supervision of Martín Hopenhayn and Luis Beccaria, respectively. The Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC, directed by Dirk Jaspers_Faijer, was also involved in the preparation of the report.

Work on the 2010 edition was coordinated by Juan Carlos Feres, Fernando Filgueira and Martín Hopenhayn, who, together with Simone Cecchini, Ernesto Espíndola, Diego Hernández, Mauricio Holz, Rubén Kaztman, Xavier Mancero, Ciro Martínez, Tim Miller, Paulo Saad, Daniela Trucco, Cassio Turra and Pablo Villatoro, prepared the various chapters. Andrés Espejo, Ernesto Espíndola, Fabiola Fernández, Marco Galván, Diego Hernández, Carlos Howes, Sebastián Möller, Patricio Olivera, Claudia Robles, Nora Ruedi and Luis Hernán Vargas prepared substantive inputs and processed statistical data.

The preparation of chapters II and III was supported by the "Sustainability of co-responsibility transfer programmes" project (GER/001/09) being implemented by ECLAC in collaboration with the German Agency for Technical Cooperation (GTZ) and financed by the Ministry for Economic Cooperation and Development of Germany. Chapter V received support from the United Nations Population Fund.

Explanatory notes

Three dots (...) indicate that data are missing, are not available or are not separately reported.
Two dashes and a full stop (-.-) indicate that the sample size is too small to be used as a basis for estimating the corresponding values with acceptable reliability and precision.
A dash (-) indicates that the amount is nil or negligible.
A blank space in a table indicates that the concept under consideration is not applicable or not comparable.
A minus sign (-) indicates a deficit or decrease, except where otherwise specified.
The use of a hyphen (-) between years (e.g., 1990-1998) indicates reference to the complete number of calendar years involved, including the beginning and end years.
A slash (/) between years (e.g., 2003/2005) indicates that the information given corresponds to one of these two years.
The world "dollars" refers to United States dollars, unless otherwise specified.
Individual figures and percentages in tables may not always add up to the corresponding total because of rounding.

United Nations publication
ISBN: 978-92-1-121754-4
E-ISBN: 978-92-1-054537-2
ISSN: 1020-5160
LC/G.2481-P
Sales No.: E.11.II.G.6

Printed in Santiago, Chile • 2010-875

Contents

Tables

Figures

Boxes

Introduction

In 2010 the Economic Commission for Latin America and the Caribbean (ECLAC) proposed a comprehensive development strategy entitled *Time for equality: closing gaps, opening trails* (ECLAC, 2010). From a rights-based perspective, development is treated as an indivisible, rights-based process in which synergies are created between a macroeconomy that pushes back the frontiers of growth as an engine of employment and social inclusion; productive development that drives greater convergence between sectors and labour-market stakeholders to create a more diversified, innovation- and knowledge-intensive production matrix; a territorial matrix that links territories and narrows gaps in both production and well-being; a focus on social rights aimed at employment protection, the promotion of decent work, redistributive public transfers and the expansion of social safety nets; and a fiscal covenant that creates public policy space for promoting productive development with greater social equality by expanding and restructuring the tax burden.

We talk about equality because what is at stake in the proposal is not just equal access but also equal ownership of rights. An integral approach not only seeks equal opportunities for skill development but also strives for clear public policies on employment and productive development as a way to reduce the tremendous segregation in these sphere that has marked the Latin American and Caribbean region's recent past. The region's structural heterogeneity (a subject often addressed by ECLAC and revisited in contemporary terms in Time for equality) generates productivity gaps that in turn open up divides in access to labour rights, well-being, fair wages, a political voice, symbolic recognition and information.

This edition of *Social Panorama* looks at the links in the chain of inequalities identified in Time for equality that concern the education and skills development stage of the life cycle. A substantial portion of this edition, then, deals with the youth and child population and considers how differences created and consolidated during this stage of life entrench the intergenerational reproduction of poverty and inequality. The focus is on the life cycle and on the reproduction of unequal opportunities for sustainable social mobility over an individual's lifetime. From this viewpoint, the document examines the situation of the population aged 0-29 and its internal dynamics, future prospects and ties to other age groups.

Accordingly, this edition of *Social Panorama* pinpoints gaps in educational attainment and learning during the formative years, highlighting the need for the State to play a more significant role and for public transfers to narrow these gaps. It also examines how socio-economic background helps perpetuate inequality in education on the supply side. A structural, integral approach for achieving equality such as ECLAC is proposing as a road map for development in the region is not enough to close these gaps in skills and learning.

To attain this goal, the State must play an active role in the areas of production and labour because self-regulated markets have historically proven to work against productive

convergence, employment and labour protection and to impede the narrowing of gaps in labour income and access to well-being. To truly close gaps in skills, learning and educational outcomes, education must be articulated with a labour market geared towards inclusion and equality, a fiscal covenant with a larger tax burden enabling the State and public policy to play a clear role in drawing on productivity gains (in which education is key) to redistribute assets and ensure universal access to social safety nets.

In this context, the overarching message is that position on the social scale is more than the sum of personal circumstance, effort and decisions. There is a structure of opportunities provided by States, markets, families and communities that are largely beyond the individual's control and that colour prospects for social mobility and access to well-being.

Almost everything that the State, the market and the community provide for a child during infancy is filtered and redistributed by the family. As the child progresses in the life cycle towards adolescence and young adulthood, his or her direct ties to the State, the market and the community grow stronger. This edition of *Social Panorama* argues, among other things, that in Latin America the State and its transfer and regulatory mechanisms fall short of the mark in addressing inequalities of origin. In other words, the start in life for the children of Latin America depends a good deal on family circumstances. Families, in turn, depend a good deal on the market and receive little support from the State. The lack of robust transfer systems targeting families with children; limited coverage, care and protection by the State during infancy; low penetration of preschool systems; short school days; the system's inability to retain students during secondary school; and the lack of support for young people and young adults as they become autonomous: these are all factors that dramatically limit the prospects for future social mobility for children born into lower-income sectors.

The following chapters look at these dynamics from the viewpoints of poverty and inequality, spending and social policy, the educational system and its achievements and limitations, and intergenerational transfer systems —both those originating with the State and those that are provided through families. The closing chapter recaps the lessons learned from the chapters on specific areas; it sets forth public policy proposals and estimates their cost and potential coverage and impacts. The proposals should be seen as a search for a social protection and promotion system that safeguards children and adolescents from risk and offers channels for greater lifelong mobility.

As in previous editions, chapter I discusses recent trends in poverty and income distribution in Latin America and the relationship between these trends and an individual's life cycle. The data show that despite the economic crisis and the widespread fall in GDP in 2009, there was virtually no increase in poverty rates in the region and indigence rates rose only slightly. Among the contributing factors were the maintenance of real wages thanks to low inflation and policies geared towards preventing massive job losses, along with a slight improvement in the distributive structure of income. The positive trend in access to basic services and education has held.

For young people living in poverty, an early start towards emancipation is crucial. Teenage motherhood is highly concentrated in the poor population, making it far more difficult to escape poverty throughout life. In addition, the proportion of individuals who neither study nor work is higher among women than among men and among young people from lower-income strata than among those from higher-income groups. This situation calls for comprehensive policies that, together, tackle issues involving reproductive paths, school drop-out rates and vulnerability to exclusion.

Subjectively, demoscopic data suggest that national life-satisfaction averages in the countries of the region are far higher than to be expected on the basis of gross domestic product (GDP) per capita. The gaps in this subjective well-being indicator are smaller than expected given the widespread distributive inequality in Latin America, where life dissatisfaction is higher among individuals over 60 years of age living in the worst socio-economic conditions, among 17-to-29-year-olds with children and among individuals without a stable partner.

Chapter II highlights the role of education as one of the State's best tools for reversing the intergenerational reproduction of inequality and decoupling an individual's social background from future well-being outcomes. But the region has not turned the education system into a driver of equal opportunity. While there have been significant advances in education in recent decades, expanding access has also led to greater supply-side segmentation in attainment and in quality. The social and cultural disadvantages that burden lower-resource students as they enter the educational system are compounded by access to lower-quality education services than are available to students with more resources. This reinforces the inequality of their learning paths.

In a context of unequal access to educational opportunities, the link between education and employment reproduces —and can even worsen— social inequalities. And there is a new factor that is ever more critical for acquiring skills: connectivity and the quality of access to and use of digital technologies. This poses the dilemma of a widening digital divide versus growing digital convergence, where there is considerable scope for action by educational systems.

Education policy must dovetail with other social promotion and protection measures if inequality in the intergenerational transmission of educational opportunities is

to be successfully reversed. Some key intervention factors in the field of education are: expanding early childhood education coverage; extending the primary school day; improving access to and use of digital technologies at State schools; supporting families through conditional cash transfer programmes and extending these to young people in secondary school; coordinating the job training system; and reconciling education quality at the upper level with expanding access to excluded sectors.

Chapter III looks at recent trends in social spending. Over the past two decades the countries of the region have put significant effort into increasing the resources available for implementing social policies. Almost all areas of social spending have increased in absolute and relative terms alike, except for a few items and periods. Much of this effort has run concurrently with economic growth as available resources expanded. Overall budget increases, especially for the social sectors, have outpaced GDP growth, but minor GDP contractions have also led to larger than necessary budget cuts. To counteract this trend, most of the countries of the region decided to step up public spending (temporarily so far) to address the effects of the global financial crisis. Many of these measures are geared towards cushioning the impact of the crisis on the real economies and curbing rising unemployment and poverty.

The social sectors seeing the largest increases in government funding were social security and assistance, followed by education. A portion of social assistance seeks to check the intergenerational reproduction of poverty and so targets the younger generations. However, spending on education primarily targets children and young people, and the resources involved are substantial. Spending per student is up sharply.

Chapter IV examines the system of public and private transfers and how these are distributed between generations. These transfers centre on age groups that tend to consume more than they produce: children and young people, and older adults. This brings into play the National Transfer Accounts (NTA) system, a new approach to measuring aggregate flows of economic resources between age groups over time. These accounts include flows associated with transfers and capital accumulation, distinguishing those passing through public institutions from those in the private sphere.

The assessment reveals the low level of consumption among children and young people in Latin America, associated with scanty public investment in these groups. Indeed, as a percentage of labour income, the countries of the region spend about the same on older persons as do Japan, the countries of Europe, and the United States. But their investment in children and young people is half that of the developed countries. The proportion of family transfers to children and young people is far higher in Latin America, while that of public transfers is markedly lower. This calls for the public sector to be far more active in ensuring adequate investment in skills-building and in protecting children and young people from risk.

Although the usual focus is on gaps between socio-economic strata, this chapter centres on gaps between generations and in intergenerational transfers. Rethinking the intergenerational distribution of public transfers is essential, not only to check the reproduction of inequality throughout the life cycle but also to prepare for the rapid ageing of the population.

In short, the high concentration of poverty in the early stages of life, the low level of public transfers targeting children and young people and the segmentation of educational attainments and learning (combined with the structural core of an unequal production matrix and labour market) are among the factors that explain, in part, the persistent inequality in our countries. To address these issues, chapter V proposes a life-cycle approach calling for measures that fall into three broad groups. One set of measures involves cash transfers to vulnerable households with children aged 0-14 to improve the odds that the family will have an appropriate environment for child socialization (nutrition, housing, clothing). Another calls for funding for policy measures covering the current cost of incorporating into the educational system those members of the early childhood, preschool, primary, lower secondary and upper secondary age groups who are not covered. The last group of measures envisions another set of cash transfers for employment and training services targeting young people in the process of becoming emancipated adults (15-24 years of age).

This chapter sets out the results of simulations showing the costs and impacts of the measures proposed. Starting with the impacts, it explains how a transfer system for the population living in vulnerable households would have a decisive effect on poverty in the countries. It also spells out the significant gains in terms of incorporating into the educational system those children and young people who are currently outside it. As for costs, the chapter concludes that the additional current expense of incorporation into the educational system is viable for the vast majority of the countries of the region. Costs increase when taken together with cash transfers to vulnerable sectors. Over a 10-year horizon, in most of the countries the additional revenues from economic growth (and possible expansion of the tax burden) could cover the additional cost of such measures by 2014 or earlier. Nonetheless, there is still a group of four countries (Guatemala, Honduras, Nicaragua and the Plurinational State of Bolivia) that would not be able to achieve coverage by the end of the period. This calls for a greater effort to secure international cooperation resources in line with these clearly defined goals.

Summary

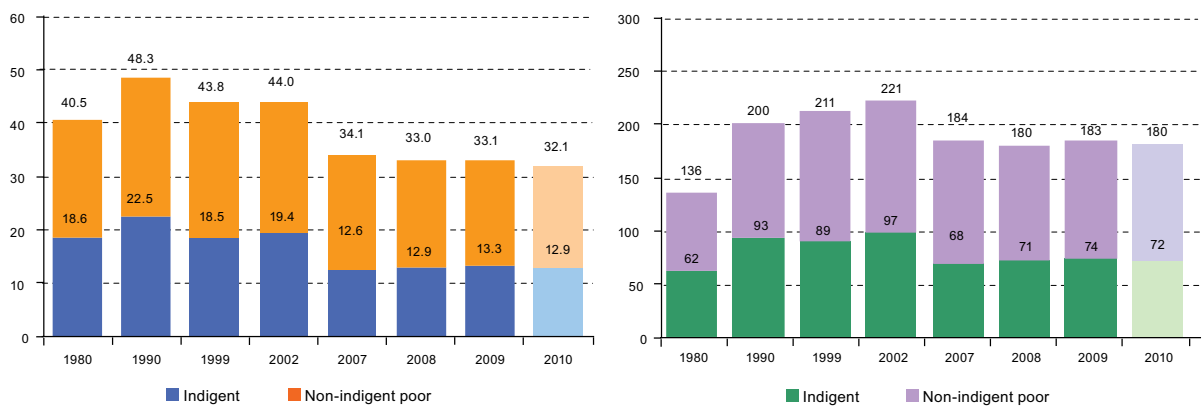
Poverty, inequality and life cycle

Poverty and inequality: crisis and recovery

Per capita GDP in Latin America and the Caribbean fell by 3% in 2009 in the midst of a generalized international crisis. This contraction impacted most of the countries of the region, especially the Bolivarian Republic of Venezuela, El Salvador, Honduras, Mexico and Paraguay. Unlike prior crises, though, this time public policy was paramount in dampening the impact on labour and social conditions.

The poverty rate in the region stood at 33.1% in 2009, with 13.3% of the population living in extreme poverty or indigence. These figures translate into 183 million poor and 74 million living in indigence (see figure 1). Poverty worsened only slightly compared with 2008, equivalent to an increase of 0.1 percentage points. This shows that the countries are in a position to (and are inclined to) act far more decisively to contain the social impacts of the crisis than they have been during past crises. Extreme poverty posted a somewhat larger increase: 0.4 percentage points. The number of poor and indigent rose by 3 million.

Figure 1
LATIN AMERICA: POVERTY AND INDIGENCE, 1980-2010 [a]
(Percentages and millions of persons)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.
[a] Estimate for 18 countries of the region, plus Haiti. The figures above the bars are the percentage and total number of poor persons (indigent plus non-indigent poor).

These figures point to relatively positive results over the past few years. Compared with 2002, when poverty and indigence rates were the highest since 1990, both indicators are down sharply —by 10.9 percentage points for poverty and 6.1 percentage points for indigence.

There is information available for assessing poverty and indigence trends between 2008 and 2009 for nine countries. In six of them, poverty clearly dropped during the period. In the Dominican Republic and Uruguay (data for urban areas), the poverty rate fell by more than 3 percentage points; Brazil, Panama, Paraguay and Peru recorded declines between 0.9 percentage points and 2.2 percentage points. Slightly smaller poverty rate decreases were posted in Colombia and Ecuador (at the national level, but not for urban areas).[1] In 2009, the indigence rate came down considerably in Colombia, the Dominican Republic, Panama, Peru and Uruguay and declined slightly in Brazil and Paraguay. Among the countries for which information is available, only Costa Rica showed an appreciable deterioration in poverty and indigence indicators in 2009, with rises of 2.5 percentage points and 1.4 percentage points, respectively.

The latest figures available for Argentina, Chile and El Salvador show poverty trends over a broader period. Between 2006 and 2009, poverty and indigence rates in Argentina (urban areas) dropped at the rate of 3.2 percentage points and 1.1 percentage points per year, respectively. In Chile, poverty declined slightly between 2006 and 2009, with the indigence rate remaining basically unchanged.[2] Poverty and indigence rates in El Salvador held steady between 2004 and 2009.

These figures can also be used to evaluate the progress the countries are making towards achievement of target 1.A of Millennium Goal One: to halve, between 1990 and 2015, the proportion of people living in extreme poverty. Despite the setback in 2008 and 2009, Latin America is well on the way to achieving target 1.A. With 72% of the target deadline elapsed the region is 82% of the way to fulfilling it.

Table 1
LATIN AMERICA (18 COUNTRIES): PERSONS LIVING IN POVERTY AND INDIGENCE, AROUND 2002, 2008 AND 2009
(Percentages)

Country	Around 2002			Around 2008			2009		
	Year	Poverty	Indigence	Year	Poverty	Indigence	Year	Poverty	Indigence
Argentina [a]	2002	45.4	20.9	2006	21.0	7.2	2009	11.3	3.8
Bolivia (Plurinational State of)	2002	62.4	37.1	2007	54.0	31.2	...	...	...
Brazil	2001	37.5	13.2	2008	25.8	7.3	2009	24.9	7.0
Chile	2000	20.2	5.6	2006	13.7	3.2	2009	11.5	3.6
Colombia [b]	2002	54.2	19.9	2008	46.1	17.9	2009	45.7	16.5
Costa Rica	2002	20.3	8.2	2008	16.4	5.5	2009	18.9	6.9
Dominican Republic	2002	47.1	20.7	2008	44.3	22.6	2009	41.1	21.0
Ecuador [a]	2002	49.0	19.4	2008	39.0	14.2	2009	40.2	15.5
El Salvador	2001	48.9	22.1	2004	47.5	19.0	2009	47.9	17.3
Guatemala	2002	60.2	30.9	2006	54.8	29.1	...	...	...
Honduras	2002	77.3	54.4	2007	68.9	45.6	...	...	...
Mexico	2002	39.4	12.6	2008	34.8	11.2	...	...	...
Nicaragua	2001	69.4	42.5	2005	61.9	31.9	...	...	...
Panama	2002	36.9	18.6	2008	27.7	13.5	2009	26.4	11.1
Paraguay	2001	61.0	33.2	2008	58.2	30.8	2009	56.0	30.4
Peru [c]	2001	54.7	24.4	2008	36.2	12.6	2009	34.8	11.5
Uruguay [a]	2002	15.4	2.5	2008	14.0	3.5	2009	10.7	2.0
Venezuela (Bolivarian Republic of)	2002	48.6	22.2	2008	27.6	9.9	...	...	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.
[a] Urban areas.
[b] Figures from the Misión para el empalme de las series de empleo, pobreza y desigualdad (MESEP), the National Administrative Department of Statistics (DANE) and the National Planning Department (DNP) of Colombia.
[c] Figures from the National Institute of Statistics and Informatics (INEI) of Peru.

[1] For Colombia, this edition of *Social Panorama* is reporting a new set of official poverty estimates issued by the country for 2002 to 2009. Therefore, the figures might not coincide with those published in previous editions.

[2] Estimates published herein commonly differ from official poverty figures issued by the countries because of differing methodological approaches. For Chile, the figures shown diverge for the first time from the country's official estimates. With the change in methodology introduced by ECLAC in 2007, the indigence line was adjusted to reflect changes in the food component of the consumer price index (CPI). The part of the line that corresponds to non-food spending was adjusted to reflect changes in the CPI for all other goods and services instead of using the same deflator for both lines as in the past.

The variations in poverty and indigence rates are due to the interaction of rising average individual income (growth effect) with changes in how that income is distributed (distribution effect). The growth effect was predominant in five of the countries in which poverty declined in 2009 (Argentina, Chile, Dominican Republic, Peru and Uruguay). In another five (Brazil, Colombia, Ecuador, Panama and Paraguay) the decline was due mainly to the distribution effect. A clear worsening of distribution was behind the increasing poverty rate in Costa Rica, while the slight increase in the poverty rate in El Salvador was caused above all by falling average income (see table 2).

A look at the period from 2002 to 2009 shows that poverty reduction was due to complementarity between growth effects and distribution effects. Both effects contributed to the outcome in countries where the poverty rate came down by 7 percentage points or more, with the growth effect accounting for 41% to 80% and the distribution effect accounting for 20% to 59%.

Table 2
LATIN AMERICA (12 COUNTRIES): CHANGES IN POVERTY RATES AND CONTRIBUTION OF GROWTH AND DISTRIBUTION EFFECTS, 2008-2009 [a]
(Percentages)

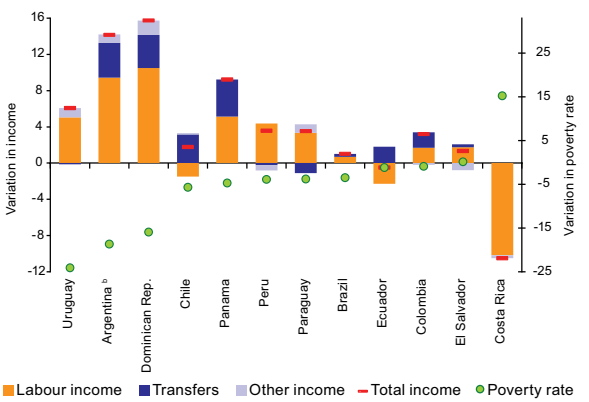
	Year		Poverty			Effect		Contribution to total variation	
	Beginning	Ending	Beginning	Ending	Variation	Growth	Distribution	Growth	Distribution
Argentina [b]	2006	2009	21.0	11.3	-9.7	-9.7	0.0	100	0
Uruguay	2008	2009	13.7	10.4	-3.3	-2.1	-1.2	65	35
Dominican Republic	2008	2009	44.3	41.1	-3.2	-5.7	2.5	>100	<0
Chile	2006	2009	13.7	11.5	-2.2	-1.5	-0.7	70	30
Paraguay	2008	2009	58.2	56.0	-2.2	0.1	-2.3	<0	>100
Peru	2008	2009	36.2	34.8	-1.4	-2.1	0.7	65	35
Panama	2008	2009	27.7	26.4	-1.3	-0.5	-0.8	44	56
Brazil	2008	2009	25.8	24.9	-0.9	0.6	-1.5	<0	>100
Ecuador	2008	2009	42.7	42.2	-0.5	0.6	-1.1	<0	>100
Colombia	2008	2009	46.1	45.7	-0.4	0.8	-1.2	<0	>100
El Salvador	2004	2009	47.5	47.9	0.4	0.7	-0.3	>100	<0
Costa Rica	2008	2009	16.4	18.9	2.5	-1.3	3.8	<0	>100

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.
[a] Countries in order of total variation in poverty rate, expressed in percentage points. The period 2008 refers to the latest survey available between 2006 and 2008.
[b] Urban area.

In 2009, changes in poor household income were triggered mainly by rising or falling labour income. In most of the countries reviewed, average labour income in poor households increased in real terms, except in Chile, Costa Rica and Ecuador.

While some countries posted no significant worsening of the employment rate, this was the variable most affected by the crisis. Falling employment rates were a relevant factor in declining labour income in Chile and Costa Rica and also affected labour income trends in Brazil and the Dominican Republic. In some cases, worsening employment rates were offset by a rise in labour income per employed person and, in other cases, by an increase in the proportion of active persons in the household. Four of the countries with the sharpest increase in labour income in poor households were Argentina, the Dominican Republic, Panama and Peru. In Colombia, Paraguay and Uruguay, an increase in the number of active persons was the key factor (see figure 2).

Figure 2
LATIN AMERICA (12 COUNTRIES): ANNUAL VARIATION IN TOTAL PER CAPITA INCOME AND IN INCOME COMPONENTS, POOR HOUSEHOLDS, 2008-2009 [a]
(Percentages)

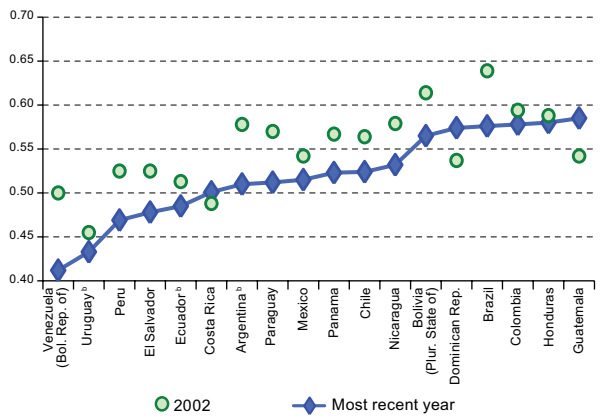


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.
[a] Countries in order of annual variation in poverty rate. The period 2008 refers to the latest survey available between 2006 and 2008. The percentage of population analysed is the same for both periods and refers to the poverty rate in 2008. YL = labour income; E = number of employed; EAP = economically active population; WAP = working-age population; N = total population.
[b] Urban areas.

The distribution of income in the countries of Latin America is known as one of the most unequal in the world; this has not changed over the past four decades. Broadly, the income share of the four poorest deciles averages less than 15% of total income, with the wealthiest decile accounting for about one third of the total. The income received by the wealthiest 20% of the population is, on average, 19.3 times more than for the poorest quintile.

In most of the countries the concentration of wealth has started to trend down in recent years. Between 2002 and the latest estimate available, the gap between extreme distribution quintiles narrowed in 14 of 18 countries; the Gini coefficient fell at least 5% in 11 countries. Only in the Dominican Republic and Guatemala (to 2006, the date of the latest data available) did distribution worsen during the period (see figure 3).

Figure 3
LATIN AMERICA (18 COUNTRIES): GINI COEFFICIENT OF INCOME DISTRIBUTION, 2002-2009 [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.

[a] The year of the survey used differs from country to country. The period 2002 corresponds to the latest survey available between 2000 and 2002, and the period 2009 represents surveys available between 2006 and 2009.

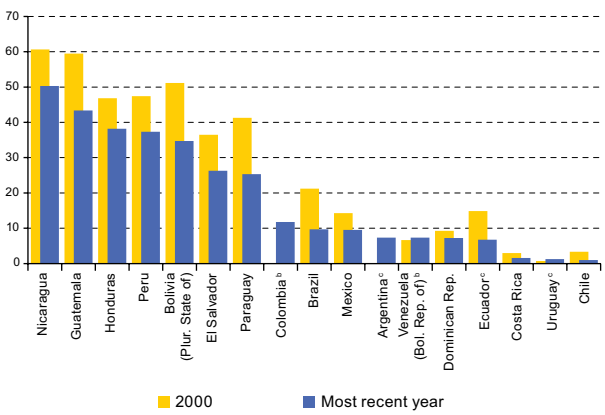
[b] Urban area.

Latin America has habitually issued figures that may be equated to the multidimensional poverty index, applying the unmet basic needs method. This method scores basic deprivation among the population for such factors as housing, access to potable water and sanitation and education. In line with the need for a complementary way to measure poverty, the trend in living conditions is evaluated using an approach similar to the unmet basic needs method. Persons with two or more deprivations in the subject fields are considered poor.

The results show a wide range of multidimensional poverty indicators that is, broadly speaking, similar to the outcomes from a monetary measure of poverty. The countries with the highest multidimensional poverty rates (Guatemala, Honduras, Nicaragua and the Plurinational State of Bolivia) are also those with the highest monetary poverty rates. At the other extreme, Chile, Costa Rica and Uruguay (urban areas) are the countries with the lowest multidimensional poverty rates and the lowest monetary poverty rates.

Over the past decade, practically all of the countries of the region recorded lower multidimensional poverty rates, with drops of more than 10 percentage points in six cases (see figure 4). The decline in multidimensional poverty was not confined to some countries where rates were below 10% (which is to be expected because some of the indicators used are probably at the minimum threshold level).

Figure 4
LATIN AMERICA (17 COUNTRIES): MULTIDIMENSIONAL POVERTY RATE, 2000-2009 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.

[a] The year of the survey used differs from country to country. The period 2000 corresponds to the latest survey available in 2000, and the period 2009 represents the latest surveys available between 2006 and 2009.

[b] The surveys available around the year 2000 do not support a comparable estimate of multidimensional poverty.

[c] Urban areas.

The evidence confirms the trend towards improving living conditions. However, it should be borne in mind that this assessment of multidimensional poverty is bound by the specific material deprivation indicators that household surveys conducted in the region can quantify. To make better use of the multidimensional approach requires combining the evaluation of material deprivations with an assessment of deprivation in other components of well-being. To do so requires improving the sources of information currently available.

Fertility rates, early emancipation and poverty

In monetary terms, child poverty in Latin America declined significantly between 2000 and 2009. But poverty still affects a higher proportion of children and adolescents, calling for a better understanding of the factors behind child poverty.

Early fertility can be a key factor in the reproduction of poverty among children. Earlier fertility and higher lifetime fertility place a heavy childraising burden on households, forcing them to distribute scarce resources among a large number of children and making it harder for mothers to participate in the labour market. Poor children develop at a disadvantage in terms of health and access to the education system. This erodes their human capital and contributes to the reproduction of poverty in the long run.

In Chile and Uruguay (two of the four countries where the poverty rate among children aged 0-5 has come down the most), the fertility rate for poor mothers aged 15-24 decreased more than for all mothers in the same age group. On the other hand, Argentina (the second most successful in reducing child poverty) saw the fertility rate for the youngest poor mothers decline less than for all mothers. In Panama, which ranks fourth in reducing child poverty, the fertility rate for poor mothers aged 15-24 increased.

Table 3
LATIN AMERICA (16 COUNTRIES): TRENDS IN CHILD AND ADOLESCENT MONETARY POVERTY RATE AND CHANGES IN FERTILITY RATE, 1990 AND 2009 [a]
(Percentages)

	Poor children aged 0-15	Fertility rate, poor mothers aged 15-24 [b]	Fertility rate, all mothers aged 15-24 [b]	Poor children aged 0-15	Fertility rate, all poor mothers [b]	Fertility rate, all mothers [b]
Argentina	-54	-26	-33	-48	-7	-54
Bolivia (Plurinational State of)	-14	-23	-30	-9	-17	-14
Brazil	-25	-27	-53	-28	-19	-25
Chile	-74	-63	-57	-74	-57	-74
Colombia	-7	-19	-24	-6	-13	-7
Costa Rica	-15	-46	-54	-15	-33	-15
Ecuador	-21	-37	-51	-21	-25	-21
El Salvador	-11	-39	-39	-7	-23	-11
Guatemala	-7	-10	-16	-6	-4	-7
Honduras	-8	-46	-49	-8	-29	-8
Mexico	-9	-37	-49	-16	-34	-9
Nicaragua	-10	-43	-48	-8	-25	-10
Panama	-28	13	-19	-37	-7	-28
Paraguay	17	-23	-27	11	-22	17
Uruguay	-45	-33	-31	-45	-41	-45
Venezuela (Bolivarian Republic of)	-11	-38	-53	-16	-29	-11
Latin America [c]	-20	-31	-40	-21	-24	-33

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Changes in fertility rates for poor and non-poor mothers were calculated considering a constant overall poverty rate at the value for 1990. The results were very similar to those shown in table 1.
[b] The term "mothers" refers to all women identified as female heads of household or spouses of the head of household.
[c] Simple averages.

In four of the five countries with the largest drops in the poverty rate for children aged 0-5 (Argentina, Brazil, Chile and Uruguay) the simple average decline in the fertility rate for poor mothers aged 15-24 was 37%, compared with 27% for the countries that were least successful at decreasing the child poverty rate (Colombia, Guatemala, Honduras, Mexico and Paraguay). These calculations did not include Panama among the countries with the largest drops in the child poverty rate.

In short, reproductive outcomes can have a long —and lasting— impact in terms of poverty for mothers and their children. This calls for policies targeting current and future mothers and their children. Among such policy instruments are (a) postponing the age at which motherhood is initiated; (b) improving access to information on reproduction control; (c) retaining women in the education system; (d) improving the quality of education; and (e) making institutions available to provide care for young children,

thus giving mothers more time for their own education or for participating in the labour market.

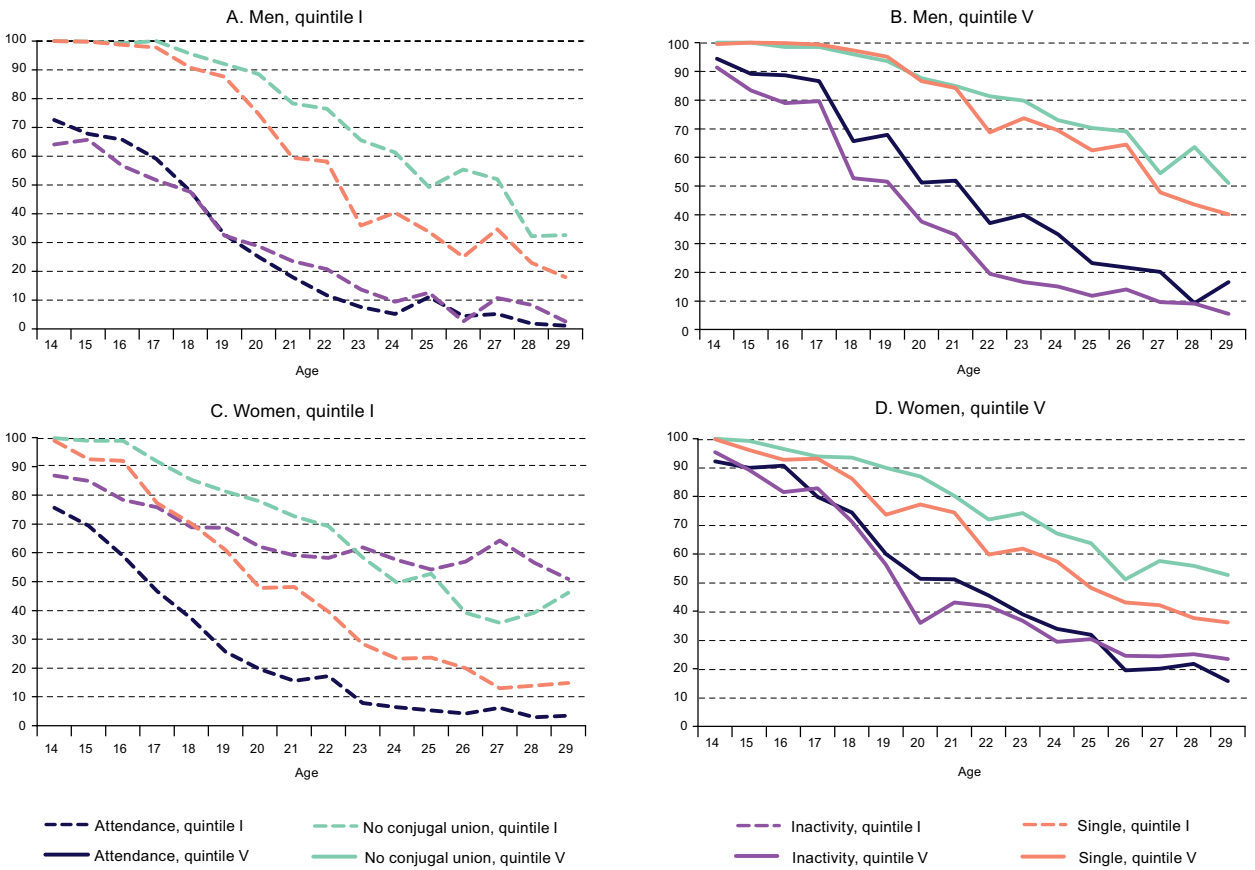
Early initiation of the emancipation process, that is, the process of leaving the family of origin, entering the labour market and forming one's own household, is a crucial milestone in the lives of poor young people.[3]

In countries with less education coverage and less advanced demographic transition, there are marked differences in school attendance rates for 15-year-olds by income quintile. For the highest-income quintile the rate is 95%; for the poorest quintile it is only 75%. In none of the age groups between 15-29 does labour participation for women in the poorest quintile reach 50%. Conversely, some 80% of the 29-year-old women in the wealthiest quintile participate in the labour market (see figure 5).

The data on young people who neither study nor work raise a red flag for the risk of poverty and social exclusion. Disaffiliation from key institutions is more frequent among women than among men and for young people from lower-income strata than for their peers at the other extreme of the distribution.

In the less developed countries of the region, young women in the higher strata who neither study nor work but surely perform traditional domestic tasks outnumber their peers in more developed countries by more than three to one.

Figure 5
EL SALVADOR, GUATEMALA, HONDURAS AND NICARAGUA (SIMPLE AVERAGES): EMANCIPATION INDICATORS BY AGE AND INCOME GROUP, AROUND 2006 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] El Salvador 2004, Guatemala 2006, Honduras 2007 and Nicaragua 2005.

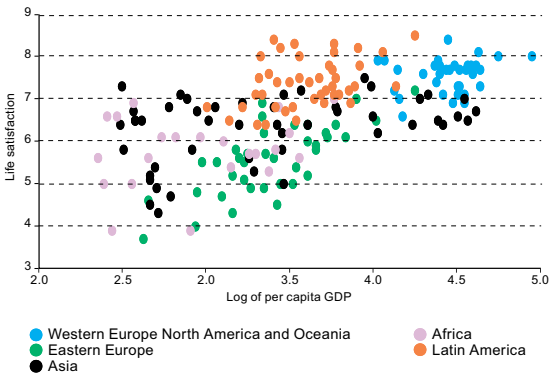
[3] Emancipation is the path from dependency to autonomy, or the transition from youth to the shouldering of the roles and responsibilities of adulthood.

Subjective well-being, living conditions and life cycle: Latin America and the Caribbean and other regions of the world

Figure 6 shows the findings of a study linking national average life satisfaction and GDP per capita in countries of Latin America and in other regions for the period from 1981 to 2008. National life satisfaction averages in our region are far higher than what would be expected on the basis of per capita GDP; they are comparable with national averages for countries in Western Europe, North America and Oceania.

In Latin America, the life satisfaction gap by income bracket is greater for individuals aged 60 and older, where middle- and lower-income groups report a level of satisfaction that is far lower than for higher-income groups. This pattern is similar to the one found in Eastern Europe and unlike that of the more developed countries, where individuals in lower-income households show a U curve for degree of life satisfaction over their entire life cycle (see figure 7), life satisfaction increases after age 60 and the satisfaction gap between groups with different income levels narrows substantially at that stage of the life cycle. This difference between regions probably has to do with the fact that the more developed countries have more universal systems to protect older persons (greater pension and health care coverage for lower-income sectors). It is not the same thing to age with protection (thanks to either self-funded pensions or a welfare state) than to age in a precarious economic situation without social protection.

Figure 6
LATIN AMERICA AND THE CARIBBEAN (20 COUNTRIES) AND OTHER REGIONS OF THE WORLD: LIFE SATISFACTION BY PER CAPITA GDP, 1981-2008 [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the database of the World Values Survey [online] http://www.worldvaluessurvey.org and Latinobarómetro, 2007 for satisfaction level; and World Bank, World Development Indicators (WDI) [online] http://data.worldbank.org/indicator, for GDP per capita.

[a] Average values on a life satisfaction scale from 1 to 10 where 1 is very unsatisfied and 10 is very satisfied, and in per capita GDP logarithms). North America, Oceania and Western Europe: Andorra, Australia, Canada, Cyprus, Finland, Germany, Great Britain, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland and United States. Eastern Europe: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Ukraine and former Yugoslav Republic of Macedonia. Asia: Armenia, Azerbaijan, Bangladesh, China, Georgia, Hong Kong (Special Administrative Region of China), India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kyrgyzstan, Malaysia, Pakistan, Philippines, Republic of Korea, Saudi Arabia, Singapore, Thailand, Turkey and Viet Nam. Africa: Algeria, Burkina Faso, Egypt, Ethiopia, Ghana, Mali, Morocco, Nigeria, Rwanda, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. Latin America and the Caribbean: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Costa Rica, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Puerto Rico, Trinidad and Tobago and Uruguay.

Figure 7
LATIN AMERICA (11 COUNTRIES) AND OTHER REGIONS OF THE WORLD: LIFE SATISFACTION BY AGE AND INCOME, 1981-2008 [a]

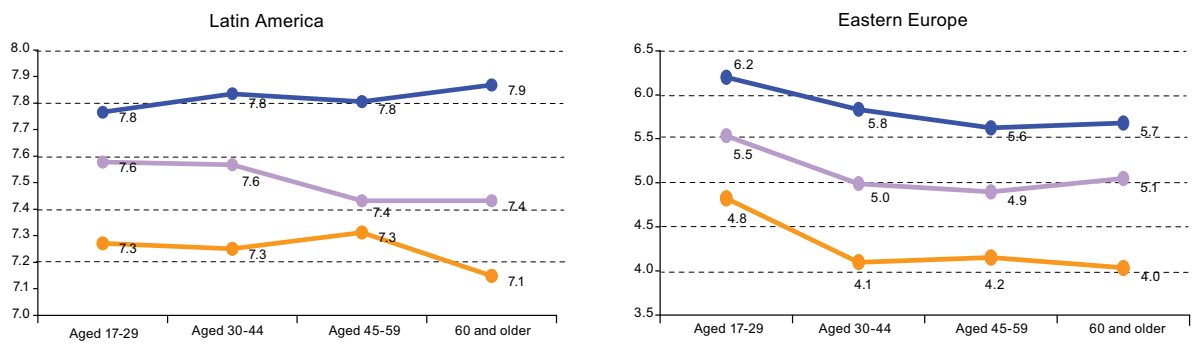
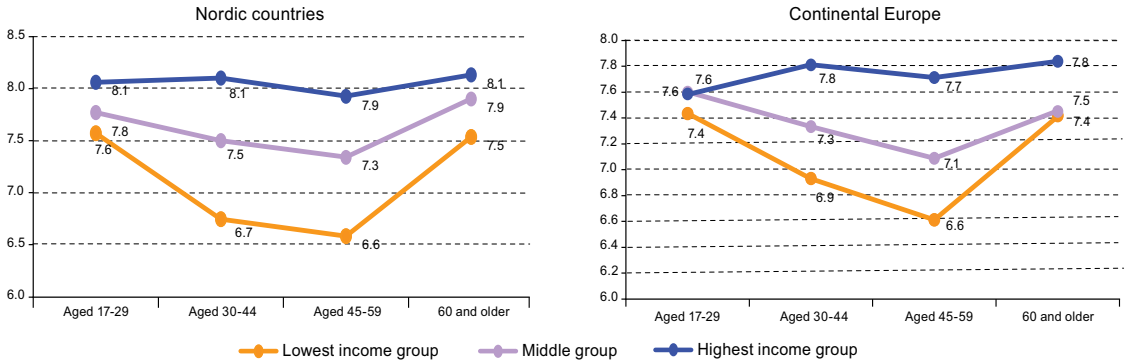


Figure 7 (concluded)



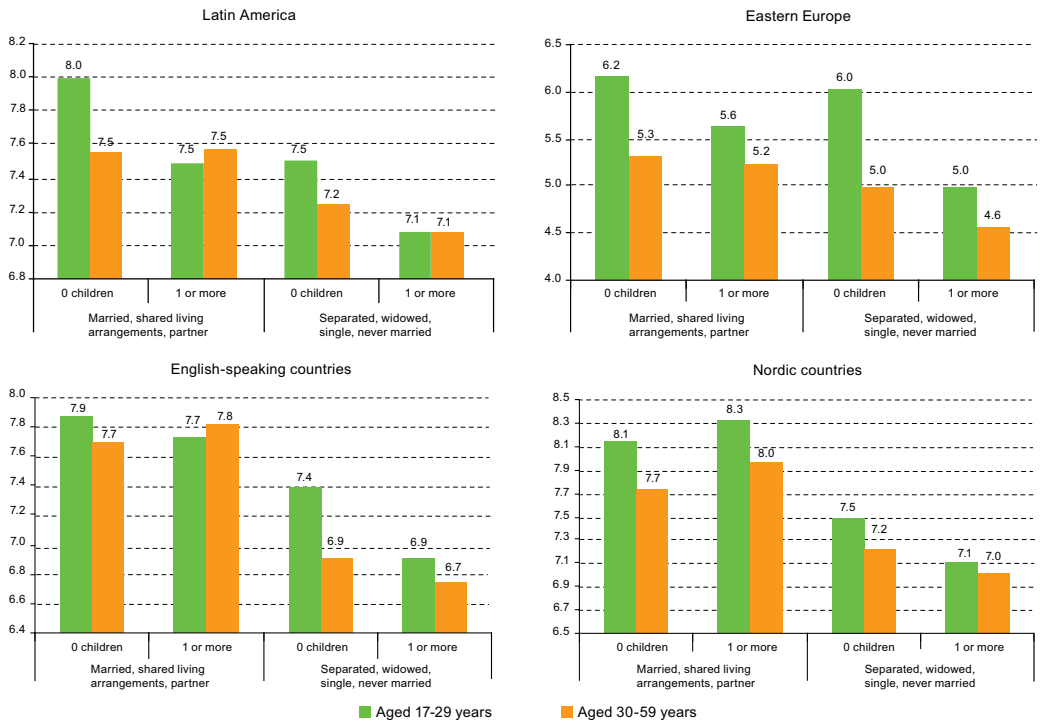
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey [online] http://www.worldvaluessurvey.org.

[a] Average values on a scale from 1 to 10 where 1 is very unsatisfied and 10 is very satisfied. Latin America: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Peru and Uruguay. Eastern Europe: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation and Ukraine. Continental Europe: France, Germany, Netherlands and Switzerland. English-speaking countries: Australia, Great Britain, United States and New Zealand. Nordic countries: Finland, Norway and Sweden.

In the region, being married, being in a shared living arrangement and having a partner are associated with higher levels of life satisfaction. In Latin America, childless 17-to-29-year olds report the highest level of life satisfaction, similar to their counterparts in industrialized countries. But young people who have one or more children or are single parents have far lower levels of life satisfaction than their counterparts in developed countries, as do married couples in the same age bracket with one or more children (see figure 8). As figure 8 shows, Nordic countries report the highest levels of life satisfaction among young couples with children. Tellingly, these are countries with the supports and incentives for maternity and paternity that are characteristic of a welfare state.

Figure 8

LATIN AMERICA (12 COUNTRIES) AND OTHER WORLD REGIONS: LIFE SATISFACTION BY MARITAL STATUS AND NUMBER OF CHILDREN, AGES 17-59, 1981-2008 [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey 1981-2008 [online] http://www.worldvalueswurvey.org/.

[a] Average values on a scale from 1 to 10 where 1 is very unsatisfied and 10 is very satisfied. Latin America: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Peru and Uruguay. Eastern Europe: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation and Ukraine. English-speaking countries: Australia, New Zealand, United Kingdom and United States. Nordic countries: Finland, Norway and Sweden.

Education and the intergenerational reproduction of inequality and exclusion: realities and challenges in Latin America

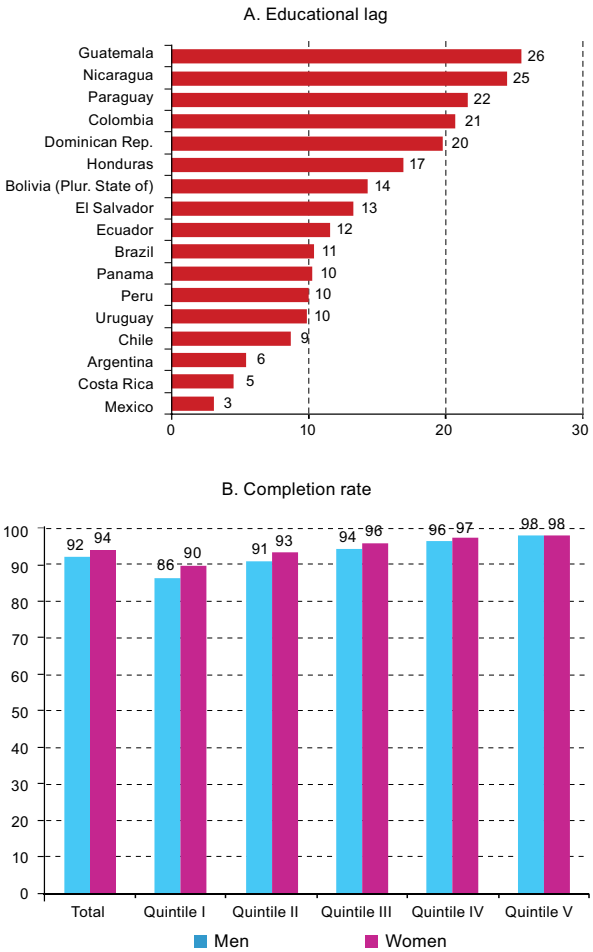
Education is at the core of all the developmental stages of the life cycle discussed in this edition of *Social Panorama*. It is the main tool at the disposal of States to dissociate an individual's social background from the well-being he or she can attain throughout life. But the region has not harnessed the education system as a driver of equal opportunity. Advances in coverage, access and progression through education cycles in recent decades have caused stratification in learning and attainment within educational systems.

Any look at the life cycle must take into account education cycles, too, so preschool education is coming to the forefront of public policy in the region because of its positive impact on subsequent stages. Access to preschool is uneven in the region; some countries have nearly universal enrolment while in others enrolment is in the area of 30%. While socio-economic inequalities do not seem to affect attendance rates towards the end of the preschool cycle (three to five years of age), household surveys provide some evidence that inequalities are greater at younger ages. Moreover, there are marked differences in access between urban and rural areas and for indigenous groups.

Access to primary education is virtually universal, but efforts should focus on timely progression and completion of this cycle for the most neglected social groups, as shown in figures 9A and 9B.

The ratios for access to and timely progression through the secondary cycle are markedly lower than for primary education and vary more widely from country to country. The net attendance rate for the secondary level is 88%, versus 97% for the primary level. Young people approaching the upper secondary cycle already have opportunities to enter the labour market. This acts as a disincentive to staying in school, especially if students face adverse economic or academic conditions or problems with integration or identity formation. In addition to heterogeneity among countries, there are ever more pronounced differences within countries: between rural and urban areas, poor and non-poor students, different socioeconomic strata and indigenous and non-indigenous groups, as well as other discriminating factors (see figure 10).

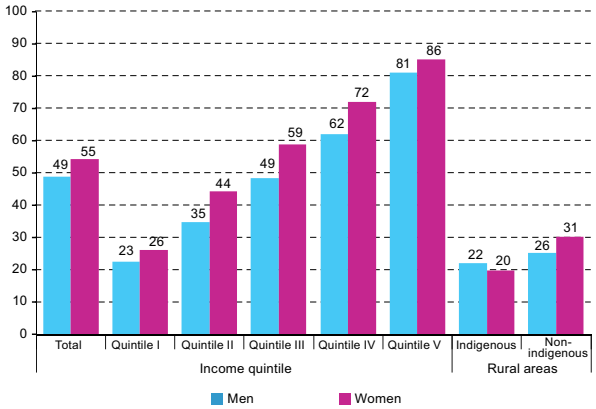
Figure 9
LATIN AMERICA (17 COUNTRIES): SCHOOL LAG AMONG CHILDREN AGED 9-11 AND PRIMARY EDUCATION COMPLETION, YOUNG PEOPLE AGED 15-19, TOTAL POPULATION, BY SEX AND INCOME QUINTILE, AROUND 2007-2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the Information System on Educational Trends in Latin America (SITEAL), Statistical Summary I, National Totals, October 2008, and special tabulations of data from household surveys conducted in the respective countries.

[a] Children who are two or more years behind the grade they should be in for their age.

Figure 10
LATIN AMERICA (SELECTED COUNTRIES): POPULATION AGED 20-TO-24 WITH COMPLETE SECONDARY EDUCATION, BY PER CAPITA INCOME AND SEX, AROUND 2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The data for indigenous and non-indigenous young people refer to eight countries and correspond to 2007.

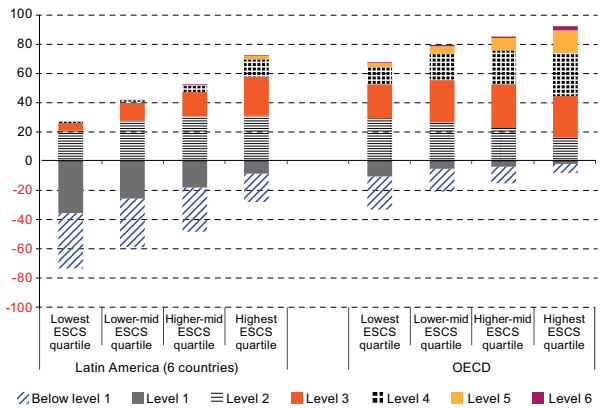
Access to the final cycle of post-secondary education is generally reserved for a relatively small portion of the region's young people. Only 8.3% of young people aged 25-29 have completed at least five years of post-secondary education (typical length of time for a university degree programme). There is marked stratification by per capita income quintile: for every 27 young persons from high-income strata (fifth quintile) who complete five years of post-secondary studies only one lower-income (first quintile) one does.

Among the factors of inequality, household socio-economic status and the head of the household's level of formal education underlie disparate results in learning outcomes and progression through the education system. This shows that the educational system is not performing one of its principal functions: that of decoupling children's and young people's attainments from the dissimilar backgrounds they carry into the system. This situation is compounded by access to education services that vary widely in quality. Social patterns are not reproduced by any single institution alone but rather by the institutional structure as a whole, where the education system combines, above all, with family life and the immediate community environment. Household attributes are still the basic cause of differences in learning outcomes.

The social and cultural disadvantages that burden lower-resource students as they enter the educational system are compounded by access to lower-quality education services than are available to students with more resources. This reinforces the inequality of their learning paths. Over the past few decades, expanding access to the educational system for traditionally excluded sectors has come with greater segmentation of supply and a sharp increase in out-of-pocket expenses and the number of private schools.

Segmentation, then, is not just in years of schooling but also in effective learning. Figure 11 shows the distribution of academic performance for 15-year-old students in science, by economic, social and cultural status. Most students in the first and second income quartiles in the countries of Latin America perform below level 2, meaning that they have not developed the basic competencies for performance in this area. By way of contrast, learning outcomes also differ among students from different quartiles in OECD countries, but the vast majority achieve the basic expected level of competency (level 2 and higher).

Figure 11
LATIN AMERICA (SIX COUNTRIES): PERFORMANCE ON THE PISA SCIENCE ASSESSMENT FOR 15-YEAR-OLD STUDENTS, BY FAMILY ECONOMIC, SOCIAL AND CULTURAL STATUS (ESCS INDEX), 2006 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of microdata from the PISA 2006 survey.
[a] The distribution of performance levels in Latin America and in the Organisation for Economic Cooperation and Development (OECD) refers to the simple average of average weighted national achievement levels of the countries participating in the Programme for International Student Assessment (PISA) 2006 (Argentina, Brazil, Chile, Colombia, Mexico and Uruguay).

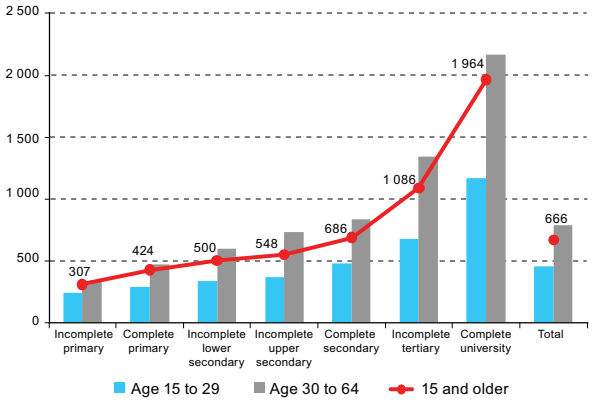
While attainment and learning in the formal educational system are very (and increasingly) important for full participation in the economy, society and political life, full access to and use of information and telecommunications technologies (ICT) is becoming a requisite for social inclusion. The digital divide exacerbates gaps in learning, in broadened communication, in social networks, in access to productive employment and in having a voice in society; digital convergence clearly helps narrow them. The school system is key for achieving mass access and providing training in and access to new digital technologies. But efforts to

work through the schools to counteract the market-driven digital divide (reflected in the gap between households in high and low socio-economic strata) have not closed those gaps nor achieved much in the area of digital convergence.

The disparity in skills development is linked not only to educational attainment but also, later on, to self-regulated labour markets that are true factories of segmentation in terms of productivity, access to welfare and full enjoyment of social entitlements. Hence, structural inequality (which is reproduced through the production structure, markets and institutions) combines with intergenerational inequality where gaps are reinforced throughout life and are passed from one generation to the next.

This calls for an integral approach that encompasses structures, institutions and the life cycle. And it highlights the importance of education to prepare individuals for fuller participation in all spheres of society throughout their adult lives. One of these spheres, although not the only one, is labour market. ECLAC has conclusively documented that in most of the countries of the region, individuals who do not complete secondary education are exposed to a high degree of social vulnerability because they will tend to receive a poor labour income in exchange for their educational credentials, and they will be at high risk for living in poverty and becoming "dispensable" (excluded) if they must engage with self-regulated labour markets in the absence of minimum guarantees or labour rights. Only a complete secondary education will, according to the "rates of return approach", keep an individual at a "prudent distance" from the poverty line. Figure 12 shows how important it is to extend higher education coverage to young people who historically have had no access to it, in order to reduce the gaps in life prospects that are cemented during youth.[4]

Figure 12
LATIN AMERICA (SELECTED COUNTRIES): MONTHLY LABOUR INCOME FOR THE EMPLOYED POPULATION AGED 15-29, 30-64, AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages and 2000 purchasing power parity dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries.

[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).

Education policy must mesh with other social promotion and protection efforts if the intergenerational reproduction of educational opportunities is to be reversed. Key intervention factors within the education system are:

(i) Extending early childhood education coverage. Publicly-funded institutional care for children under six has well-documented benefits. Such care facilitates the integration of women into the labour market, fosters their autonomy and increases household resources. For the young cohort, it provides an opportunity for young mothers, giving them more free time to continue studying and avoid breaking their own education cycle. In-school meals and health care, as well as early stimulation, offset deficiencies at home. Such care also has a positive effect on a child's future development: it is essential for cognitive, psychomotor and attention-span development and activity levels and has a substantial impact on the child's prospects in subsequent education cycles.

(ii) Extending the primary school day. Advances in current pedagogical models and the education needs of the modern world are making longer school days increasingly important. An extended school day would be expected to change the ratio between time spent on working and time for rest, increasing pedagogical work for pupils at school and decreasing the time spent on homework. This is especially important for students who lack an educational climate at home and whose environment does not provide appropriate stimulus or support for learning. A full school day also has positive externalities for families, easing concerns about out-of-school care (including meals) and preventing risky behaviour.

[4] We do not argue here that the role of education is exclusively or even primarily that of ensuring that competitive labour markets yield a rate of return for years of schooling. We merely seek to illustrate the importance of democratizing educational opportunities in order to enable individuals to exercise their positive freedom, that is, to carry out their life projects thanks to having, among other things, the timely opportunity to develop their skills. Such skill development is necessary, but it is not enough. The labour markets take in young people on the other side of the door (not in the world of education but in the world of work), so these markets should be subject to regulatory policies and receive guidance for ensuring the full force of labour rights and social protections. The State has an essential role to play in keeping differences in education attainment from dooming those without them to exclusion. Productivity gains, then, should not be seen as a return on learning but rather as a way for society to work through the State and the tax system to redistribute resources and extend social protections to the most disadvantaged sectors.

(iii) Incorporating digital technologies into education as a critical opportunity in the battle for equity. Defining the criteria for choosing the models for incorporating information and communication technologies into teaching practices should be subordinated to State goals for education in each country. One of the priorities for the States of Latin America (and for those in charge of their educational systems) is to make universal access to computer skills a key tool in the effort to dissociate social background from learning attainments. This is seen as an essential step in reducing poverty and inequality and in enhancing social integration.

(iv) Providing support for families through conditional cash transfer programmes. It is important to test instruments and strategies that help keep students in the system during this cycle of schooling, that is, that foster sustained, timely school progression. Conditional cash transfer programmes are one of the pillars that the countries have built over the past two decades in order to encourage lower-income families to buy into keeping their children in the educational system. Such programmes have the virtue of improving, however marginally, the monetary resources available to poor households, preventing drop-outs for opportunity cost reasons (staying in school is part of the transfer programme contract). However, primary education is approaching universal coverage and the drop-out rate for young people in vulnerable families is higher at the secondary level (at this age the opportunity cost of lower family income is higher). This makes it essential to extend benefits for school-age children throughout the secondary cycle.

(v) Coordinating the job training system. The path leading young people to the world of work is, as we have seen, highly segmented by educational attainment levels. The formation of competencies in the 15-20 age group is essential for successful entry into the labour market with meaningful opportunities for the future. Government action is therefore required to target this area of education and link this supply of education services to the production sector.

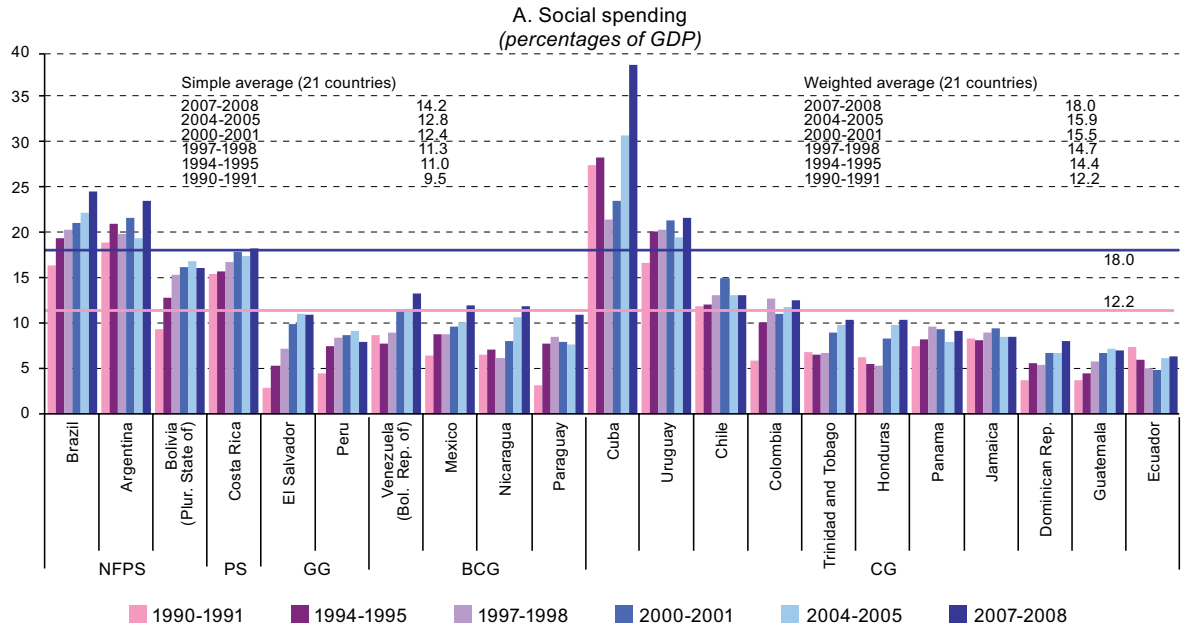
(vi) Reconciling higher education quality with expanding access to excluded sectors. The higher education system in Latin America and the Caribbean has expanded and grown substantially over the past few decades. Coverage is still very limited, though, and it is concentrated in the medium- and high-income levels. Ensuring greater equality of opportunities at this level calls for policies that offset the lack of monetary resources and of time among young people graduating from secondary school who need to work to survive or help their families.

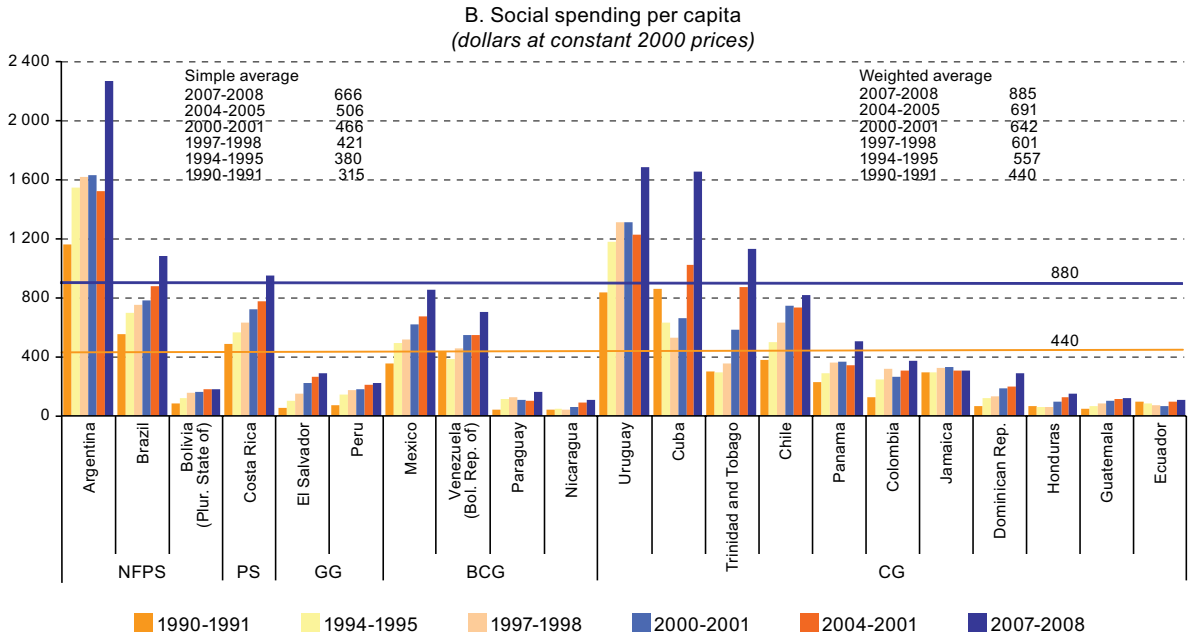
Public social spending in Latin America: general trends and investment in capacity-building for new generations

Progressive recognition of the importance of public social spending as an instrument for channelling resources to the poorest population segment and of the importance of social development as a driver of economic development has led the region's countries to gradually increase this category of spending. Thus, social spending rose from 12.2% of GDP in 1990-1991 to 18.0% in 2007-2008, substantially increasing its budget share in the process from just under 45% to about 65% of overall public spending.

There are clear differences between countries, however, in the macroeconomic priority they give to social spending, which ranges from less than 8% of GDP in Ecuador, Guatemala and Peru (central government) to over a fifth of GDP in Argentina, Brazil, Cuba and Uruguay. The differences between countries are also due to their respective levels of wealth. Differences in countries' development levels and tax burdens and thence in their general and specifically social public budgets are the source of large disparities in funding levels (see figure 13).

Figure 13
LATIN AMERICA (21 COUNTRIES): EVOLUTION OF SOCIAL SPENDING RELATIVE TO GROSS DOMESTIC PRODUCT AND OF SOCIAL SPENDING PER CAPITA





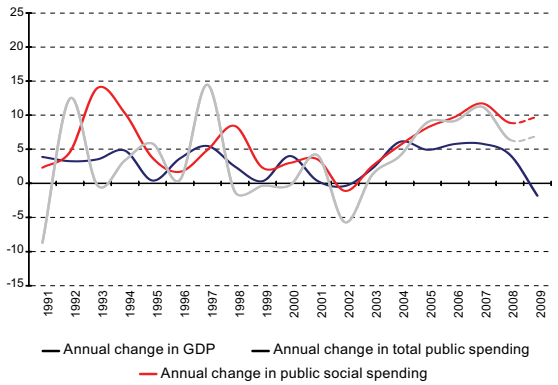
Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
Note: NFPS = non-financial public sector; PS = public sector; GG = general government; BCG = budgetary central government; CG = central government.

The procyclical nature of social spending relative to economic growth

Although the region's countries have steadily increased their public budgets, particularly where social spending is concerned, in most cases these have fluctuated for reasons generally determined by local economic developments.

However, social spending is less sensitive to the economic cycle than the overall budget, as figure 14 shows. For all its procyclicality, then, social spending has been better protected against economic fluctuations than non-social public budget items. It is to be expected that some specific spending items will be countercyclical, like those that finance emergency programmes at times of crisis and rising poverty, as these tail off in periods of economic growth. Others are more stable, such as social security, while others again can be expected to expand along with the economy to a reasonable degree that avoids macroeconomic imbalances or any tendency towards deficit spending.

Figure 14
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): ANNUAL CHANGE IN PUBLIC SOCIAL SPENDING, TOTAL PUBLIC SPENDING AND GROSS DOMESTIC PRODUCT, 1991-2009 [a]
(Percentage changes)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] Weighted averages. The 2009 expenditure figures are estimates based on information from seven countries.

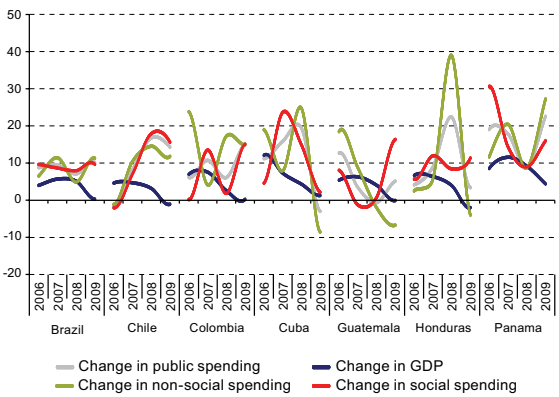
Expenditure trends during the financial crisis

Faced with the 2008 financial crisis, the region's countries implemented measures of various kinds. Unlike those taken on other similar occasions, they set out not to shrink spending but to expand it. Measures of this kind encompassed the areas of monetary and financial policy, fiscal policy, exchange-rate and foreign trade policy, sectoral policies, employment and social policies and multilateral finance. Broadly speaking, the measures were aimed, first, at restoring confidence and making financial markets operational again and, second, at strengthening domestic demand for goods and services.

The most commonly used fiscal measures in the countries have included cutting taxes, increasing tax benefits and subsidies and raising or bringing forward expenditure. In the social and production sectors, considerable extra resources have been put into house building, water and sanitation, support for small and medium-sized enterprises and the agricultural sector (easier credit and repayment terms), enhanced employment policies (unemployment insurance, recruitment subsidies, job creation programmes) and social programmes, especially conditional cash transfer programmes (which currently command resources equivalent to 0.4% of the region's GDP and cover some 20% of the population of Latin America and the Caribbean).

The data available for seven countries show that even as GDP declined in absolute terms in most of them, they all continued to increase their social spending. A number had already raised social spending in 2008, and five of the seven countries made a still greater effort in 2009 (Brazil, Colombia, Guatemala, Honduras and Panama). Although the others also increased their social spending, they did so more slowly than in 2008 (see figure 15).

Figure 15
LATIN AMERICA (SEVEN COUNTRIES): CHANGES IN PUBLIC SPENDING, SOCIAL SPENDING, NON-SOCIAL SPENDING AND GROSS DOMESTIC PRODUCT DURING THE FINANCIAL CRISIS
(Percentage changes)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.

Social investment at early ages: growing progressive spending on education

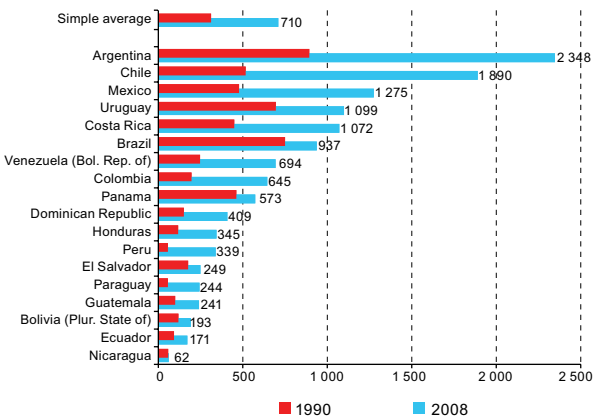
Investing in the capacities and capabilities of the new generations is vital to produce a more productive working-age population for the coming decades, something that will be essential to keep pace with the demographic transition and the steady rise in the proportion of older adults in Latin American and Caribbean societies. It is also important to have a more productive working-age population because of the impetus given to economic growth by the incorporation of know-how and innovation into the production system. Complemented by policies to promote social and employment rights, this is also a positive element for social protection systems.

Education is unquestionably at the core of the investment needed in the capacities and capabilities of the new generations. Education budgets have increased substantially as a share of GDP over recent decades. While the region's GDP almost doubled between 1990 and 2008 (growing by 3.4% a year and 84% over the whole period), the absolute expansion of public-sector education spending was 5% a year, or 140% over the whole period. The number of public-sector students in the region increased by almost 29 million in this time to a total of 91.2 million primary and secondary students in publicly run schools (with 18.5 million at privately-funded schools), while spending per student increased from US$ 312 to US$ 710 (see figure 16).[5]

The majority of the countries increased their spending by the most between 2000 and 2008. The exceptions are Chile, Mexico, Panama and Paraguay, which made the most increases in the 1990s. This is mainly because efforts to increase coverage were concentrated in the earlier period in most of the countries: on average, coverage increased by about 14 percentage points between 1990 and 2000, compared with a further 5 percentage points between 2000 and 2008. This meant that much of the extra public education spending went on incorporating new students. Since the progress of the 1990s (and earlier decades), extra spending has mainly gone into improving the conditions that directly or indirectly affect the education process: better infrastructure, equipment, teaching material and teacher pay, among other things.

Public spending on education is a vital State tool for promoting greater equality of opportunity throughout the education cycle, and for closing gaps in attainment by level between households of different socio-economic origins. There is telling evidence that the more the child and youth population is incorporated into the different levels of education, and the more progression into the higher cycles is universalized, the greater the egalitarian redistributive effect of education spending will be.

Figure 16
LATIN AMERICA (18 COUNTRIES): PUBLIC SPENDING PER PRIMARY AND SECONDARY SCHOOL STUDENT [a]
(Dollars at constant 2000 prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Documentos de proyecto*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

[a] Ranked in order of spending per student in 2008.

Nothing has a greater egalitarian effect than policies which achieve universal coverage. Figure 17 is very suggestive here. It shows that increased coverage at the different levels of education is associated with a more redistributive impact for spending at those levels.

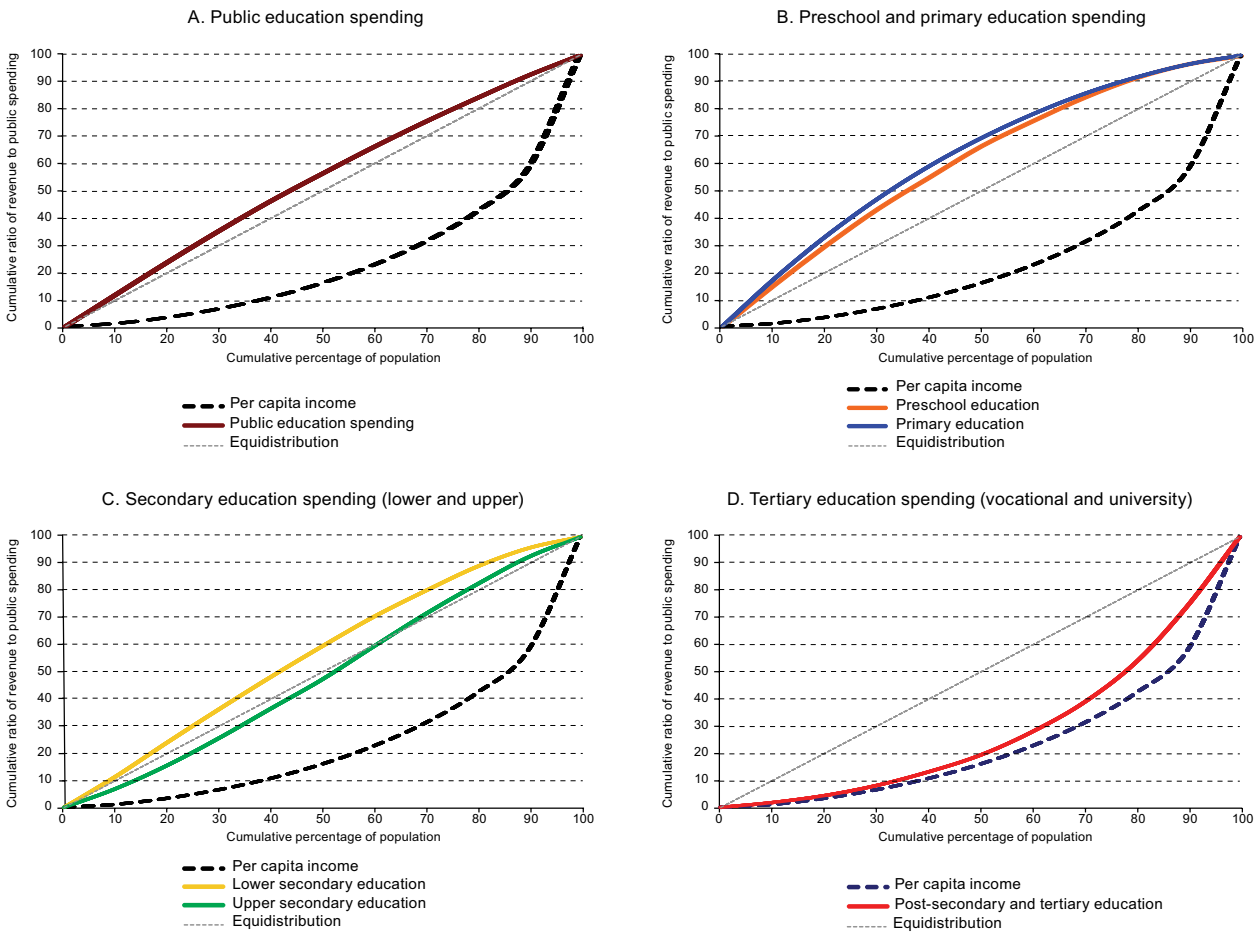
What policy implications does this have? The great mistake would be to think, as the tendency was under the paradigm of the Washington Consensus and the wave of reforms in the 1980s and 1990s, that public spending on education needs to be reduced at those levels where coverage is lower (such as university education) so that this spending can be transferred to levels with greater coverage (such as primary or lower secondary). What strict analysis of the data shows is quite the opposite, i.e., that

[5] The figures do not include secondary school students who are behind their age group (generally aged 18 or over).

the great challenge from a rights and equality perspective is to promote progression right through the education cycles for those socio-economic sectors that do not at present go on to higher levels, thereby democratizing access to upper secondary and post-secondary education.

Meanwhile, the withdrawal of the State from the higher levels of education (upper secondary and post-secondary) has another very negative affect from a rights standpoint, as it leaves these levels at the mercy of private-sector provision, which segments access and quality depending on families' ability to pay for the service. This has a clear regressive effect in terms of the way opportunities are distributed by people's socio-economic conditions of origin. To put it another way, it is precisely the existence of public-sector higher education that gives lower-income sectors a chance of real social mobility. Consequently, public-sector efforts need to be oriented towards ensuring that a larger and larger proportion of low-income students continue their post-secondary studies, and towards increasing the progressiveness of spending at this level.

Figure 17
LATIN AMERICA (15 COUNTRIES): DISTRIBUTION OF PUBLIC EDUCATION SPENDING BY INCOME STRATUM AND COMPARISON WITH PER CAPITA INCOME [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of the household surveys in the countries and data from the United Nations Educational, Cultural and Scientific Organization (UNESCO) Institute of Statistics (UIS).

[a] Simple averages.

The generational economy, transfer systems and inequality in Latin America and the Caribbean

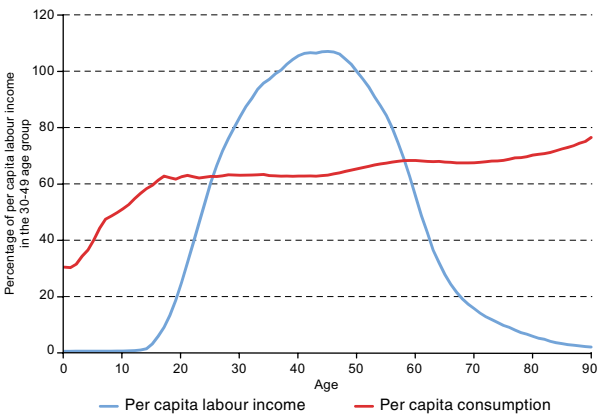
The generational economy

The previous chapters, especially the one on education, have underlined differences in educational achievement among children and young people from different socio-economic levels and their substantial impact on the intergenerational reproduction of inequalities throughout life. This chapter completes the picture, with an analysis of differences between generations. It considers how public and private transfers target two stages in the life cycle: children and young people, and older persons. The most striking bias in Latin America in comparison with other regions of the world concerns the greater relative scale of public transfers to the older population.

The life cycle includes two major periods of economic dependency when consumption exceeds labour output; one at the beginning, the other at the end (see figure 18). There are variations, but most of the consumption needs of children and older persons are met through large flows of resources from the working-age population. Some of these flows are direct, as in the case of parents providing for their children. Others are more indirect, such as transfers through governments, charitable organizations and other economic and social institutions. Some situations are more complex, like those involving savings from labour income. The total of all these flows constitutes the generational economy.

Despite the major implications of intergenerational transfers for economic growth and for combating inequality and poverty, those transfers have not been exhaustively analysed. The national transfer accounts system provides the first comprehensive approach to overall measurement of aggregate financial flows between age groups and across time. The system includes flows relating to capital accumulation and to transfers, distinguishing those passing through public institutions from those in the private sphere. They estimate all aggregate flows in accordance with the System of National Accounts of the United Nations. Estimates are mostly based on analyses of household surveys relating to income, spending, assets, the workforce and transfers, in addition to detailed administrative records from various government bodies.[6]

Figure 18
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: AVERAGE LABOUR INCOME AND AVERAGE PER CAPITA CONSUMPTION COMPARED WITH PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/East-West Center, October 2010.

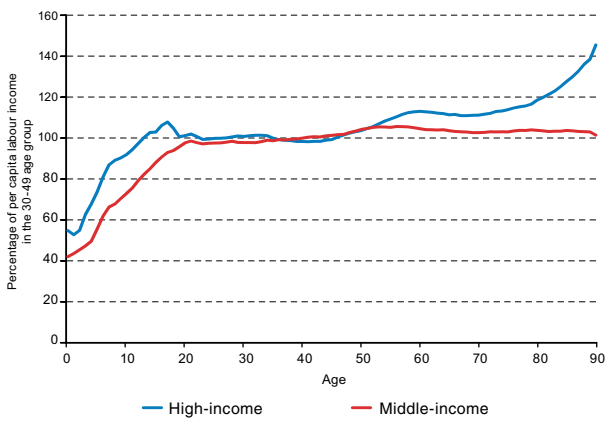
[a] Uses the simple average of 22 economies participating in the global national transfer accounts project: in Latin America: Brazil, Chile, Costa Rica, Mexico and Uruguay. In Asia: China, India, Indonesia, Japan, Philippines, Republic of Korea and Thailand. In Africa: Kenya and Nigeria. In Europe: Austria, Finland, Germany, Hungary, Slovenia, Spain and Sweden; and the United States. Per capita income includes private and public consumption. Per capita labour income includes fringe benefits and self-employed income.

[6] For further details on the national transfer accounts system, see http://www.ntaccounts.org

National transfer accounts: Latin America in the worldwide context

Consumption profiles by age vary widely among the countries participating in the global national transfer accounts project. In the middle-income countries there is very little variation in consumption during adult life, whereas children's consumption is a little lower than that of the average adult (see figure 19). In the high-income economies, children's consumption is relatively high in comparison with the middle-income countries (between 15% and 33% during the first 15 years of life), and consumption levels rise as people get older (at age 85, for example, consumption in the high-income economies is around 25% higher than at age 45). This is due partly to lower investment in capacity-building in the middle-income countries, and partly to the greater coverage of public pensions systems and higher spending on health care for older persons in the high-income economies.

Figure 19
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: PER CAPITA CONSUMPTION BY AGE GROUP IN MIDDLE- AND HIGH-INCOME ECONOMIES COMPARED WITH PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

[a] Per capita consumption in middle-income countries is calculated as a simple average of Brazil, Chile, China, Costa Rica, India, Indonesia, Mexico, Philippines, Thailand and Uruguay. Per capita consumption in high-income economies is calculated as a simple average of Austria, Finland, Germany, Hungary, Japan, Republic of Korea, Slovenia, Spain, Sweden, Taiwan Province of China and United States.

In the countries participating in the global national transfer accounts project there is also considerable variation in typical ages of entry to and exit from the labour market. In most of the high-income countries, young people tend to stay longer in full-time education, and labour income is higher among older workers. As for the period during which labour income exceeds consumption, the countries of Latin America (aside from Uruguay) are those with the shortest periods of economic independence, varying from around 20 years in Brazil and Mexico to 28 years in Chile and Costa Rica.

In the framework of the national transfer accounts system, three main mechanisms can be identified for reallocations between age groups and generations: public transfers, family (private) transfers, and asset-based reallocations. Public transfers generally come from the working-age population, since the taxes it pays often exceed the benefits it receives. Children and older persons are generally net beneficiaries of public transfers. Health care is the main source of these transfers to children under five; in the 5-15 age group, State education is the main component. As for older persons, as might be expected, social security and health care account for almost all public transfers.

However, there is great diversity between countries in terms of taxation and public spending policies. For example, net transfers received by children and young people in relation to average labour income vary from 6% in China to 29% in Finland. In the case of older persons, this variation goes from -2% in Thailand —showing that older persons in that country pay more in taxes than they receive in benefits— to 87% in Brazil, where a wide-reaching pensions programme has been implemented, including non-contributory pensions.

Corroborating the results for consumption, the countries of Latin America show relatively low levels of public investment on children and young people. In Brazil, Chile and Costa Rica, this low investment is combined with high levels of public transfers to older persons. As a percentage of labour income, States in Latin America spend about the same on older persons as Japan, the United States and the European

governments, but they invest half as much on children and young people.[7]

Family transfers are the main source of support for consumption by children and young people in Asian countries and territories (between 67% and 76%, except for Japan), and in the Latin American countries (69% to 79%). In high-income countries, family transfers are lower in relative terms (43% to 57%), owing to more significant public-sector investment.

In the case of older persons, labour income is a major source of consumption, especially in countries in Asia. In European countries, however, older persons' labour income makes up only a small fraction of consumption. The Latin American countries are between the two extremes, with labour income varying from 18% in Brazil to 26% in Mexico as percentages of older persons' consumption.

As in Europe, net public transfers are the main source of support for older persons in Latin America.[8] In most of the countries participating in the global national transfer accounts project (including those in Latin America), net family transfers are downward, from older persons to younger family members.

Public transfers by age and educational level in Brazil and Chile

Compared with other emerging regions, Latin America has a relatively large public sector and a rapidly-ageing population, combined with one of the world's highest levels of inequality in income distribution. Despite growing interest in public transfers as a means of combating poverty and inequality, transfers by age group and socio-economic level are not often studied concurrently. The analysis presented below moves forward in that regard, investigating the incidence of public spending by age group and socio-economic level (defined as the educational level of the head of household) in Brazil and Chile, by sectoral composition (education, health care and social security).[9]

In both countries, a greater proportion of public transfers targets older persons, and families account for most of the transfers to children and young people.. This pattern holds at all socio-economic levels but is significantly stronger at the highest level. The absolute progressivity of public spending is generally greatest in the case of children; it diminishes with rising age and then turns regressive, with greater benefits at the highest socio-economic levels. These differences are due to a large extent to the greater labour incomes of persons with higher educational levels, a determining factor in pension benefits. In Brazil, the point at which spending becomes regressive is age 45, whereas in Chile this occurs somewhat later, between 50 and 54 years.[10]

Despite public-sector involvement, total investment in education is rather unequal at the different socio-economic levels (see figure 20). In Brazil, investment in a child's education at the highest socio-economic level is more than double the amount at the second level and more than three times the investment in education at the lowest level. Figures for Chile are very similar. This difference stems from the yawning gaps in education spending between high- and low-income families. Greater private spending by high-income households with highly-educated heads of households leads to markedly segmented education on the supply side determined by the payment capacity of the student´s household of origin.

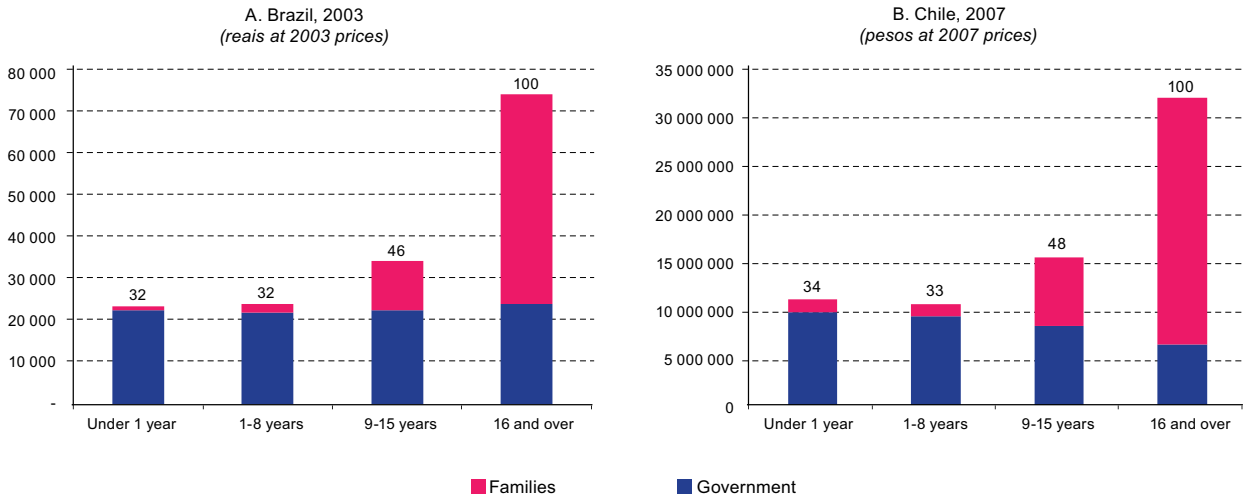
7 When considering these results, it should be borne in mind that the sample of countries taking part in the global national transfer accounts project for Latin America excludes the region's poorest countries, where the public sector plays a minor role in supporting the consumption both of children and young people and of older persons.

8 Except in the case of Mexico, where income in the form of assets, particularly State property assets, represents the main source of support.

9 The educational categories were: (a) no formal schooling; (b) 1 to 8 years of schooling; (c) 9 to 15 years of schooling; and (d) 16 or more years of schooling.

10 This is why it is important for pension systems to have a solidarity pillar as ECLAC has argued. Contributory systems are usually regressive to the extent that benefits are linked to contributions.

Figure 20
TOTAL EDUCATIONAL INVESTMENT PER CHILD, BY EDUCATIONAL LEVEL OF THE HEAD OF HOUSEHOLD [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of processing of data from the Brazilian National Household Survey (PNAD), 2003, and the Family Budgets Survey (POF), 2006/2007, in the case of Brazil, and from the National Socio-economic Survey (CASEN), 2007, and the Budgeting and Expenditure Survey (EPG) 2006/2007, in the case of Chile.

[a] Total per capita spending on education includes public and private spending at the pre-primary, primary, secondary and tertiary education levels.

Conclusion

National transfer accounts furnish a global, consistent measurement of the role played by governments in providing economic support to young people and older adults. They also allow improved monitoring of the scope of government policies and provide a comprehensive view of the functions of other economic agents (financial markets, the family and civil society).

Furthermore, national transfer accounts provide a basis for governments' long-term fiscal projections, to anticipate the significant economic changes that will be brought about by the slow but inexorable advance of social forces such as population ageing, epidemiological transition and changes in educational levels.[11] More subtle changes in fiscal and public-spending policies can thus be detected.

The results of this analysis have highlighted one of the most notable characteristics of the economies of Latin America: the low levels of consumption among children and young people associated with low public investment in these population groups. The results clearly indicate the need for much stronger public-sector involvement, to provide the necessary investment for the development of young people. This is not only in order to address the reproduction of inequalities throughout the life cycle —it is also the best way to prepare for the impending rapid ageing of the population.

[11] The epidemiological transition is a change, largely caused by population ageing, where acute illnesses, more common among children, give way to chronic and degenerative diseases, more common among older persons, as main causes of morbidity and mortality. For further details, see ECLAC/CELADE (2010).

Public transfers early in the life cycle: a key challenge for fighting inequality over time

Social deficits associated with life cycle stages and how to address them

To make progress on the equality agenda the State must lead the way in several areas. As noted earlier, it falls to the State to decouple children's and young people's educational attainments and learning from their socio-economic background and to foster greater convergence of these attainments throughout society to reduce labour market gaps and vulnerability. The State must also address asymmetries, both through active employment and wage policies and by means of clearly distributive public transfers throughout the life cycle.

In this context, the welfare state model shows that universal policies achieve the most systemic impact in terms of progressive redistribution of opportunities, assets and access to well-being. This model can also include selective transfers to more vulnerable groups, where the guiding principle is not to target them but precisely to make conditions in society as a whole mor e egalitarian.

This chapter therefore sets out options for public transfers to vulnerable sectors during childhood and youth and provides cost estimates for achieving universal coverage in education. These options are based on evidence put forth in preceding chapters. In Latin America, States and the transfers they make have little influence on the consumption structure of families with children and adolescents. On the other hand, in many Organization for Economic Cooperation and Development (OECD) countries, consumption by persons aged 0-19 is met almost equally by public and family transfers but the average State transfer component in Latin America does not exceed 20% for this age group. This means that the redistributive impact is very small compared with primary family income. It should therefore come as no surprise that inequality persists despite public transfers targeting families with children and young people. This constraint is compounded by educational systems (where a large part of the public transfers are focused on the youngest population segment) that are ineffective in reversing underlying structures of inequality. In short, the region faces enormous challenges in harnessing the redistributive role of the State in the fight against inequality over time.

Alleviating these deficits, then, calls for redistributive measures in line with the life-cycle approach, focusing on the population of children and young people and involving transfers targeting families whose labour income is patently insufficient. These mechanisms should include different measures at each stage, and they fall into three broad categories. In one category are cash transfer schemes focusing on households with children to improve the odds that the family will have an appropriate environment for child socialization (nutrition, housing, clothing). In another, funding goes to instruments geared towards reversing the deficits in coverage and access to early childhood care and stimulation that trap children and adolescents in a pattern of exclusion, with the subsequent negative impact on young people as they approach emancipation. Last is another set of cash transfers for employment and job training services targeting young people in the process of becoming emancipated adults.

These measures, encompassing the stage in life that is the subject of this edition of *Social Panorama* (0-29 years of age, culminating in emancipation and the transition to adulthood) should include the following components:

- **Early childhood**: cash transfers to households with children (aged 0-4) and policies to ensure care (0-2) and preschool education (3-5).
- **Period between childhood and early stages of emancipation** (childhood and early adolescence, 6-14): lengthening the time spent in school, investing in primary education and the lower cycle of secondary school to increase coverage and graduation rates.
- **Emancipation**: cash transfers in the form of vouchers, that is, incentives to stay in or return to school or the labour market. For this instrument, the benchmark age is 15-29, but the analyses set out below centre on the group aged 15- 24 as the modal group in the vulnerable sectors.

This chapter therefore proposes a set of transfers and shows the cost of achieving universal coverage from early

childhood education through upper secondary school for the countries of Latin America. These transfers are explained in this chapter and listed below:

1. Transfer to all vulnerable families (with income at or below 1.8 poverty lines per household member) an amount equivalent to one poverty line per child aged 0-4 and 1.5 poverty lines in the case of single-parent families; the cost of this transfer at the national level is shown as a percentage of GDP.
2. For this group of families, transfer the equivalent of 0.5 poverty lines per child aged 5-14, or 0.75 poverty lines in the case of single-parent households; the cost of this transfer at the national level is shown as a percentage of GDP.
3. Transfer, to each young person aged 15-24 who is neither studying nor working, an allowance equivalent to the monthly public cost per pupil at the upper secondary school level; the cost of this transfer at the national level is shown as a percentage of GDP.
4. Invest in education an amount equal to what it would cost the educational system to bring in all of the children and young people who are currently not included in all levels; early childhood, preschool, primary, lower secondary and upper secondary, at the appropriate age. The monthly cost per pupil for each level is calculated and the aggregate total cost of allocating such an amount per month is simulated, taking into account all school-age children and young people who are not attending school.

Costs and impacts

In addition to knowing what these measures cost, we need to know their social yield, too, that is their impact on equality and well-being.

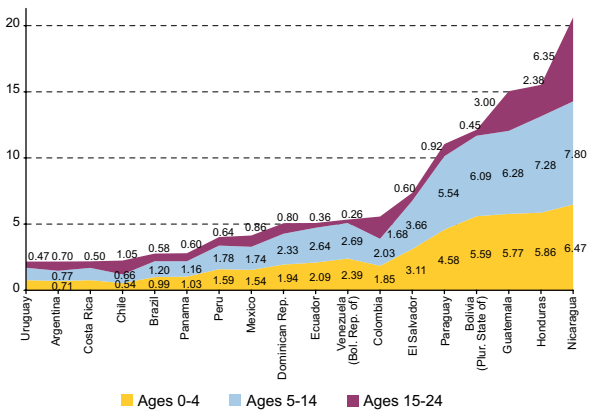
Poverty, inequality and income transfers: costsand impacts

The most direct and easiest-to-evaluate mechanisms are income transfers to children aged 0-14 and transfers or job and training subsidies to young people aged 15-24 who are neither studying nor working. In both cases, the cost and impact of these transfers is estimated and their scope is limited to the vulnerable population (belonging to households whose per capita income is below 1.8 poverty lines). As figure 21 shows, the cost of such a transfer system is fairly easily fundable for one group of countries, represents a major effort for another group and is beyond the range of possibility for a third set of countries.

For Argentina, Chile, Costa Rica, Uruguay and, to a lesser extent, Brazil and Panama, the additional costs are manageable for a short period of time, representing some 2% of GDP. For the Bolivarian Republic of Venezuela, Colombia, Ecuador, Dominican Republic and Mexico, the effort is considerable (near to or in excess of 5 percentage points of GDP). For Guatemala, Honduras, Nicaragua, Paraguay and the Plurinational State of Bolivia, the fiscal requirement would be excessive, making it important to mobilize additional international cooperation resources.

As for the effect on poverty, the three kinds of transfers proposed would, combined, have a substantial absolute impact. For example, the poverty rate would fall from 61.8% to 34.6% in Nicaragua and from 45.7% to 29.9% in Guatemala. The decrease in more developed countries would also be significant.

Figure 21
LATIN AMERICA (16 COUNTRIES): COST OF ALL CASH TRANSFERS TARGETING THE VULNERABLE POPULATION, AROUND 2008 [a]
(Percentages of GDP)



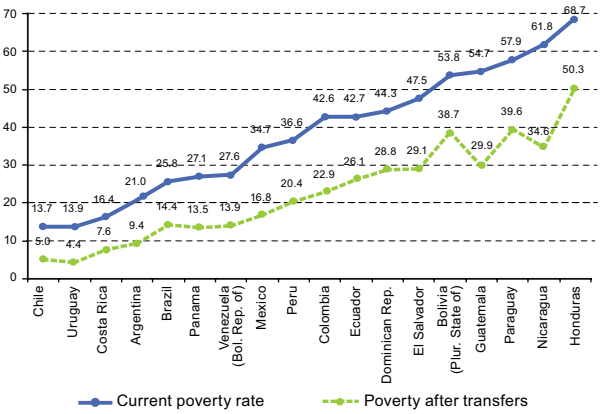
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries and projections of gross domestic product (GDP).

[a] Here the vulnerable population is defined as the population whose income is at or below 1.8 poverty lines. Data for Nicaragua refer to 2005, for Argentina, Chile and Guatemala to 2006, and for Honduras and the Plurinational State of Bolivia, to 2007.

The nature of the transfers is such that their impact is strongest among children and young people. In these cases, the relative decline in the poverty rate will be proportionally larger than shown in figure 22. And there

will be a significant decrease in inequality–more striking in the less developed countries and more modest in the more advanced ones.

Figure 22
LATIN AMERICA (18 COUNTRIES): IMPACT OF TRANSFERS ON POVERTY REDUCTION, AROUND 2008 [a]
(Absolute poverty points)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries and projections of GDP.

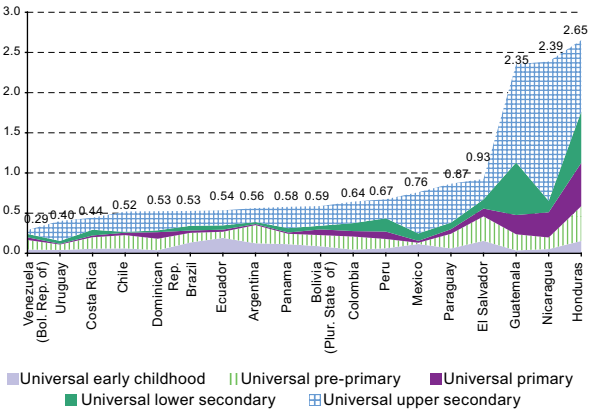
[a] Data for Nicaragua refer to 2005, for Argentina, Chile and Guatemala to 2006, and for Honduras and the Plurinational State of Bolivia, to 2007.

Poverty, inequality, education cycle and life cycle: costs and impacts

Taking aim at inequality and poverty among children and young people calls for initiatives on at least three critical fronts: extend coverage in early childhood by means of early childhood care and education systems (0-4 years of age), complete the process of achieving universal coverage in the basic education cycle age brackets (0-14) and work towards universal coverage among adolescents and young people in the upper cycle of secondary education (15-17). All of these targets, and the additional per-student cost in each country, are within the reach of all of the countries of the region. Indeed, as figure 23 shows, in 15 of the 18 countries reviewed the cost does not exceed one percentage point of GDP, considering the minimum required cost for completing coverage at constant investment rates because only the current expense per pupil is taken into account. Creating the infrastructure and improving the conditions that would enable such coverage to truly level the playing field would require substantially heavier outlays.

For example, while the cost of achieving universal primary education is very low in terms of GDP (0.02%-0.31%, depending on the country), extending coverage to a full day for children aged 6-11 would push the cost up substantially because in almost all of the countries of the region the vast majority of children in this age group did not have a full school day around 2008. It is easy to see that investing in the buildings and human resources required to extend the school day pose challenges for the countries that are far more complex than the data on coverage for the age brackets in this cycle would suggest.

Figure 23
LATIN AMERICA (18 COUNTRIES): COST OF INCORPORATING CHILDREN AND YOUNG PEOPLE AGED 0-17 INTO THE EDUCATION SYSTEM, AROUND 2008 [a]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries and projections of gross domestic product (GDP).

[a] Data for El Salvador refer to 2004, for Nicaragua to 2005, for Argentina, Chile and Guatemala to 2006, and for Honduras and the Plurinational State of Bolivia, to 2007. For the 0-5 age group in countries without data for the entire bracket, the earliest available ages for the level were used: 4-5 in the Dominican Republic and 5 years of age in Ecuador, Guatemala, Panama, Paraguay and the Plurinational State of Bolivia.

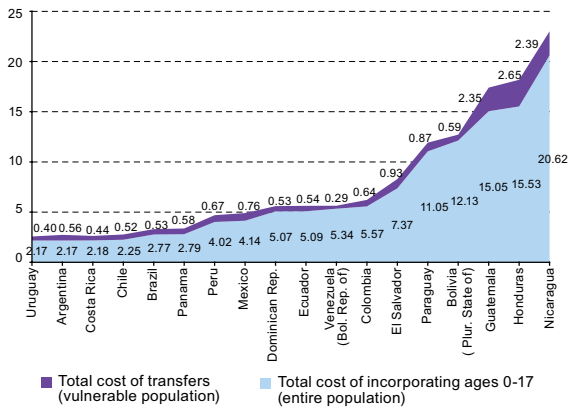
Even with these qualifications, an expansion programme like the one proposed would have a substantial impact on the circuits that reproduce inequality and exclusion among children and young people. The two extremes of the challenge (preschool and upper cycle of secondary school) provide an idea of the leap in coverage that this would bring, especially for the poor and vulnerable population segment. Chapter II of this edition of *Social Panorama* highlights the yawning gaps by income quintile among children and young people (especially when comparing the two extreme quintiles) in terms of preschool education and completion of the upper cycle of secondary school. For this reason, transfers geared towards narrowing gaps at these levels would have an enormous impact in reducing inequalities in education opportunities.

For the most critical level in most countries (early childhood), even gradual incorporation would benefit a large group of countries in which the children that would be brought into the system account for a substantial portion of the population. In countries like El Salvador, Guatemala, Honduras and Nicaragua, between three fourths and nearly 9 out of 10 children in the vulnerable deciles (below 1.8 poverty lines) would come into the system.

Funding over time

Combining cash transfers and educational coverage increments at basic costs would make it possible, in almost all of the countries, to tackle the reproduction of inequality at its roots early in the life cycle, giving the State a larger role in the goods and services consumption structure of the youngest segment of the population. This would obviously involve considerable effort, and this goal would have to be made a top fiscal priority. The aggregate cost for both sets of measures can be seen in figure 24.

Figure 24
LATIN AMERICA (16 COUNTRIES): COST OF TOTAL CASH TRANSFERS TO THE VULNERABLE POPULATION AND OF INCORPORATING CHILDREN AND YOUNG PEOPLE AGED 0-17 INTO THE EDUCATION SYSTEM, AROUND 2008 [a]
(Percentages of GDP)



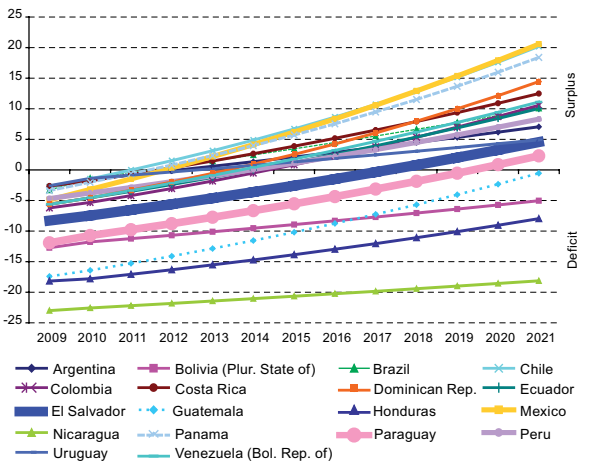
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries and projections of GDP.

[a] Data for Nicaragua refer to 2005, for Argentina, Chile and Guatemala to 2006, and for Honduras and the Plurinational State of Bolivia, to 2007. For the 0-5 age group in countries without data for the entire bracket, the earliest available ages for the level were used: 4-5 in the Dominican Republic and 5 years of age in Ecuador, Guatemala, Panama, Paraguay and the Plurinational State of Bolivia.

Funding for these measures cannot be conjured out of nowhere. Depending on the countries, the resources needed to implement the proposed transfer scheme will depend on the following variables: (a) economic growth trends, because if tax pressure remains constant the total tax take will rise; (b) tax burden trends combined with economic growth (the countries with room to increase the tax burden might collect more resources by increasing the extraction rate in proportion to the effort of the economy); (c) any additional resources from restructuring public spending and making it more efficient; and (d) mobilization of additional international cooperation resources.

Figure 25 shows the fiscal space that the countries have over a 10-year horizon to cover the additional costs arising from the set of measures proposed. The economic growth rate is assumed to be somewhat greater than 2%; in countries whose GDP offers potential for expanding the tax burden, the impact of that expansion (in annual increments) is shown. As can be seen, most of the countries could reach the break-even point before the end of the period, with a sizeable surplus after covering the deficit.

Figure 25
LATIN AMERICA (16 COUNTRIES): TAX DEFICIT OR SURPLUS FOR FUNDING THE TRANSFER SYSTEM AND THE ENHANCEMENT OF CARE AND EDUCATION SERVICES IN GROWING GDP AND EXPANDING TAX BURDEN SCENARIOS [a]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the relevant countries, projections of GDP and data from the Latin American and Caribbean Institute for Economic and Social Planning (ILPES) for effective and potential tax burden.

[a] Data for Nicaragua refer to 2005, for Argentina, Chile and Guatemala to 2006, and for Honduras and the Plurinational State of Bolivia, to 2007.

With a growing GDP combined with an expanding tax burden where possible, the countries of Latin America fall into three groups. The first group comprises those countries that in 2012 will be very near to taking in (or will be collecting far more than) the percentage points of GDP needed to afford the measures proposed. This group includes Argentina, Brazil, Chile, Costa Rica, Mexico, Panama and Uruguay. A second group of countries would be a position to do so around 2014. Such is the case with the Dominican Republic, Colombia and Ecuador. The remaining countries (Guatemala, Honduras, Nicaragua, Paraguay and the Plurinational State of Bolivia) would not —except for Paraguay in the final year— have enough revenues to cover these costs by the end of the period, even in the best-case scenario with combined impacts on fiscal space. Complementary resources, such as those from international cooperation, must therefore be considered.

Chapter I

Poverty, inequality and life cycle

A. Poverty and inequality: crisis and recovery

The economic crisis that shook the world and the region did not affect poverty and indigence as much as expected. Although output fell almost everywhere, there was virtually no rise in poverty rates, and indigence rates went up only slightly. There were a number of contributory factors, including steady real wages (thanks to low inflation) and policies geared towards preventing losses of income or large-scale redundancies, plus a slight improvement in the income distribution structure.

This outcome helped keep the region on the road to meeting target 1A of Millennium Development Goals. It also laid the groundwork for the economic recovery expected in 2010 to push the poverty rate down further. The positive developments over the past few years encompassed such components of well-being as access to basic services and education.

1. Economic context

Per capita GDP in Latin America and the Caribbean fell by 3% in 2009 in the midst of a generalized international crisis. This contraction impacted most of the countries of the region, especially the Bolivarian Republic of Venezuela, El Salvador, Honduras, Mexico and Paraguay. Only in the Dominican Republic and Uruguay did GDP rise by more than 2% (see table I.1).

Table I.1
LATIN AMERICA (20 COUNTRIES): SELECTED SOCIO-ECONOMIC INDICATORS, 2000-2009

Country/ Year	GDP per capita (Average annual variation) [a]	Urban unemployment (Simple average for the period) [b] *(percentages)*	Average real wages [c] (Average annual variation)	Consumer price index [d] (Average annual variation)	Country/ Year	GDP per capita (Average annual variation) [a]	Urban unemployment (Simple average for the period) [b] *(percentages)*	Average real wages [c] (Average annual variation)	Consumer price index [d] (Average annual variation)
Argentina					Haiti				
2000-2007	2.2	14.2	3.1	9.9	2000-2007	-1.2	…	…	17.2
2008	5.7	7.9	8.8	7.2	2008	-0.8	…	…	17.0
2009	-0.2	8.7	11.7	7.7	2009	1.2	…	…	2.1
Bolivia (Plurinational State of)					Honduras				
2000-2007	1.4	8.0	-0.4	4.6	2000-2007	3.1	6.1	…	8.1
2008	4.3	6.7	-7.4	11.8	2008	1.9	4.1	…	10.8
2009	1.6	7.9	…	0.3	2009	-3.8	4.9	…	3.0
Brazil					Mexico				
2000-2007	2.2	9.7	-1.5	7.0	2000-2007	1.8	4.4	2.3	4.9
2008	4.1	7.9	2.1	5.9	2008	0.5	4.9	2.2	6.5
2009	-1.1	8.1	1.3	4.3	2009	-7.5	6.7	0.6	3.6
Chile					Nicaragua				
2000-2007	3.2	9.1	1.8	3.4	2000-2007	2.0	8.9	0.5	8.8
2008	2.6	7.8	-0.2	7.1	2008	1.4	8.0	-3.8	12.7
2009	-2.5	9.7	4.8	-1.4	2009	-2.7	10.5	6.5	1.8
Colombia					Panama				
2000-2007	3.0	15.7	1.6	6.3	2000-2007	3.7	13.6	-1.1	2.2
2008	0.9	11.5	-2.0	7.7	2008	8.9	6.5	-0.6	6.8
2009	-1.1	13.0	1.1	2.0	2009	0.8	7.9	-0.4	1.9
Costa Rica					Paraguay				
2000-2007	2.9	6.1	0.6	11.0	2000-2007	0.5	10.1	0.3	9.0
2008	1.5	4.8	-2.0	13.9	2008	3.9	7.4	-0.7	7.5
2009	-2.3	7.6	7.7	4.0	2009	-5.5	8.2	4.3	1.9
Cuba					Peru				
2000-2007	6.1	2.8	5.6	…	2000-2007	3.6	9.1	0.6	2.2
2008	4.1	1.6	0.1	…	2008	8.5	8.4	2.2	6.6
2009	1.4	1.7	4.1	…	2009	-0.3	8.4	0.3	0.2
Dominican Republic					Uruguay				
2000-2007	3.7	16.3	…	14.6	2000-2007	2.0	13.6	-1.6	9.0
2008	3.8	14.1	…	4.5	2008	8.2	7.9	3.6	9.2
2009	2.1	14.9	…	5.7	2009	2.5	7.7	7.3	5.9
Ecuador					Venezuela (Bolivarian Republic of)				
2000-2007	3.4	9.3	…	17.5	2000-2007	2.4	13.4	-1.4	19.6
2008	6.1	6.9	…	8.8	2008	3.0	7.3	-4.5	31.9
2009	-0.7	8.5	…	4.3	2009	-4.9	7.8	-6.6	26.9
El Salvador									
2000-2007	2.3	6.4	…	3.8					
2008	2.0	5.5	…	5.5					
2009	-4.0	7.1	…	-0.2					
Guatemala					Latin America				
2000-2007	1.3	5.0	-0.7	7.3	2000-2007	2.2	9.8	0.5	7.6
2008	0.8	…	-2.6	9.4	2008	3.0	7.3	-0.5	8.4
2009	-1.9	…	0.1	-0.3	2009	-3.0	8.2	3.1	4.7

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Based on per capita GDP in dollars, at constant 2000 prices.
[b] In the Bolivarian Republic of Venezuela, Chile, Cuba, the Dominican Republic and Nicaragua, the figures are for total national unemployment. In Guatemala, figures for the period 2000-2007 were only available for the three years from 2002 to 2004. The unemployment figures for Peru cover only the city of Lima. The data for Argentina, Brazil and Mexico have been adjusted to reflect changes in methodology in 2003, 2002 and 2005, respectively.
[c] Generally speaking, coverage of this index is very partial. In most countries, it covers only formal workers in the industrial sector. Rates of change in Latin America as a whole were calculated using a global index calculated as a simple average of the indices for those countries of the region with data available.
[d] Simple average of variations from December to December each year.

Unlike prior crises, though, this time public policy was paramount in tempering the impact on labour and social conditions. The countries drew on solid macroeconomics built up during the economic and financial boom, applying countercyclical fiscal and monetary policies.

So, although the employment rate did fall from 55.1% to 54.6% as unemployment rose from 7.3% to 8.2%, the impact on the labour market was less than initially forecast (ECLAC/ILO, 2010).

Price stability helped protect the purchasing power of income and thus staved off a significant drop in domestic demand. The simple average inflation rate for the region as a whole was 4.7% in 2009. Excluding the Bolivarian Republic of Venezuela brings the average down to 2.6%. Available data on average real wages for most of the countries show a slight uptick after the decrease posted in 2008.

In this context, regional GDP growth is projected to recover quickly in 2010, to 5.2% (equivalent to a 3.7% rise in GDP per capita). Economic expansion is seen throughout the region, although the pace is higher in the countries of South America and the highest rate of growth is in Brazil (ECLAC, 2010e).

2. Recent evolution of poverty

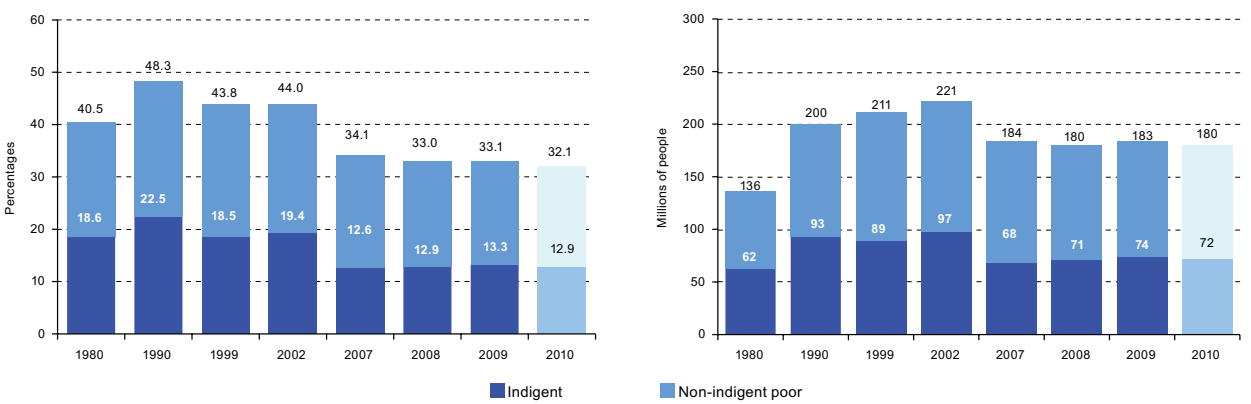
The poverty rate in the region was 33.1% in 2009, with 13.3% of the population living in extreme poverty or indigence. These figures translate into 183 million poor and 74 million living in indigence (see figure I.1).

Despite the marked drop in GDP in the region in 2009, the poverty rate worsened only slightly compared with 2008, equivalent to an increase of 0.1 percentage points. Extreme poverty posted a somewhat higher increase: 0.4 percentage points. The number of poor and indigent rose by 3 million.

These figures point to relatively positive results over the past few years. Compared with 2002, when poverty and indigence rates were the highest since 1990, both indicators are down sharply —by 10.9 percentage points for the former and 6.1 percentage points for the latter.

However, the two indicators have evolved differently over the past two years, with the indigence rate showing more appreciable deterioration. Unlike the poverty rate, indigence fell at a faster pace to 2007 than it did to 2009.

Figure I.1
LATIN AMERICA: POVERTY AND INDIGENCE, 1980-2010 [a]
(Percentages and millions of people)

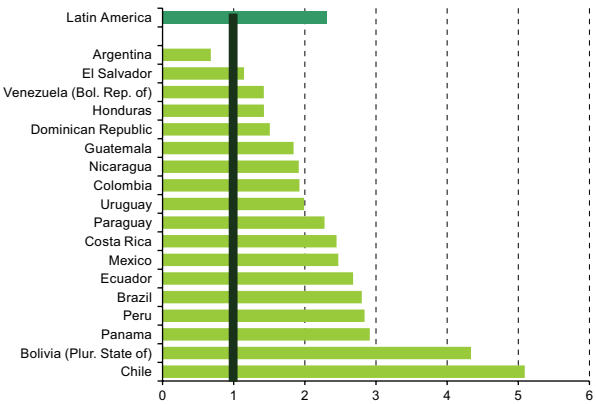


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Estimate for 18 countries of the region, plus Haiti. The figures above the bars are the percentage and total number of poor persons (indigent plus non-indigent poor).

The differing dynamics of poverty and indigence are due in part to the evolution of food prices compared with the prices for other goods. Food prices rose nearly two and a half times more than non-food products between 2006 and 2009 (see figure I.2). The increase in food prices transfers in its entirety to the value of the indigence line, pushing the latter up more quickly than the poverty line.[1]

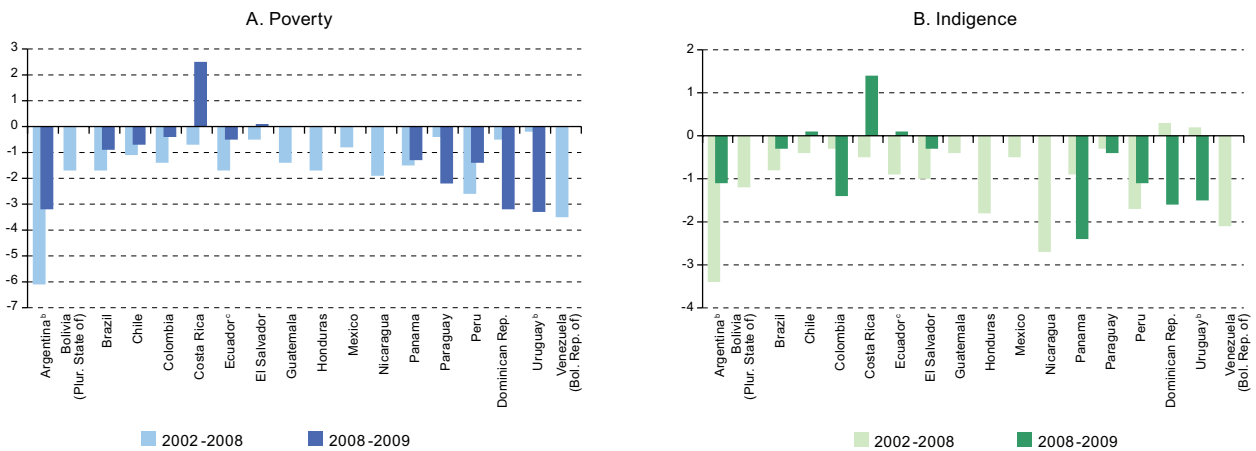
There is information available for assessing the evolution of poverty and indigence between 2008 and 2009 for nine countries. In six of them, poverty dropped appreciably between the two years. In the Dominican Republic and Uruguay (data for urban areas), the poverty rate fell by more than 3 percentage points; Brazil, Panama, Paraguay and Peru recorded declines between 0.9 percentage points and 2.2 percentage points. Slightly smaller negative poverty rate variations were posted in Colombia and Ecuador (see figure I.3).[2] In 2009, the indigence rate came down considerably in Colombia, the Dominican Republic, Panama, Peru and Uruguay and declined slightly in Brazil and Paraguay. Costa Rica is the only country in which the poverty and indigence indicators deteriorated appreciably in 2009, rising by 2.5 percentage points and 1.4 percentage points, respectively (see figure I.3).

Figure I.2
LATIN AMERICA (18 COUNTRIES): ACCUMULATED VARIATION OF FOOD CPI COMPARED WITH NON-FOOD CPI, 2006-2009
(Multiples)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official information from the respective countries.

Figure I.3
LATIN AMERICA (18 COUNTRIES): ANNUAL VARIATION IN POVERTY AND INDIGENCE RATES, 2002-2008 AND 2008-2009 [a]
(Percentage points)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The variations are changes in percentage point rates divided by the number of years in the period. The year of the survey used differs from country to country. The period 2002 corresponds to the latest survey available between 2000 and 2002, and the period 2008 represents surveys available between 2006 and 2008. The year 2009 refers only to data for that year.
[b] Urban areas.
[c] The 2002-2008 variation relates to urban areas and the 2008-2009 variation to the national total.

[1] Until 2007 the same price deflator was used to update the indigence and poverty lines, so the ratio between them held constant over time. But the widely diverging evolution of food and non-food prices led to the use of different deflators starting in 2007. The indigence line is updated using the food consumer price index (CPI); the non-food component of the poverty line is updated on the basis of the variation of the CPI for the relevant goods and services.

[2] For Colombia, this edition of the *Social Panorama* uses the new series of official poverty estimates produced by the country for the years 2002-2009. Accordingly, the figures may not match those published in previous editions.

Box I.1
METHOD USED TO MEASURE POVERTY

According to the approach used in this report to estimate poverty, a person is classified as poor when the per capita income of that person's household is below the poverty line, that is, the minimum income needed to meet a person's basic needs. Poverty lines expressed in national currency reflect a calculation of the cost of a basket of basic goods and services, using the cost-of-basic-needs method.

Where relevant data were available, the cost of a basic food basket that covers a person's nutritional needs was estimated for each country and geographical area, taking into account consumption habits, the actual availability of foodstuffs and their relative prices, as well as the price differences between metropolitan areas, other urban areas and rural areas. This is the indigence line.

The poverty line is defined by adding to the indigence line an estimate of the resources needed by a household to satisfy its basic non-nutritional needs. This estimated amount is the result of multiplying the indigence line by a constant factor of 2 for urban areas and 1.75 for rural areas.[a]

In most cases, data on the structure of household consumption of both foodstuffs and other goods and services came from national household-budget surveys.[b] Because those surveys were conducted before the poverty estimates were made, indigence lines and poverty lines have been updated using cumulative variations in the consumer price index (CPI). Until December 2006, the same variation was applied to both lines. Starting in 2007, however, the indigence line has been adjusted to reflect changes in the foodstuffs component of the CPI, whereas the part of the poverty line that corresponds to non-food spending is adjusted to reflect changes in that component of the CPI. From 2007 onwards, therefore, the differential between the indigence and poverty lines is no longer constant.

Data on family income were taken from household surveys conducted in each country in the years that correspond to the poverty estimates contained in this publication. In line with its usual practice, ECLAC made corrections to account for a lack of response to some income-related questions (in the case of wage-earners, self-employed workers and retirees) and for probable biases that stem from underreporting. This was done by comparing the survey entries for income with figures from an estimate of the household income and spending account taken from each country's system of national accounts, prepared for this purpose using official information.

Income here means total current income; that is, income from wage labour (in both money and kind), self-employed work (including self-supply and the consumption value of home-made products), property income, retirement and other pensions and other transfers received by households. In most countries, household income also includes the imputed rental value of owner-occupied dwellings.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

[a] The sole exceptions to this general rule were Brazil and Peru. For Brazil, the study used new indigence lines estimated for different geographical areas within the country, in the framework of a joint project conducted by the Brazilian Geographical and Statistical Institute (IBGE), the Brazilian Institute of Applied Economic Research (IPEA) and ECLAC in the late 1990s. For Peru, the indigence and poverty lines used were estimates prepared by the National Institute of Statistics and Informatics under the programme for the improvement of surveys and the measurement of living conditions in Latin America and the Caribbean implemented in that country.

[b] When data from the processing of a recent survey of this type were not available, other information on household consumption was used.

The figures available to 2009 for Argentina, Chile and El Salvador show the evolution of poverty over a broader period. Between 2006 and 2009, poverty and indigence in Argentina (urban areas) dropped at the rate of 3.2 percentage points and 1.1 percentage points per year, respectively. In Chile, poverty declined slightly between 2006 and 2009, with the indigence rate remaining basically unchanged.[3] Poverty and indigence rates in El Salvador did not change between 2004 and 2009.

A broader look that encompasses changes between 2002 and the latest available estimate reveals a generalized trend towards lower poverty and indigence in the countries of the region. According to the poverty gap and the squared poverty gap indices, the net exit of persons from poverty and indigence during the period was accompanied by rising average income among the poor and less distributive disparity in their income. These indices, whose formulation incorporates not only the percentage of poor but also the gap between average income for the poor and the poverty line (for the second index) and the way that income is distributed among the poor, declined more in percentage terms than did the poverty and indigence rates in most of the countries (see table I.A-1 in the appendix).

These latest figures on poverty and indigence can also be used to evaluate the progress the countries are making towards meeting target 1A of the first Millennium Development Goal: to halve, between 1990 and 2015, the proportion of people living in extreme poverty.

Despite the setback in 2008 and 2009, Latin America is well on the way to achieving target 1A. Progress stands at 82%, which is the accumulated decrease in indigence between 1990 and 2009 (9.2 percentage points) divided by the total expected decrease (11.3 percentage points). This is at the 72% mark of the time set for meeting the goal.

Projections for GDP growth and inflation in the countries suggest that the poverty rate will resume its downward trend in 2010 and reach 32.1% —one percentage point lower than in 2009. The indigence rate is expected to fall by some 0.4 percentage points (see figure I.1).

[3] The estimates published herein differ in many cases from official poverty figures issued by the countries because of differing methodological approaches. For Chile, the figures set out herein diverge for the first time from the country's official estimates (MIDEPLAN, 2010). In keeping with the change in methodology introduced by ECLAC in 2007, the indigence line was updated in keeping with the food CPI. The part of the poverty line that corresponds to non-food spending was adjusted to reflect changes in the rest of the CPI instead of using the same deflator for both lines as in the past.

3. Factors behind the changing poverty rate

As in previous editions of *Social Panorama*, two different methodological approaches are used to gauge the influence that some of the factors usually associated with poverty have had on the trend line. The first approach involves determining how much of the change in the poverty rate is due to income variation and how much to changes in income distribution. The second approach weighs the different sources of household income, focusing on labour market factors that affect labour income changes.

The variation in poverty and indigence rates may be broken down into two components: growth in average individual income (the growth effect) and changes in how that income is distributed (the distribution effect). This breakdown reveals whether the change in income that pushed the poverty rate in a given direction is part of a general trend for all income groups or had a more specific effect on the poor. The results of this analysis, based on data from household surveys, are presented in such a way that the effect of both components entirely explains the poverty rate variation in a given period (see box I.2).

Changes between the most recent estimate available last year and 2009 are due to different combinations of the growth effect and the distribution effect in each country.[4] In one group of five countries, the principal factor behind declining poverty was average income growth. In three (Chile, Peru and Uruguay), the effect of this factor was boosted by an improvement in distribution —at least in the distribution area near the poverty line. On the other hand, the downward trend in poverty in Argentina and the Dominican Republic was, in part, slowed —not helped— by changes in distribution. In another group of five countries the distribution effect was the main determinant of falling poverty rates. In some cases (Ecuador and Panama) the distribution effect was heightened by rising average income, while in others (Brazil, Colombia and Paraguay) it offset declines in income. Costa Rica, the only one of the 12 countries reviewed in which poverty rose significantly, saw a clear deterioration of distribution that more than offset the increase in average income. The opposite happened in El Salvador, where the uptick in the poverty rate was triggered by a drop in average income combined with an improvement in distribution (see table I.2).

A look at the period from 2002 to 2009 shows that poverty reduction was due to mutual complementarity between the growth effect and the distribution effect. Both effects contributed to the outcome in countries where the poverty rate came down by 7 percentage points or more, with the growth effect accounting for 41% to 80% and the distribution effect accounting for 20% to 59% (see table I.3).

Box I.2
METHODOLOGY FOR ANALYSING GROWTH AND DISTRIBUTION EFFECTS

According to the traditional scheme for measuring poverty based on insufficient income, a country's poverty rate at a given point in time is determined entirely by three elements: the poverty line, average income and the income distribution structure. Accordingly, if the poverty line remains constant in real terms, any change in the poverty indicator can be analysed on the basis of variations in average income and income distribution.

According to Datt and Ravallion (1992), a poverty indicator can be calculated using income distribution for the beginning period and average income for the ending period. The difference between this indicator and the poverty rate observed in the beginning period can be interpreted as a growth effect. It is also possible to calculate the poverty rate corresponding to average income in the beginning period, but with income distribution similar to that of the ending period. The difference between this indicator and the beginning poverty rate is the distribution effect. The two effects can also be calculated with the beginning and ending periods interchanged.

In formal terms, if $H(y_t, d_t)$ is the poverty indicator for period t, determined by average income (y_t) and the shape of the distribution (d_t), a breakdown into growth and distribution effects can be expressed as:

$$H(y_2, d_2) - H(y_1, d_1) = \underbrace{[H(y_2, d_1) - H(y_1, d_1)]}_{\text{Growth effect}} + \underbrace{[H(y_1, d_2) - H(y_1, d_1)]}_{\text{Distribution effect}} + R$$

Such a breakdown has two disadvantages. First, it is not exact: the residual has no analytical interpretation. The second shortcoming is that the size of each effect depends on the baseline year used in the comparison (beginning or ending year). Both disadvantages can be overcome by averaging the calculated effects using both baseline years (Kakwani, 1997). This is the procedure that was followed for the calculations presented in this chapter.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Gaurav Datt and Martin Ravallion, "Growth and redistribution components of changes in poverty measures", *Journal of Development Economics*, vol. 38, 1992; Nanak Kakwani, "On measuring growth and inequality components of changes in poverty with application to Thailand", *Discussion Paper*, University of New South Wales, 1997.

[4] The pre-2009 information available for Argentina and Chile dates from 2006 and for El Salvador from 2004. The changes examined therefore encompass a longer period than the crisis itself.

Table I.2
LATIN AMERICA (12 COUNTRIES): CHANGES IN POVERTY RATES AND CONTRIBUTION OF GROWTH AND DISTRIBUTION EFFECTS, 2008-2009 [a]
(Percentages)

	Year		Poverty			Effect		Contribution to total variation	
	Beginning	Ending	Beginning	Ending	Variation	Growth	Distribution	Growth	Distribution
Argentina [b]	2006	2009	21.0	11.3	-9.7	-9.7	0.0	100	0
Uruguay	2008	2009	13.7	10.4	-3.3	-2.1	-1.2	65	35
Dominican Republic	2008	2009	44.3	41.1	-3.2	-5.7	2.5	>100	<0
Chile	2006	2009	13.7	11.5	-2.2	-1.5	-0.7	70	30
Paraguay	2008	2009	58.2	56.0	-2.2	0.1	-2.3	<0	>100
Peru	2008	2009	36.2	34.8	-1.4	-2.1	0.7	65	35
Panama	2008	2009	27.7	26.4	-1.3	-0.5	-0.8	44	56
Brazil	2008	2009	25.8	24.9	-0.9	0.6	-1.5	<0	>100
Ecuador	2008	2009	42.7	42.2	-0.5	0.6	-1.1	<0	>100
Colombia	2008	2009	46.1	45.7	-0.4	0.8	-1.2	<0	>100
El Salvador	2004	2009	47.5	47.9	0.4	0.7	-0.3	>100	<0
Costa Rica	2008	2009	16.4	18.9	2.5	-1.3	3.8	<0	>100

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries in order of total variation in poverty rate, expressed in percentage points. The period 2008 refers to the latest survey available between 2006 and 2008.
[b] Urban area.

Table I.3
LATIN AMERICA (18 COUNTRIES): CHANGES IN POVERTY RATES AND CONTRIBUTION OF GROWTH AND DISTRIBUTION EFFECTS, 2002-2009 [a]
(Percentages)

	Year		Poverty			Effect		Contribution to total variation	
	Beginning	Ending	Beginning	Ending	Variation	Growth	Distribution	Growth	Distribution
Argentina [b]	2002	2009	45.4	11.3	-34.1	-27.3	-6.8	80	20
Venezuela (Bolivarian Republic of)	2002	2008	48.6	27.6	-21.0	-11.7	-9.3	56	44
Peru	2001	2009	54.7	34.8	-19.9	-15.5	-4.4	78	22
Brazil	2001	2009	37.5	24.9	-12.6	-5.8	-6.8	46	54
Panama [b]	2002	2009	36.9	26.4	-10.5	-4.9	-5.6	47	53
Ecuador [b]	2002	2009	49.0	40.2	-8.8	-6.1	-2.7	70	30
Chile	2000	2009	20.2	11.5	-8.7	-3.8	-4.9	44	56
Colombia	2002	2009	54.2	45.7	-8.5	-6.4	-2.1	75	25
Bolivia (Plurinational State of) [b]	2002	2007	62.4	54.0	-8.4	-3.5	-4.9	41	59
Honduras	2002	2007	77.3	68.9	-8.4	-6.0	-2.4	71	29
Nicaragua	2001	2005	69.4	61.9	-7.5	-5.5	-2.0	73	27
Dominican Republic	2002	2009	47.1	41.1	-6.0	-11.4	5.4	>100	<0
Guatemala	2002	2006	60.2	54.8	-5.4	-7.1	1.7	>100	<0
Paraguay [a]	2001	2009	61.0	56.0	-5.0	-0.9	-4.1	18	82
Uruguay [b]	2002	2009	15.4	10.7	-4.7	-3.2	-1.5	69	31
Mexico	2002	2008	39.4	34.8	-4.6	-4.2	-0.4	90	10
Costa Rica	2002	2009	20.3	18.9	-1.4	-2.2	0.8	>100	<0
El Salvador	2001	2009	48.9	47.9	-1.0	2.5	-3.5	<0	>100

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries in order of total variation in poverty rate, expressed in percentage points. The period 2009 refers to the latest survey available between 2006 and 2009.
[b] Urban area.

The second approach for analysing poverty rate variation involves assessing the impact of variations in sources of income. Of particular interest are labour income (as the primary source of household resources) and public transfers.

In 2009, changes in poor household income were triggered mainly by rising or falling labour income. In most of the countries reviewed, average labour income in poor households increased in real terms. Wage and independent work income tended to vary in the same direction, except in Colombia, the Dominican Republic and Ecuador.

Transfers made a noticeable contribution to the increase in total income among the poor in six of the countries reviewed. Virtually all of these transfers are in the form of government subsidies or assistance. The exception is Argentina, where retirement pensions account for the largest portion of the increase in this source of income.

Labour income per person can be expressed as the product of labour income per employed person and the ratio of the number of employed persons to the total population, making it possible to identify what each component contributes to the annual variation in labour income per person.

In most of the countries reviewed, average labour income for poor households rose in real terms in 2009. In El Salvador, Peru and Uruguay this was the result of both an increase in labour income per employed person and a rise in the proportion of employed persons. In Argentina, the Dominican Republic and Panama the reason was a considerable increase in labour income per employed person. In Colombia and Paraguay, the drop in labour income per employed person was offset by a rising proportion of employed persons.

Labour income decreased in Chile, Costa Rica and Ecuador. The factors assessed interacted in different ways in each of these countries. In Chile, the employment rate fell while income per employed person rose. The opposite happened in Ecuador; both factors declined in Costa Rica (see figure I.5).

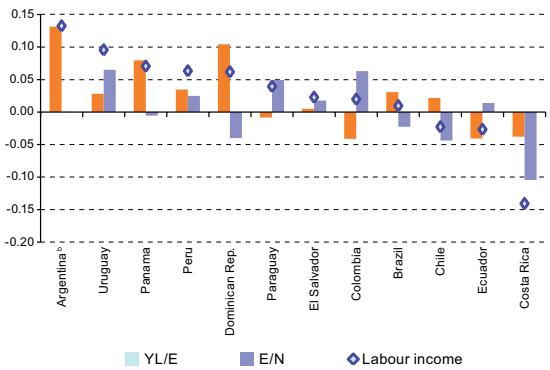
Figure I.4
LATIN AMERICA (12 COUNTRIES): ANNUAL VARIATION IN TOTAL INCOME PER PERSON AND BY SOURCE IN POOR HOUSEHOLDS, 2008-2009 [a]
(Percentages)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Countries in order of annual variation in poverty rate. The period 2008 refers to the latest survey available between 2006 and 2008. The percentage of population analysed is the same for both periods and refers to the poverty rate in 2008.

[b] Urban area.

Figure I.5
LATIN AMERICA (12 COUNTRIES): ANNUAL CHANGE OF LABOUR INCOME COMPONENTS PER PERSON IN POOR HOUSEHOLDS, 2008-2009 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

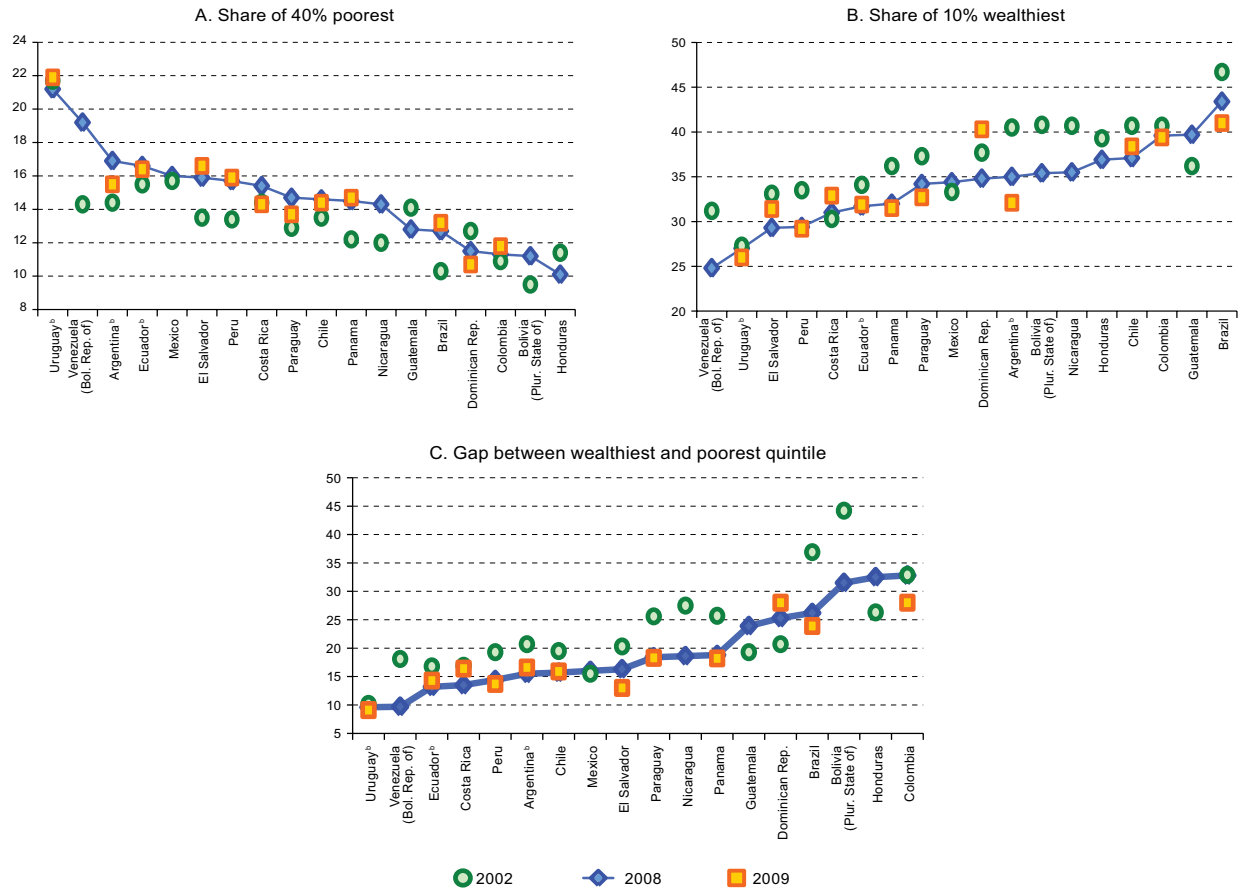
[a] Countries in order of annual variation in poverty rate. The period 2008 refers to the latest survey available between 2006 and 2008. The percentage of population analysed is the same for both periods and refers to the poverty rate in 2008.

[b] Urban area.

4. Recent evolution of inequality

The distribution of income in the countries of Latin America is known as one of the most unequal in the world; this has not changed over the past four decades (UNDP, 2010). Broadly, the income share of the four poorest deciles averages less than 15% of total income, with the wealthiest decile accounting for about one third of the total. Average income received by the wealthiest 20% of the population is 19.3 times more than for the poorest quintile (see figure I.6).

Figure I.6
LATIN AMERICA (18 COUNTRIES): INCOME DISTRIBUTION STRUCTURE, 2002, 2008 AND 2009 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The year of the survey used differs from country to country. The period 2002 corresponds to the latest survey available between 2000 and 2002, and the period 2008 represents surveys available between 2006 and 2008. The year 2009 refers only to data for that year.
[b] Urban area.

Although distributive inequality is a significant problem in all of the countries of the region, it varies in magnitude. In the countries with less inequality (Bolivarian Republic of Venezuela and Uruguay), the four poorest deciles receive some 20% of total income. The wealthiest decile receives approximately 25%; average income for the wealthiest quintile does not exceed 10 times that for the poorest quintile. At the other extreme, in the countries with the greatest inequality the four poorest deciles receive less than 12% of income. The wealthiest quintile has a share of nearly 40%, and income for the wealthiest quintile can be more than 30 times that of the poorest quintile.

Despite this heterogeneity, in most of the countries there has recently been an incipient trend towards less concentration of income: between 2002 and the most recent estimate available, the share of the poorest 40% increased in 12 countries (by at least 0.5 percentage points). The share of the wealthiest 10% fell in 14 countries, and the gap between the extreme distribution quintiles narrowed in 14 of the 18 countries studied (see figure I.6).

The trend toward less inequality is corroborated by the variation of the Gini and Atkinson indices between 2002 and the most recent date for which information is available. These indices may show different trends because they assign different relative weights to each income distribution segment, so they should be viewed as complementary to each other (see box I.3).

All three indices point to a decrease in distribution disparity in 13 countries. Results are mixed for Colombia, Costa Rica and Honduras because only some indicators show deteriorating distribution. The only countries with deteriorating distribution were the Dominican Republic and Guatemala (considering data to 2006, the most recent date for which information is available) (see figure I.7).

Box I.3
INDICATORS FOR MEASURING DISTRIBUTIVE INEQUALITY

A wide range of indicators can be used to measure the degree of concentration of a given income distribution. This chapter uses two of the best known inequality indicators, the Gini and Atkinson indices.

Gini index:

$$G = \frac{1}{2n^2\mu}\sum_{i=1}^{n}\sum_{j=1}^{n}\left|y_i - y_j\right|$$

Atkinson index:

$$A_\varepsilon = 1 - \left[\frac{1}{n}\sum_{i=1}^{n}\left(\frac{y_i}{\mu}\right)^{1-\varepsilon}\right]^{\frac{1}{1-\varepsilon}}$$

where n = population size, y_i = per capita income of the ith individual and μ = mean income.

The best-known of the indices used to analyse income distribution is the Gini. Its formulation is expressed graphically, as it corresponds to the area between the Lorenz curve and the equidistribution line. The greater the income concentration, the larger this area will be and the higher the value of the indicator.

Despite its popularity, the Gini index does not satisfy the transfer sensitivity principle, a desirable property for inequality indicators whereby inequality should decrease in response to a progressive transfer of income (i.e., from a "wealthy" household to a "poor" one). The lower the position of the individuals concerned in the distribution, the greater the decrease in inequality should be.

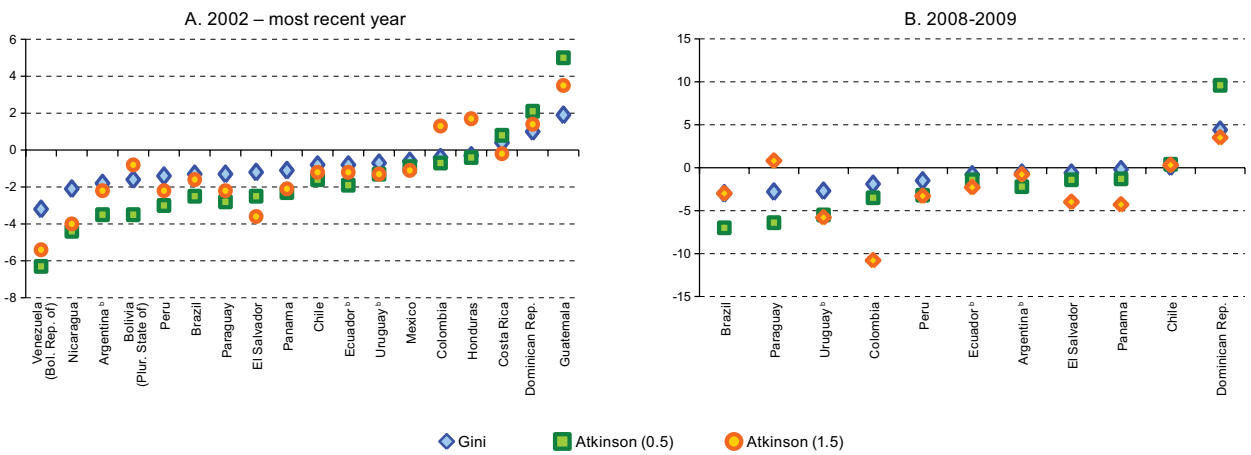
The Atkinson index does satisfy the transfer sensitivity principle, and the weight that it assigns to the lowest portion of the distribution can be regulated using a parameter called "inequality aversion" (ε). The greater the value used, the higher the weight given to observations in the lower part of the distribution, most frequently between 0.5 and 2.0.

Both indicators take values in the range of zero to one (where zero corresponds to absolute equality and one represents absolute inequality), such that the higher the value of the indicator, the greater the inequality.

All inequality indicators are ordinal, so their values cannot be compared. Furthermore, as each of them measures partial aspects of inequality, they can generate different rankings for the same distribution. The ranking of a group of distributions can be considered definitive only if it does not vary between indices. The best procedure, therefore, is to see inequality indices as complementary to each other and analyse the findings together.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Frank Cowell, "Measuring Inequality", *LSE Handbooks in Economics*, Prentice Hall, 2000.

Figure I.7
LATIN AMERICA (18 COUNTRIES): ANNUAL VARIATION IN SOME INEQUALITY INDICES, 2002-2009 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The year of the survey used differs from country to country. The period 2002 refers to the latest survey available between 2000 and 2002. The period 2008 corresponds to the latest survey available between 2006 and 2008. The year 2009 refers only to data for that year.
[b] Urban area.

Isolating the behaviour of inequality in 2009 from the rest of the period reveals contrasting trends in which improvements in distribution, albeit of lesser magnitude, predominate. Brazil, Colombia, Peru and Uruguay saw the largest declines in all three indices: at least 1.5% per year. While this is not a large value, it does represent a noticeable change. Argentina, Ecuador, El Salvador and Panama also recorded declines in all three inequality indicators. It is striking that Paraguay showed a significant drop in inequality according to the Gini coefficient and the Atkinson index (with an inequality aversion ratio of 0.5) but did not according to an index that assigns greater weight to the lower portion of the distribution.

Inequality indicators in Chile remained virtually unchanged between 2006 and 2009. Hence, Costa Rica and the Dominican Republic are the only countries with a clear deterioration of distribution in 2009, recording Gini coefficient increases of more than 4% and even larger variations in the other indicators.

While inequality in Latin America is still among the highest in the world, the favourable trend in recent years shows that distribution can be improved. Some studies indicate that the main factors behind this trend are the narrowing labour income gaps between highly skilled and less skilled recipients and the increase in income transfers to the poorest (López-Calva and Lustig, 2010). In both areas there is space for public policy to enhance redistribution efforts geared towards more equitable distribution, not only in income but also in opportunities.

5. Multidimensional poverty

Poverty encompasses deprivations across a broad spectrum of the dimensions of human well-being. Nonetheless, the usual way of quantifying these deprivations is to equate poverty to the lack of economic resources because income is the means whereby most material needs can be met and inadequate income is closely associated with deprivations in other areas of well-being.

For all its virtues, income alone does not provide a complete picture of poverty in a country. There are various situations of deprivation that a lack of economic resources does not fully capture. This is especially clear when poverty is conceptualized in a way that looks beyond material needs to cover such areas as psychological well-being or self-acceptance, but it can also hold true when its definition is limited to these needs. This usually happens when the goods and services required to meet needs are not purchased in the market but are self-produced or provided by the state. For example, a successful literacy programme improves the well-being of the population but does not increase income (at least not in the short run). Consequently, a measure of poverty based on income inadequacy might be insensitive to certain changes in the well-being of the population.

In recent years there has been growing interest in conceptualizing and measuring poverty multidimensionally. One of the conceptual frameworks receiving the most attention in this context is the "capabilities and functionings" approach proposed by Amartya Sen. According to this approach, an individual's standard of living should be assessed on the basis of the freedom that person has (capabilities) to be or do something (functionings), not on the basis of the objects that person possesses or their "utility". In this context, then, poverty is defined as the lack of certain basic capabilities.

Poverty can also be seen as a violation of a person's economic, social and cultural rights. In this context, "poverty may be defined as a human condition characterized by sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights" (United Nations, 2001).

Taking a multidimensional approach to measuring poverty involves identifying the relevant dimensions, selecting the appropriate indicators and defining the thresholds for what is considered sufficient in each case. There are several ways do to this; they can be based on normative assumptions, empirical antecedents or public consensus, among others (Alkire, 2008).

With a multidimensional measure, it is common to seek synthetic indices that sum up data on poverty in a single figure. There have been significant advances in this area in recent years, consolidating desirable properties for these indices and proposing families of indicators (Bourguignon and Chakravarty, 2003; Tsui, 2002; Alkire and Foster, 2009).

Latin America has habitually issued figures equatable to the notion of multidimensional poverty, applying the unsatisfied basic needs method. This method rates basic deprivation among the population for such factors as housing, access to potable water and sanitation and education. While it is commonly used with data from population and housing censuses, it can also be applied to data from household surveys.

Growing interest in developing multidimensional measures of poverty has led to new applications in the region and worldwide. One example is the official measure of multidimensional poverty for Mexico developed recently by the National Council for the Evaluation of Social Development Policy (CONEVAL, 2009). Worldwide, the United Nations Development Programme Human Development Report 2010 includes a multidimensional poverty index based on household surveys conducted in countries around the world. It replaced the Human

Poverty Index presented in 1997 (Alkire and Santos, 2010). Thanks to the work done by the United Nations Children's Fund (UNICEF), there has also been progress towards a multidimensional measure of child poverty in the world (Gordon and others, 2003).

In line with the need to complement the monetary measure of poverty with a multidimensional approach, this section looks at the evolution of living conditions in the region using a method similar to the unsatisfied basic needs method, complemented by some more recent proposals for building synthetic indices.

The basic needs considered are those that are usually measured by household surveys in the countries of the region. They concern housing quality and adequacy in aspects such as type of floor, access to potable water and sanitation, availability of electricity and crowding (Feres and Mancero, 2001). To capture shortfalls in education, the approach was similar to the one followed by Alkire and Santos (2010), linking attendance rates for school-age children to educational deficiencies among the adult population.[5] Box I.4 explains the selected satisfaction indicators and thresholds.

Box I.4
UNSATISFIED BASIC NEEDS INDICATORS

Unsatisfied basic needs of households were evaluated by referring to the traditional scheme for the region, with some modifications. The indicators chosen refer to housing characteristics, especially floor type, crowding (number of people per room), availability of potable water and sanitation and access to education for children (school attendance) and adults (number of years of schooling).

The satisfaction thresholds for each indicator are similar to those used for previous applications of the method. Where relevant, differentiated thresholds were established for urban and rural areas. The following are considered unsatisfied needs:

- Dwelling quality: dwellings with dirt floors (urban and rural areas);
- Crowding: three or more people per room (urban and rural areas);
- Water source: any source of water except a public system (urban areas); river, stream, rain etc. (rural areas);
- Toilet facility: no sanitation, or toilet not connected to a sewer system or septic tank (urban areas); no sanitation, or untreated toilet system (rural areas);
- Electricity: no electricity, either public or private (urban and rural areas);
- Education: whether the household has children who are not attending an educational establishment, or no one has completed six years of schooling.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

The survey results show, first, how the deprivation rates evaluated vary widely among the countries of the region. For example, the lack of an appropriate floor in the dwelling is fairly widespread in Guatemala, Nicaragua and Peru, at 35% or more of the population, and, to a lesser extent, Bolivia (Plurinational State of), El Salvador and Honduras (20% to 30% of the population). By contrast, in six countries of the region less than 5% of the population lacks appropriate flooring (see figure I.8).

The situation is similar for the other situations of deprivation evaluated. The percentage of persons without an appropriate source of drinking water ranges from 2% to 28%. Between 1% and 40% lack an appropriate sewage elimination system. Crowding (three or more persons per room) affects 1% to 20% of the population. The range is 3% to 40% for insufficient access to education.

Figure I.8 also shows that all of the deprivations rated trended down between 2000 and 2009. In most cases, the decreases have been proportionally similar from one country to the next, so their ranking has not changed much since the early 1990s.

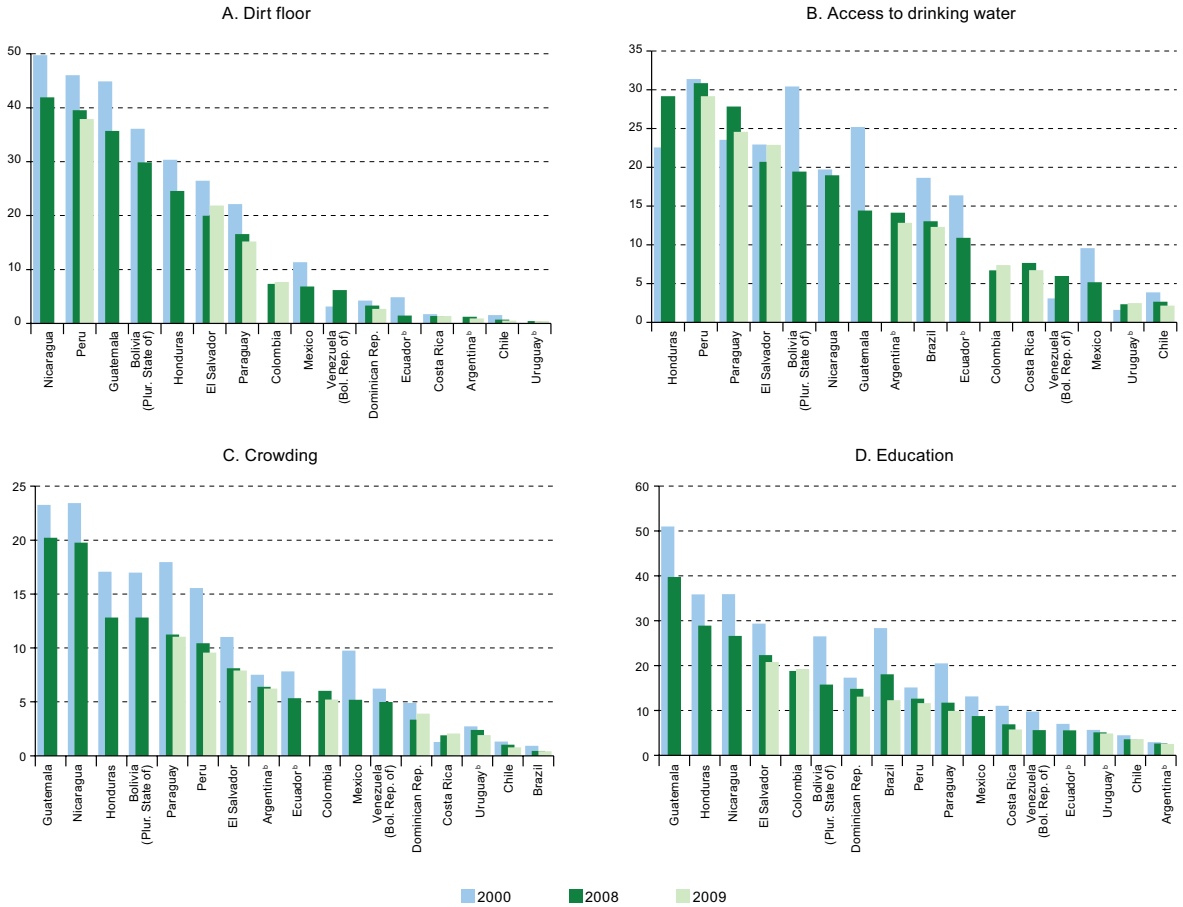
One way to measure poverty multidimensionally is to count the situations of deprivation for each household and to define as poor those with a certain number of deprivations. The traditional aggregation approach under the unsatisfied basic needs method used in the region is to consider as poor those who have at least one situation of deprivation. But deprivation in any given dimension might not be representative of poverty. For this reason it is better to define the poverty threshold using deprivation in two dimensions, in line with other recent multidimensional measurements (Alkire and Santos, 2010; CONEVAL, 2009; Gordon and others, 2003).

The aggregate indicator confirms the two findings discussed above: the magnitude of multidimensional poverty varies widely among the countries of the region, and the multidimensional poverty rate has been falling considerably.

This wide range of multidimensional poverty indicators is, broadly speaking, similar to the outcomes from a monetary measure of poverty. The countries with the highest multidimensional poverty rates (Guatemala, Honduras, Nicaragua and the Plurinational State of Bolivia) are also those with the highest monetary poverty rates. At the other extreme, Chile, Costa Rica and Uruguay (urban area) are the countries with the lowest multidimensional poverty rates and the lowest monetary poverty rates (see table I.4).

[5] This makes it possible to evaluate the education dimension for all households, not only those with school-age children as is usually done with the traditional unsatisfied basic needs method.

Figure I.8
LATIN AMERICA (17 COUNTRIES): SELECTED BASIC NEEDS, 2000, 2008 AND 2009 [a]
(Percentage of people)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries listed in order of the rating for each basic need, for the latest year on which information is available. The year of the survey used differs from country to country. The period 2000 corresponds to the latest survey available in 2000, and the period 2008 represents the latest surveys available between 2006 and 2008. The year 2009 refers only to data for that year.
[b] Urban area.

Table I.4
LATIN AMERICA (17 COUNTRIES): MULTIDIMENSIONAL AND MONETARY POVERTY RATE, 2009 [a]
(Percentage of persons)

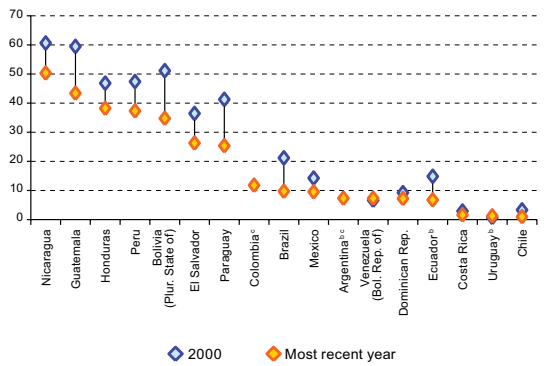
		Multidimensional poverty				
		> 40	30-39	20-29	5-20	0-5
Monetary poverty	> 60	Nicaragua	Honduras			
	45-59	Guatemala	Bolivia (Plurinational State of)	El Salvador Paraguay	Colombia	
	30-44		Peru		Dominican Republic Ecuador [b] Mexico	
	20-29				Brazil Venezuela (Bolivarian Republic of)	
	10-20				Argentina [b]	Chile Costa Rica Uruguay [b]

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Refers to the latest survey available between 2006 and 2009.
[b] Urban area.

Over the past decade, practically all of the countries of the region recorded a reduction in multidimensional poverty rates, with drops of more than 10 percentage points in six cases (see figure I.9). The only cases where multidimensional poverty did not decline was in some countries where rates were below 10% (which is to be expected because some of the indicators used are probably at the minimum threshold level).

The evidence confirms the trend towards improving living conditions. However, this assessment of multidimensional poverty is limited to the material deprivations that household surveys conducted in the region can quantify. To make better use of the multidimensional approach, material deprivations should be assessed along with deprivation in other components of well-being. To do so requires improving the sources of information currently available.

Figure I.9
LATIN AMERICA (17 COUNTRIES): MULTIDIMENSIONAL POVERTY RATE, 2000-2009 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] The year of the survey used differs from country to country. The period 2000 corresponds to the latest survey available in 2000, and the period 2009 represents the latest surveys available between 2006 and 2009.

[b] Urban area.

[c] The surveys available around 2000 do not allow a comparable estimate of multidimensional poverty.

B. Fertility, early emancipation and poverty

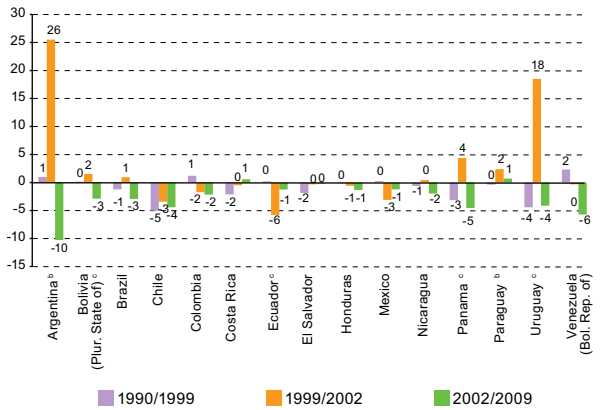
Early initiation of emancipation is a milestone in life for poor young persons. In most of the countries of the region, early fertility among poor mothers is falling at a slower pace than for all mothers. This means that a significant number of women are forming a family prematurely, with scant resources and a heavy child-rearing burden. Institutional disaffiliation (neither working nor going to school) is therefore more frequent among women than among men and for young people from lower-income strata than for their peers who are better off. This situation calls for comprehensive policies that, together, tackle issues involving reproductive outcomes, school dropout rates, emancipation paths and vulnerability to exclusion.

1. Poverty trends among children and adolescents and some of the demographic determinants

In monetary terms, child poverty in Latin America declined significantly between 2000 and 2009; child and adolescent poverty fell in 13 of 15 countries of the region (see figure I.10). Nevertheless, poverty still affects children and adolescents proportionally more than the rest of the population. Between 2002 and 2009, the overrepresentation

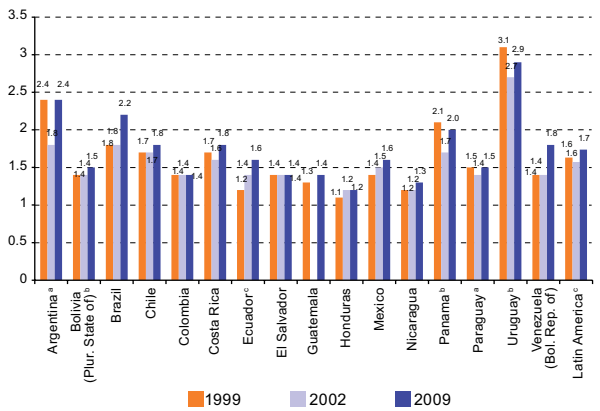
of children and adolescents living in poverty rose from 1.6 to 1.7 (see figure I.11), highlighting the need to better understand the factors and dynamics that are behind child poverty in order to design and implement policies for making substantial headway in bringing the child and adolescent poverty rate down.

Figure I.10
LATIN AMERICA (15 COUNTRIES): CHILDREN AND ADOLESCENTS IN POOR HOUSEHOLDS, 1990-2009 [a]
(Percentage variation of the poverty rate)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Annualized. Obtained by dividing the percentage change in the poverty rate during the period by the number of years in the period.
[b] Metropolitan area. In Argentina, refers to Greater Buenos Aires. In Paraguay, refers to the Asunción metropolitan area.
[c] Urban areas.

Figure I.11
LATIN AMERICA (16 COUNTRIES): RATIO OF CHILD AND ADOLESCENT POVERTY TO THE POVERTY RATE IN THE REST OF THE POPULATION, 1999-2009



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Metropolitan area. In Argentina, refers to Greater Buenos Aires. In Paraguay, refers to the Asunción metropolitan area.
[b] Urban areas.
[c] Simple averages.

One of the keys to understanding the dynamics behind the reproduction of child poverty is to be found in behaviour during the early stages of the life cycle. Particular attention should be paid to reproductive behaviour leading to early fertility. It has been observed that children are highly likely to repeat the reproductive patterns of their parents, and in the poorest families these patterns involve early fertility and more children than the average for all households. It has been suggested that there is a vicious circle whereby poverty is linked to higher and earlier fertility and a heavy child-rearing burden for households that leads back to greater poverty (Carrasco, Martínez and Vial 1997; Paz and others, 2004; Rodríguez, 2006).

A heavy child-rearing burden forces poor families to distribute scarce resources (material and time, among others) among a large number of children and makes it harder for mothers to participate in the labour market. All of this works against overcoming the poverty threshold (Rodríguez, 2006). Poor children develop at a disadvantage in terms of nutrition, health and access to the education system. This erodes their accumulation of human capital and funnels them into precarious jobs that are more poorly paid and generate less household income, thus contributing to the reproduction of poverty in the long run (Paz and others, 2004).

In any event, as child poverty has come down in most of the countries of the region the overall fertility rate has also been declining in recent years. This is in keeping with the behaviour of factors linked to the demographic transition (ECLAC, 2004). In some countries the age at which the first child is born is increasing, especially among younger cohorts with higher school attendance rates (INE, 2006). Fertility rates also differ between socio-economic strata; new reproductive patterns such as an increase in adolescent fertility are appearing (Di Cesare, 2007). The drop in the child and adolescent poverty rate might be due in part to the declining fertility rate among poor mothers. However, this impact might have been offset somewhat by the slower decrease in the fertility rate for poor mothers than for all mothers.

Table I.5 shows the percentage of change, between 1990 and 2009, in poverty rates for children aged 0-5 and for children and adolescents aged 0-15, as well as the fertility rate changes during the same period for four groups: (a) poor adolescent and young mothers; (b) all poor mothers; (c) all adolescent and young mothers; and (d) all mothers. This classification is used to analyse the relationship, over time, between the child poverty rate and early fertility among poor mothers. It is also a criterion for comparing the fertility rate for all mothers, controlling for age.

Table I.5
LATIN AMERICA (16 COUNTRIES): CHANGES IN CHILD AND ADOLESCENT MONETARY POVERTY RATE AND IN FERTILITY RATES, 1990 AND 2009 [a]
(Percentages)

	Poor children aged 0-5	Fertility rate, poor mothers aged 15-24 [b]	Fertility rate, all mothers aged 15-24 [b]	Poor children aged 0-15	Fertility rate, all poor mothers [b]	Fertility rate, all mothers [b]
Argentina	-54	-26	-33	-48	-7	-27
Bolivia (Plurinational State of)	-14	-23	-30	-9	-17	-29
Brazil	-25	-27	-53	-28	-19	-47
Chile	-74	-63	-57	-74	-57	-51
Colombia	-7	-19	-24	-6	-13	-19
Costa Rica	-15	-46	-54	-15	-33	-43
Ecuador	-21	-37	-51	-21	-25	-43
El Salvador	-11	-39	-39	-7	-23	-26
Guatemala	-7	-10	-16	-6	-4	-11
Honduras	-8	-46	-49	-8	-29	-34
Mexico	-9	-37	-49	-16	-34	-43
Nicaragua	-10	-43	-48	-8	-25	-34
Panama	-28	13	-19	-37	-7	-24
Paraguay	17	-23	-27	11	-22	-23
Uruguay	-45	-33	-31	-45	-41	-39
Venezuela (Bolivarian Republic of)	-11	-38	-53	-16	-29	-42
Latin America [c]	-20	-31	-40	-21	-24	-33

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Changes in fertility rates for poor and non-poor mothers were calculated considering a constant overall poverty rate at the value for 1990.
[b] The term "mothers" refers to all women identified as female heads of household or spouses of the head of household.
[c] Simple averages.

In terms of simple averages for the region, table I.5 shows: (a) poverty among children aged 0-5 and among children and adolescents aged 0-15 has come down at very similar rates (by 20% and 21% respectively); (b) the fertility rate for poor mothers has decreased less than for total mothers —both for early fertility (mothers aged 15-24) and for all poor mothers; and (c) the fertility rate decline among the youngest mothers (aged 15-24) is greater than for all mothers. The latter comparison should be interpreted with care because the age group 15-24 has a broader potential fertility horizon than the rest of the mothers simply because they are younger.

As for the link between poverty rates among children aged 0-5 and fertility rates for mothers aged 15-24, in Chile and Uruguay (two of the four countries that brought child poverty down the most) the fertility rate among poor mothers fell more than for all mothers aged 15-24. On the other hand, Argentina (the second most successful country in reducing child poverty) saw the fertility rate for the youngest poor mothers decline less than for all mothers. In Panama, which ranked fourth in reducing child poverty, the fertility rate among poor mothers rose; this was the only case among 16 countries. In Paraguay, the only country where child poverty increased, the fertility rate among poor mothers declined less than for all mothers but the difference was slight (a decrease of 23% versus a decrease of 27%).

From the data in table I.5 it can be deduced that, in four of the five countries where the poverty rate for children aged 0-5 fell the most (Argentina, Brazil, Chile and Uruguay), the simple average decline in the fertility rate for poor mothers aged 15-24 was 37%. For the countries that were least successful at decreasing the child poverty rate (Colombia, Honduras, Guatemala, Mexico and Paraguay), the simple average decrease was 27%. These calculations did not include Panama among the countries with the largest drops in the child poverty rate because the fertility rate among poor mothers aged 15-24 in Panama increased.

Bringing the co-variation of child and adolescent poverty rates and fertility rates among all poor mothers into the picture does not change it substantially. In Chile and Uruguay, fertility dropped more among poor mothers than for mothers overall. Argentina and Panama saw the fertility rate for poor mothers decline far less than for all mothers. In Paraguay —the only country where child and adolescent poverty rose between 1990 and 2009— the decline in the fertility rate for poor mothers and for all mothers was nearly equal.

So, despite positive trends in decreasing child poverty in the countries of the region (linked in some cases to declining early fertility rates among poor mothers), monetary poverty among children and young people is still high. Add to this the fact that early fertility rates among poor mothers aged 15-24 have fallen at a slower pace than for all mothers in the same age group and it emerges that there is still a significant number of mothers who are forming a family prematurely in a context of scant resources and a heavy child-rearing burden.

In short, reproductive outcomes can have a long —and lasting— impact in terms of poverty for mothers and their children. This calls for policies targeting current and future mothers. Among such policy instruments are those that foster (a) postponing the age at which motherhood is initiated; (b) improving access to information on reproduction control; (c) retaining women in the education system; (d) improving the quality of their education to ensure that learning outcomes meaningfully broaden labour opportunities; and (e) making institutions available to provide care for young children, thus making it easier for mothers to attend (or return to) the education system and facilitating their stable participation in the labour market. In other words, poor young women should be offered an attractive, believable and accessible future that does not confine them to motherhood and the domestic world as their only alternatives for gaining a place in society.

The countries should redouble their efforts to guarantee the fundamental rights of the child population, both to bring the poverty rate down and to prevent the reproduction of poverty throughout the life cycle. The States of the region have signed international instruments pledging to ensure the core rights of all children, but this has not happened. According to a rights-based approach to measuring child poverty, 17.9% of the children of Latin America (somewhat more than 32 million) were living in extreme poverty in 2007, that is, they suffered from one or more of the following serious deprivations: precarious housing; overall undernutrition and/or serious chronic undernutrition; lack of drinking water and sanitation in the household; lack of communications and information media; and lack of access to the education system. Forty-five per cent of the child population (nearly 81 million) suffered at least one moderate or serious deprivation (see box I.5).

Box I.5

A MULTIDIMENSIONAL, RIGHTS-BASED APPROACH TO MEASURING CHILD POVERTY

Over the past few years child poverty has come to be seen as a multidimensional issue. From this new vantage point, the lack of monetary income for meeting basic needs is not the only consideration. The lack of access to basic services as well as other factors (such as discrimination and exclusion) that keep children from developing to their full potential and hinder their social integration are also important. One path towards a multidimensional measure of child poverty is the rights-based approach, which requires a broader range of indicators than those habitually used to measure child poverty in Latin America. Along these lines, in 2008 and 2009 ECLAC, in conjunction with the UNICEF Regional Office for the Americas and the Caribbean, conducted the first comparative study of child poverty in Latin America and the Caribbean. This research painted a multidimensional picture of child poverty and established a regional baseline as a benchmark for follow-up rights-based studies on child poverty.

Under the study's multidimensional approach, the poor have unmet needs that are assessed using indicators of levels of deprivation during childhood as first proposed by the University of Bristol and the London School of Economics.[a] This approach is similar to the unsatisfied basic needs method that had already been used in Latin America. This criterion for identifying the poor was compared with the indirect method (more traditional in the region), which defines poverty on the basis of per capita household income. The basis for this was an analysis of available surveys of living conditions in households in the region, providing data for implementing both methodologies.

The deprivation thresholds for the UNICEF global study refer only to the most serious violations of children's rights. To enhance the diagnostic study, the assessment of Latin America and the Caribbean also used thresholds of moderate deprivation, which reflect unmet needs that undermine children's well-being and development. This made it possible to measure the magnitude and depth of extreme child poverty (severe deprivations) and overall child poverty (the sum of severe and moderate deprivations) in the countries of the region.

Under the child rights approach, each deprivation was considered to be an indicator of poverty, since it represents a violation of or failure to comply with at least one right. This methodology considers children poor when any one of their fundamental rights is not met, regardless of geographical location, ethnic origin or other social or cultural characteristics. The thresholds, dimensions and indicators used for the study are set out below.

Thresholds, dimensions and indicators	Moderate	Severe/serious	Article of the Convention on the Rights of the Child that is violated
Nutrition Weight to age ratio Height to age ratio	Moderately/severely underweight (general undernutrition) or moderately/severely undersize for age (chronic undernutrition): less than -2 standard deviations from benchmark	Severely underweight or severely undersize: less than -3 standard deviations from benchmark	24 (2) (c)
Safe drinking water Access to safe drinking water by: - origin - supply - access time (if available)	(a) Origin: well or pump (b) Water supplied from outside or away from the dwelling (for example, public cisterns, water trucks etc.)	(a) Unsafe water source: natural sources (rivers, springs) (b) If indicator of access time to the water source is available, 15 minutes or more	24 (2) (e)

Box I.5 (concluded)

Thresholds, dimensions and indicators	Moderate	Severe/serious	Article of the Convention on the Rights of the Child that is violated
Sanitation Connection to sewage system (excreta disposal)	No sewage connection (for example, cesspools) or access outside of house or beyond land parcel	No sewage service (for example, channelled directly into a river)	24 (2) (c)
Housing Number of persons per bedroom/room Floor material Wall material Roofing material	Crowding: three or more persons per bedroom/room (excluding bathroom and kitchen); dirt floor, unsafe building materials (walls or roof of mud or similar materials)	Overcrowding: five or more persons per bedroom/room, temporary housing (tents, etc.), walls or roofs built with waste materials	27 (3)
Education School attendance and number of years of school completed	Children and adolescents who have attended school but dropped out before completing secondary school	Children and adolescents who have never attended school	28 (1) (a) (b)
Information Access to electricity, possession of a radio, television or telephone	No household access to at least two of: electricity, telephone (landline or mobile), radio or television	No household access to any of: electricity, telephone (landline or mobile), radio and television	13/17

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of E. Espíndola and N. Rico, "La pobreza infantil: un desafío prioritario", *Boletín Desafíos*, No. 10, Santiago, Chile, Economic Commission for Latin America and the Caribbean ECLAC/United Nations Children's Fund (UNICEF), 2010.

[a] In 2003, the United Nations Children's Fund (UNICEF) and researchers from the University of Bristol and the London School of Economics conducted the first rights-based global measurement of child poverty. The study adopted seven dimensions of children's rights as its principle: adequate nutrition, safe drinking water, decent sanitation, health, housing, education and access to information. An indicator was designed for each dimension (Gordon and others, 2003).

2. Emancipation paths, poverty and inequality

The principal assets that people must mobilize if they are to have access to well-being as adults are accumulated earlier in the life cycle. Some of these assets, such as a certain degree of emotional maturity, development of cognitive abilities and social skills, are already put to use in the early years of life. But it is during adolescence and youth that people reach crucial junctures. On the basis of assets already accumulated they must choose between behaviours that lead to different paths to adulthood. Each one of these "emancipation paths" is paved with a series of decisions as to whether to continue school and when to enter the labour market, start a family, set up an autonomous household and have children.[6] For society as a whole, the earlier in the life cycle that the different emancipation paths branch out, the more likely the social divides are to widen.

Decisions as to how and how much to participate in any one of the spheres (education, work, family and parenthood) leave less room for choice as to how and how much to participate in the others. Hence, dropping out of school early restricts choices in the labour market, while the requirements for most jobs limit the possibilities for attending an educational establishment on a regular basis. And taking on domestic responsibilities at an early age is usually incompatible with staying in school. In short, decisions at this decisive stage of life hinge on complex patterns of causation and, once made, contribute to mapping a path of ever-diminishing choices.

Educational attainments are so important in contemporary society that most public policy efforts targeting young people seek to keep them from dropping out of school and to prevent the early assumption of adult roles from leading them to exit the educational system or bar them from returning. Some examples are direct subsidies for attending educational institutions, flexible work hours for young people, day care centres, expanded school schedules, creation of opportunities for training outside the formal educational system and, indirectly, conditional cash transfers. It is harder to act on other factors with a major impact on school desertion, such as signals from the market concerning the value that society attaches to educational attainments and the inertia of traditional symbolic representations that define a place in society for women from lower socio-economic strata by assigning them roles as housekeepers and mothers.

Most public policies in this sphere are grounded in the recognition that poor educational credentials and heavy family responsibilities produce a socially explosive mixture that is fertile ground for high vulnerability to poverty and social exclusion and for the intergenerational reproduction of just such situations. Add to this the negative impact of this mix of precariousness and responsibility and one of the results is the low level of life satisfaction among the 15-to-29-year-olds in Latin America who have children,

[6] Because the scope of the choices an individual can make throughout the life cycle hinges directly on socio-economic status, the options open to adolescents and young people from poor households are usually very limited.

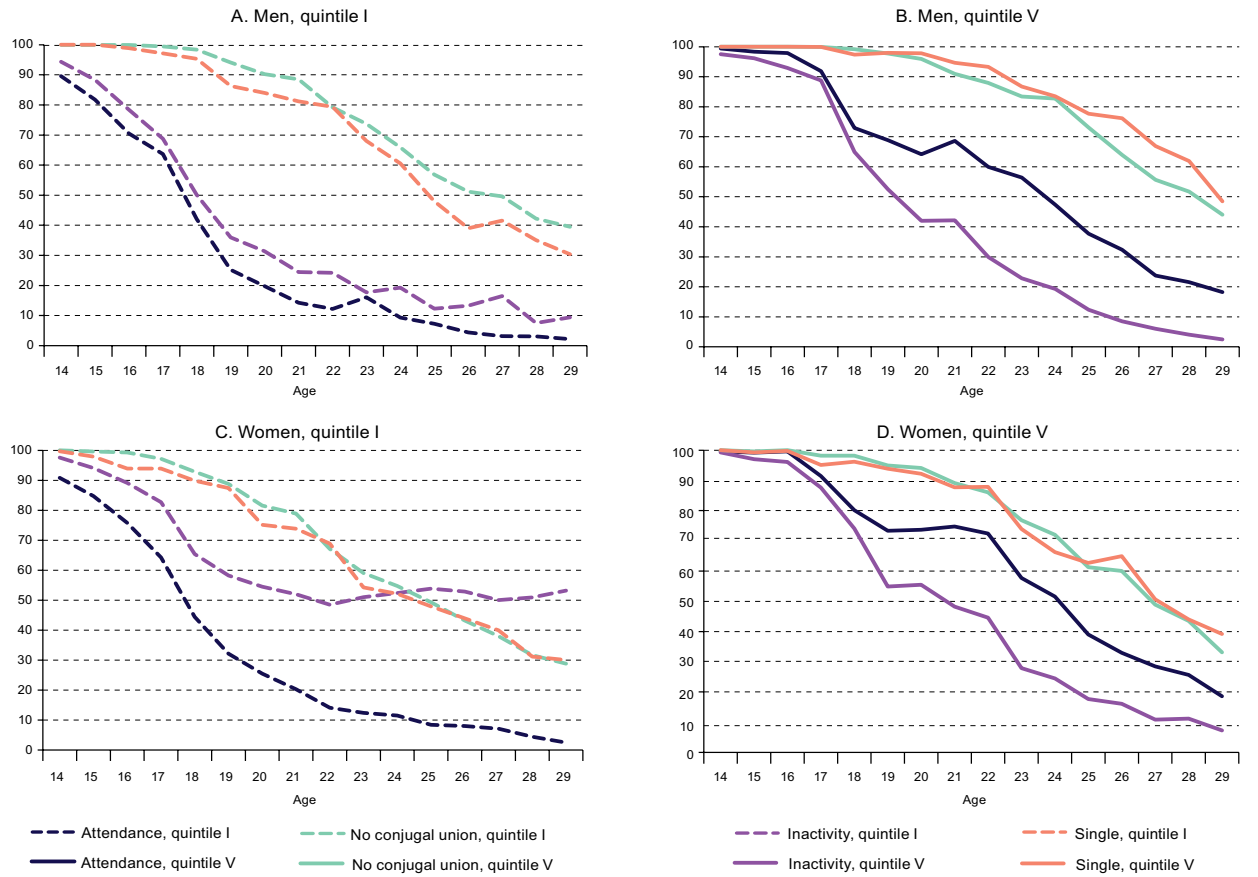
lack a stable partner and must become providers at a very early age without appropriate support for shouldering such responsibilities.

So, emancipation paths vary substantially for young people from different socio-economic strata. In stark contrast with the paths open to middle- and upper-class young people, early emancipation is common among those from low socio-economic strata. In the higher strata, socialization and the availability of material resources facilitate the adoption of patterns of deferred gratification that favour putting off entering the labour market, starting a family or becoming a parent. Even if such postponements might not always be an objective per se, they do reflect a certain ability to adjust to rising educational thresholds for adequate performance in society's principal economic, social and cultural circuits.[7]

(a) Emancipation paths by gender and household income

Early initiation of emancipation is a milestone in life for poor young persons. This is seen more clearly in figures I.12 and I.13, which provide a snapshot of the major differences in the emancipation paths followed by men and women in different social strata according to the demographic and socio-economic characteristics of the country in question.

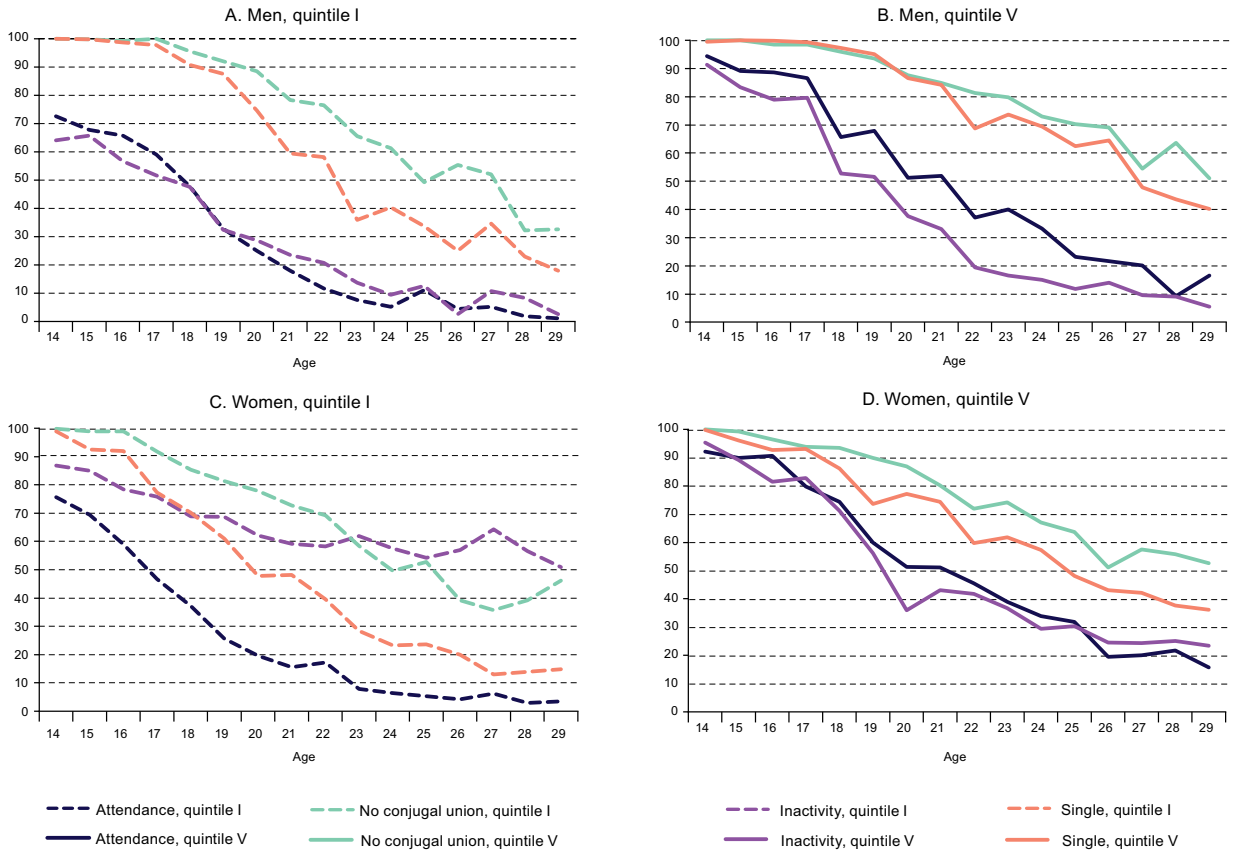
Figure I.12
ARGENTINA, CHILE AND URUGUAY: EMANCIPATION INDICATORS BY AGE AND INCOME GROUP, AROUND 2006 [a]
(Percentages; simple averages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The data for Uruguay correspond to circa 2008.

[7] Nevertheless, the possibility that certain forms of social exclusion can impact those who postpone taking on adult roles beyond the average age of their cohort cannot be ignored. Indeed, once past the upper threshold of the culturally accepted age for initiating emancipation, the social forces pushing for the performance of adult roles become broader and can even be mobilized by the parents themselves, prodding young people to leave the family household. In any event, because such postponement usually involves accumulating human capital, many of the young people who join adult life "late" have a much broader range of alternatives for social inclusion than those who do so early.

Figure I.13
EL SALVADOR, GUATEMALA, HONDURAS AND NICARAGUA: EMANCIPATION INDICATORS BY AGE AND INCOME GROUP, AROUND 2006 [a]
(Percentages; simple averages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The data for El Salvador correspond to 2004, for Guatemala to 2006, for Honduras to 2007 and for Nicaragua to 2005.

Figures I.12 and I.13 highlight the differences between countries by focusing on two groups of societies at the extremes of Latin American heterogeneity in terms of stage of demographic transition and level of educational coverage. The two groups comprise: (a) Argentina, Chile and Uruguay, where the regional context is one of a relatively good education supply, with urbanization, fertility and age structure indicators that place them late in the first stage of demographic transition; and (b) El Salvador, Guatemala, Honduras and Nicaragua, with indices that differ strikingly in both dimensions (Filgueira, Filgueira and Fuentes, 2001).

Figures I.12 and I.13 also show the different emancipation paths for adolescents and young people at opposite poles of the social stratification. To this end, behaviour indicators for persons from households in the highest 20% and the lowest 20% of the income distribution were taken. Figures I.12 and I.13 therefore do not show predominant youth behaviours in the region nor the characteristic patterns for each country. Rather, they underscore the breadth of the challenges that the region faces in keeping emancipation paths from diverging on the basis of gender, class and nationality and thus from contributing to the current trends towards social inequality within and between countries.

A reading of these figures leads to a number of conclusions.

First, there are substantial differences between the country groups in terms of school attendance rates among 15-year-olds, reflecting varying intensities of educational dropout at early stages. At that age, 100% of the adolescents in the highest strata in the first group are still in the educational system. The same is true for some 90% of the adolescents in the low strata. In the second group, on the other hand, the values are approximately 95% in the highest quintile and 75% in the lowest quintile.

In both groups of countries, the emancipation paths are the most different for women in the lower-income

strata, both compared with men and compared with their peers in the higher strata. One of the main features of the paths of the poorest adolescent and young women is that labour participation for poor women does not reach 50% for any of the ages in the 15-29 age bracket. Conversely, in the countries in the second group some 80% of the 29-year-old women in the wealthiest strata participate in the labour market, as do 90% of their peers in the countries in the first group. In other words, the tendency for men and women to participate in the labour market converges in the higher strata while the opposite happens in the lower strata. This difference surely reflects a permanent division of labour within poor families, influenced by the traditional polarity between a private female world and a public male world. This polarity is even more pronounced in countries that have a high ratio of children per adult because they are in the earlier stages of the demographic transition.

The fact that paths for men and women converge in the high-income strata is also indicative of an overlap between labour participation and school attendance. Young people in this stratum have opportunities for engaging in paid activities without giving up their studies; this holds more for men than for women and more for countries in the first group than for the second group. The paths clearly diverge for men and women in the lower strata. Men exchange their status as a student for status as a worker with no overlap between the two, while most women exchange their status as a student for one as a mother, housewife or assistant housewife without passing through the labour market.

The age at which a family is formed (which as a gross approximation is equated here with ceasing to be single) also varies significantly between sexes, classes and national contexts. In the low strata in the second group of countries, half of the 20-year-old women are no longer single. In the first group, this change in civil status for women in the same stratum takes place at age 24. In the highest quintile, women form families at age 25 and age 27 in the second and first groups, respectively. So, while the higher strata in all of the countries clearly postpone the age for forming the first spousal couple (as is characteristic of the second demographic transition), this is still an incipient process among poor women in the countries of the region that are just entering the first demographic transition.

Lastly, a comparison of the curves shows that in many cases forming a family does not coincide with setting up a household of one's own. Only among young people in countries at an advanced stage of demographic transition is ceasing to be single part of the process of gaining autonomy from the family of origin. In all other cases, the autonomy curve traced by variations in the percentage of young people who are heads of household or spouses of heads of household is always above the curve showing the declining percentage of single people. This indicates the existence of new core families without the resources to become independent from the household of origin of one of the spouses.

(b) Young people who neither study nor work

The data on the proportion of young people who are neither studying nor working raise a red flag for the risk of poverty and social exclusion in any society. Strictly speaking, the emancipation path scenario emerging from an assessment of the differences by country, class and sex clearly indicates that young people of the region can be classified into at least three general groups:

(i) Those whose main activity is studying and who, by staying connected to educational institutions for most of this period, maximize the opportunities for accumulating the human capital required for full integration into adult life. This status can coexist (or not) with sporadic or stable participation in the world of work.

(ii) Those whose main activity is work and who have left the educational system early. In certain conditions, labour experiences can mitigate the risk of lack of well-being in the future caused by leaving school early and can facilitate the insertion of dropouts in society. This is particularly the case with the kinds of productive insertion that provide ongoing training, job stability, labour union membership, benefits and social security. However, recognizing that the likelihood of access to such opportunities varies inversely with the levels of qualification attained highlights the importance of efforts to prevent early dropouts.

(iii) Those who drop out of the educational system early and fail to achieve labour market insertion. As for the likelihood of full integration into adult life, there is no doubt that the longer the period of disaffiliation from the principal institutions that shape the passage to adulthood (education and work), the greater the danger of social exclusion. As discussed in the foregoing analysis of the figures on emancipation paths, men and women face different situations and risks merely because many poor young women have no attractive, believable and accessible options for joining society other than motherhood and confinement to the domestic world.[8]

[8] The number of categories of institutional affiliation/disaffiliation can expand to differentiate between risky and precarious affiliation. In the case of education, for example, this would make it possible to identify the relative weight of young people with significant lags. And for the labour market, it would be possible to differentiate between formal and informal workers and between those who are looking for work and those who are not. Fluid changes in employment status are one of the most salient characteristics of youth.

Table I.6
LATIN AMERICA (SEVEN COUNTRIES): POPULATION AGED 15-29 NEITHER STUDYING NOR WORKING BY AGE GROUP, INCOME QUINTILE AND COUNTRY GROUPING, AROUND 2006
(Percentages)

	First country grouping (Argentina, Chile and Uruguay)							
	Male				Female			
	15-19 years	20-24 years	25-29 years	15-29 years	15-19 years	20-24 years	25-29 years	15-29 years
First quintile	23.5	34.7	22.5	26.2	30.8	59.5	64.2	47.6
Fifth quintile	6.3	5.6	3.7	5.0	5.8	8.5	10.0	8.3
	Second country grouping (El Salvador, Guatemala, Honduras and Nicaragua)							
First quintile	10.0	13.4	12.5	11.6	56.1	77.3	73.6	67.2
Fifth quintile	6.5	8.2	7.0	7.3	15.0	24.7	25.3	21.7

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

The data on the relative weight of the group of young people who neither study nor work are a danger sign for the risk of marginalization and social exclusion in any society. Table I.6 provides a simplified view of the relative weight of this population category among adolescents and young people from households at opposite extremes of the income distribution. As with the figures analysed above, only two groups of countries are considered, classified on the basis of where they are in the demographic transition and the extent of educational coverage of the population.

Reading the data in the table leads to some broad conclusions.

First, disaffiliation from the principal public institutions is more frequent among women than among men and for lower-income young people than for their peers at the other extreme of the distribution.

Moreover, the percentage of institutional disaffiliation among poor men in the group of countries at a later stage in the demographic transition (first group) is twice to three times the percentage for young men in the lower strata in the second country group. These data might be the combined result of at least three trends. First, the relative development of countries is associated with less willingness on the part of young people to accept low-paying, unstable jobs with little or no protection. A second trend that could be contributing to the social disaffiliation of young men in the second country group is the rapid overall raising of the qualification thresholds for accessing good jobs. And a third trend, already reflected in figures I.12 and I.13, is that even with low participation rates for women in the first quintile, these rates are higher in the more developed countries than in the less developed countries of the region. A larger number of women in the market means they are competing with men for access to low-skill jobs; this could be undercutting job opportunities for men.

Lastly, in the less developed countries of the region, young women in the higher strata who neither study nor work but surely perform traditional domestic tasks still outnumber their peers in more developed countries by more than three to one.

C. Subjective well-being, living conditions and life cycle: Latin America and other regions of the world

National life satisfaction averages in the countries of Latin America are far higher than what would be expected on the basis of per capita GDP, and the gaps in subjective well-being associated with monetary income are narrower than would be expected in view of the distributive inequality in the region. In Latin America, life dissatisfaction is more likely among persons aged 60 and older in the worst socio-economic situation, among 17-to-29-year-olds with children and among persons without a stable partner. Policies should thus take into consideration the difficulties associated with ageing without the necessary economic resources, as well as the problems arising from taking on the roles of provider and child caregiver early in conditions of greater vulnerability.

Previous sections of this chapter have shown that Latin America is increasingly in need of moving towards a broader view of poverty and well-being that both incorporates and goes beyond the monetary dimension. The reasoning behind incorporating the subjective dimension in an assessment of well-being is a matter of general discussion. The answer lies in conceptual and normative reflection and in examining the empirical behaviour of the subjective indicators. This brings relevance to empirical studies analysing how expressions of subjective well-being are linked to objective living conditions in Latin America.[9]

In Latin America, unlike in developed countries, there have been few studies of the relationship between living condition indicators and subjective measurements of well-being.[10] From the empirical antecedents available, Diener (2000) and Inglehart and others (2008) found that, compared with other regions, average life satisfaction in the countries of Latin America was higher than to be expected on the basis of degree of wealth. But these conclusions were drawn from a limited number of countries and observations over time.[11] Nor have there been systematic studies on the region linking subjective well-being to indicators of an individual's life-cycle position and associated tasks, or comparing this relationship with observations elsewhere in the world.

This section therefore looks at the relationship between life satisfaction and income indicators (GDP per capita and household income, in this case), comparing Latin America and other regions cross-sectionally and over time. This analysis seeks to confirm, on the basis of the largest possible number of countries and observations, whether subjective well-being in Latin America is higher than would be expected on the basis of GDP per capita. It also examines the relationship between subjective well-being and indicators for the position and responsibilities of men and women in different stages of the life cycle (age, civil status and number of children), controlling for household monetary income and comparing the findings with other regions of the world.

1. Empirical antecedents

Researchers who first analysed subjective well-being focused on identifying external conditions (like income per capita) that could lead to more satisfactory lives. One of the most influential studies was conducted by Easterlin (1973, 1974), who observed that countries with the largest increments in GDP had stable levels of subjective well-being over time. These findings were corroborated by other research. For example, Frey and Stutzer (2002) noted that gains in subjective well-being level off once GDP per capita tops US$ 10,000, and Diener and Biswas-Diener (2002) found that the correlation between income and subjective well-being is far smaller in more developed countries. Diener and Suh (1999) observed a correlation of 0.62 between mean purchasing power[12] and life satisfaction in the countries under review. But they did note outliers like Japan (high income and low subjective well-being) and poor countries whose population did not report extremely low satisfaction levels.

The past few years have yielded evidence of a stronger relationship between income and subjective well-being at the country level. Boarini, Johansson and Mira d'Ercole (2007) note that the tendency for satisfaction to level off at high levels of GDP is less clear when considering Organization for Economic Cooperation and Development countries only, and that how these factors are linked depends on the countries evaluated and the measure of income used. Stevenson and Wolfers (2008) and Inglehart and others (2008) propose that there was an increase in subjective well-being in many countries associated with an increment in income. But Diener and others (2010) suggest that research outcomes vary and conclusions are based on uncertain statistics; Easterlin (2005) stresses that many countries saw increases in income without rising subjective well-being and that these disparate trends indicate that factors other than income influence life satisfaction. According to Stevenson and Wolfers (2008), the more

9 See the most recent editions of *Social Panorama of Latin America* (ECLAC, 2007, 2008a and 2009) and ECLAC (2010d).

10 This interest in the relationship between objective and subjective well-being is a long-standing one in the developed world. The first systematic studies of life satisfaction began in the 1950s (Keyes, Ryff and Shmotkin, 2002).

11 Diener (2000) is based on data for Argentina, Brazil and Chile; Inglehart and others (2008) analyse evidence from 12 countries of Latin America and 2 countries in the Caribbean (4 of them with a single observation).

12 Refers to the ability to purchase a standard basket of goods that an average person in each country can afford on his or her annual income, expressed as a percentage of the mean purchasing power of individuals in the United States. Indicator constructed on the basis of information provided by the World Bank.

time series and countries become available the stronger the evidence is that happiness increases along with GDP.

The pattern is similar for the relationship between income and life satisfaction at the individual level: income has a positive but varying impact, and there are striking differences in how individuals turn income into well-being. In the slums of Calcutta, the ratio between income and life satisfaction was 0.45 (Diener, Oishi and Lucas, 2003). On the other hand, most studies in Europe show a positive but weak relationship between income and satisfaction (Dolan, Peasgood and White, 2008). In the United Kingdom of Great Britain and Northern Ireland, Shields and Price (2005) observed that 1% of the variance in subjective well-being was explained by income. Moreover, longitudinal studies show that changes in income are not followed by equivalent changes in subjective well-being and that different individuals do not transform income into well-being in the same way (Clark and others, 2005).[13]

The research identified variables other than income that are associated with subjective well-being. Notable among these are employment status, education and physical health, as well as factors showing the subjects' position in the life cycle. Among these are age, civil status and responsibilities in caring for other household members (Dolan, Peasgood and White, 2008). Concerning age, studies in developed countries have found a U curve where the highest levels of subjective well-being are among the youngest and oldest age groups and the lowest levels are in the intermediate age groups (Dolan, Peasgood and White, 2008; Shields and Price, 2005). As for civil status, being married is associated with the highest level of subjective well-being and being separated with the lowest level (Helliwell, 2003; Shields and Price, 2005). The time spent on activities related to the economy of care is associated with lower levels of happiness and more symptoms of depression (Dolan, Peasgood and White, 2008).

2. Life satisfaction and income indicators

Figure I.14 sets out the results of a study linking national average life satisfaction and GDP per capita in countries of Latin America and the Caribbean and in other regions for the period 1981-2008. For most of the countries and years, both for Latin America and the Caribbean and for the rest of the countries, life satisfaction data are from the World Values Survey (WVS). To have more cases, the series for Latin America was completed with data from the 2007 round of the Latinobarómetro survey for 10 countries of the region. The logarithm of GDP was used instead of GDP in United States dollars because changes in subjective well-being will be associated more with relative variations in living conditions (Kahneman and Deaton, 2010).[14]

The results set out in figure I.14 indicate that, worldwide, life satisfaction is correlated to GDP per capita. National life satisfaction averages rise significantly as GDP per capita increases (measured in logarithms).[15] The national life satisfaction averages for the countries of Latin America seem to be far higher than their GDP per capita, not only because they exceed the scores in countries of Eastern Europe and Asia but also because they are comparable with national averages in the countries of Western Europe, North America and Oceania.

One way to determine with greater certainty whether Latin Americans are more satisfied with life than their GDP per capita would suggest is to analyse the residuals of an ordinary least squares regression model with the subjective well-being indicator as the dependent variable and GDP per capita as the independent variable, where the residuals are equivalent to the distance between the value predicted by the equation and the observed value. The results of this analysis are set out in figure I.15, which shows that Latin America and the Caribbean have the highest average positive residuals (average of 0.92). This means that the countries of the region have satisfaction levels that are higher than would be expected on the basis of GDP per capita.[16] The exact opposite is found in Eastern Europe (average of -0.96). The differences between Latin America and the Caribbean and the other regions, particularly Eastern Europe, are statistically significant.

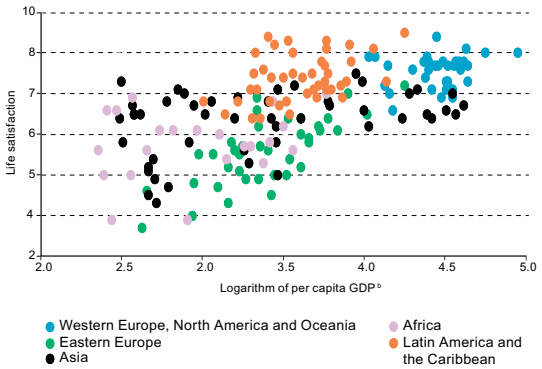
[13] This study was based on three rounds of the European Community Household Panel (1994 to 1996) on the basis of a sample of 109,425 cases (36,475 subjects for each round in 12 countries).

[14] Logarithmic transformation can represent a regular quantitative perception of physical stimuli. It has an experimental basis known as Weber's law. The rule is that the effective stimulus for perceiving and evaluating changes in the environment is proportional (not absolute) change. A US$ 100 wage hike would therefore not have the same significance for a company manager as for someone earning the minimum wage, but doubling the wages of both individuals should have a similar perceived impact for both subjects (Kahneman and Deaton, 2010). The problem is that individuals can evaluate the same stimulus on the basis of differential thresholds in different sociocultural contexts.

[15] P = 0.000*** (statistically significant difference at the 99.99% level).

[16] The average residuals for Latin America and the Caribbean without the Latinobarómetro data are slightly lower, suggesting that part of the deviation for Latin America could be due to the small number of observations.

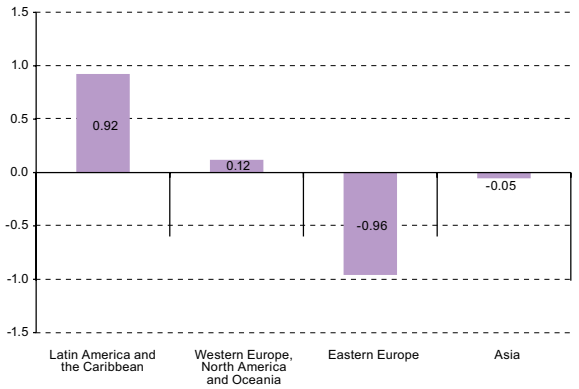
Figure I.14
LATIN AMERICA AND THE CARIBBEAN (20 COUNTRIES) AND OTHER REGIONS: LIFE SATISFACTION BY PER CAPITA GDP, 1981-2008 [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database, 1981-2008; the Latinobarómetro survey for 2007; World Bank, World Development Indicators [online] http://data.worldbank.org/indicator; information on per capita GDP of the relevant countries, 1981-2008.

[a] Average values on a life satisfaction scale from 1 to 10 where 1 is very unsatisfied and 10 is very satisfied.
Western Europe, Noth America and Oceania: Andorra, Australia, Canada, Cyprus, Finland, Germany, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom and United States. Eastern Europe: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Montenegro, Poland, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia and Ukraine. Asia: Armenia, Azerbaijan, Bangladesh, China, Georgia, Hong Kong Special Administrative Region of China, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kyrgyzstan, Malaysia, Pakistan, Philippines, Republic of Korea, Saudi Arabia, Singapore, Thailand, Turkey and Viet Nam. Africa: Algeria, Burkina Faso, Egypt, Ethiopia, Ghana, Mali, Morocco, Nigeria, Rwanda, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. Latin America and the Caribbean: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Puerto Rico, Trinidad and Tobago and Uruguay.
The Latinobarómetro data were used to estimate life satisfaction in 2007 in the following countries: Bolivarian Republic of Venezuela, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Nicaragua, Panama, Paraguay and Plurinational State of Bolivia. The question used by Latinobarómetro is not 100% comparable with the WVS question because the Latinobarómetro survey used a scale from 1 to 10 and the WVS has been using a scale from 1 to 10 since 1981. Accordingly, the Latinobarómetro scores were corrected by increasing the national average by one point.
Log (10) values: 2.5 = US$ 314 per capita; 3 = US$ 1,023 per capita; 3.5 = US$ 3,157 per capita; 4 = US$ 9,913 per capita; 4.5 = US$ 32,040 per capita.

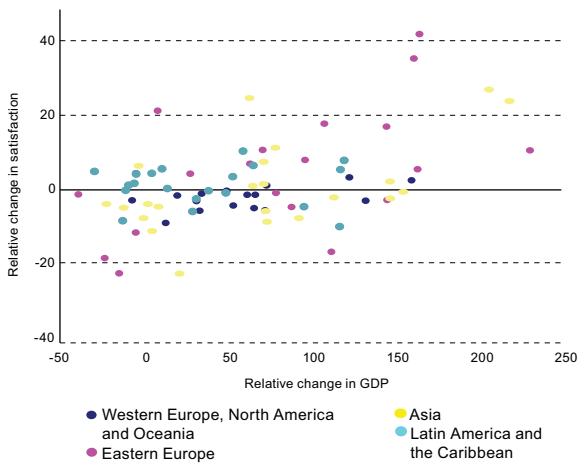
Figure I.15
LATIN AMERICA AND THE CARIBBEAN (20 COUNTRIES) AND OTHER REGIONS: ORDINARY LEAST SQUARES REGRESSION RESIDUALS FOR LIFE SATISFACTION AND PER CAPITA GDP, 1981-2008 [a]
(Standard deviation units)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database, 1981-2008; the Latinobarómetro survey for 2007; World Bank, World Development Indicators [online] http://data.worldbank.org/indicator; information on per capita GDP of the relevant countries, 1981-2008.

[a] Average difference between expected and observed values. Significance of differences between Latin America and the Caribbean and the other regions: p Eastern Europe = 0.000***; p Asia = 0.000***; p Western Europe, North America and Oceania = 0.001**. From post-hoc Scheffe comparisons.

Figure I.16
LATIN AMERICA AND THE CARIBBEAN (NINE COUNTRIES) AND OTHER REGIONS: CHANGES IN LIFE SATISFACTION AND GDP PER CAPITA, 1981-2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database, 1981-2008; the Latinobarómetro survey for 2007; World Bank, World Development Indicators [online] http://data.worldbank.org/indicator; information on per capita GDP of the relevant countries, 1981-2008.

[a] Latin America and the Caribbean: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Mexico, Peru, Puerto Rico and Uruguay. Western Europe, North America and Oceania: Australia, Canada, Finland, Germany, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom and United States. Eastern Europe: Albania, Belarus, Bosnia and Herzegovina, Czech Republic, Hungary, Montenegro, Poland, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia and Ukraine. Asia: Bangladesh, China, India, Indonesia, Iran (Islamic Republic of), Japan, Jordan, Philippines, Republic of Korea, Turkey and Viet Nam.

The analysis in figures I.14 and I.15 associates life satisfaction and GDP per capita in a cross-sectional fashion and cannot be used to examine the relationship between changes in GDP and variations in satisfaction levels or to compare trends across regions. This latter analysis is set out in figure I.16, which shows that changes in GDP per capita are significantly associated with changes in national satisfaction averages.[17] In this case, the percentage of variance explained is smaller than in the cross-sectional analysis. However, a smaller number of observations was available for the change analysis.

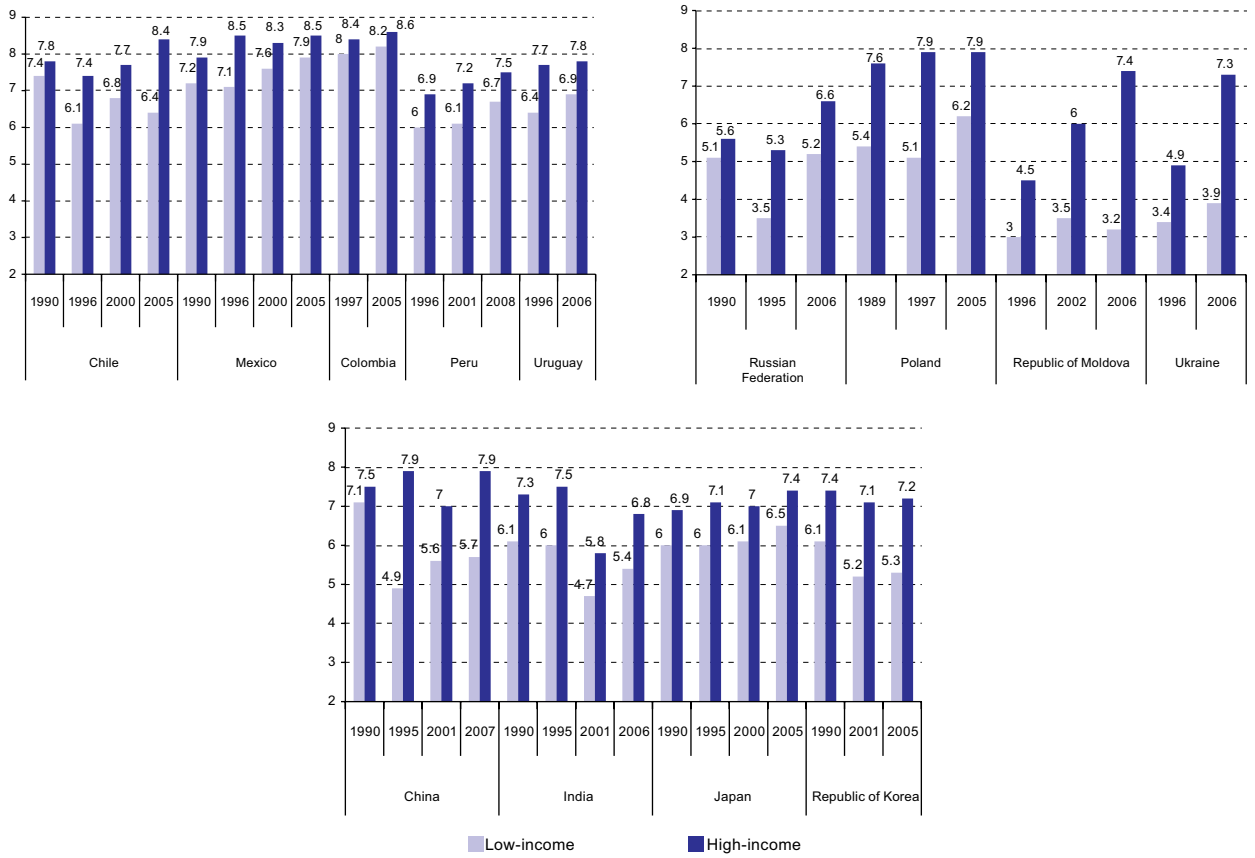
[17] Adjusted R-squared=0.20; standardized beta coefficient=0.457; p=0.000*** (significant at the 99.9% level).

The greatest coincidence of the direction of change for GDP per capita and for life satisfaction is in Eastern Europe. The smallest coincidence is in Western Europe, North America and Oceania, where the greater number of observations show a rising GDP and a small decline in satisfaction. In Latin America and the Caribbean, several points on figure I.16 show a convergence between the direction of changes in GDP and in life satisfaction. But there are counter-intuitive situations, such as satisfaction rising when per capita GDP is falling, or increases in GDP while life satisfaction is declining.

Measuring relative household monetary income also reveals these regional differences in behaviour of the subjective well-being indicator over time. This has the additional advantage of showing the evolution of differences in satisfaction among monetary income groups, taking into consideration recent historical events in the countries and regions (such as economic or political crises).

Figure I.17 shows that over the past two decades life satisfaction levels in Latin America have been higher and more stable than in Asia and Eastern Europe and that the satisfaction gaps between lower and higher monetary income groups are less marked than in the other regions. The fact that income differences have such a slight influence on life satisfaction brings into question the impact of objective inequality on subjective well-being in the countries of Latin America.[18]

Figure I.17
LATIN AMERICA (FIVE COUNTRIES), EASTERN EUROPE AND ASIA: LIFE SATISFACTION IN HIGH- AND LOW-INCOME GROUPS, 1990-2008 [a]
(1 = very unsatisfied; 10 = very satisfied)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database,1981-2008.
[a] The measure of income is based on self-reported income classified in 10 steps or groups, arranged from lowest to highest relative income. The classification, from the World Values Survey, defines income brackets as appropriate for the realities of each country. For reasons of sample size, this exercise used a recoding of the income groups originally defined in the World Values Survey. Steps 1 and 2 in each country refer to the low-income group, while steps 5-10 refer to the high-income groups of the population.

[18] After all, Latin America and the Caribbean is among the regions of the world with the highest distributive inequality, and perceptions of distributive injustice are widespread in the region (ECLAC, 2010d).

One possible interpretation is that in Latin America inequality is so firmly rooted in the population that it has lost relevance for subjective well-being, while in Eastern Europe the depth of change (not only in the economy but in life in general) since the fall of the Berlin wall might have triggered so many new stimuli that the population would have needed to draw on significant psychological and other resources to deal with the changes.[19] In other words, the happiness system would be more a reflection of changing circumstances than of their desirability (see box I.6).

Another possible interpretation is that drastic changes in the environment can significantly alter expectations. In Eastern Europe, then, expectations for greater well-being after the fall of the Berlin wall could have been generally low. But the collapse of the old order and the opening of a window on developed-country levels of consumption might have brightened expectations that subsequently went unfulfilled because of the crisis that hit Eastern Europe in the mid-1990s. A comparable case in Latin America would be Chile, where high life satisfaction among low- and high-income groups in 1990 could have been linked to the advent of democracy. But it would seem that the expectations of lower-income groups were not fully met, as figure I.17 shows.[20]

Box I.6
MEASURING SATISFACTION AND HAPPINESS

The field of hedonic psychology seeks valid and reliable approaches to the concept of utility that indicate how individuals rate life experiences as pleasant. The most frequently used measures of subjective well-being are obtained from population surveys, where the interviewees answer general retrospective questions on well-being (life satisfaction or happiness). These reports tend to tie in with other measures of subjective well-being, which suggests a certain degree of validity (Diener and Tov, 2005). But such measures have been challenged, based mainly on issues of interpersonal comparability.

1. Adaptation

Adaptation is the adjustment of the intensity of response to stimuli repeated over time. This objection is among those most frequently mentioned in the non-psychological literature (see, for example, Sen, 1985). The problem is that if people adapt to their circumstances and adjust their expectations, individuals living in very different conditions will score equally high for subjective well-being. Brickman and Campbell (1971) proposed that human beings are trapped on a "hedonic treadmill", meaning that they can do little to change their levels of satisfaction over time because adaptation is inevitable and no single circumstance could lead to lasting changes in satisfaction. Individuals would therefore revert to a neutral position after any significant emotional event (Diener and Tov, 2005).

The hedonic treadmill theory is based on a model in which psychological systems react automatically to deviations from their adaptation level. In these processes, a repeated stimulus loses relevance and this frees up resources for reacting to new stimuli. So, the "happiness system" would be more a reflection of changes in circumstances than of their desirability. Brickman, Coates and Janoff-Bulman (1978) provided early empirical support for the hedonic treadmill model when they concluded that lottery winners were no happier than losers and that paraplegics were not substantially unhappier than people who can walk. However, the following observations have been made over the past few years: (a) there is no neutral set-point (people are happy most of the time); (b) set-points vary between individuals and dimensions of well-being; (c) happiness changes over time; and (d) adaptation is not universal —there are types of pleasure and pain to which individuals do not adapt (Diener, Lucas and Scollon, 2006; Kahneman and Sugden, 2005).

2. The failures of affective forecasting

An individual's predictions of experienced utility are subject to systematic error because people do not consider how hedonic adaptation to new circumstances will influence future levels of well-being. Moreover, individuals tend to exaggerate the importance of their current focus of attention. Hence, although human beings are trapped on a hedonic treadmill they believe that they are improving their well-being. The systematic failure of affective forecasting lies in the fact that people incorrectly predict future happiness (Kahneman and Sugden, 2005).

3. Memory bias

Memories are influenced by expectations and mood; in some cases individuals block out some experiences and exaggerate others. Such bias is especially present in reports based on general retrospective evaluations (example: how satisfied are you with your life as a whole) in which the subjects average the well-being they obtain from certain activities or domains. By contrast, when subjects report on their mood immediately (online), few memory biases are operating because the individual is reporting emotions and cognitions right then. Indicators based on general retrospective questions are modestly reliable for estimating an individual's current well-being (Diener and Tov, 2005; Kahneman and Sugden, 2005).

4. Social comparison

Self-ratings of well-being are based more on the relative status of individuals than on any absolute level of consumption or well-being. Wood (1996) holds that social comparison is a thought process based on the observation of similarities and differences with other individuals and that the focus of comparison is not determined on the sole basis of proximity or accessibility of other relevant factors. It was initially proposed that an individual should be happy if relevant others are worse off, and unhappy if relevant others are better off (Diener and Fujita, 1997). According to Brown and Dutton (1995), individuals compare themselves with others when they think that the comparison will make them

[19] In sociological terms, this equates to a more general interpretation of psychological malaise informed by Durkeim's anomie and not by Marx's theory of alienation. For an explanation of the differences between these two approaches, see ECLAC (2008a).

[20] This could be an affective forecasting issue because Chile systematically improved its objective living conditions indicators between 1990 and 2006.

Box I.6 (concluded)

feel good and avoid comparisons when they believe comparisons will make them feel bad. Lyubomirsky and Ross (1997) observe that happy individuals tend to compare themselves down and unhappy individuals tend to compare themselves both up and down.

5. Personality factors

There is evidence that personality is a powerful predictor of subjective well-being (Diener and others, 1999). Costa and McCrae (1980) found links between extraversion and positive affect and between neuroticism and negative affect. This was confirmed by subsequent studies and explained by the joint operation of genetic, biological, psychological and social mechanisms (Diener and others, 1999). The problem is that because of their correlation with personality traits, measures of well-being could reflect individual differences beyond the reach of policies. Moreover, the observed differences in subjective well-being might not be due to living conditions but rather to individual predisposition. In any event, while personality explains part of subjective well-being, living conditions are also an influence (Schmutte and Ryff, 1997; Dolan, Peasgood and White, 2008).

6. Cultural differences

Culture shapes the world vision and affects how individuals evaluate their circumstances and life experiences. These differences may be expressed in differing concepts of happiness or satisfaction, in the use of different kinds of information and even in different forms of self-conceptualization associated with specific cultural norms. For example, while internal emotional experience (the balance between positive and negative affect) predicts life satisfaction in individualistic cultures (Sweden or the United States of America), in more collectivistic societies like China or India life satisfaction is associated more with social norms (Suh, Diener and Updegraff, 2008).

7. Issues with operationalization and measurement

Questions about life satisfaction are ordinal and have upper and lower limits. A life satisfaction score of 6 on a scale of 1 to 10 does not mean that the individual is twice as satisfied as another individual with a score of 3. For this reason it has been recommended that ordinal regressions be used instead of ordinary least squares procedures, even though recent research showed that this had little effect on findings (Clark and others, 2005). Other problems have to do with the order of questions (some items can stress some aspects of life over others) and the differential use of scales (some individuals may tend to use the extreme numbers while others may prefer the intermediate numbers) (Diener and Tov, 2005).

Source: Economic Comission for Latin America and the Caribbean (ECLAC).

In any event, the reasons why Latin America is a subjective well-being outlier should be researched more thoroughly. Some hypotheses concern the effect of cultural factors such as religion (Inglehart and others, 2008) and the high levels of social support and social closure that characterize Latin American societies (Diener and Tov, 2005). It has also been suggested that the consolidation of democracy in the countries of the region increased perceived freedom and led to a rise in subjective well-being in Latin America (Inglehart and others, 2008).[21]

There are methodological issues as well, such the effect of cultural differences on self-evaluations of well-being and how people respond to surveys. One possibility is that in Latin America life satisfaction, as one of the cognitive components of subjective well-being, is more strongly correlated to the emotional aspects of well-being (like happiness) than in other regions and is less correlated to income.[22] However, the available data point in exactly the opposite direction (see table I.7).

Table I.7
LATIN AMERICA AND THE CARIBBEAN (11 COUNTRIES) AND OTHER REGIONS: CORRELATION BETWEEN LIFE SATISFACTION AND HAPPINESS, 1981-2008

	Latin America and the Caribbean [a]	Eastern Europe [b]	Continental Europe [c]	Anglo-Saxon countries [d]	Nordic countries [e]
Correlation ratio	0.359	0.488	0.554	0.520	0.519
Sample size	39 980	31 341	9 841	12 831	8 115

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey 1981-2008.
[a] Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Peru and Uruguay.
[b] Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation and Ukraine.
[c] France, Germany, Netherlands and Switzerland.
[d] Australia, New Zealand, United Kingdom and United States.
[e] Finland, Norway and Sweden.

[21] The consolidation of democracy is framed by a theory of cultural change tied to modernization.

[22] For further details on the dimensions of subjective well-being and their relationship to measures of monetary income, see Diener, Kahneman and Heliwell (2010) and Kahneman and Deaton (2010).

3. Satisfaction and life cycle

This section looks at the relationship between subjective well-being and indicators for the position of men and women in the life cycle (age, civil status, number of children), comparing Latin America with other regions according to the welfare regimes they have in place. For the developed countries, the typology proposed by Esping-Andersen (1990) is used, distinguishing between liberal, conservative and social democratic regimes.[23] Latin America and Eastern Europe were analysed as separate groups, with two elements in common: neither region is, strictly speaking, a "mature" welfare regime, and both are developing regions.[24]

The first phase of the analysis identified how life-cycle factors affect life satisfaction and compared the findings by region and welfare regime. A more exhaustive analysis followed, including the life-cycle factors most associated with life satisfaction in the first stage. This second analysis sought to identify interactions between life-cycle factors and living conditions because, for example, the effects of age on life satisfaction might not be the same at different levels of monetary income. To ensure sufficient sample sizes, all of the World Values Survey rounds available for the selected countries between 1981 and 2008 were used, although most of the cases are in the 1990-2008 segment.[25]

From the first phase of the analysis, perhaps the most interesting finding from a life-cycle viewpoint is the association between age and subjective well-being. The U-shaped pattern described in the literature (showing higher levels of satisfaction at younger ages and in older adults) is seen in the Nordic countries and does not strictly hold for continental Europe or the Anglo-Saxon countries, because the youngest are less likely to be satisfied than older persons are. The U pattern does not hold in Eastern Europe either, because young people there are significantly more likely to be satisfied than are older persons. No age effect is seen in Latin America (see table I.A-1 in the appendix).

Although the U-shaped pattern does not strictly apply for most of the regions, in almost all of the groups of countries analysed (except for Latin America) the likelihood of satisfaction declines in the intermediate age groups (30-44 and 45-59). This is regardless of the welfare regime in place and could be a reflection of the tensions and burdens that characterize this stage in life, when intermediate-age adults must be providers as well as care for dependants in the household.

As for the association between gender and life satisfaction, the regression analysis shows no significant relationship in Latin America or Eastern Europe, while there is one in the more developed countries regardless of the specific welfare regime in place. In the Nordic countries and the Anglo-Saxon countries and in continental Europe, the likelihood of life satisfaction is significantly lower among men than among women (see table I.A-1 in the appendix). This could be an expression of malaise in societies that have undergone major changes in gender role models, with growing levels of autonomy for women.

Being married, being in a shared living arrangement or having a partner significantly increase the likelihood of being satisfied with life compared with being single, separated, divorced or widowed, both in Latin America and the rest of the regions. Not having children reduces the likelihood of life satisfaction in the Nordic countries and in continental Europe, but —unexpectedly— this does not have the same effect in Latin America.

What has been presented up to now is the outcome for the principal effects. From here on the focus will be on the relationship between subjective well-being and life-cycle indicators —this time to research interactions. First comes an examination of the relationship between age and subjective well-being, controlling for household monetary income. Then the focus will shift to the association between life satisfaction and such factors as civil status, number of children and age. For the latter, the universe is limited to the working-age population (age 17-59).

Figure I.18 shows that the age effect differs among monetary income brackets in all of the country groups. Strictly speaking, in the more developed countries the U-shaped pattern is found only among individuals living in the lowest-income households, while in Latin America the life-satisfaction gap linked to income bracket is wider among individuals aged 60 or older. In Eastern Europe, life-satisfaction levels fall off consistently after age 30-44.

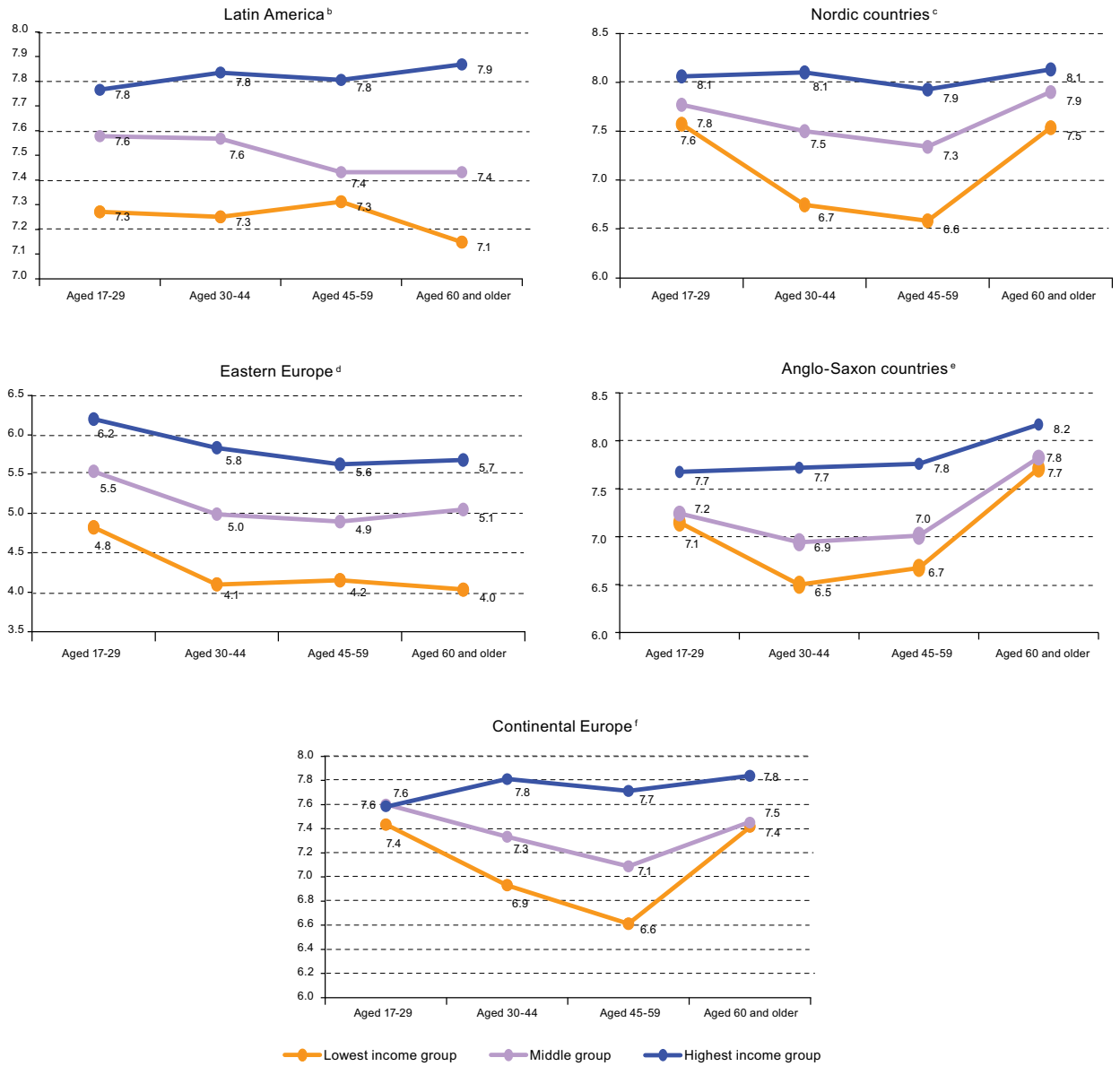
---

[23] These correspond to the Anglo-Saxon countries, the countries of continental Europe and the Nordic countries, respectively. The classification is based on criteria such as the degrees of commodification (dependence or not on market income to maintain an acceptable standard of living) and defamiliarization (emancipation of women from work related to the economy of care in the household) in the countries.

[24] Regardless of any specific welfare configurations in the countries of Latin America and Eastern Europe.

[25] Respectively, 93.1% in Latin America; 90.5% in the liberal Anglo-Saxon countries; 86% in the countries of continental Europe; 87.7% in the Nordic countries; 92.7% in Eastern Europe.

Figure I.18
LATIN AMERICA (11 COUNTRIES) AND OTHER REGIONS: LIFE SATISFACTION BY AGE AND MONETARY INCOME, 1981-2008 [a]
(1 = very unsatisfied; 10 = very satisfied)

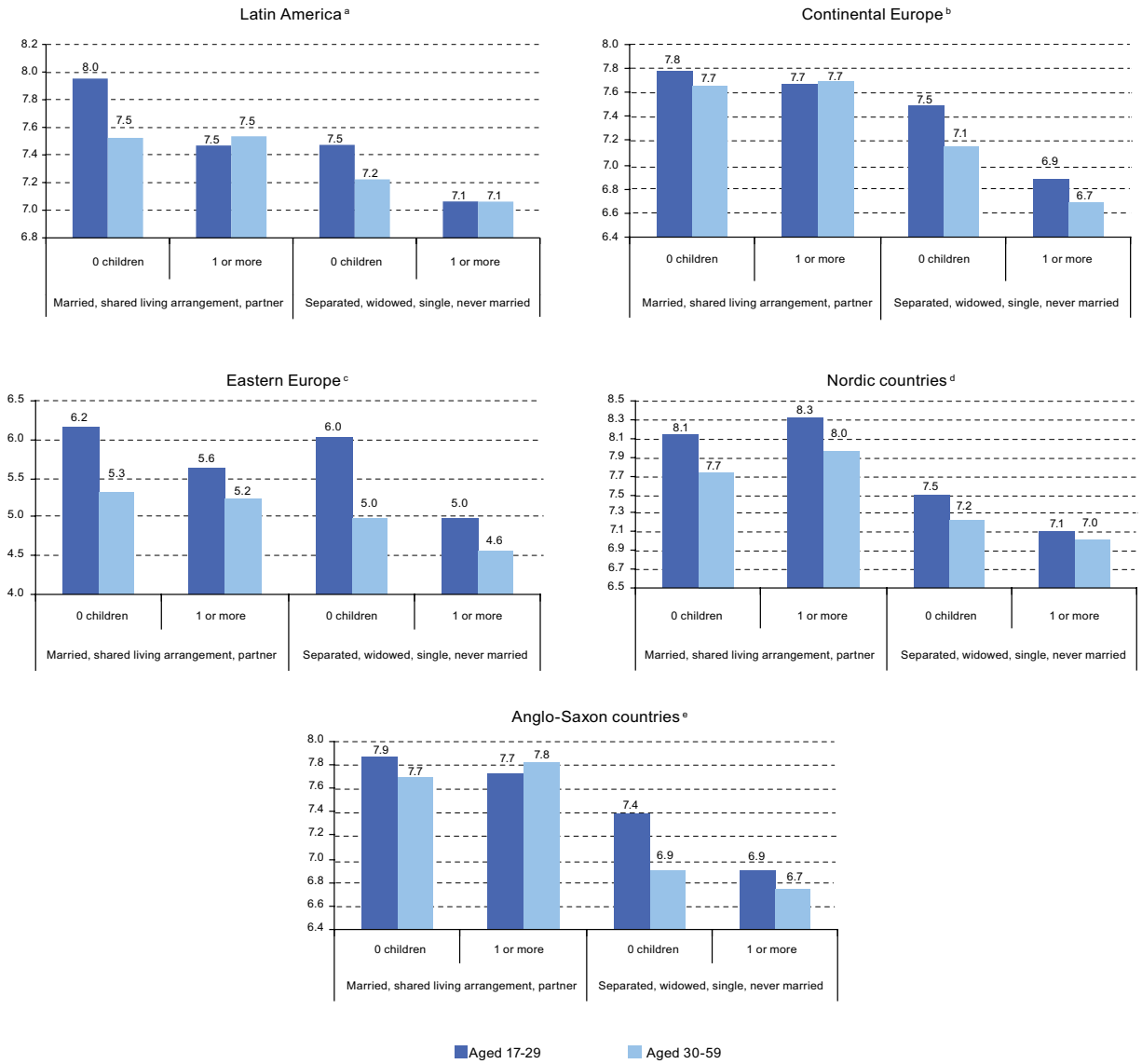


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database,1981-2008.
[a] Interaction income/age; Latin America p=0.027*; Eastern Europe, p=0.003**; Nordic countries, p=0.000***; continental Europe, p=0.000***; Anglo-Saxon countries, p=0.000***.
[b] Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Peru and Uruguay.
[c] Finland, Norway and Sweden.
[d] Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation and Ukraine.
[e] Australia, New Zealand, United Kingdom and United States.
[f] France, Germany, Netherlands and Switzerland.

The data for Eastern Europe and Latin America bring into question the idea of hedonic adaptation of expectations among the population aged 60 and older. It is not the same thing to age without financial worries (either because of self-funded pensions or thanks to a more or less generous welfare state) than to do so in a precarious economic situation without social protections. Projections for the developing countries based on the trends observed in developed countries suggest a medium-term scenario for Latin America in which the relationship between life satisfaction, age and income could approach the pattern seen in the more affluent societies.

As seen in figure I.19, in Latin America being married or in a shared living arrangement or having a partner is associated with higher levels of life satisfaction regardless of number of children or age. Such is not the case in the other regions, where the correlation between having (or planning to have) a family and life satisfaction always occurs in interaction with such other factors as number of children and age. At the same time, in Latin America there is an interaction effect between age and number of children: childless 17-to-29-year-olds report the highest levels of life satisfaction. The lowest life satisfaction levels are seen in the same age group with one or more children. A similar situation is observed in Eastern Europe and in the Anglo-Saxon countries.

Figure I.19
LATIN AMERICA (11 COUNTRIES) AND OTHER REGIONS: LIFE SATISFACTION BY MARITAL STATUS AND NUMBER OF CHILDREN IN POPULATION AGED 17-59, 1981-2008
(1 = very unsatisfied and 10 is very satisfied)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database,1981-2008.
[a] Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Peru and Uruguay; interaction age*children (p=0.000***), principal effect of marriage (p=0.000***).
[b] France, Germany, Netherlands and Switzerland; interaction marriage*children (p=0.000***), principal effect of age (p=0.006**).
[c] Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation and Ukraine; interaction marriage*children (p=0.000***) and age*children (p=0.000***).
[d] Finland, Norway and Sweden; interaction marriage*children (p=0.001**), principal effect of age (p=0.000*).
[e] Australia, New Zealand, United Kingdom and United States; interaction age*marriage (p=0.004**), marriage*children (p=0.002**) and age*children (p=0.004**).

Life-cycle variables, then, influence subjective well-being in Latin America and other regions. How these factors are associated seems to have more to do with the degree of development at the county level than with the welfare regime in place. Strictly speaking, the greater responsibilities and tasks linked to intermediate ages in the life cycle do not always lead to lower life satisfaction; the likelihood of this happening increases when material living conditions are more precarious. The fact that in Latin America the life satisfaction gap linked to income bracket widens in the population aged 60 and older shows that individuals do not always adapt their expectations. As said earlier, better material living conditions make it easier to adapt.

Lastly, the family is still at the core of individual life projects in Latin America, as shown by the principal effect that being married, being in a shared living arrangement or having a partner has on subjective well-being. This effect is not seen in any of the other regions or countries included in this analysis. Also to be borne in mind is how well-being can be negatively impacted by the need to take on the role of provider and caregiver at a very early age without adequate support for shouldering these responsibilities. This is seen in the low levels of life satisfaction among 17-to-29-year-olds in Latin America with children and without a partner.

Appendix

Table I.A-1
LATIN AMERICA (18 COUNTRIES): POVERTY AND INDIGENCE INDICATORS, 1990-2009 [a]
(Percentages)

Country	Year	Poverty [b]				Indigence			
		Households	Population			Households	Population		
		Incidence (H)	Incidence (H)	Gap (PG)	Gap squared (FGT2)	Incidence (H)	Incidence (H)	Gap (PG)	Gap squared (FGT2)
Argentina [c]	1990 [d]	16.2	21.2	7.2	3.4	3.5	5.2	1.6	0.8
	1999	16.3	23.7	8.6	4.3	4.3	6.6	2.1	1.1
	2002	34.9	45.4	21.1	12.8	13.9	20.9	8.4	4.6
	2006	14.7	21.0	8.3	4.6	4.9	7.2	2.8	1.5
	2009	8.1	11.3	4.7	2.9	3.0	3.8	1.9	1.4
Bolivia (Plurinational State of)	1989 [e]	48.9	52.6	24.5	15.0	21.9	23.0	9.7	6.1
	1999	54.7	60.6	33.9	24.1	32.5	36.4	20.3	14.7
	2002	55.5	62.4	34.4	23.8	31.7	37.1	19.5	13.5
	2007	47.2	54.0	27.8	18.2	27.2	31.2	14.5	9.7
Brazil	1990	41.4	48.0	23.5	14.7	18.3	23.4	9.7	5.5
	1999	29.9	37.5	17.0	10.2	9.6	12.9	5.3	3.3
	2001	29.9	37.5	17.3	10.7	10.0	13.2	5.8	3.8
	2008	19.9	25.8	10.7	6.3	5.8	7.3	3.3	2.2
	2009	19.3	24.9	10.5	6.2	5.7	7.0	3.2	2.2
Chile	1990	33.3	38.6	14.9	8.0	10.6	13.0	4.4	2.3
	1998	17.8	21.7	7.5	3.8	4.6	5.6	2.0	1.1
	2003	15.3	18.7	6.3	3.2	3.9	4.7	1.7	1.0
	2006	11.3	13.7	4.4	2.2	2.7	3.2	1.1	0.7
	2009	9.8	11.5	4.0	2.2	3.3	3.6	1.5	1.0
Colombia	1994	47.3	52.5	26.6	17.5	25.0	28.5	13.8	9.1
	1999	48.7	54.9	25.6	15.7	23.2	26.8	11.2	6.9
	2002 [f]	48.2	54.2	26.3	16.5	17.6	19.9	8.8	5.6
	2008 [f]	39.5	46.1	21.7	13.7	15.5	17.9	8.4	5.6
	2009 [f]	39.3	45.7	20.8	12.7	14.3	16.5	7.2	4.6
Costa Rica	1990	23.6	26.3	10.7	6.5	10.0	10.1	4.8	3.4
	1999	18.2	20.3	8.1	4.8	7.5	7.8	3.5	2.3
	2002	18.6	20.3	8.4	5.2	7.7	8.2	3.9	2.7
	2008	14.8	16.4	5.8	3.1	5.2	5.5	2.2	1.4
	2009	16.8	18.9	6.9	3.9	6.4	6.9	3.0	2.0
Dominican Republic	2002	42.2	47.1	20.9	12.6	18.2	20.7	8.8	5.3
	2008	40.1	44.3	20.2	12.1	20.4	22.6	8.8	5.0
	2009	37.8	41.1	18.5	11.0	19.8	21.0	8.0	4.5
Ecuador [c]	1990	55.8	62.1	27.6	15.8	22.6	26.2	9.2	4.9
	1999	58.0	63.5	30.1	18.2	27.2	31.3	11.5	6.3
	2002	42.6	49.0	20.8	11.8	16.3	19.4	6.9	3.7
	2008	36.5	42.7	16.6	9.0	14.8	18.0	6.1	3.2
	2009	35.9	42.2	16.8	9.1	14.9	18.1	6.2	3.3
El Salvador	1995	47.6	54.2	24.0	14.3	18.2	21.7	9.1	5.6
	1999	43.5	49.8	22.9	14.0	18.3	21.9	9.4	5.8
	2001	42.9	48.9	22.7	14.0	18.3	22.1	9.5	5.7
	2004	40.4	47.5	21.1	12.6	15.6	19.0	8.1	5.0
	2009	41.8	47.9	19.4	10.5	14.1	17.3	5.7	2.7
Guatemala	1989	63.0	69.4	35.9	23.1	36.7	42.0	18.5	11.2
	1998	53.5	61.1	27.3	15.4	26.1	31.6	10.7	5.1
	2002	52.8	60.2	27.0	15.4	26.9	30.9	10.7	5.5
	2006	46.7	54.8	25.5	15.2	22.7	29.1	11.3	5.8

Table I.A-1 (concluded)

Country	Year	Poverty [b]				Indigence			
		Households	Population			Households	Population		
		Incidence (H)	Incidence (H)	Gap (PG)	Gap squared (FGT2)	Incidence (H)	Incidence (H)	Gap (PG)	Gap squared (FGT2)
Honduras	1990	75.2	80.8	50.2	35.9	53.9	60.9	31.5	20.2
	1999	74.3	79.7	47.4	32.9	50.6	56.8	27.9	17.5
	2002	70.9	77.3	45.3	31.2	47.1	54.4	26.6	16.2
	2007	63.1	68.9	39.5	27.6	39.9	45.6	23.9	15.7
Mexico	1989	39.0	47.7	18.7	9.9	14.0	18.7	5.9	2.7
	1998	38.0	46.9	18.4	9.4	13.2	18.5	5.3	2.2
	2002	31.8	39.4	13.9	6.7	9.1	12.6	3.5	1.4
	2008	27.9	34.8	12.0	5.7	8.2	11.2	3.2	1.3
Nicaragua	1993	68.1	73.6	41.9	29.3	43.2	48.4	24.3	16.2
	1998	65.1	69.9	39.4	27.3	40.1	44.6	22.6	15.1
	2001	63.0	69.4	37.1	24.5	36.5	42.5	19.2	12.0
	2005	54.4	61.9	29.1	17.3	26.8	31.9	12.3	6.5
Panama	1991 [c]	27.4	32.7	13.7	8.1	10.1	11.5	5.2	3.4
	1999 [c]	17.0	20.8	7.6	4.1	4.9	5.9	2.3	1.4
	2002	30.0	36.9	16.8	10.2	14.4	18.6	7.6	4.3
	2008	21.5	27.7	11.5	6.5	9.5	13.5	5.1	2.7
	2009	20.6	26.4	10.0	5.2	8.2	11.1	3.8	1.9
Paraguay	1990 [g]	36.8	43.2	16.1	8.0	10.4	13.1	3.6	1.5
	1999	51.7	60.6	30.2	19.0	26.0	33.8	14.5	8.5
	2001	52.0	61.0	30.3	19.5	26.5	33.2	15.4	9.6
	2008	50.2	58.2	26.9	15.9	25.1	30.8	12.1	6.5
	2009	50.1	56.0	26.0	15.8	26.7	30.4	12.7	7.4
Peru	1997	40.5	47.6	20.8	12.0	20.4	25.1	10.1	5.7
	1999	42.3	48.6	20.6	11.7	18.7	22.4	9.2	5.1
	2001 [h]	48.7	54.7	24.7	14.5	20.4	24.4	9.6	5.2
	2008 [h]	31.0	36.2	13.6	7.0	10.5	12.6	4.0	1.8
	2009 [h]	30.3	34.8	12.9	6.5	9.9	11.5	3.5	1.6
Uruguay [c]	1990	11.8	17.9	5.3	2.4	2.0	3.4	0.9	0.4
	1999	5.6	9.4	2.7	1.2	0.9	1.8	0.4	0.2
	2002	9.3	15.4	4.5	1.9	1.3	2.5	0.6	0.2
	2008	8.5	13.7	4.2	1.9	1.8	3.4	0.9	0.3
	2009	6.3	10.4	2.8	1.1	1.0	1.9	0.4	0.1
Venezuela (Bolivarian Republic of)	1990	34.2	39.8	15.7	8.5	11.8	14.4	5.0	2.4
	1999	44.0	49.4	22.6	13.7	19.4	21.7	9.0	5.5
	2002	43.3	48.6	22.1	13.4	19.7	22.2	9.2	5.7
	2008	23.6	27.6	9.9	5.2	8.5	9.9	3.5	2.0
Latin America [i]	1990	41.0	48.3	…	…	17.7	22.5	…	…
	1999	35.4	43.9	…	…	14.1	18.7	…	…
	2002	36.1	44.0	…	…	14.6	19.4	…	…
	2008	26.2	33.0	…	…	10.0	12.9	…	…
	2009	26.3	33.1	…	…	10.3	13.3	…	…

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] H = headcount ratio; PG = poverty gap; FGT2 = Foster, Greer and Thorbecke index.
[b] Includes households (individuals) living in indigence or extreme poverty.
[c] Urban area.
[d] Greater Buenos Aires.
[e] Eight departmental capitals plus the city of El Alto.
[f] Figures from the Mission to Reduce Poverty and Inequality (MERPD), the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE) of Colombia. These values are not comparable with those for previous years.
[g] Asunción metropolitan area.
[h] Figures from the National Institute of Statistics and Informatics (INEI) of Peru. These values are not comparable with those for previous years because of the change in sampling framework for the household survey. The figures for 2001 refer to the fourth quarter; the figures for 2005-2008 refer to entire years.
[i] Estimate for 18 countries of the region plus Haiti.

Table I.A-2
LATIN AMERICA (18 COUNTRIES): HOUSEHOLD INCOME DISTRIBUTION, 1990-2008 [a]

Country	Year	Average income [b]	Percent of total income				Per capita income ratio [c]	
			Poorest 40%	Next 30%	20% before the wealthiest 10%	Wealthiest 10%	$D^{10} / D^{(1 \text{ to } 4)}$	Q^5 / Q^1
Argentina [d]	1990 [e]	10.6	15.0	23.7	26.7	34.6	13.5	13.5
	1999	11.3	15.8	22.1	25.3	36.8	16.2	16.6
	2002	7.3	14.4	20.5	24.6	40.5	19.0	20.7
	2006	10.8	16.9	22.9	25.2	35.0	14.4	15.5
	2009	16.1	15.5	24.6	27.8	32.1	15.0	16.6
Bolivia (Plurinational State of)	1989 [f]	7.7	12.1	21.9	27.9	38.1	17.1	21.4
	1999	5.6	9.3	24.1	29.6	37.0	26.7	48.1
	2002	6.1	9.5	21.4	28.3	40.8	30.3	44.2
	2007	6.1	11.2	25.2	28.2	35.4	22.2	31.5
Brazil	1990	9.4	9.6	18.5	28.0	43.9	31.2	35.0
	1999	11.3	10.0	17.4	25.4	47.2	32.0	35.6
	2001	11.0	10.3	17.4	25.6	46.7	32.2	36.9
	2008	12.1	12.7	19.2	24.7	43.4	23.8	26.2
	2009	11.8	13.2	20.3	25.5	41.0	21.1	23.9
Chile	1990	9.5	13.2	20.8	25.3	40.7	18.2	18.4
	1998	13.7	13.0	20.4	26.6	40.0	19.1	19.7
	2003	13.6	13.8	20.8	25.6	39.8	18.8	18.4
	2006	14.4	14.6	21.6	26.7	37.1	15.9	15.7
	2009	14.5	14.4	21.2	26.0	38.4	16.3	15.9
Colombia	1994	7.7	9.9	21.3	27.0	41.8	26.8	35.2
	1999	6.7	12.4	21.6	26.0	40.0	22.3	25.6
	2002	6.9	10.9	21.2	27.2	40.7	27.1	32.9
	2008	7.3	11.3	22.2	26.9	39.6	25.4	32.8
	2009	7.1	11.8	22.5	26.3	39.4	23.1	28.0
Costa Rica	1990	9.5	16.7	27.4	30.2	25.7	10.1	13.1
	1999	11.4	15.3	25.7	29.7	29.3	12.6	15.3
	2002	11.7	14.4	25.6	29.7	30.3	13.7	16.9
	2008	11.1	15.4	25.2	28.4	31.0	12.5	13.5
	2009	11.5	14.3	24.3	28.5	32.9	14.8	16.4
Dominican Republic	2002	6.9	12.7	22.7	26.9	37.7	17.8	20.7
	2008	7.3	11.5	23.3	30.4	34.8	21.2	25.3
	2009	8.4	10.7	21.5	27.5	40.3	24.3	28.0
Ecuador [d]	1990	5.5	17.1	25.4	26.9	30.6	11.4	12.3
	1999	5.6	14.1	22.7	26.5	36.7	17.2	18.4
	2002	6.7	15.5	24.3	26.1	34.1	15.7	16.8
	2008	7.1	15.5	24.4	27.0	33.1	14.1	15.5
	2009	7.0	15.8	24.6	26.9	32.7	14.5	15.3
El Salvador	1995	6.2	15.5	24.8	27.0	32.7	14.1	16.9
	1999	6.6	13.8	25.0	29.1	32.1	15.2	19.6
	2001	6.7	13.5	24.7	28.7	33.1	16.2	20.3
	2004	6.2	15.9	26.0	28.8	29.3	13.3	16.3
	2009	5.8	16.6	25.2	26.8	31.4	12.0	13.0
Guatemala	1989	6.0	11.8	20.9	26.9	40.4	23.6	27.4
	1998	7.1	14.3	21.6	25.0	39.1	20.4	19.8
	2002	6.8	14.1	22.4	27.3	36.2	18.6	19.3
	2006	7.6	12.8	21.8	25.7	39.7	22.0	23.9

Table I.A-2 (concluded)

Country	Year	Average income [b]	Percent of total income				Per capita income ratio [c]	
			Poorest 40%	Next 30%	20% before the wealthiest 10%	Wealthiest 10%	$D^{10} / D^{(1 \text{ to } 4)}$	Q^5 / Q^1
Honduras	1990	4.3	10.2	19.7	27.1	43.0	27.4	30.7
	1999	3.9	11.8	22.9	29.0	36.3	22.3	26.5
	2002	4.3	11.4	21.7	27.6	39.3	23.6	26.3
	2007	4.7	10.1	23.5	29.5	36.9	23.6	32.5
México	1989	8.6	15.8	22.5	25.1	36.6	17.2	16.9
	1998	7.7	15.0	22.7	25.6	36.7	18.4	18.5
	2002	8.2	15.7	23.8	27.2	33.3	15.1	15.5
	2008	8.6	16.0	24.0	25.6	34.4	16.1	16.0
Nicaragua	1993	5.2	10.4	22.8	28.4	38.4	26.1	37.7
	1998	5.6	10.4	22.1	27.0	40.5	25.3	35.1
	2001	5.8	12.0	21.7	25.6	40.7	23.6	27.5
	2005	6.5	14.3	24.0	26.2	35.5	17.2	18.6
Panama	1991 [d]	10.8	14.1	23.9	29.3	32.7	16.8	20.1
	1999 [d]	12.6	15.6	25.2	27.8	31.4	14.0	15.9
	2002	9.8	12.2	23.6	28.0	36.2	20.1	25.7
	2008	10.3	14.5	25.7	27.8	32.0	15.2	18.8
	2009	10.4	14.7	25.5	28.3	31.5	15.3	18.2
Paraguay	1990 [g]	7.7	18.7	25.7	26.8	28.8	10.2	10.6
	1999	6.2	13.2	23.0	27.8	36.0	19.3	22.6
	2001	6.2	12.9	23.5	26.3	37.3	20.9	25.6
	2008	5.7	14.7	24.7	26.4	34.2	16.7	18.4
	2009	5.6	13.7	25.3	28.3	32.7	14.7	18.3
Peru	1997	7.5	13.3	24.6	28.7	33.4	17.9	20.9
	1999	7.5	13.3	23.1	27.1	36.5	19.5	21.7
	2001	6.4	13.4	24.6	28.5	33.5	17.4	19.3
	2008	7.8	15.7	26.5	28.4	29.4	12.8	14.4
	2009	8.0	15.9	26.5	28.4	29.2	12.4	13.7
Uruguay [d]	1990	9.9	18.9	23.3	22.5	35.3	11.0	10.5
	1999	11.9	21.6	25.5	25.8	27.1	8.8	9.5
	2002	9.4	21.7	25.4	25.6	27.3	9.5	10.2
	2008	9.2	21.1	25.5	26.4	27.0	9.0	9.6
	2009	9.8	21.8	25.8	26.1	26.3	8.7	9.1
Venezuela (Bolivarian Republic of)	1990	8.9	16.7	25.7	28.9	28.7	12.1	13.4
	1999	7.2	14.5	25.0	29.0	31.5	15.0	18.0
	2002	7.1	14.3	25.0	29.5	31.2	14.5	18.1
	2008	8.6	19.2	27.9	28.1	24.8	8.4	9.7

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Households in the country as a whole, in order of per capita income.
[b] Average monthly household income, in multiples of the per capita poverty line.
[c] $D^{(1 \text{ to } 4)}$ refers to the 40% lowest-income households; D^{10} refers to the 10% highest-income households. The same notation is used for quintiles (Q), which refer to 20% segments of all households.
[d] Total urban areas.
[e] Greater Buenos Aires.
[f] Eight major cities plus El Alto.
[g] Asunción metropolitan area.

Table I.A-3
LATIN AMERICA (18 COUNTRIES): INCOME CONCENTRATION INDICATORS, 1990-2009 [a]

Country	Year	Percentage of people with per capita income lower than 50% of the median	Concentration indices				
			Gini [b]	Theil	Atkinson		
					(ε = 0.5)	(ε = 1.0)	(ε = 1.5)
Argentina [c]	1990 [d]	0.205	0.501	0.555	0.216	0.360	0.473
	1999	0.222	0.539	0.667	0.250	0.410	0.530
	2002	0.243	0.578	0.724	0.282	0.464	0.593
	2006	0.217	0.519	0.626	0.234	0.393	0.522
	2009	0.214	0.510	0.549	0.219	0.377	0.509
Bolivia (Plurinational State of)	1989 [e]	0.206	0.537	0.574	0.243	0.430	0.600
	1999	0.295	0.586	0.658	0.293	0.537	0.738
	2002	0.286	0.614	0.776	0.322	0.556	0.738
	2007	0.272	0.565	0.611	0.269	0.493	0.709
Brazil	1990	0.266	0.627	0.816	0.324	0.528	0.664
	1999	0.259	0.640	0.914	0.341	0.537	0.663
	2001	0.261	0.639	0.914	0.340	0.536	0.665
	2008	0.243	0.594	0.808	0.298	0.477	0.604
	2009	0.239	0.576	0.716	0.277	0.455	0.586
Chile	1990	0.204	0.554	0.644	0.255	0.422	0.546
	1998	0.210	0.560	0.654	0.261	0.430	0.553
	2003	0.195	0.552	0.674	0.257	0.418	0.535
	2006	0.185	0.522	0.568	0.228	0.381	0.497
	2009	0.174	0.524	0.585	0.231	0.384	0.501
Colombia	1994	0.260	0.601	0.794	0.308	0.517	0.684
	1999	0.218	0.572	0.734	0.275	0.450	0.603
	2002	0.248	0.594	0.753	0.293	0.487	0.640
	2008	0.249	0.589	0.737	0.289	0.486	0.787
	2009	0.243	0.578	0.706	0.279	0.469	0.702
Costa Rica	1990	0.194	0.438	0.328	0.152	0.286	0.412
	1999	0.207	0.473	0.395	0.179	0.328	0.457
	2002	0.212	0.488	0.440	0.193	0.349	0.491
	2008	0.185	0.473	0.427	0.183	0.323	0.439
	2009	0.203	0.501	0.474	0.204	0.358	0.485
Dominican Republic	2002	0.221	0.537	0.569	0.236	0.404	0.536
	2008	0.250	0.550	0.593	0.249	0.429	0.569
	2009	0.243	0.574	0.677	0.273	0.455	0.589
Ecuador [c]	1990	0.174	0.461	0.403	0.173	0.306	0.422
	1999	0.188	0.526	0.567	0.228	0.381	0.498
	2002	0.196	0.513	0.563	0.222	0.371	0.487
	2008	0.206	0.504	0.507	0.210	0.363	0.486
	2009	0.197	0.500	0.502	0.207	0.356	0.475
El Salvador	1995	0.220	0.507	0.502	0.213	0.377	0.525
	1999	0.242	0.518	0.496	0.224	0.416	0.601
	2001	0.244	0.525	0.528	0.232	0.423	0.602
	2004	0.213	0.493	0.449	0.203	0.379	0.552
	2009	0.203	0.478	0.440	0.189	0.333	0.449
Guatemala	1989	0.227	0.582	0.736	0.282	0.460	0.590
	1998	0.200	0.560	0.760	0.273	0.428	0.534
	2002	0.179	0.542	0.583	0.239	0.401	0.515
	2006	0.247	0.585	0.773	0.291	0.467	0.590

Table I.A-3 (concluded)

Country	Year	Percentage of people with per capita income lower than 50% of the median	Concentration indices				
			Gini [b]	Theil	Atkinson		
					(ε = 0.5)	(ε = 1.0)	(ε = 1.5)
Honduras	1990	0.261	0.615	0.817	0.317	0.515	0.649
	1999	0.257	0.564	0.636	0.263	0.451	0.603
	2002	0.265	0.588	0.719	0.288	0.476	0.608
	2007	0.305	0.580	0.650	0.282	0.496	0.661
Mexico	1989	0.197	0.536	0.680	0.248	0.400	0.509
	1998	0.229	0.539	0.634	0.245	0.403	0.515
	2002	0.212	0.514	0.521	0.218	0.372	0.485
	2008	0.199	0.515	0.599	0.227	0.375	0.485
Nicaragua	1993	0.274	0.582	0.671	0.270	0.458	0.619
	1998	0.268	0.583	0.731	0.285	0.481	0.654
	2001	0.238	0.579	0.783	0.288	0.470	0.620
	2005	0.226	0.532	0.614	0.241	0.402	0.526
Panama	1991 [c]	0.220	0.530	0.543	0.228	0.398	0.534
	1999 [c]	0.217	0.499	0.459	0.202	0.361	0.490
	2002	0.266	0.567	0.616	0.266	0.466	0.618
	2008	0.254	0.524	0.522	0.229	0.410	0.557
	2009	0.248	0.523	0.522	0.226	0.398	0.533
Paraguay	1990 [f]	0.164	0.447	0.365	0.161	0.287	0.386
	1999	0.257	0.565	0.668	0.268	0.455	0.599
	2001	0.264	0.570	0.702	0.277	0.471	0.631
	2008	0.227	0.527	0.597	0.235	0.397	0.525
	2009	0.245	0.512	0.527	0.220	0.388	0.529
Peru	1997	0.256	0.533	0.567	0.238	0.415	0.554
	1999	0.236	0.545	0.599	0.249	0.424	0.560
	2001	0.239	0.525	0.556	0.231	0.397	0.527
	2008	0.223	0.476	0.428	0.187	0.335	0.457
	2009	0.218	0.469	0.414	0.181	0.325	0.442
Uruguay [c]	1990	0.174	0.492	0.699	0.227	0.349	0.441
	1999	0.190	0.440	0.354	0.158	0.286	0.393
	2002	0.196	0.455	0.385	0.169	0.301	0.412
	2008	0.187	0.445	0.372	0.163	0.291	0.397
	2009	0.174	0.433	0.354	0.154	0.275	0.374
Venezuela (Bolivarian Republic of)	1990	0.201	0.471	0.416	0.183	0.327	0.446
	1999	0.216	0.498	0.464	0.202	0.363	0.507
	2002	0.224	0.500	0.456	0.201	0.361	0.507
	2008	0.178	0.412	0.295	0.136	0.255	0.363

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Calculated on the basis of the distribution of per capita income for individuals in the country as a whole.
[b] Includes people with income equal to zero.
[c] Total urban areas.
[d] Greater Buenos Aires.
[e] Eight major cities plus El Alto.
[f] Asunción metropolitan area.

Table I.A-4

LATIN AMERICA (12 COUNTRIES) AND OTHER REGIONS: LIFE SATISFACTION, LIFE-CYCLE FACTORS AND MONETARY INCOME, 1981-2008

(Probit ordinal regressions)

Factores	Latin America [a]		Liberal Anglo-Saxon countries [b]		Continental Europe [c]		Nordic countries [d]		Eastern Europe [e]	
	Estimate	Significance level	Estimate	Significance level	Estimate	Significance level	Estimate	Significance level	Estimate	Significance level
Male	0.004	0.771	-0.108	0.000***	-0.081	0.002**	-0.145	0.000***	-0.001	0.936
Female			0.000		0.000		0.000		0.000	
No children	0.050	0.137	-0.039	0.277	-0.085	0.040*	-0.137	0.007**	0.011	0.717
1 or 2 children	-0.016	0.305	-0.059	0.027*	-0.049	0.107	-0.064	0.053*	-0.030	0.082
3 or more children			0.000		0.000		0.000		0.000	
Low-income group	-0.264	0.000***	-0.338	0.000***	-0.328	0.000***	-0.399	0.000***	-0.680	0.000***
Middle-income group	-0.130	0.000***	-0.240	0.000***	-0.306	0.000***	-0.195	0.000***	-0.302	0.000***
High-income group			0.000		0.000		0.000		0.000	
Aged 17-29	-0.016	0.535	-0.408	0.000***	-0.108	0.042*	0.044	0.437	0.164	0.000***
Aged 30-44	-0.042	0.061	-0.474	0.000***	-0.163	0.000***	-0.185	0.000***	-0.008	0.670
Aged 45-59	-0.009	0.701	-0.433	0.000***	-0.239	0.000***	-0.298	0.000***	-0.053	0.007**
Aged 60 and older			0.000		0.000		0.000		0.000	
Married, living together, has partner	-0.169	0.000***	0.375	0.000***	0.313	0.000***	0.281	0.000***	0.144	0.000**
Single, separated, divorced, widowed			0.000		0.000		0.000		0.000	
Cox and Snell R-squared	1.5%		5.6%		4.3%		4.8%		7.7%	
Sample	21 588		7 897		6 549		5 376		21 688	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from the World Values Survey database,1981-2008.

Note: * = significance level of 95%; ** = significance level of 99%; *** = significance level of 99.9%.

[a] Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Peru and Uruguay.

[b] Australia, New Zealand, United Kingdom and United States.

[c] France, Germany, Netherlands and Switzerland.

[d] Finland, Norway and Sweden.

[e] Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation and Ukraine.

Chapter II

Education and the intergenerational reproduction of inequality and exclusion: realities and challenges in Latin America

A. The education agenda in the region

Education is at the core of all the developmental stages of the life cycle discussed in this edition of *Social Panorama*. The data indicate that it is one of the best tools at the disposal of States and public policy for reversing the intergenerational reproduction of inequality and dissociating an individual's social background from the well-being he or she attains. But the region has not harnessed the education system as a driver of equal opportunity. In the Ibero-American Year of Education, the regional agenda is, to a large extent, a double one because the unresolved issues of the twentieth century (coverage, access, timely progression and completion of education cycles) are compounded by the great challenge of the twenty-first century: how to narrow the digital divide and improve the quality of education to address the new formative requirements of the knowledge society.

In the Ibero-American Year of Education, education must take centre stage in each of the phases of lifelong personal development examined in this edition of *Social Panorama*. The dynamics of the information society have revived the centrality of education in dealing with the challenges of international competitiveness, democratic sustainability and social equity. This idea is grounded in an abundance of evidence linking the number of students completing the middle level of education and the quality of the skills acquired to greater competitiveness at the country level and to the heightened citizen awareness of rights and responsibilities that is essential for enhancing democracy. The data also bear out the idea that government action on the education front can contribute substantially to dissociating an individual's social background from the well-being he or she attains.

But the region has not harnessed the education system as a driver of equal opportunity, in part because household environment and disposable income are major determinants of educational attainments and returns. Most of the time, this inequality is also reflected in highly segmented and stratified quality and efficiency on the supply side of education.

Education moved up on the social policy agenda in Latin America when the education agenda was globalized by the 1990 World Conference on Education for All in Jomtien, Thailand. After the Jomtien World Declaration on Education for All, global education agenda milestones with repercussions for the region were the World Education Forum held in Dakar in 2000 and the United Nations Millennium Declaration signed that same year. The Forum led to the Dakar Framework for Action on Education for All, which reaffirmed the commitments made under the Jomtien World Declaration on Education for All (UNESCO, 2000). One of the highlights of the Forum was the pledge to achieve basic education for all. This began to lay the conceptual groundwork for the Education for All movement led by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and gave rise to the idea of inclusive education as a way to address the exclusion of some citizens from (and within) the formal education system.

The Millennium Declaration in turn led to the Millennium Development Goals project that set goals, targets and deadlines for action on several social fronts. Millennium Development Goal 2 seeks achievement of universal primary education; target 2A calls for ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

These international instruments have put such issues front and centre on regional and national agendas, for contextualized discussion. For example, the Education for All in the Americas: Regional Framework of Action was drafted at the 2000 conference in Santo Domingo. The framework highlights progress made on the priority area of access to primary education, the relative decrease in illiteracy rates, the increase in the number of years of compulsory education and the increase in early childhood care and education (UNESCO, 2000). It also recognizes that challenges remain for the region, including the formulation of inclusive policies to ensure access and create conditions that promote timely progression and completion and quality learning, especially in the basic cycle but also at the secondary level. In addition, the framework calls for a pledge to advance towards non-discrimination on the basis of gender, culture, language or socio-economic status, viewing education as a universal right. Accordingly, there is a need for meaningful curricula, intercultural and bilingual education and initiatives for involving the families of excluded children and young people (UNESCO, 2000) in view of the enormous weight of the family environment in determining the relationship between family members and education.

Virtually universal access to basic education has been achieved in Latin America and the Caribbean, so education policy efforts have shifted to early childhood education. The social and economic returns from investing in early childhood education are vital (UNESCO, 2010a). The focus on early childhood education in recent years led to the World Conference on Early Childhood Care and Education held in Moscow in 2010, providing a comprehensive approach to the developmental needs of children in this stage of life. Among these, education is critical. The region took up this challenge when the members of the Organization of American States (OAS) signed the Hemispheric Commitment to Early Childhood Education and pledged to turn recognition of early childhood care and education into specific actions within the institutional framework of each country.

The regional agenda is, to a large extent, a double one (ECLAC/OEI/SEGIB, 2010). There are the unresolved challenges of the twentieth century: coverage, access and timely progression and completion of education cycles. Then comes the great challenge of the twenty-first century: the quality of education provided by schools. This second dimension includes improving teaching through training and integrating new educational resources such as information and communications technologies and putting traditional educational resources to better use. Concern as to the quality of education in the region was reaffirmed at the Santo Domingo conference by including this dimension in the 12 commitments of the regional framework of action (UNESCO, 2000) and the global monitoring report on the Education for All project in the region (UNESCO, 2007).

A noteworthy region-wide project is "Goals 2021: The Education We Want for the Bicentennial Generation", which divides the region's dual agenda into targets referring to unresolved issues in education and targets concerning future challenges in this arena. One of the first targets addresses the extra-school factors that affect general well-being and the school performance of children and young people in each education cycle. The goal is to achieve education equality by eliminating the discrimination that works against insertion and participation in the school system.

For the post-secondary cycle there are targets related to the nexus of education, knowledge and employment linking the challenges of the twentieth century to those of the twenty-first. In this new century, the focus is on

quality of education, stressing that the skills acquired by students must be practical and relevant to social integration. In this process, the emphasis is not only on academic subjects but also on reading, education in democratic values, art education, sports and the use of new technologies in education. To complete this picture, the resources provided for education and the number of full-time primary schools must be increased. And the quality of education cannot be improved without enhancing the teaching profession. Initial training, accreditation and continuing education are therefore among the project targets.

International cooperation under the Organization of Ibero-American American States for Education, Science and Culture (OEI) and the Ibero-American General Secretariat (SEGIB) is an important part of the project and involves the countries of the Iberian peninsula on the basis of shared but differentiated responsibility. A promising avenue for financial partnership is South-South cooperation, an initiative for financial aid between countries of the region. This requires gathering up-to-date information on the status of education in the region, the cost of achieving education targets and potential sources of funding. The Economic Commission for Latin America and the Caribbean (ECLAC) has been actively involved in this task. The general targets have already been approved by the countries, and it is hoped that a pledge to move forward in meeting the specific goals that will guide action for developing education in the region will emerge from the Twentieth Ibero-American Summit of Heads of State and Government, to be held in Mar del Plata, Argentina, in December 2010.

B. Gaps in attainment and in learning

In recent decades, advances in coverage, access and progression through education cycles have caused stratification in learning and attainment within educational systems. Access to preschool learning is uneven across the region; some countries have nearly universal enrolment while in others it is in the area of 30%. Access to primary education is virtually universal, with room for improvement in timely progression and completion and in inclusion of the most neglected social groups. Access and timely progression in secondary education are substantially lower and differ more among countries. The gaps in secondary school completion rates exacerbate socio-economic inequalities by geographic area and ethnic background. Access to the final cycle of post-secondary education is generally reserved for a relatively small portion of the region's young people. Among the factors of inequality, household socio-economic conditions and level of formal education of the head of household are among the root causes for disparate results in learning and progression through the education system, as is widely varying access to quality education. As for the dynamics of skill acquisition, the promise of digital convergence (or rather, the threat of a widening digital divide) has been looming on the horizon for some time now.

In successive editions of *Social Panorama* and in contributions to the Millennium Development Goals, ECLAC, aware of the pace of educational devaluation in the region, has focused on monitoring changing levels of educational attainment that effectively reduce vulnerability to poverty and social exclusion. One of the greatest difficulties that the education system faces is the snowballing levels of knowledge needed to meet individual and collective goals. Studies show that what each period of history regards as minimum qualifications depends to a large extent on the skills and knowledge required in that period for individuals to participate in the dynamics of progress and well-being.

Educational devaluation is happening in Latin America, where modernization has, among other things, been effacing the social prestige attached to certain qualifications and specialties. This prestige is shifting to other skills sets that are more in line with ever-changing requirements for competitiveness and full participation in society. Over the course of the twentieth century, skill thresholds shifted from the dividing line between literacy and illiteracy to the divide between those who completed primary school and those who did not, and subsequently to completion of the basic cycle of secondary education. The threshold is now at completion of secondary education, although in some countries of the region there are already signs that even those who complete this cycle are vulnerable to poverty and social exclusion. The permanent pressure on skill thresholds for attaining decent living conditions is thus nothing new. What is new is the pace, which is creating complex problems for keeping the workings of the education system in sync with outcomes.

While there have been advances in education in recent decades, expanding access has also led to greater segmentation in attainment and in quality on the supply side. This means that the intergenerational reproduction of inequality does not occur because some have access to formal education and others do not, but rather that everyone has access but the outcome is differentiated in terms of what students learn and how far they progress in the system. The clearest manifestations of this segmentation in the education systems of Latin America are examined in the following pages.

1. Access to early childhood and preschool education

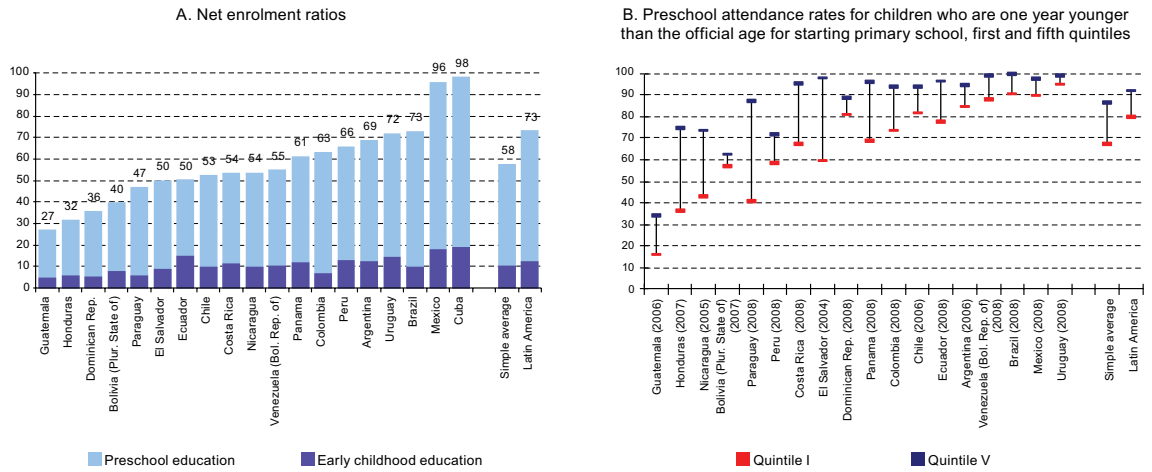
Preschool education has recently become a top public policy issue in the region.[1] The situation varies widely, with access rates (starting with preschool enrolment of children between 3 and 6 years of age) that are nearly universal in Cuba and Mexico but in the area of 30% in the Dominican Republic, Guatemala and Honduras (see figure II.1.A). Enrolment in early childhood education (from birth to age 3) is, as a rule, lower, owing to less coverage on the supply side and to cultural factors.

Across the region, differences between socio-economic strata in terms of enrolment in the last year before entering primary education are smaller, with rates ranging from 80% for the lowest income quintile to 92% for the wealthiest quintile. The differences in enrolment between boys and girls are not substantial (ECLAC/OEI/SEGIB, 2010). But the regional average masks marked inequalities in smaller countries in the region with lower coverage —there are gaps of 30 percentage points or more in El Salvador, Honduras, Nicaragua and Paraguay (see figure II.1.B).[2] While it seems that there are no significant socio-economic inequalities in attendance towards the end of the preschool cycle, evidence from household surveys does suggest that inequalities are more striking at younger ages. Moreover, there are marked differences in access between urban and rural areas and for indigenous groups (ECLAC, 2008a).

[1] In 2007 the ministers of education of the member States of the Organization of American States agreed to develop legal frameworks and financing mechanisms to ensure the sustainable implementation of early childhood policies and improve coverage and quality of education. The agreement calls for comprehensive policies and a targeted approach focusing on attending to the poor, vulnerable and excluded segments of society in keeping with their particular needs, characteristics and contexts. At a meeting held in 2009 in the framework of the Organization of Ibero-American States for Education, Science and Culture (OEI), the ministers of education approved a comprehensive early childhood project that is at the heart of the project "Goals 2021: The Education We Want for the Bicentennial Generation" (ECLAC/OEI/SEGIB, 2010).

[2] Some countries of the region have extended the beginning of compulsory education into the preschool cycle. Such is the case in countries with more generalized attendance, such as Uruguay (4 years) and Mexico (3), but also in El Salvador (4) and Paraguay (5).

Figure II.1
LATIN AMERICA (19 COUNTRIES): NET ENROLMENT RATIO FOR PRE-PRIMARY LEVEL (3 TO 6 YEARS); ESTIMATED ENROLMENT RATIO FOR EARLY CHILDHOOD EDUCATION (0 TO 3 YEARS); AND DIFFERENCES IN ATTENDANCE RATES BETWEEN THE FIRST AND FIFTH QUINTILES FOR CHILDREN ONE YEAR YOUNGER THAN THE OFFICIAL AGE FOR STARTING PRIMARY SCHOOL, AROUND 2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute for Statistics (UIS), estimates and household surveys conducted in the respective countries (attendance rates).
[a] Early childhood enrolment ratio estimate based on exponential models on the basis of household surveys in countries with information available (see ECLAC/OEI, 2010). The age groups vary, depending on the official cycles in the countries.

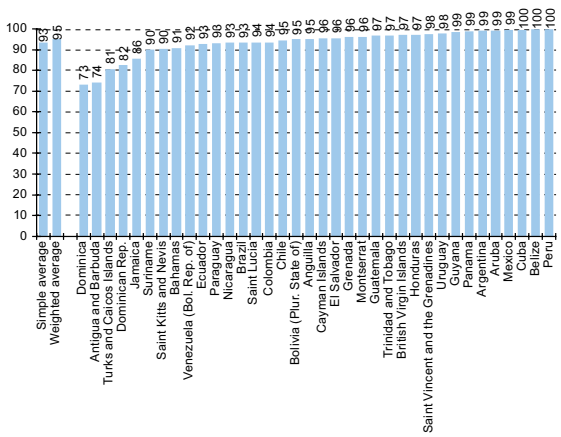
2. Access to primary education and unequal completion rates

Historically, primary education has been regarded as crucial for a child's future, since it is possible to have a positive and effective influence on children during this stage of development. It is no coincidence that all international agreements on education call for universal access to primary education (ECLAC, 2010b). It is hoped that this will translate into more students remaining in and completing the entire cycle of primary education and become a successful springboard to secondary education. Completion of the latter is becoming more and more a necessity.

Access to primary education is generally assessed by looking at the enrolment ratio. The net ratio shows the proportion of pupils of primary school enrolment age who are actually enrolled. Access to primary education is, with few exceptions, widespread across Latin America and the Caribbean and is nearly universal in some countries (see figure II.2). Differences in access between girls and boys and between socio-economic strata are not significant at this level.

Nonetheless, access to the education system does not necessarily ensure appropriate progression or, more important, completion of primary education. At this level there are problems of school lag and retention (dropping out). Educational lag is costly for the education systems of the region. It is estimated that the region spends more

Figure II.2
LATIN AMERICA AND THE CARIBBEAN (36 COUNTRIES AND TERRITORIES): NET PRIMARY EDUCATION ENROLMENT RATIO, 2007-2008 [a]
(Percentages)



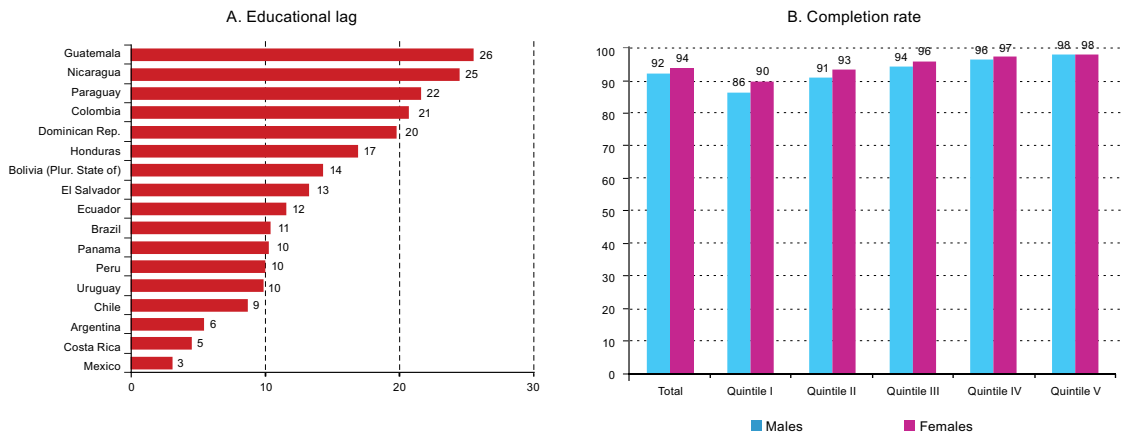
Source: UNESCO Institute for Statistics (UIS), online database, www.uis.unesco.org.
[a] Adjusted net enrolment ratio. The calculation of enrolment ratios can be somewhat erratic since it relies on population estimates and projections that do not always reflect migratory movements. For this reason, some of the figures should be read with caution, particularly for smaller countries and territories. Data for Argentina and the Turks and Caicos Islands correspond to 2005; and data for Anguilla and Paraguay correspond to 2006.

than US$ 9 billion on children who are in primary school but should be in secondary school according to their age (ECLAC/OEI, 2010). Even bearing in mind that several countries have automatic promotion systems for the first few grades, by 9-11 years of age there is already a significant percentage of children who are two or more years behind the grade they should be in (see figure II.3.A.). According to UNESCO, in the period 2007-2008 the overall percentage of repeaters for all primary education grades was 3.8% and the drop-out rates for grades one through six were 3.7%, 1.7%, 2.0%, 1.5% and 2.8% respectively (UNESCO, 2010b). In 2006-2007, nearly 3 million children were not in school.

Gender differences according to socio-economic level and geographic area, among other factors, also become apparent upon examination of school completion rates: girls do slightly better than boys. And while only 2 out of 100 children in the higher-income strata (fifth quintile) do not finish primary school, in the poorer strata some 12 out of 100 do not (see figure II.3.B). Primary education completion rates are 96% in urban areas but only 85% in rural areas. The problem is worse among indigenous and Afro-descendent children: just 80% complete this cycle (ECLAC, 2008a).

Judging by primary education access rates from the early 1990s (about 90%) and the relatively poor progress in this regard, there are obviously some obstacles in the path to universal access. This is because when access to primary education is widespread, the investment needed to promote enrolment among disadvantaged groups (the extremely poor, inhabitants of rural areas, indigenous and Afro-descendent groups) is substantial and should focus not only on increasing the supply of education but also on ensuring the conditions for effective access to these services. This often involves action in multiple sectors.

Figure II.3
LATIN AMERICA (17 COUNTRIES): EDUCATIONAL LAG AMONG CHILDREN AGE 9-11 AND PRIMARY EDUCATION COMPLETION AMONG YOUNG PEOPLE AGE 15-19 OF THE TOTAL POPULATION, BY SEX AND INCOME QUINTILE, AROUND 2007-2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the Information System on Educational Trends in Latin America (SITEAL), Statistical Summary I, National Totals, October 2008, and special tabulations of data from household surveys conducted in the respective countries.
[a] Educational lag is calculated on the basis of children who are two or more years behind the grade they should be in for their age.

3. Unequal access to, progression in and completion of secondary education

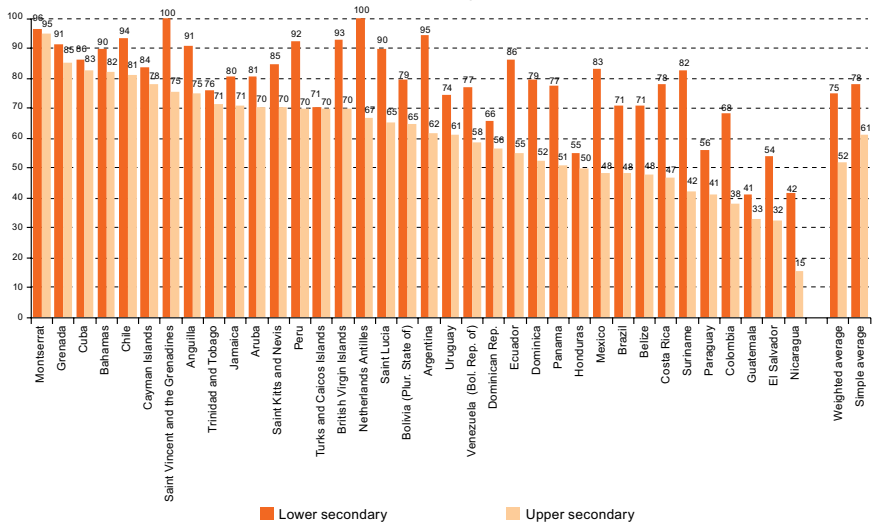
The ratios for access to and timely progression through the secondary cycle are significantly lower than for primary education and vary more widely from country to country. The net attendance rate for the secondary level is 88%, versus 97% for the primary level (see tables II.A-1 and II.A-2). Educational lags accumulate at this stage, and socio-economic inequalities according to geographic location or ethnic background grow more marked. Household educational climate emerges as a determining factor in educational lags for children age 12-14: a child living in a household with a low educational climate is 10 times more likely to fall behind in school than one in a household with a positive climate. There are also notable differences by area of residence. This is naturally linked to household and student well-being. Hence, in terms of completion (timely or otherwise) of the lower cycle of secondary schooling, there is a marked difference between young people who are from poor households (52%) and those who are not (82%) (ECLAC/OEI/SEGIB, 2010).

Poor or not, females complete this level of education more frequently than males, owing in part to the higher likelihood of males entering the labour market early. In contrast, there is evidence showing that among young people from indigenous groups the ratio is reversed, with a smaller proportion of females completing secondary education (ECLAC, 2008a). Such differences in educational access, progression and completion are gradually amplified throughout the educational cycle. The chain of inequality is thus reproduced through the education system itself.

Young people approaching the upper secondary cycle already have opportunities to enter the labour market. This acts as a disincentive to staying in school, especially if students face adverse economic or academic conditions or problems with integration or identity formation. In addition, this level of education is still not compulsory in many countries of the region, so States cannot force young people to stay in school.

Access and timely progression at this stage vary widely across the region, ranging from a net enrolment ratio of more than 80% (Bahamas, Chile, Cuba, Grenada and Montserrat) to very low ratios, where two thirds or more of the young people are behind in school or simply drop out (El Salvador, Guatemala and Nicaragua). The regional average barely exceeds 50% (see figure II.4).

Figure II.4
LATIN AMERICA AND THE CARIBBEAN (36 COUNTRIES AND TERRITORIES): NET ENROLMENT RATIO IN THE FIRST AND SECOND CYCLES OF SECONDARY EDUCATION, 2007-2008 [a]
(Percentages)

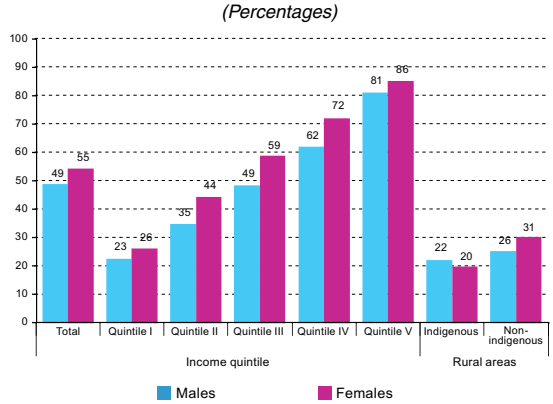


Source: Economic Commission for Latin America and the Caribbean (ECLAC), estimates on the basis of data from the UNESCO Institute for Statistics (UIS).
[a] Data for the Netherlands Antilles correspond to 2003; data for Anguilla, the Turks and Caicos Islands, Paraguay and Suriname correspond to 2005; and data for Argentina, Guatemala and Panama correspond to 2006.

In addition to heterogeneity among countries, there are ever more pronounced differences within countries: between rural and urban areas, poor and non-poor students, different socio-economic groups and indigenous and non-indigenous groups, as well as other discriminating factors.

Four out of five students from the highest-income households (fifth quintile) complete their secondary education, whereas only one out of five at the lowest socio-economic level do. The difference in attainment between males and females begins to widen in the intermediate socio-economic levels (see figure II.5). In rural areas where indigenous communities occupy more or less defined territorial spaces and have a culture and identity that is often clearly different from the prevailing "westernized" urban culture, early drop-out rates for girls are much higher than for boys and their upper secondary education completion rates are lower. Girls tend to focus on activities related to agricultural production in their communities or families. This pattern is not seen among indigenous young people living in urban areas.

Figure II.5
LATIN AMERICA (18 COUNTRIES): POPULATION AGE 20-24 WITH COMPLETE SECONDARY EDUCATION BY PER CAPITA INCOME AND SEX, AROUND 2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The data for indigenous and non-indigenous young people refer to eight countries and correspond to 2007.

4. Discrimination and lag in primary and secondary education among indigenous and Afro-descendent groups

Historically, ethnic minorities and indigenous groups have been affected by unequal conditions in the region. The barriers to equitable access to the education system are related to higher incidence of poverty, distance from school, quality of educational establishments to which there is access, curriculum relevance and discrimination. All of these factors diminish educational opportunities.

On top of a low standard of living and the social discrimination that makes them targets of rejection and refusal, many of these groups live in rural areas far from the main centres of education. Local supply is scarce, infrastructure is poorly maintained and the quality of teachers and teaching materials is wanting (ECLAC, 2008a). Another barrier that keeps these groups from entering and staying in the school system is the lack of appropriate, relevant and meaningful curricula. This is another instance of poor linkage between culture and environment, on one hand, and school subject content, on the other (ECLAC/OEI, 2010).

Table II.1
LATIN AMERICA (NINE COUNTRIES): NET PRIMARY AND SECONDARY SCHOOL ATTENDANCE RATIOS, PRIMARY CYCLE COMPLETION FOR YOUNG PEOPLE AGE 15-19 AND SECONDARY CYCLE COMPLETION FOR YOUNG PEOPLE AGE 20-24 BY AREA OF RESIDENCE AND ETHNIC BACKGROUND, AROUND 2008
(Percentages)

Country	Net attendance, primary education		Primary education completed				Net attendance, secondary education	
	National total		National total		Rural areas		National total	
	Indigenous or Afro-descendent	Not indigenous or Afro-descendent	Indigenous or Afro-descendent	Not indigenous or Afro-descendent	Indigenous or Afro-descendent	Not indigenous or Afro-descendent	Indigenous or Afro-descendent	Not indigenous or Afro-descendent
Bolivia (Plurinational State of) (2007)	...	...	90	95	86	90	90	94
Brazil (2008)	98	99	93	95	83	89	91	93
Chile (2006)	98	99	98	99	97	98	94	95
Ecuador (2008)	97	98	89	95	89	93	76	86
El Salvador (2004)	92	92	74	78	63	65	83	79
Guatemala (2006)	86	91	49	71	40	58	61	75
Nicaragua (2005)	85	81	58	71	46	54	86	84
Panama (2008)	98	99	73	97	73	93	74	89
Paraguay (2008)	96	98	83	94	82	87	71	92
Total	93	97	82	93	70	84	85	92

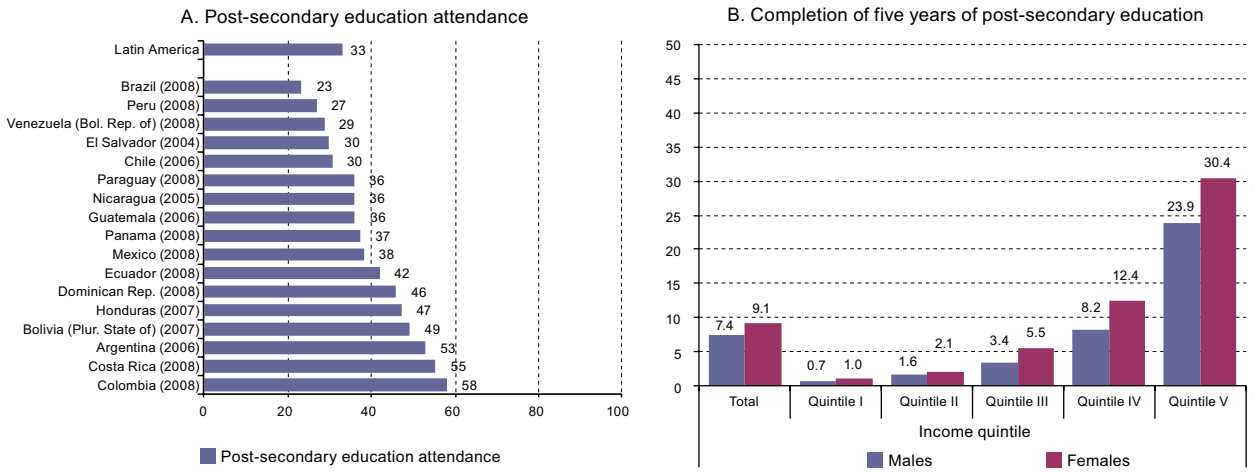
Country	Lower cycle of secondary education completed				Upper cycle of secondary education completed			
	National total		Rural areas		National total		Rural areas	
	Indigenous or Afro-descendent	Not indigenous or Afro-descendent	Indigenous or Afro-descendent	Not indigenous or Afro-descendent	Indigenous or Afro-descendent	Not indigenous or Afro-descendent	Indigenous or Afro-descendent	Not indigenous or Afro-descendent
Bolivia (Plurinational State of) (2007)	76	88	62	68	55	71	38	44
Brazil (2008)	74	78	49	53	47	56	24	27
Chile (2006)	94	96	84	89	65	81	50	63
Ecuador (2008)	47	73	38	48	31	59	23	33
El Salvador (2004)	60	57	41	35	37	36	17	17
Guatemala (2006)	19	44	12	20	13	33	7	12
Nicaragua (2005)	34	44	11	21	21	32	5	13
Panama (2008)	36	79	36	58	12	60	12	40
Paraguay (2008)	45	80	40	54	25	62	21	36
Total	62	77	38	49	40	56	20	28

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

5. Access to and completion of post-secondary education: the bottleneck

Generally speaking, access to post-secondary education is reserved for a relatively small proportion of young people in the region (see figure II.6.A). Very few students complete technical/vocational studies or a university education, because they have not acquired the competencies needed to succeed at higher levels. At the root of this problem is the uneven quality of primary and secondary education, plus other factors such as the need to earn money in order to attain a minimum level of well-being. Only 8.3% of young people age 25-29 have completed at least five years of post-secondary education (typical length of time for a university degree programme). There is marked stratification by per capita income quintile: for every 27 young persons from high-income strata (fifth quintile) who complete five years of post-secondary studies only one lower-income one does (see figure II.6.B).

Figure II.6
LATIN AMERICA (17 COUNTRIES): POST-SECONDARY EDUCATION ATTENDANCE AMONG YOUNG PEOPLE AGE 20-29 AND COMPLETION OF AT LEAST FIVE YEARS OF UNIVERSITY EDUCATION AMONG THOSE AGE 25-29 BY PER CAPITA INCOME AND SEX, AROUND 2008
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

The promising side of the coin is the large contingent of first-generation college students for whom the future holds unprecedented potential for socio-occupational mobility compared with their parents. In several countries of the region, more than one half of the university students are "first-timers" in their direct family. But here, too, the percentage of young persons from lower-income or less-educated families who do attend college is still very low.

As a rule, when development strategies leave post-secondary education entirely up to the workings of supply and demand, access to the highest levels is confined to a small elite of students. And the limited level of development in some economies of the region has led the better qualified to emigrate to more developed countries in search of better job opportunities and greater specialization. The lack of a critical mass of young people in technical and vocational fields who are familiar with cutting-edge tools for innovation is hindering modernization and efforts to increase competitiveness in most countries of the region (ECLAC/OIJ, 2008).

6. Intergenerational transmission of education inequalities

(a) In families

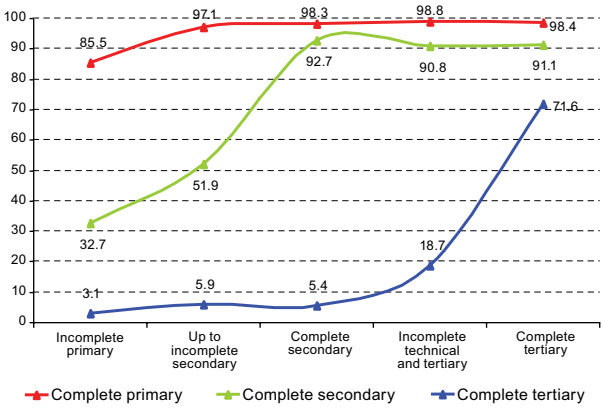
It is hard to grasp the complex challenges faced by education in decreasing inequalities without noting that social patterns are not reproduced by any single institution but rather by the institutional structure as a whole, where the education system combines, above all, with family and neighbourhood life to form a child's most immediate community environments. Also, much of the success of institutionalized education depends on how well the efforts and influences of these three spheres of socialization are meshed. When families and neighbourhoods fail to provide adequate support, it is harder for the education system to fulfil its key role in integrating new generations or to capitalize on its particular ability to dissociate educational achievement from student background.

Against this backdrop, household socio-economic conditions and education level of the head of household continue to be the root cause of differences in learning outcomes. Some of the most influential conditions are discussed below. First come physical capital (such as dwelling infrastructure, income and household equipment), human capital (educational climate) and cultural capital (habits and values in common with the educational ideology). Substandard housing, overcrowding, a large number of children, scarce human capital, fragile ties to the labour market and income instability are some of the factors that undermine a family's ability to meet basic needs and can raise sometimes insurmountable barriers to achieving the conditions required for regular school attendance and adequate learning.

In addition, how motivated families are to invest resources in their children's education is directly related to the credibility they attach to the education system as a vehicle for social mobility —that is, the perception that the quality of the educational opportunities that the family's available resources put within the children's reach will really open alternatives for them to access society's main social and economic circuits. Likewise, the "subjective educational climate" in the household depends to a large extent on the quality of education supply, on how the school involves and motivates the community of parents and on how families generally view meritocracy and the broadening of opportunities in society.

The intergenerational reproduction of inequality in education obstructs mobility. Children of low-income, poorly educated parents tend to learn and achieve less than their peers from families with more educational capital. This will in turn confine the former to lower-paid jobs throughout their life, and so on. Figure II.7 shows the high correlation between household educational climate (years of education or educational attainment of the parents) and the children's educational attainments, especially when comparing parents with different levels of education. While only 3.4% of the children whose parents did not complete primary school go on to finish post-secondary studies, the rate climbs to 71.6% when the parents have completed tertiary education.

Figure II.7
LATIN AMERICA (SELECTED COUNTRIES): YOUNG PEOPLE AGE 25-29 WHO COMPLETED VARYING LEVELS OF EDUCATION BY HOUSEHOLD EDUCATIONAL CLIMATE, AROUND 2006 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Average years of education their parents completed, except for young people who are already emancipated and are themselves heads of households. In this case, refers to their own level of educational attainment.

Conversely, when parents did not complete primary school, one out of three of their children finish secondary school and 85.5% complete primary school. This indicates a high (and thus rigid) correlation between parent and child educational stratification, but also a clear tendency for children to surpass their parents in education. So there is systemic mobility owing to the joint expansion of attainment thresholds, but there is also rigid stratification to the detriment of the lowest socio-economic levels, rural areas and indigenous and Afro-descendent groups.

(b) At school

The social and cultural disadvantages that burden lower-resource students as they enter the educational system are compounded by access to lower-quality education services than are available to students with more resources. This reinforces the inequality of their learning paths. Over the past few decades, expanding access to the educational system for traditionally excluded sectors has come with greater segmentation of supply and a sharp increase in out-of-pocket expenses and the number of private schools. The quality of education tends to be segmented on the basis of the students' socio-economic background. Private schools are increasingly a magnet for the upper-middle and upper classes seeking to preserve their upwards differentiation in the intergenerational transmission of human capital and to avoid the quality concerns surrounding mass public education.

The social make-up of student bodies is, then, increasingly uniform; this determines the profile of the peer group with which the child will be in contact every day. The key factors that determine how homogeneous the social make-up of an educational establishment will be can be spatial, economic or a combination of the two. Spatial factors refer to the fact that schools usually recruit students in the immediate geographical area and thus tend to reproduce, inside the school, the social make-up of the environs. Economic factors refer to household purchasing power, which is mirrored in different opportunities to access private or for-pay schools. Urban segregation and segmentation among schools are thus mutually reinforcing.

Educational segmentation leads to differentiations that exacerbate divides in school life. First, it weakens the oversight that better-qualified, more "authoritative" parents could exercise over education in public establishments. Second, school segmentation by household purchasing power generates significant differences in how well equipped the schools are and how well trained the teaching staff is. Both affect learning outcomes. Third, living in an environment with a high density of other children from higher-strata households helps students accrue social and cultural capital that will subsequently facilitate their entry into the labour market and the networks of adult life. Fourth, segmentation undermines the integrative capacity of schools, part of which is based on their ability to gather under one roof students from different social backgrounds. This inhibits interaction between children and young people from diverse socio-economic and cultural realities. Fifth, for schools in highly vulnerable or poor areas, the magnitude and seriousness of problems outside the school make it harder to manage life and pedagogical processes inside the school. The most dramatic extreme is intra-school violence at many establishments in marginal urban areas of Latin American cities. It is a major factor behind learning disorders, the dropout rate and the unravelling fabric of coexistence.

Conversely, studies on learning impacts show that if children from poor households can attend schools with a heterogeneous social make-up, their expectations for their own educational attainment change for the better. They have more cognitive and practical resources for problem-solving and broader social capital/exchange networks, as well as regular opportunities to build shared codes for the timely learning of civic responsibilities and mutual respect for the rights of other groups.

7. Learning outcome gaps within and between countries

Monitoring and measuring the region's progress in this sphere is not without its difficulties. Research and decision-making in the field of public education policy have generally focused on measuring the quality of students' academic outcomes, using standardized national or international tests. These measurements are generally confined to assessing basic learning subjects such as language development, math skills and, in some cases, scientific knowledge. Although such measurements limit the analysis of the range of skills that children should acquire during their school years, recent international evaluations have shown a disturbing basic skills-learning deficit among students in the region.

The most recent data available on academic outcomes in countries of the region are from the OECD Programme for International Student Assessment (PISA), dating from 2006, and from the Second Regional Comparative and Explanatory Study (SERCE) conducted in 2006 by the UNESCO Latin American Laboratory for Assessment of the Quality of Education. The former surveys a sample of 15-year-old students to assess the basic skills they have acquired in science, mathematics and reading

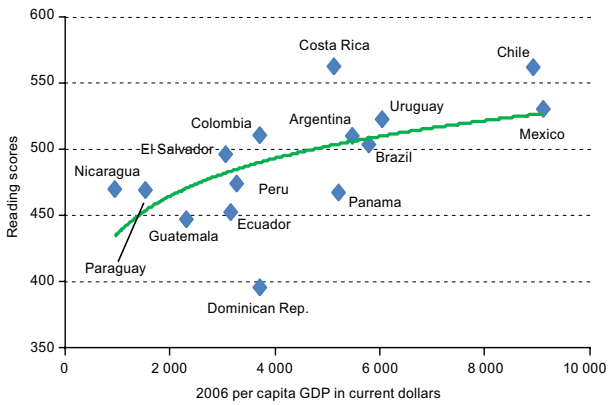
comprehension. In 2006, six countries of the region took part in the survey: Argentina, Brazil, Chile, Colombia, Mexico and Uruguay. SERCE, in which 16 countries of the Latin American region took part, measured basic skills in the same curricular areas, but for third- and sixth-grade pupils.

Although they assessed students in different age brackets, both measurements are consistent in revealing a high percentage of the student population with very poor performance in basic educational competencies. Moreover, the difference in PISA performance between the countries of Latin America and the average for developed OECD countries is very significant (around 75 points). Between 40% and 60% of students in Latin America who took part in PISA fall below the levels of performance regarded as essential for participating as citizens in academic, social and labour life. Because their relative SERCE ranking is similar, it can be concluded that improving the performance level of all students is a region-wide challenge (OEI, 2008).

SERCE shows that except for Cuba (which has very high achievement levels), at least 40% of the third-graders of most of the countries of Latin America have the lowest possible math achievement score. This means that a significant percentage of the student population will have serious difficulties in progressing in a timely fashion and successfully completing their education, with a domino effect on future job opportunities and social integration (ECLAC/OEI/SEGIB, 2010).

The situation varies among the countries of the region and is significantly associated with each country's level of development and wealth. There are therefore clear differences between countries by per capita income. In general, the wealthier countries provide their students with better education in basic competencies. Figures II.8 and II.9 show the association between GDP and academic performance in the language area in primary school (on the basis of SERCE 2006) and in the science area in secondary school (on the basis of PISA 2006). The trend they show is that the higher the per capita GDP, the better average academic outcomes are. But some countries in each figure with similar per capita GDP rank higher or lower, leading to the conclusion that while this variable is important, it is not the only determining factor. Other national context factors must also be taken into consideration.

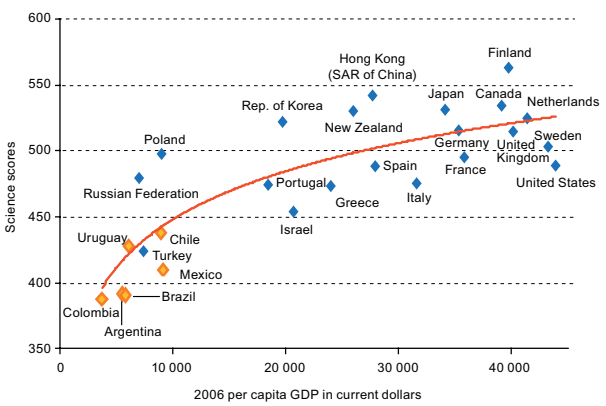
Figure II.8
LATIN AMERICA (15 COUNTRIES): AVERAGE SECOND REGIONAL COMPARATIVE AND EXPLANATORY STUDY (SERCE) READING TEST SCORES FOR SIXTH-GRADERS BY 2006 PER CAPITA GDP, 2006 [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from the Second Regional Comparative and Explanatory Study (SERCE), 2006; and World Bank, World Development Indicators.

[a] Cuba is not included because it does not have a World Bank per capita GDP indicator.

Figure II.9
LATIN AMERICA (SIX COUNTRIES) AND OTHER PARTICIPANTS IN THE PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT (PISA) (20 COUNTRIES): AVERAGE PISA SCIENCE TEST SCORES FOR 15-YEAR-OLD STUDENTS BY 2006 PER CAPITA GDP, 2006



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from the Programme for International Student Assessment (PISA), 2006; and World Bank, World Development Indicators.

Inequality and social exclusion, which are such problematic extra-school factors in the region, are being reproduced by the educational system and are reflected in outcomes and associated opportunities. PISA, SERCE and educational research in general show a clear link between students' socio-economic and cultural environment and academic performance. In most countries of the region, family socio-economic and cultural environment is at the root of the most significant differences in learning. Figure II.10 shows the distribution by socio-economic and

cultural status of academic performance for 15-year-old students in science.[3] Most students in the first and second socio-economic and cultural quartiles in countries of Latin America perform below level 2, meaning that they have not developed the basic competencies for performance in this area.

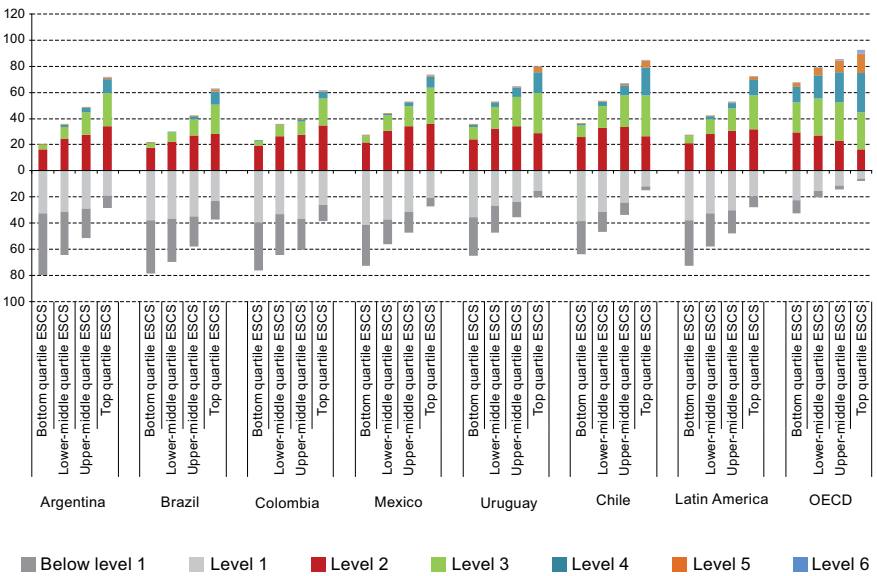
Level 2 is the level at which students possess adequate scientific knowledge to provide possible explanations in familiar contexts or draw conclusions based on simple investigations. At level 3, students can identify clearly described scientific issues in a range of contexts, select facts and knowledge to explain phenomena and apply simple models or inquiry strategies. At level 4, students can work effectively with situations and issues that may involve explicit phenomena requiring them to make inferences about the role of science; they can integrate explanations from different disciplines of science, reflect on their actions and communicate decisions using scientific evidence.

The students presenting the best performance in science are classified in levels 5 and 6. Unlike the case among students of the third and fourth quartiles in OECD countries, few students in Latin America reach these two levels. Students at level 5 can identify the scientific components of many complex life situations and apply scientific concepts; they can use well-developed inquiry abilities, link knowledge appropriately and bring critical insights to situations. The top-performing students (those at level 6) can consistently identify, explain and apply scientific knowledge in a variety of complex life situations; they clearly demonstrate advanced scientific thinking and use it to develop arguments in support of recommendations. Only 1.3% of all students in the OECD countries attain this level of competency. Although OECD countries also show some variations in educational attainment among students in different quartiles, in all those countries —unlike in Latin America— the vast majority of students attain the expected basic level of competency (level 2 and higher).

Figure II.10

LATIN AMERICA (SIX COUNTRIES) AND OECD (30 COUNTRIES): DISTRIBUTION OF LEVELS OF PERFORMANCE ON THE PISA SCIENCE ASSESSMENT FOR 15-YEAR-OLD STUDENTS BY INDEX OF FAMILY ECONOMIC, SOCIAL AND CULTURAL STATUS, 2006 [a]

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of microdata from the PISA 2006 survey.

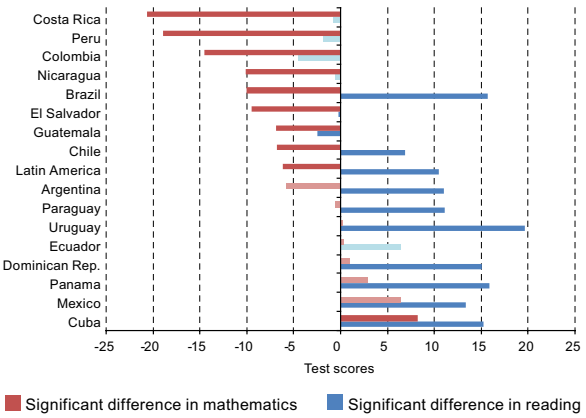
[a] The distribution of performance levels in Latin America and in the Organization for Economic Cooperation and Development (OECD) refers to the simple average of the weighted mean national achievement levels of the countries participating in PISA 2006.

[3] PISA prepares this index using three factors assumed to be related to socio-economic status (OECD, 2008): household purchasing power and the occupational status and educational level of the parents of students participating in PISA tests. Purchasing power is measured by the presence of certain items in the household (e.g., DVD player, dishwasher, desk, personal computer, number of television sets). Occupational status is determined by asking students what each of their parents does for a living; the occupation having the higher status is classified and then converted into a score based on the International Standard Classification of Occupations (ISCO). Educational level of the parents is classified according to the International Standard Classification of Education (ISCED) ranking, using the higher of the rankings between the two parents.

As for gender, girls, on average, perform better in language assessments and boys perform better in mathematics and science evaluations. These differences could suggest that socially imposed differentiated gender roles permeate pedagogical and socialization practices in schools (UNESCO/LLECE, 2008). However, gender gaps in academic outcomes differ among countries (see figure II.11). Costa Rica, Peru and Colombia have the largest gender gaps in favour of boys in math performance in the sixth grade of primary school. In Brazil, boys perform significantly better in mathematics and girls in reading. Along with Brazil, girls in Uruguay, Panama and Cuba show higher levels of reading competency than do boys.

Lastly, segmentation between rural and urban areas is dramatic. In almost all of the countries of the region, pupils in urban schools perform significantly better than those in rural schools. The average difference in reading competency scores in the countries participating in SERCE is 44.7 points in favour of urban students. The difference for the math assessment is 36.3 points. Because indigenous groups are more concentrated in rural areas, it could be assumed that many of these groups are caught up in this performance gap. This is corroborated by the cognitive achievement study conducted by the UNESCO Latin American Laboratory for Assessment of the Quality of Education (UNESCO/LLECE) on the basis of the SERCE 2006 study. All of the countries that included indigenous groups in the assessment showed a negative association between this characteristic and learning outcome. This association is most relevant in learning to read. Controlling for other factors associated with learning (socio-economic context and the characteristics of the school), indigenous sixth-graders will tend to score an average of 17 points lower in reading in Colombia, 24 points less in Costa Rica, 21 points less in Ecuador, 18 in Guatemala and 15 in Peru.

Figure II.11
LATIN AMERICA (16 COUNTRIES): AVERAGE MATH AND READING PERFORMANCE BY SEX (GIRLS-BOYS), SECOND REGIONAL COMPARATIVE AND EXPLANATORY STUDY (SERCE) SCORE, SIXTH GRADE, 2006 [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from the Second Regional Comparative and Explanatory Study (SERCE), 2006.

[a] The lighter-coloured bars show differences that are not statistically significant.

8. Acquisition of digital competencies: new kinds of exclusion

Another new development is that educational credentials alone are declining in importance among the qualifications for full participation in the economy, society and political life. The penetration of information and communications technologies (ICT) in all corners of society is making attainment of digital competency thresholds a prerequisite for social inclusion, and the pace of change is even more vertiginous than in education.

Both trends (in education and in technology) are indeed very closely related. First, the telematics revolution has confirmed the supremacy of human capital in defining an individual's assets and in making countries more competitive, thus bringing educational systems back to the forefront in promoting production and well-being. Second, educational systems cannot sidestep the challenges of the digital revolution in teaching. Third, they cannot ignore how the new technologies are changing the qualifications required by the labour markets. Last, while there is still no conclusive evidence, it is widely suspected that the confluence of formal education attainments and digital competencies multiplies and enhances knowledge.[4]

Using ICT in schools is not merely a question of ensuring digital literacy among the population, but also of introducing ICT throughout the teaching and learning process in order to facilitate the acquisition of modern

[4] Recognition of this potential positive synergy is reflected, inter alia, in how hard it now is to find publications on the status of education at a national or international level that do not refer extensively to the incorporation of digital equipment into teaching practices, and to the levels of digital competency that pupils bring to the classroom. But unlike for educational attainment, there are still no standardized measurements of levels of digital competency that could track changes in the demand for these skills on the market. It could be that the speed of change, combined with the difficulty of measuring these factors, has so far made it impossible to devise a standard measurement for levels of digital competency that would guide national institutes of statistics in gathering the requisite data.

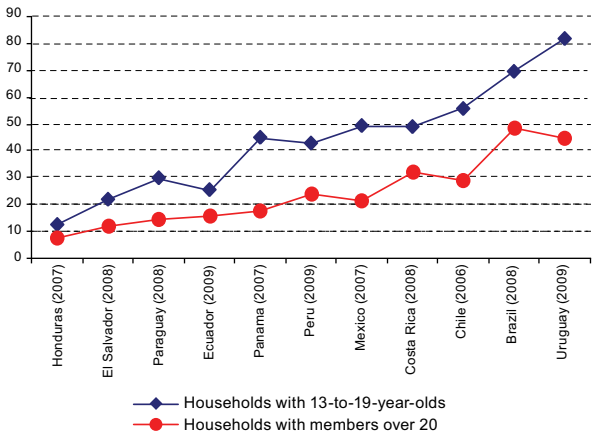
competencies and improve overall student achievement (United Nations, 2010). The skills involved in mastering ICT are an increasingly important part of the set of core assets that people need in order to take advantage of new opportunities in the economy, the State and the community, and for full participation in today's society (Kaztman, 2010).

However, just as ICT create an opportunity for equity and social integration, the current distribution of resources and competencies in the societies of Latin America is such that the very dynamics of ICT penetration can lead to vicious circles, widening existing gaps or superimposing new ones and contributing to societal polarization. The digital divide in Latin America is, in part, rooted in unequal access stemming from enormous differences in the availability of equipment. But it also has to do with how pupils use and can benefit from such equipment. At this other level, inequality is evidenced in different levels of ability to use ICT productively and take advantage of their potential for developing the competencies and skills that are increasingly necessary for integration in the globalized world (Sunkel and Trucco, 2010).

The burgeoning, market-driven penetration of ICT in the region is creating substantial gaps in access to equipment by social class. While approximately 55% of the households in the highest income quintile (average for 13 countries of Latin America) have a computer connected to the Internet, only 26% of the households in the first income quintile do.[5] In general, studies show that despite this segmented access to technology, children and young people are entering the world of technology in greater numbers. In households with 13-to-19-year-olds, connectivity is rising at a faster rate than in households where all members are over 20.

Identifying different connectivity access rates by generation leads to an examination of how much this weakens or reinforces class-based gaps (Kaztman, 2010). A look at the figures shows that in the countries of the region where technology is more market-driven (such as Brazil, Chile and Uruguay) the class gaps for younger-generation users are not narrowing. They are widening (see figure II.12). In Uruguay, for example, the connectivity gap between households with younger members in the highest and lowest quintiles is more than 80 percentage points. In households without young people the gap is less than 40 percentage points.

Figure II.12
LATIN AMERICA (11 COUNTRIES): DIFFERENCE IN THE PROPORTION OF HOUSEHOLDS WITH AN INTERNET CONNECTION IN THE HIGHEST AND LOWEST INCOME QUINTILES BY PRESENCE OR ABSENCE OF HOUSEHOLD MEMBERS AGE 13-19, AROUND 2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special processing of household surveys reconciled by the Observatory for the Information Society in Latin America and the Caribbean (OSILAC); and R. Kaztman, "Impacto social de la incorporación de las TIC en el sistema educativo", *Políticas sociales series*, No. 166 (LC/L.3254-P), Santiago, Chile, ECLAC, 2010.

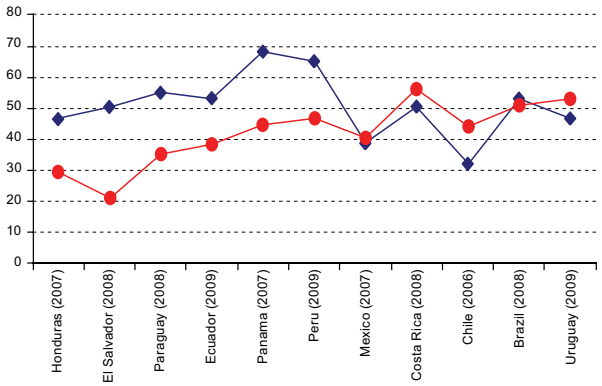
[a] Countries shown in order of the percentage of households with Internet connection in each country.

The fact that access is available elsewhere than at home brightens this pessimistic picture of unequal opportunities to acquire digital competencies. Figure II.13 shows the differences between the highest and lowest quintiles in terms of percentage of Internet users, regardless of the place where they access equipment and the Internet. The relative intensity of the digital gaps changes for both groups. In 4 of the 11 countries studied (Chile, Costa Rica, Mexico and Uruguay), the digital gap between the poorest and wealthiest quintiles of the population of 13-to-19-year-olds is narrower than for the population age 20 or older. In the other seven countries, the digital gap between socio-economic levels is wider for the younger group.

The school system has been called to lead the way in policies for achieving mass access to, training in and use of the new digital technologies, precisely because of its ability to counteract underlying inequalities. But the school system has not been the only door to technology for the lower-income segments of the population. Neighbourhood cybercafés have also played a significant role, especially in countries with greater purchasing power. Despite efforts to offset the underlying social inequalities stemming from the market-driven penetration of such equipment, the school system has not had much influence. The only clear signs of an impact are in Chile (see figure II.14).

[5] Unweighted average on the basis of special processing of household surveys reconciled by the Observatory for the Information Society in Latin America and the Caribbean (OSILAC): Brazil (2008), Chile (2006), Colombia (2008), Costa Rica (2008), Bolivarian Republic of Venezuela (2008), El Salvador (2007). Guatemala (2006), Honduras (2008), Mexico (2008), Paraguay (2008), Peru (2008), Plurinational State of Bolivia (2007) and Uruguay (2008). See Kaztman (2010).

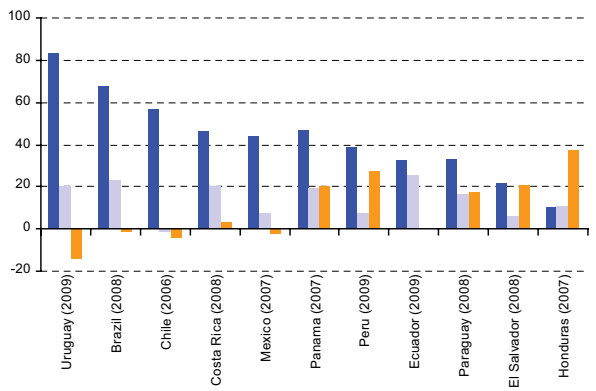
Figure II.13
LATIN AMERICA (11 COUNTRIES): DIFFERENCE IN THE PROPORTION OF INTERNET USERS IN THE HIGHEST AND LOWEST INCOME QUINTILES BY AGE GROUP, AROUND 2008 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special processing of household surveys reconciled by the Observatory for the Information Society in Latin America and the Caribbean (OSILAC); and R. Kaztman, "Impacto social de la incorporación de las TIC en el sistema educativo", *Políticas sociales series*, No. 166 (LC/L.3254-P), Santiago, Chile, ECLAC, 2010.

[a] Countries shown in order of the percentage of households with an Internet connection in each country.

Figure II.14
LATIN AMERICA (11 COUNTRIES): DIFFERENCE IN THE PROPORTION OF 13-TO-19-YEAR-OLD INTERNET USERS IN THE HIGHEST AND LOWEST INCOME QUINTILES BY PLACE OF CONNECTION, AROUND 2008 [a]
(Percentages)



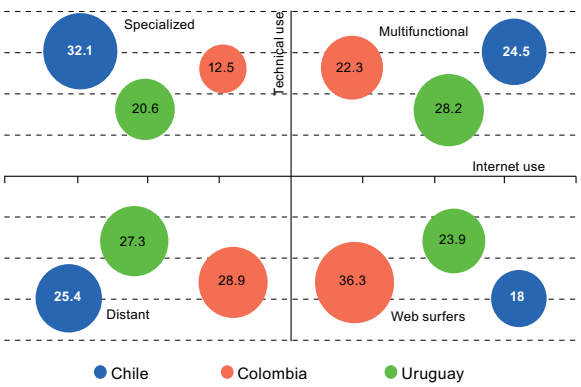
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special processing of household surveys reconciled by the Observatory for the Information Society in Latin America and the Caribbean (OSILAC); and R. Kaztman, "Impacto social de la incorporación de las TIC en el sistema educativo", *Políticas sociales series*, No. 166 (LC/L.3254-P), Santiago, Chile, ECLAC, 2010.

[a] Countries in order of percentage of households with an Internet connection.

The problem with access opportunities at commercial establishments (and even in educational establishments in some cases) is the low intensity at which individuals can make use of the technology. Because of the cost, or because of access conditions at educational establishments, those who use these locations normally do so for shorter periods of time and so have fewer possibilities for developing digital competencies for social and productive integration than do young people who can access the Internet at home.

This leads us to another dimension of the digital divide, one that is not related to access but rather to modes and intensity of use. A recent study (Sunkel, Trucco and Möller, 2010) profiled young ICT users in three countries on which PISA 2006 information was available (Chile, Colombia and Uruguay) on the basis of what they reported using computers and the Internet for, and how intensely. The typology shows that there are four types of user, differentiated on the basis of how intensely they use the technology and the degree of specialization they have acquired. One group is "distant" users, that is, young people who use the computer infrequently for a variety of tasks. Another group is the "Web surfers" who use the computer mainly to browse the Internet and to collaborate with groups, download software or music and communicate (e-mail and other media). A third group is the "specialized" users. These young people more frequently use software to write documents or create spreadsheets, graphic presentations, programs or educational software. The last group comprises "multifunctional" users, who frequently engage in both technical and recreational activities. It is this type of user that is making the most complete use of the potential opportunities provided by digital technologies (Sunkel and Trucco, 2010).

Figure II.15
CHILE, COLOMBIA AND URUGUAY: PROPORTION OF 15-YEAR-OLDS BY TYPE OF ICT USE AND COUNTRY OF ORIGIN, 2006 [a]



Source: G. Sunkel, D. Trucco and S. Moller, "Aprender y enseñar con tecnologías de la información y las comunicaciones (TIC) en América Latina. Potenciales beneficios", *Políticas sociales series*, No. 169 (LC/L.3291-P), Santiago, Chile, ECLAC, 2010.

[a] The construction of the ICT use indicators meets methodological and statistical requirements set out in chapter 16 of the PISA 2006 Technical Report (OECD, 2009).

The analysis indicates that there are structuring variables, such as socio-economic and cultural differences and student gender, that define user types. Males are more likely to be multifunctional users; females are more likely to be distant users. Young people from more privileged social groups have more options for developing multifunctional digital competencies.

C. The transition from education to employment and the intergenerational reproduction of unequal productive opportunities and access to well-being

In a context of unequal access to educational opportunities, the link between education and employment reproduces social inequalities and can worsen them. Stratified education coupled with self-regulating labour markets segmented by level of productivity cement the gaps passed on from generation to generation throughout the life cycle. Education is segmented by socio-economic conditions and educational levels in the household of origin, and the return on that education also reproduces the gaps in access to decent jobs and well-being. The rates of return on education rise along with years of schooling, but the biggest leaps are upon completing secondary school, upon beginning tertiary education and, above all, upon completing tertiary education. Education levels being equal, the rates of return (measured by labour income) are lower for females than for males, and they are lower for informal workers than for formal workers; that is tangible evidence of the patterns of exclusion existing in the workplace.

This edition of *Social Panorama* focuses on the life-cycle period from birth to 29 years of age, encompassing childhood, adolescence and young adulthood. It is during this part of the life cycle that people transition from the intensive acquisition of knowledge and development of skills to productive integration into society; from dependence to economic autonomy; from living in the household of origin to forming one's own household. This transition determines, to a large extent, the success (or rather, the skills and potential) that the new generations will have in being full members of society throughout their adult lives, free to pursue their life plans, participate as citizens and contribute to development. This formative period determines whether social inequalities will be perpetuated or whether they will lessen from one generation to the next.

The disparity in skills development relates not just to educational attainment but also to self-regulating labour markets in their role as "factories of segmentation" by level of productivity, access to well-being and full enjoyment of social entitlements. Structural inequality (as replicated from the productive structure, markets and institutions) thus compounds intergenerational inequalities, with gaps becoming further entrenched throughout the life cycle and propagated from one generation to the next.

Accordingly, the approach adopted must be a comprehensive one, addressing structures and institutions as well as the life cycle. Education is a key consideration here, as it prepares individuals to be full participants in all spheres of society throughout their adult life. One of those spheres, among various others, is the workplace. ECLAC has conclusively documented that, in the current situation of most countries of the region, individuals who do not complete secondary education are exposed to a high level of social vulnerability since their labour-derived earnings will tend to be low as a reflection of low educational attainment; and they will be at high risk of falling into poverty and becoming excluded or marginalized if they have to work in self-regulating labour markets without any minimum assurances or labour rights.

Against this backdrop there is a wide-ranging debate and considerable concern about the link between education and employment. The bridge between the two generally leads from dependence to autonomy, from acquisition of knowledge and skills to their use in adult life, and from conditions in the household of origin to those in the individual's own household. It is known that the level of education attained has a strong bearing on the kind and quality of employment that can be accessed, but young people seeking to enter the

world of work face particular obstacles. How gaps entrenched in the educational system are reproduced when people enter the world of work is discussed below.

As ECLAC and UNESCO noted as long ago as 1992, education and employment are linked as basic pillars of changing production patterns with equity (ECLAC/UNESCO, 1992). To put it another way, it is impossible to fight social inequality without achieving equity in educational attainment and then turning it into jobs with smaller gaps in income and in access to social protection. Unfortunately, when there is unequal access to educational opportunities and productive structures are exclusionary, that link between education and employment reproduces social differences and inequities and can even amplify them. As seen above, this holds true for the countries of the region.

In Latin America, employment is still the mainstay of social inclusion. It provides differing degrees of access to well-being via the autonomous (or heteronomous, in the case of wage workers) generation of income. Labour income is still the principal source of household resources, accounting for some 80% of total household income (ECLAC, 2008a).

Employment is still the basic connection with social protection systems —specifically, access to social security and health systems. This is despite the strengthening, in some countries of the region, of non-contributory inclusion and protection mechanisms. Noteworthy among these mechanisms is the solidarity component of financing (and hence accessing) basic social security and preventive health-care benefits, as well as policies and programmes geared towards fighting poverty through social policies targeting lower-income sectors that are not integrated in the labour market (ECLAC, 2009; ECLAC, 2010a).

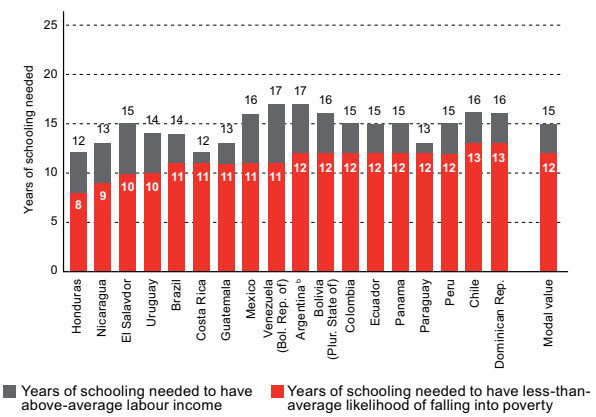
Work also enhances the feeling of belonging. For many, being outside the world of work is the most dramatic way to "not belong", to be excluded both socially and symbolically. This feeling is particularly marked among young people because employment is the main road to integration in society. It facilitates interpersonal development, self-esteem and mutual recognition in groups with shared characteristics (ECLAC/OIJ, 2008).

1. Minimum thresholds for well-being, credentials and educational devaluation

A few decades ago, a relatively low percentage of the population managed to access educational systems and reach significant milestones (completion of secondary education, tertiary education). This high concentration of (scarce) educational capital worked in favour of a high return on education because having completed primary education was enough to access good jobs with wages and benefits, mainly in the primary and secondary sectors. Mass access to and completion of primary education in the 1980s and 1990s, plus the generalization of secondary education (chiefly the lower cycle), have led to creeping devaluation. These levels of educational attainment are no longer enough to reach social positions with incomes that offer an easy escape from poverty, let alone above-average labour income.

ECLAC has repeatedly noted that completion of secondary education is the minimum educational threshold in the region for ensuring a future free of poverty (ECLAC, 2000; ECLAC/OIJ, 2008 and 2004). Attaining this level of education is crucial for acquiring the basic skills needed for development and lifelong learning in a globalized, democratic world. It is also a determining factor in the attainment of a baseline well-being that will shatter the mechanisms that reproduce inequality. Otherwise, these mechanisms will impact that individual's children (see figure II.16).

Figure II.16
LATIN AMERICA (18 COUNTRIES): YEARS OF SCHOOLING REQUIRED TO BE LESS LIKELY TO LIVE IN POVERTY OR TO EARN ABOVE-AVERAGE LABOUR INCOME AMONG THE EMPLOYED POPULATION AGE 20-29, AROUND 2008 [a]
(Years of schooling)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

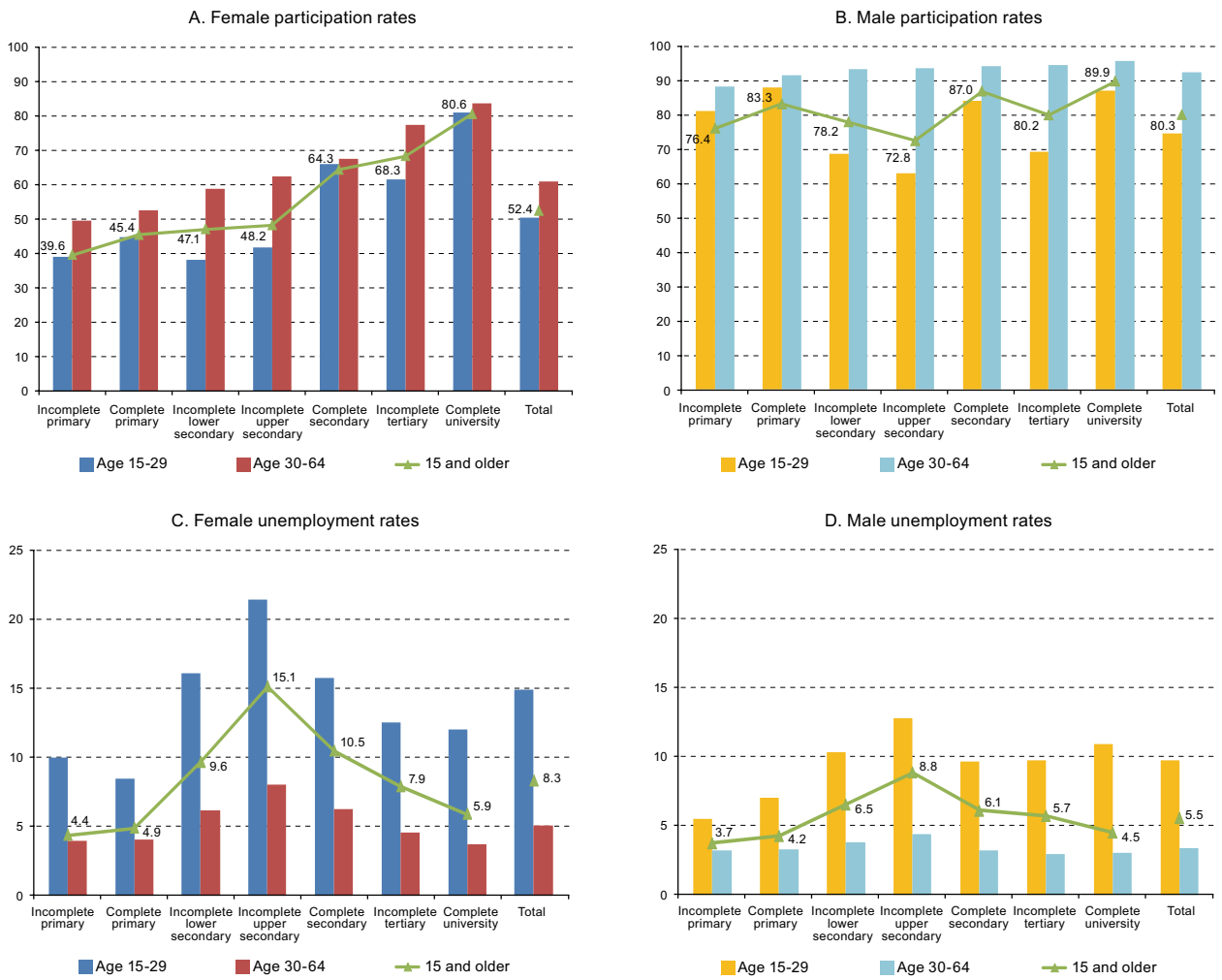
[a] Employed persons working 20 or more hours per week.

[b] Urban areas.

Although trends in labour market incorporation and the quality of employment depend on many different factors and on just how the labour market is segmented in each country (inter alia, gender differences, the weight of the informal sector and the degree of development of social protection systems), the relevance of educational attainment in the structure of labour supply and demand is clear. So, and especially for females, higher rates of participation in the labour force are found precisely among those who have completed secondary education and have some kind of post-secondary education. Because a certain percentage of young people is still in school, participation is slightly higher for those who left school early and for those who have already acquired some kind of credential (see figure II.17 (A and B) and the breakdown by country in table II.A-7). The trend is much clearer among the adult female population: the higher the level of education, the greater the proportion of participation in the labour force.

For men, figure II.17.B shows a higher proportion of labour market participation, with a significant group starting to work quickly after leaving school early (with or without completing primary school). As the primary source of family income, men are often forced by economic necessity to leave school early (see sections above), precisely to enter the labour market. But this higher participation rate does not mean access to good-quality employment, as discussed in the following section.

Figure II.17
LATIN AMERICA (SELECTED COUNTRIES): PARTICIPATION AND UNEMPLOYMENT RATES, AGES 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).

Those who have the most common level of education —incomplete or complete secondary education— have the hardest time finding work (see figure II.17 (C and D)). Sixty-four per cent of young people have an incomplete secondary education (upper or lower cycle) or have completed secondary education but have no further schooling. For the adult population, the figure is 44%, with 36% of the adult population having completed primary education or less. There is obviously a tipping point for labour market participation that could be related (especially for the younger generations) to changing expectations as to the kind of employment they can aspire to: jobs that require higher degrees of specialization but do not seem to be in ample supply. Unemployment impacts young people the most, with an average unemployment rate of 11.8% versus 4.1% for adults. It is even larger for young females. Although the distribution of unemployment rates shows similar trends for males and females, they are higher for young females at all levels of educational attainment. Evidence from several periods shows that completion of the primary cycle and, later, secondary education has become relatively devalued on the labour market. This is seen in terms of both quantity —demand relative to the supply of labour at these levels of education— and price, with wages declining relatively over time (see tables II.A.7-14). This can be seen especially among the young population (ECLAC/OIJ, 2004 and 2008).

2. Education and quality of employment

The quality of labour market participation is highly subject to the level of education attained. This becomes more apparent with conclusion of higher cycles of education. This link between education and quality of employment is seen in levels of participation in the formal economy (or in medium- and high-productivity sectors), in access to social protection systems and in income, as discussed below.

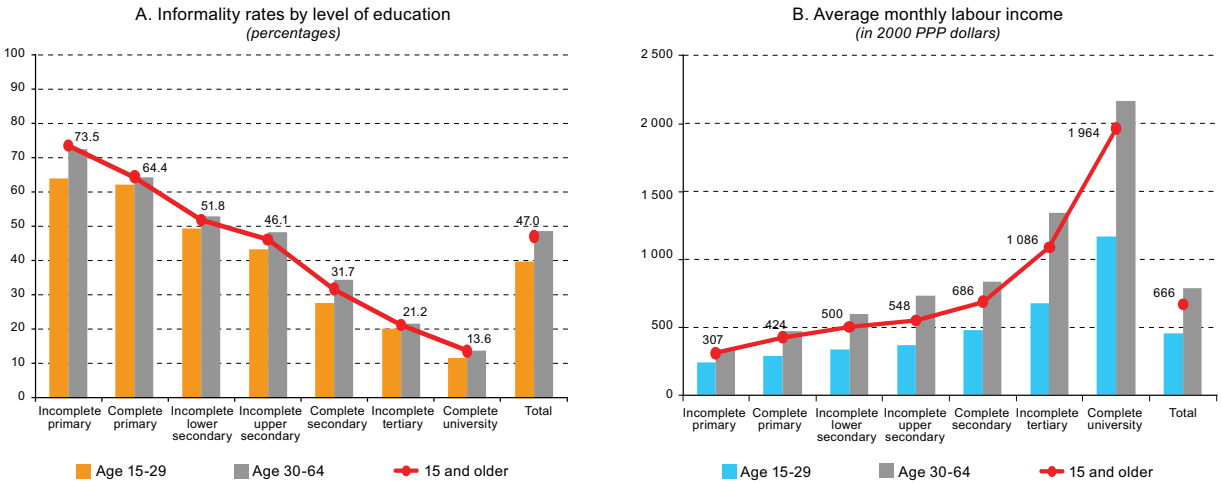
First, the higher the level of education attainment, the higher the proportion of wage-earners. Contrary to some hypotheses that identify independent work as prevalent in more dynamic, modern and globalized labour markets with a labour force that values autonomy and hence chooses such occupations, evidence seems to show that in Latin America independent work is associated more with the informal labour market, low productivity, low levels of qualification and lower income (for further information, refer to ECLAC, 2009). Wage labour employment is higher among the young labour force (75% of those employed) than among adults (just above 60% of the employed age 30-64). This latter trend would, in part, be due to the higher likelihood of independent work —the level of education attainment being the same— later in the life cycle. But it is also true that in all of the countries self-employment is the only option open to a significant portion of the less-qualified adult population for generating labour income (see table II.A-11).

Second, an increase in educational attainments is inversely related to employment in the informal or low-productivity sector (see figure II.18.A), which is to a certain degree also related to the potential for employment as a wage-earner. Therefore, if 47% of the employed population age 15 and older works in the informal sector, the percentage rises to 74% for those who did not complete primary education and falls to 64% for those who did, 32% for those who completed secondary education and just 14% for those who completed education at a university level. The adult labour force is more likely than young people to be inserted in low-productivity sectors (48.4% of employed adults versus 39.7% of employed young people).

This, too, is closely linked to access to social protection systems associated with employment: the higher the education level of the workforce, the greater the proportion of those who belong and pay into social security. While some 43% of the total workforce participates in social security, only 21% of workers who completed a few grades of primary education are protected by such systems, compared with 69% of those who have some kind of post-secondary education. There is also marked dissimilarity in social security system coverage (in terms of the percentage of the workforce enrolled), ranging from less than one fifth (Paraguay) to more than two thirds (Costa Rica). And the lower the general enrolment in social security, the greater the differences in enrolment based on level of education (see table II.A-13).

Lastly (and expectedly), there is a strong link between the level of educational attainment and labour income. While the average income for the employed labour force in the region is a little more than US$ 660 (at 2000 purchasing power parity prices), those who completed primary education or less earn just US$ 350, on average. Those who attained post-secondary education average more than US$ 1,400 per month (see figure II.18.B).

Figure II.18
LATIN AMERICA (SELECTED COUNTRIES): INFORMALITY AND MONTHLY LABOUR INCOME FOR THE EMPLOYED POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).

3. Internal rates of return on education

A classic way to show the relationship between educational attainments and income is to calculate the internal rates of (private) return on education, showing the percentage increase in labour income according to additional years of education, educational cycles completed or other ways of specifying an individual's accrued educational capital. Doing so provides a snapshot of the "yield" on education in terms of greater labour income (usually, wages), taking into account several factors involved in this relationship.[6]

Noteworthy among the factors to bear in mind when assessing the private return on education are those related to labour market segmentation. Taken into consideration here were three major factors that distinguish between dual labour markets and those that operate in a parallel (albeit not separate) fashion and have a significant impact on educational returns. These factors are employment in low-productivity sectors, sex and area of residence (see box II.1 and the results of the regression analyses in table II.A-15).

[6] It is not being said here that the purpose of education, either exclusively or primarily, is to achieve the rates of return that years of schooling produce in competitive labour markets. It is worthwhile showing, however, to what extent democratization of educational opportunities is crucial to ensuring people's right to exercise their positive liberty, i.e. to pursue life projects on the basis of, inter alia, timely development of their skills. That development of skills is necessary but not sufficient in and of itself, inasmuch as labour markets should be subject to regulatory policies and guidance to ensure full enjoyment of labour rights and social protection. In this regard, the State should play a core role in preventing educational differentiation from condemning to exclusion those not achieving the educational attainments indicated. Hence, productivity increases should not be understood solely in terms of return on learning but also in terms of the possibility of a society —through the State and the tax system— redistributing resources and extending social protection to the most disadvantaged sectors.

Box II.1
PROCEDURE FOR ESTIMATING INDIVIDUAL RETURNS ON EDUCATION

The origins of the empirical analysis showing the influence of schooling on income formation date from the late 1950s and the 1960s. The work of Jacob Mincer (1958 and 1962) and Gary Becker (1964) generated evidence on the income differential by sex and educational background. The classic study positing a positive relationship between schooling and income was conducted by Mincer in 1974; in it, he links the natural log of income with the number of years of study and experience, through the following equation:

$$\ln(y) = \beta_0 + \beta_1 \cdot Sch + \beta_2 \cdot Exp + \beta_2 \cdot Exp^2 + \varepsilon \quad (1)$$

where parameter β_0 is the natural log of the income of an individual without any schooling, while β_1 is the percentage increase in income for each additional year of education completed, i.e., the rate of return. Various studies on this subject have been conducted during the last few decades; in the case of Latin America the available results show the positive effect of schooling in determining labour income (Psacharopoulus and Chu, 1992; ECLAC, 2002). There is also abundant literature on the problems deriving from selection bias in estimating these models, as well as on the problems arising in interpreting the results when instrumental variables designed to correct them are incorporated (Kling, 2000).

The results presented in the 2001-2002 edition of *Social Panorama* were generated by adjusting a function for estimating the increase in income, that is, the return on a larger number of years of schooling. The average rate of return was calculated on the basis of equation (2), which was applied in order to estimate the differences generated between each of the education cycles (basic, secondary and higher):

$$\ln(y) = \beta_0 + \beta_1 \cdot Sch + \beta_2 \cdot d_b (sch - b) + \beta_3 \cdot d_s (sch - s) +$$
$$\beta_4 \cdot dgender + \beta_5 \cdot darea + \beta_6 \cdot d\,sector + \beta_7 \cdot Exp + \beta_8 \cdot Exp^2 + \varepsilon \quad (2)$$

The variable *Sch* represents the number of years of schooling of each individual; *b* is the total number of years corresponding to the basic cycle; *s* is the number corresponding to the secondary cycle; d_b is a binary variable that has a value of 1 when an individual has a number of years of schooling equal to or greater than *b*; d_s is equal to 1 when an individual has *s* or more years of schooling, while the potential experience is obtained by subtracting from the reported age the age of entry into the formal educational system and the accumulated years of schooling. Equation (2) corresponds to an additive effects model, so that the rate of return for a given level of education is calculated by adding together the values of the parameters estimated in previous cycles. Thus, β_1 corresponds to the baseline parameter and is equivalent to the rate of return for primary schooling, while ($\beta_1 + \beta_2$) corresponds to the secondary cycle of education and ($\beta_1 + \beta_2 + \beta_3$) corresponds to individuals who have completed higher studies. Variables *dgender, darea* and *dsector* are binaries with a value of 1 if the individual is male or lives in an urban area or works in the formal sector.

The results of the regressive analyses presented herein are for equation (2), but separate results were generated for males and females, for urban and rural areas and for formal and informal sector workers. The estimation method used was minimum weighted squares, and the expansion factor associated with each observation was included in the calculation algorithm. The sampling refers to persons age 20 and older who reported being wage-earners who usually work more than 19 hours per week and who earned some income from work during the survey period. Monthly income (per hour worked, assuming a standard 48-hour work week) was expressed in local currency at average prices for 2002.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America* 2001-2002 (LC/G.2183-P), Santiago, Chile, 2001. United Nations publication, Sales No. E.02.II.G.65.

Generally speaking, primary education has a return (or income increment) of 4.7% per year of education (simple average of 18 countries), which rises to 7.0% per additional year in the secondary cycle and 14.9% per each year of post-secondary education. Although this trend is general across countries, the return on each education cycle differs widely from one country to another in terms of effective increment. As table II.2 shows, the return ranges from 1% to 8.7% per additional year of primary education (Costa Rica and Honduras), from 2.9% to 12.4% per additional year of secondary education (Plurinational State of Bolivia and Guatemala) and from 8.4% to 25.5% per additional year of post-secondary education (Argentina and Brazil). Perhaps the most striking examples are the Plurinational State of Bolivia and Peru, where the return on secondary education is lower than for primary education and could become a disincentive for completing the 12 years of education that, as seen above, is the minimum threshold for attaining well-being.[7]

The differences in income between labour market segments should also be weighed. It is not that rates of return differ significantly across labour segments, but rather that income levels and, therefore, income trajectories do. The results shown below reflect the application of separate models for the formal sector, the informal sector, males, females and urban and rural areas, without controlling for other segmentations involved.[8]

7 This is not the case in the Plurinational State of Bolivia if the rates of return are calculated for the informal sector only, nor in Peru if only women are considered. These models based on labour market segments give rise to the curves in figure II.19, but the results are not shown here for space reasons.

8 The segmentation variables are considered jointly in the general model summarized in tables II.2 and II.A-15.

Table II.2
LATIN AMERICA (18 COUNTRIES): INTERNAL RATES OF RETURN ON EDUCATION AND RELEVANCE OF OTHER FACTORS IN WAGE INCREMENT [a]
(Percentages of increment of base wage)

Country	Year	Internal rate of return			Weight of other factors		
		Primary education	Secondary education	Post-secondary education	Living in urban area	Being male	Inserted in formal sector
Argentina (urban areas)	2006	3.0	7.6	8.3	...	15.8	47.8
Bolivia (Plurinational State of)	2007	5.1	2.9 *	16.5	59.2	18.3	30.5
Brazil	2008	6.7	9.2	25.5	18.7	24.5	26.9
Chile	2006	3.0	7.5	19.4	7.4	20.7	24.3
Colombia	2008	5.1	5.6 *	14.0	7.7	11.8	40.8
Costa Rica	2008	1.0	5.6	16.0	7.1 *	23.0	29.5
Dominican Republic	2008	4.4	4.5 *	18.2	9.1	21.7	30.3
Ecuador	2008	4.3	6.0	10.8	12.7	17.6	28.4
El Salvador	2004	3.7	7.1	17.3	13.9	10.8	23.1
Guatemala	2006	7.5	12.4	14.8	8.0	15.7	9.7
Honduras	2007	8.7	10.9	14.4	44.4	0.2 *	67.1
Mexico	2008	4.5	9.0	14.8	21.4	17.6	33.2
Nicaragua	2005	5.2	7.9	14.0	10.2	15.6	21.5
Panama	2008	5.3	6.1 *	12.3	11.1	18.7	55.4
Paraguay	2008	5.5	7.7 *	16.6	4.1 *	10.9	30.5
Peru	2008	6.3	3.7	11.0	25.2	32.7	43.1
Uruguay	2008	2.9	8.7	14.9	-3.1	21.5	35.8
Venezuela (Bolivarian Republic of)	2008	2.9	3.6	9.8	...	14.5	36.0
Simple average		4.7	7.6	14.9	17.6	18.3	34.1

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] An asterisk is used to denote instances in which the regression is not statistically significant at 5%.

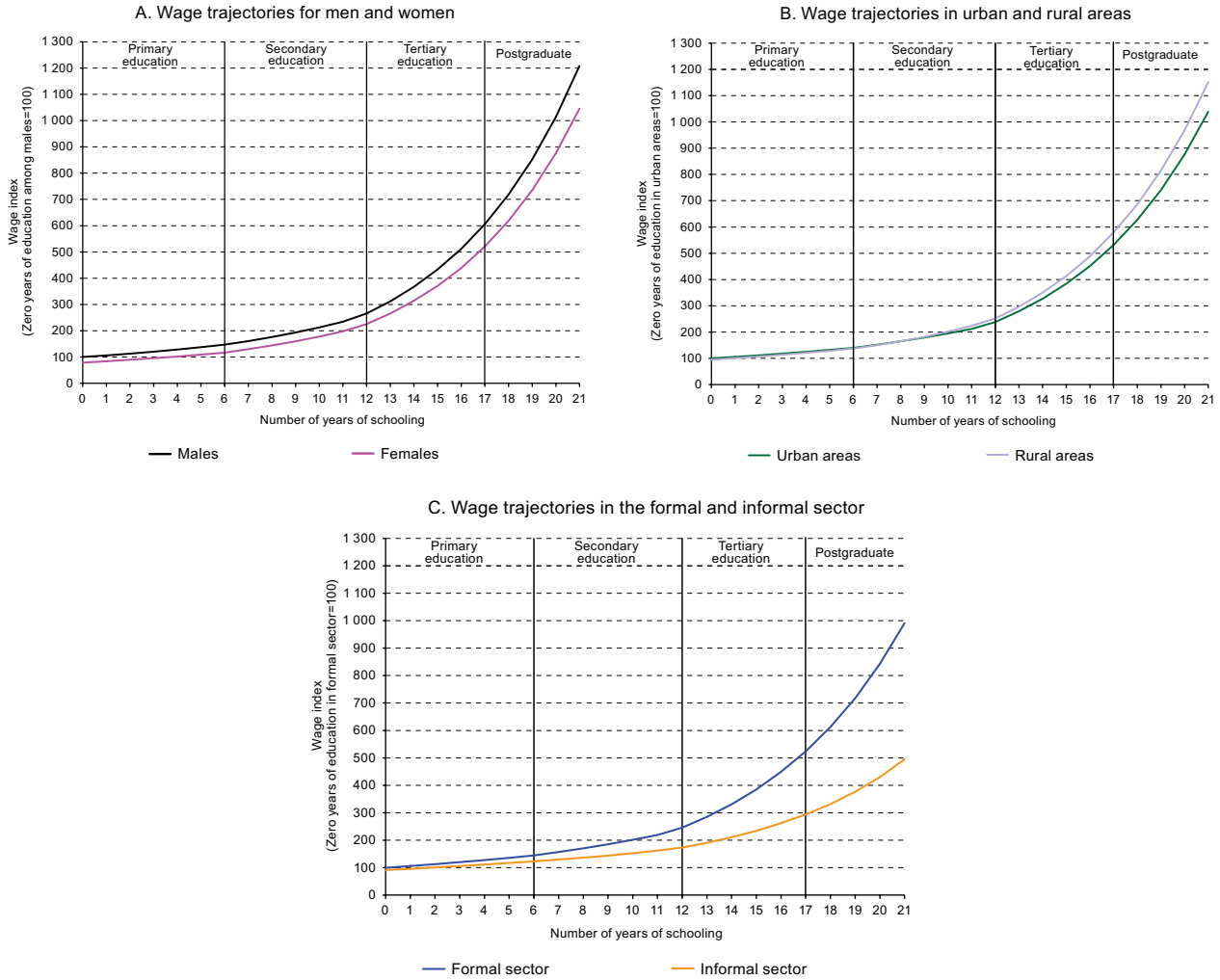
First, there is an obvious segmentation by worker gender (see figure II.19.A). Although the rates of return are higher for females, mainly in secondary education but also at the tertiary level, their levels of income are consistently lower than for men: labour income rises an average of slightly more than 17% just for being male.

Second, the differences between urban and rural labour markets lead to different rates of return on education. They are higher in rural areas, especially for post-secondary education. These significant differences in returns mean that although the baselines (wage levels without education or with just a few years) favour urban areas, the increment is larger in rural areas, especially at higher levels of education attainment. The shortage of qualified workers in rural areas is one of the reasons for their income being, on average, higher than in cities (see figure II.19.B). In any event, and considering that in rural areas the less educated account for a higher proportion of the working population, the employed earn, on average, 13.9% more income just for participating in urban labour markets.[9]

Last, the greatest differences in the rates of return appear when the labour markets are segmented along formal and informal lines. Figure II.19.C shows that labour income trajectories by years of schooling are clearly unequal: while at lower levels of education the wage differences do not exceed 10% to 12%, at higher levels the wage in the formal sector can be 80% higher than in the informal sector with the same level of qualification. On average, employment in the formal economy yields an income that is 34% higher than in the informal economy.

[9] There are striking differences between countries. In the Plurinational State of Bolivia and in Honduras, the income increment is 40% more in urban areas. The differences are minimal in Costa Rica and Uruguay, and in the latter even seem to favour rural labour markets.

Figure II.19
LATIN AMERICA (SELECTED COUNTRIES): INCOME TRAJECTORY BY YEARS OF SCHOOLING, WAGE-EARNERS AGE 20 AND OLDER WORKING 20 OR MORE HOURS PER WEEK, BY SEX, GEOGRAPHIC AREA AND LABOUR MARKET FORMALITY [a]
(Wages with zero years of schooling in the comparison category with the highest income=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Simple average trajectory for each segment of the labour market, by country. The trajectory within each segment was calculated using a separate model that does not control for the other segmentations.

Despite the persistent labour segmentation owing to ascriptive factors such as gender, geography and levels of productivity, educational expansion has also increased the proportion of intermediately qualified workers who are paid sufficiently (although unemployment is also higher among them). Concentrations of labour income are therefore lower. Examination of the labour Gini coefficient by age group reveals some positive data. What table II.3 shows is that among all employed age groups, the lowest Gini coefficient (both for labour income in general and for wage income in particular) is among young people. This could indeed be because education attainment for this age group as a whole is higher. Educational expansion increases the proportion of the economically active population with average levels of qualification and pay, increasing the total income and wages distributed in the labour market.

Table II.3
LATIN AMERICA (18 COUNTRIES): CONCENTRATION OF LABOUR AND WAGE INCOME AMONG WORKERS IN DIFFERENT AGE GROUPS
(Gini coefficient)

Country	Year	Workers age 15-29		Workers age 30-39		Workers age 40-49		Workers age 50-64	
		All workers	Wage-earners	All workers	Wage-earners	All workers	Wage-earners	All workers	Wage-earners
Argentina (urban areas)	2006	0.39	0.35	0.41	0.37	0.48	0.40	0.49	0.41
Bolivia (Plurinational State of)	2007	0.61	0.39	0.55	0.41	0.58	0.41	0.67	0.48
Brazil	2008	0.47	0.38	0.51	0.45	0.56	0.50	0.63	0.54
Chile	2006	0.45	0.41	0.52	0.47	0.54	0.48	0.57	0.49
Colombia	2008	0.45	0.37	0.49	0.44	0.53	0.48	0.58	0.51
Costa Rica	2008	0.34	0.31	0.43	0.37	0.50	0.42	0.48	0.43
Dominican Republic	2008	0.53	0.38	0.50	0.41	0.53	0.48	0.54	0.50
Ecuador	2008	0.47	0.33	0.49	0.37	0.54	0.41	0.56	0.45
El Salvador	2004	0.48	0.37	0.50	0.43	0.54	0.45	0.60	0.50
Guatemala	2006	0.57	0.37	0.57	0.43	0.64	0.48	0.65	0.51
Honduras	2007	0.57	0.45	0.56	0.46	0.60	0.51	0.64	0.56
Mexico	2008	0.52	0.43	0.54	0.44	0.58	0.47	0.66	0.51
Nicaragua	2005	0.55	0.38	0.52	0.45	0.56	0.48	0.57	0.45
Panama	2008	0.44	0.33	0.44	0.35	0.49	0.41	0.55	0.45
Paraguay	2008	0.51	0.34	0.49	0.34	0.55	0.40	0.63	0.50
Peru	2008	0.59	0.40	0.56	0.44	0.57	0.48	0.61	0.50
Uruguay	2008	0.41	0.36	0.45	0.40	0.49	0.43	0.52	0.45
Venezuela (Bolivarian Republic of)	2008	0.32	0.28	0.33	0.30	0.35	0.31	0.38	0.32
Simple average		0.48	0.37	0.49	0.41	0.53	0.44	0.57	0.48

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys conducted in the respective countries.

D. Key factors for fighting inequality from within the educational system: progress and challenges

Education policy must dovetail with other social promotion and protection measures if inequality in the intergenerational transmission of educational opportunities is to be successfully reversed. There are key intervention factors in the field of education. One of them is extending early childhood education coverage. Another is lengthening the school day at the primary level. This is particularly important for students who do not have an appropriate educational climate or place for studying at home. Incorporating digital technologies into education is seen as a critical opportunity in the battle for equity. Conditional cash transfer programmes for families can bolster timely education progression and help prevent dropouts, extending achievements to the most disadvantaged sectors of society. The supply of training for work is also essential, and the formal education system should coordinate with informal training programmes and the productive world. One of the main challenges in higher education is how to reconcile education quality with expanding access to traditionally excluded sectors.

Addressing inequality in the region is not an easy task. Nor can education be expected to solve problems involving multiple factors. That is why education policy must be linked with other social promotion and protection measures in an integrated approach that will help reverse inequality in the intergenerational transmission of educational opportunities.

It is important for education policy to provide for investing in schools. What is needed is educational infrastructure and resources, improved teacher training and a better teaching environment, enhanced school management and better curriculum content at all levels of education (ECLAC, 2010b). Public education for young people should extend beyond the end of the compulsory education cycle to ease the transition into the labour market and help reduce inequalities in the return on education throughout life. Set out below are key factors in education that can make a significant contribution to reducing inequality in the age bracket that is the focus of this edition of *Social Panorama*.

1. Early entry: early childhood and preschool education

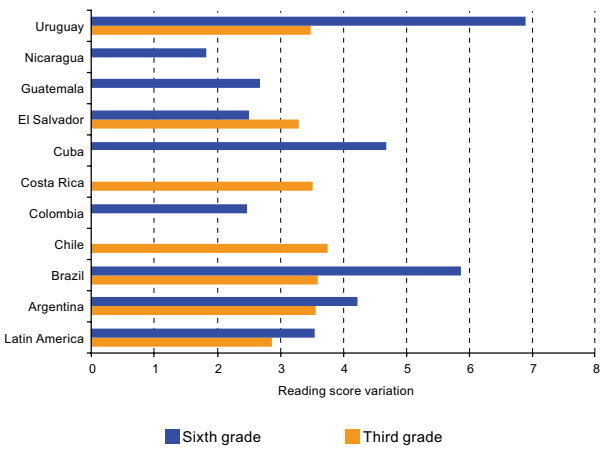
ECLAC has proposed that broadening early childhood education coverage should be a pro-equality policy priority in the region (ECLAC, 2010a). Preschool education recently became a top public policy issue in the region because of its key role in providing basic care for children, especially for families in a vulnerable socio-economic environment. Publicly funded institutional care for children under 6 has well-documented benefits (UNESCO, 2010).

Such care facilitates the integration of females into the labour market, fosters their autonomy and increases household resources. For the young cohort, it provides an opportunity for young mothers, giving them more free time to continue studying and avoid breaking their own education cycle. In-school meals and health care, as well as early stimulation, offset deficiencies at home. Such care also has a positive effect on future cognitive, psychomotor and attention-span development and activity levels and has a substantial impact on the child's prospects in subsequent education cycles. It is during the early years of life that personality, intelligence and social behaviour develop most quickly.

Quality of care and educational strategy must also be taken into consideration (ECLAC/OEI, 2010). Expanding the supply of education at the preschool (3-5 years of age) and early childhood (birth to 3 years) levels, along with appropriate policies that target and facilitate access for the most vulnerable sectors, will help build a strong educational base for the fight against problems such as repeating grades and dropping out.

There is clear evidence of the positive effect that preschool education has on academic outcomes for pupils in primary education and subsequent levels (UNESCO, 2010a). This effect is more apparent in the outcomes of learning to read, which is one of the skills that most influences household educational capital. Enhancing these skills in the first years of life is crucial. Aided by early stimulation from early childhood education, it makes a difference in future cognitive development. This association is not seen in all of the countries participating in SERCE, and it varies in intensity in those where it does have an impact (see figure II.20).

Figure II.20
LATIN AMERICA (15 COUNTRIES): IMPACT OF YEARS OF PRESCHOOL ATTENDANCE ON READING PERFORMANCE IN THIRD AND SIXTH GRADE [a]
(Multilevel model coefficients)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Latin American Laboratory for Assessment of the Quality of Education, *Factores asociados al logro cognitivo de los estudiantes de América Latina y el Caribe*, Santiago, Chile, UNESCO Regional Office for Education in Latin America and the Caribbean, 2010.

[a] The coefficients for Guatemala and Nicaragua are not statistically significant. The coefficients for the regional model were worked out with equivalent weights for each country.

Education is compulsory in all countries of the region, at least in primary education (six years). But in recent years many countries have lowered the entry age to include compulsory preschool education. Mexico is the country that has added the most years (three, from age 3 to age 6) of compulsory preschool education. Next come Chile, El

Salvador, Guatemala, Panama and Uruguay, with two years of compulsory preschool (age 4 to age 6).

Beyond compulsory education in the early years, the countries of the region are promoting policies and programmes geared towards protecting and fostering early childhood development. These programmes generally provide supplemental care for children in the most vulnerable social sectors; some of the components they have in common are discussed below.

First is the role of public day-care centres and kindergartens in providing meals and preventing childhood undernutrition. Studies of early childhood and preschool education policies in 13 countries of Latin America (Argentina, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru and the Plurinational State of Bolivia) show that all have preschool meal policies. For many families, these supplemental nutrition programmes take pressure off family budgets and do a great deal to further the healthy development of the recipient children.

The region has also advanced in early childhood education quality and methods, involving families in the education process. Several countries are implementing programmes to train and/or support parents in better caring for their children. Gaps in coverage are most significant for the youngest, from birth to age 3 —when family involvement in care is essential. There is a need for education on the demand side of out-of-home care and programmes that support in-home care because turning to such public services is not part of the culture in most of the countries. There are many kinds of support available to meet a variety of needs.

Several countries of the region also stress multicultural education. To address the historical marginalization of indigenous groups, several countries of Latin America have added policies geared towards increasing preschool education coverage for them. One of the benefits documented by international studies of preschool education is its ability to decrease inequality among children from different ethnic groups as they enter primary school.

2. Extended school day

Advances in current pedagogical models and the education needs of the modern world are making longer school days increasingly important. There is much left to do on this front in Latin America. In most of the countries of the region, the primary school day is 4-5 hours long, with 5-6 hours of class in the lower cycle of secondary education (Johansen, 2005).

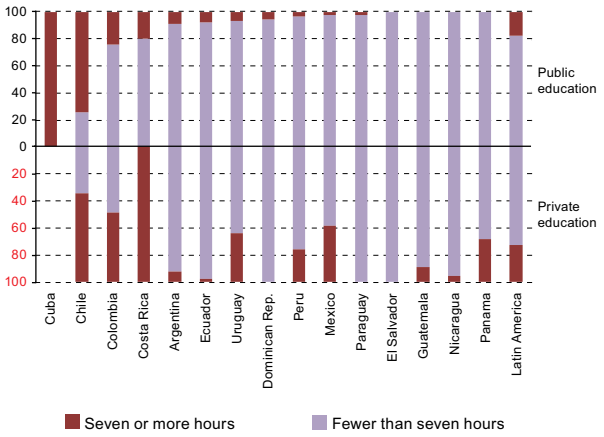
Lengthening the school day would not only mean more absolute time in school but would also help reorganize the entire system in line with changing curricula and modern teaching models. An extended school day would be expected to change the ratio between time spent on working and time for rest, increasing pedagogical work for pupils at school and decreasing the time spent on homework. This is especially important for students who lack an educational climate at home and whose environment does not provide appropriate stimulus or support for learning. Previous sections of this chapter have already shown that the household educational climate is one of the major determining factors behind unequal educational attainment.

Extended days should also take some pressure off school management tasks and reduce the time that teachers and managers spend on individual and group planning. For teachers, expanding to a full workday can help improve job and wage stability and reduce their usually excessive workload. It would involve changing their contract status and eliminating moonlighting at other educational establishments. And increasing teacher well-being could improve their pedagogical capacity.

A full school day also has positive externalities for families, such as easing concerns about out-of-school care, including meals. Children who are in school longer can be less exposed to the external risks involved in spending several hours a day on the street. This can help improve family life by increasing safety and peace of mind as to what the children are doing. A longer day also facilitates the incorporation of mothers into the labour market. As seen in several ECLAC publications, this is a significant source of income for lower-resource households.

In most of the countries of the region, most of the supply of extended days and better quality is in private schools. Coverage depends on families' ability to pay, with the resulting segmentation (ECLAC, 2010a). Most efforts to extend the school day in public education have been at the secondary level. The countries that have made the greatest efforts to extend the day at the primary level are Cuba, Chile and Colombia (see figure II.21).

Figure II.21
LATIN AMERICA (15 COUNTRIES): SIXTH-GRADERS ATTENDING EDUCATIONAL ESTABLISHMENTS WITH PARTIAL OR EXTENDED DAYS (SEVEN OR MORE CHRONOLOGICAL HOURS) BY TYPE OF SCHOOL ADMINISTRATION, 2006 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of microdata from the Second Regional Comparative and Explanatory Study (SERCE) of 2006.
[a] Latin America represents the simple average for countries participating in SERCE. Brazil is not included in the analysis because of lack of consistency in measuring the school day.

The most recent study on Chile (Pires and Urzúa, 2010) showed that extended days at the secondary level decreased teenage pregnancy by 4%, raised the likelihood of not dropping out of school by 32% and reduced the likelihood of being arrested. Cognitive measurement scores doubled. The study shows that the positive impact is greater for the most vulnerable children because it offsets the lack of household educational resources and equipment and reduces the likelihood of risky behaviour. The extended school day also increases the likelihood of going on to post-secondary studies, thus improving future job opportunities.

SERCE (2006) learning assessments show that in countries that have establishments with an extended primary school day there is a positive association between length of the school day and math outcomes at those establishments. But in all of the countries analysed (except Chile), the academic outcomes for the most vulnerable pupils fell short of those of pupils with a shorter school day. So, at educational establishments serving the socially most disadvantaged population, just extending the school day might not have an impact on academic performance.[10] It is probably not enough to do more of the same, but rather to make more substantial changes in how the system is organized in addition to adding more hours.

Changing the school day usually requires expanding school space, improving the equipment available at schools and considering the infrastructure and costs associated with more meals for pupils. Extending the day also requires that resources be allocated in keeping with each establishment's needs, such as providing enough drinking water, sanitation facilities and educational resources like libraries and computer labs to ensure an enhanced educational environment. The condition of the educational establishment can have a negative or positive effect on students. Another significant cost in effectively implementing an extended day is teacher pay. Lengthening the teacher workday entails costs associated with changing the type of contract and the work hours; these costs need to be considered when planning the change.

3. Incorporating digital technology into education: cutting-edge competencies

The ongoing technological revolution is redefining the role of education in the effort to achieve equal opportunities. However, as happened with educational attainment differentials, there is a risk that relative market-based advantages for families will continue to be the prime determinant of digital divides. This being the case, incorporating new technologies into education might just reinforce existing inequalities.

Incorporating digital programmes through education has revealed a collective imaginary with high expectations for educational opportunities for the new generation, as seen in Uruguay's Basic Computer Connectivity for Online Learning Plan (CEIBAL). An ECLAC study of the social impacts of incorporating ICT into the educational system (Kaztman, 2010) reviews some of the ways these technologies could be harnessed for individual growth.

First, participating in peer-to-peer networks with a high degree of digital socialization stimulates and facilitates exploration and use of the virtual world. This increases the opportunities for each participant to accrue knowledge and skills in handling digital tools. Second, gradual expansion of the frontiers of the virtual world also broadens

[10] These results should be interpreted with caution because few socio-economically and culturally disadvantaged children attend educational establishments with an extended school day.

exchanges with other stakeholders in society and multiplies affiliations and belongings, i.e., communities of interests and potential actions. This makes it possible to expand technical competencies and spaces for citizen participation, and to build a collective identity. Young people's interest in participating in virtual communities and networks seems to be related to a search for recognition and for belonging to spaces that transcend the domestic and institutional borders in which they usually move (Winocur, 2006).

This requires more than universal access. Children and young people must shift from being distant users to being multifunctional ones. Greater intensity and productivity in use requires more time in front of the monitors and good programmes for developing the requisite skills set. Here, the difference between those who access these technologies at home and those who do not currently determines the depth of the digital divide and reinforces underlying socio-economic and capital gaps.

For the same reasons, school should play a basic role in counteracting these inequalities by preparing to offer more and better access to technology to those who have none at home, deepening penetration in order to increase usage time per pupil and offering pedagogical guidance that motivates students to use the technology independently for research and homework. Evidence from research associated with PISA 2006 seems to indicate that the degree of confidence with which young people use the Internet, and the proportion of computers connected to the Internet at the educational establishment, are positively associated with learning in the science area. Moreover, the type of pedagogical approach taken is not neutral and is related to how the students use the technology.

As ECLAC research on the social impact of incorporating ICT through educational systems (Kaztman, 2010) shows, most educational systems in the region are faced with a scenario that forces them to work doubly hard to achieve equity, to the extent that the problems they inherited and could not resolve compound those posed by incorporating ICT into learning processes. The magnitude of the challenges is such that it would not be reasonable to expect the educational system to make this contribution without sustained support from other primary institutions of society.

Defining the criteria for choosing the models for incorporating ICT into teaching practices should be subordinated to State goals for education in each country. One of the priorities for the States of Latin America (and for those in charge of their educational systems) is to make universal access to computer skills a key tool in the effort to dissociate social background from learning attainments. This is seen as an essential step in reducing poverty and inequality and in enhancing social integration. Some of the approaches to this challenge in the region have been more successful than others. For example, over a 20-year period Chile has consistently implemented policies for achieving mass access to ICT through educational establishments. This approach is having an impact on distributive equity in access (as noted in the preceding section). Uruguay, with a much more recent policy, opted for proactive school-to-home outreach under its student-targeted policy to achieve universal access. Such strategies seek to involve and mobilize households and the community to complement the work being done by the educational system.

4. Support for families in order to reinforce educational progression in vulnerable sectors: conditional cash transfer programmes

Public policy cannot obviate the role that family environment plays in the intergenerational reproduction of inequalities. As discussed above, completion of secondary education is a key challenge for achieving equity and social inclusion through the schools. It is therefore important to test instruments and strategies that help keep students in the system during this cycle, that is, that foster sustained, timely school progression.

When thinking about policies for narrowing gaps in school progression rates, the first approaches that come to mind are usually reforms of the educational system. However, as noted here, factors that influence learning and attainment are also found outside the system and are closely tied to the students' family environment. Conditional cash transfer programmes are one of the pillars that the countries have built over the past two decades in order to encourage lower-income families to buy into keeping children in the educational system. Such programmes have the virtue of improving, however marginally, the monetary resources available to poor households, preventing dropouts for opportunity cost reasons (staying in school is part of the transfer programme contract). There is much

room for deepening here. First, by gradually increasing the transfers and extending them to keep young people in secondary school. Second, by linking these programmes to broad social protection networks that operate in concert to ensure basic thresholds of stability, income and well-being in vulnerable households. Third, by using them to reinforce deep family commitment to school attainment and learning for children and young people. Fourth, by coordinating improvements on the educational demand side under these programmes with improvements on the educational service supply side so as to create areas of synergy and prevent early discouragement. Fifth, by using these programmes to bring parents in closer contact with the school system and thus build an education community involving all stakeholders.

Most conditional transfer programmes in the region have at least one condition linked to education. This is usually in the form of a cash transfer to families that hinges on the school-age children enrolling, attending or staying in the educational system (see table II.A-4). While these programmes promote demand for educational services among poor and vulnerable families, they usually do not create incentives on the supply side.[11] Hence these programmes are implemented in areas with an adequate educational infrastructure, making it difficult for them to gain traction in remote rural areas.

Programmes that stress the enhancement of educational attainment and skills set explicit, firm sanctions for failure to comply with education conditions. Transfers are calculated in order to offset the opportunity costs of using social services. Programmes based on this logic are Oportunidades in Mexico and Let's Advance Together in Costa Rica. The latter targets families that for economic reasons are having difficulties in keeping their children in school. For the programmes geared towards ensuring a basic level of consumption for poor families, eligibility does not hinge on compliance, so verification mechanisms are weak and the associated sanctions are moderate or non-existent. Such is the case with the Human Development Grant (BDH) in Ecuador.[12] Last, there are programmes that seek to combine ensured access for poor and vulnerable families to a broad set of benefits, as is the case with Chile Solidario and the Together Network in Colombia. In these programmes, education is but one of several components, and the conditions are part of a broad intervention agreement between programme field representatives and families.

Such diversity also entails different educational targets. Some programmes only seek to enhance attendance. Others also hope to impact performance and grade promotion, foster greater education incorporation among target gender and age groups, and even reduce child labour. For this reason, the way in which education transfers are calculated varies in accordance with programme goals. In the Family Allowance Programme (PRAF) in Honduras and the Oportunidades Programme in Mexico, the transfer covers the direct costs of sending children to school (registration, supplies and transportation) and the opportunity cost for poor and vulnerable families who send their children to school instead of putting them to work. Oportunidades, Colombia's Families in Action and the Programme of Advancement through Health and Education (PATH) in Jamaica step up transfers during secondary education, reflecting the greater opportunity cost of sending children to school. Oportunidades and PATH pay different amounts according to student gender in order to address gender inequality in the secondary education participation rate, albeit in opposing directions: Oportunidades makes larger transfers to girls, PATH to boys.

The impact of conditional transfer programmes on education has been assessed from several viewpoints in most of the countries that have or have had such programmes (see table II.A-5).[13]Although the impacts were not consistent in all countries and the outcomes vary depending on the focus of each programme, the assessments generally reveal improvements in the intermediate goals for educational attainment and skills building (Bastagli, 2008). In other words, they show that conditional transfer programmes improve access to school and also improve indirect indicators such as school enrolment and attendance. Indicators for access and coverage tend to rise more in countries where the baselines were lower, in transitional grades with high drop-out rates (such as the move from primary to secondary school) and in the poorest households and locations. But the assessments provide no information on areas such as child learning, the improvement of which has not been among the explicit goals of conditional transfer programmes (Reimers, DeShano da Silva and Trevino, 2007; Villatoro, 2007).

[11] The Family Allowance Programme (PRAF) II in Honduras and the Social Protection Network (RPS) and Crisis Care System (SAC) in Nicaragua, all terminated in 2006, were an exception in that they included innovative benefits in the form of transfers to educational establishments (Moore, 2008 and 2009; Cecchini and others, 2009).

[12] The Human Development Grant programme had no specific conditions for transfers. However, for a brief period, television spots highlighted how important it was for BHD beneficiary families to send their children to school. An assessment of the programme showed an increase in school enrolment and a decrease in child labour (see table II.A-5). This could be associated with how the beneficiaries perceived this condition, although they were not monitored administratively (Schady and Araujo, 2006).

[13] Most of these assessments were based on random sampling designs that were quasi-experimental or, less frequently, experimental (Barrera-Osorio and others, 2008; Levy and Ohls, 2007) or non-experimental (Perova and Vakis, 2009), with control groups in each case to compare impacts on treatment groups.

Evaluations of the Education, Health and Nutrition Programme (PROGRESA) rolled out in Mexico in 1997 and recast as Oportunidades in 2001 show more improvement in secondary education than at the primary level and better outcomes for girls than for boys and for rural areas than in urban ones (De Brauw and Hoddinott, 2008). They also reveal a positive impact in terms of higher enrolment and grade promotion rates for indigenous children (World Bank, 2009; Escobar and de la Rocha, 2002, 2008). Families in Action in Colombia also had more significant impacts in increasing school attendance among secondary school students than at the primary school level, because school attendance was already high in the latter before the programme was launched (Attanasio and others, 2008). According to Colombia's National Planning Department (DNP, 2008), secondary school attendance rose about five percentage points in urban areas and seven percentage points in rural areas. The Solidarity programme in the Dominican Republic increased by 14 percentage points the likelihood of adolescents age 14-16 attending school (Government of the Dominican Republic, 2008).

The enrolment rate in Paraguay rose 2.5% among children in families enrolled in the Tekoporã programme, and the school attendance rate increased between five and eight percentage points. The best outcomes were for adolescents age 11-15, for whom this indicator rose between 9 and 15 percentage points. The assessment of the Tekoporã programme also shows that it decreased the likelihood of dropping out of school and checked the increase of child labour in Paraguay, presumably because of the increase in school attendance —especially among older boys, i.e., those who leave school earliest in order to work (Veras Soares, Perez and Issamu, 2008).

Gertler, Patrinos and Rubio-Codina (2007) evaluated the role of other educational policies in Mexico in schools where a large percentage of the pupils are enrolled in the Oportunidades programme. These authors report that schemes seeking to empower associations of parents and legal guardians (the School Management Support Programme, or AGE, part of the broader Compensación Educacional programme) successfully decrease grade repetition and school drop-out rates. These impacts seem to indicate that greater feedback and coordination between conditional transfer programmes and other types of educational and social interventions can bring improvements in educational processes and outcomes.

The neighbourhood peer effects of these programmes should also be highlighted. For PROGRESA, Bobonis and Finan (2008) show that children who are not eligible for transfers are still influenced by peers who are enrolled in the programme, with more of the former remaining in the educational system at the secondary level. The results show that in locations where the programme was implemented, school enrolment among children not participating in the programme rose five percentage points anyway, compared with data for control locations. This impact is especially beneficial for children in the poorest segments.

5. Better training for work

The path leading young people to the world of work is, as we have seen, highly segmented by educational attainment levels. On average for Latin America, only half of the population age 20-24 completes the upper cycle of secondary school. Only 33% of young people age 20-29 are enrolled in some sort of post-secondary education programme, and less than 10% have completed five years of education at this level. There is also a large group of young people who neither study nor work and are at high risk for institutional disaffiliation and social disintegration. This situation calls for timely, effective alternatives for training for work.

The formation of competencies in the 15-20 age group is essential for successful entry into the labour market with meaningful opportunities for the future. Public efforts are therefore required to target this area of education and link this supply of education services to the production sector.

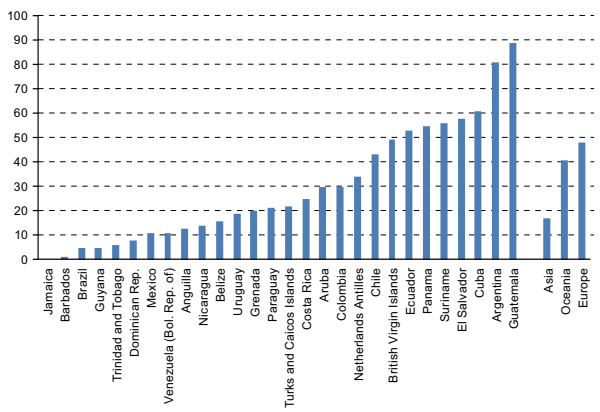
According to UNESCO and the International Labour Organization (ILO), the supply of technical and vocational education is "a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life". Such education can be provided by the educational establishment or by another entity supervised by the public authority. It includes formal and informal education programmes (UNESCO/UNEVOC, 2006) and is an important "means of preparing for occupational fields and for effective participation in the world of work" as well as "a method of facilitating poverty alleviation" (UNESCO, 2005).

This broad field of education for work encompasses an array of hard-to-classify learning activities. Coverage

and supply at this level of education vary widely. In developed countries, especially in Europe, their coverage and impact are far higher. In Europe, approximately half of the students enrolled in the upper cycle of secondary school are in technical and vocational education programmes (UNESCO/UNEVOC, 2006). In countries like Austria, Germany and Switzerland there is a historically consolidated vocational track in the upper level of secondary school. English-speaking countries tend to postpone technical and vocational programmes until the post-secondary cycle.

In Latin America and the Caribbean, the situation in the upper level of secondary education also varies widely. Coverage at this level of education is very low in Brazil despite strong technical and vocational programmes in the post-secondary cycle. In Argentina and Guatemala, a high percentage (more than 80%) of those enrolled in the upper cycle of secondary education are in such programmes (see figure II.22).

Figure II.22
LATIN AMERICA AND THE CARIBBEAN (28 COUNTRIES): STUDENTS ENROLLED IN TECHNICAL/VOCATIONAL PROGRAMMES COMPARED WITH TOTAL ENROLMENT IN THE UPPER CYCLE OF SECONDARY EDUCATION, AROUND 2002
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of UNESCO International Centre for Technical and Vocational Education and Training, *Participation in Formal Technical and Vocational Education and Training Programmes Worldwide. An initial statistical study*. Montreal, 2006.

Changing industrialization and development processes in Latin America in the closing decades of the twentieth century brought into question the region's traditional institutional approach to education for work as a specialized branch of secondary education for specific occupations and as vocational training provided by large institutions with ties to government, labour unions and business. Globalization and new requirements for more flexible competencies that can be shaped over time are shifting such training away from State-run institutions and leading to the use of public funds to outsource it to the private sector, seeking to meet the training needs of the production sector (Gallart, 2002).

Programmes, reforms and initiatives have taken different paths in the region over the past few decades. Generally speaking, specialized training has been postponed to as late as possible in the secondary education cycle. Technical educational establishments at the secondary level have strongly resisted having to provide a general education; rather, they have sought to redesign the kind of vocational education they provide (Gallart, 2002).

As for post-secondary education, Jacinto (2010) describes two prevailing models for the supply of vocational training in the region in the late 1990s. All of the models involve coordinating the public and private sectors. In the first model, such education is provided at traditional vocational training establishments developed in the 1950s and run by the State or by three-way partnerships (the State, labour unions and business). The other model involves ad hoc, decentralized programmes that report to the ministry of labour or to vocational training institutions and delegate training to other institutions (private or run by civil society organizations). In this model there are two kinds of supply: one based on the open market, with specific training courses for formal employment; and one with subsidies for organizations benefiting disadvantaged sectors, seeking their social inclusion through employment (informal or self-employment).

According to the review conducted by Jacinto (2010), new administrations in the first decade of the twenty-first century and criticism of the social costs of privatization policies led to a certain retooling of this kind of education. Efforts to reach vulnerable populations affected by varying forms of exclusion were beefed up. There have also been measures to improve the quality of education provided by these programmes and to devolve resources and capacities to the local stakeholders who manage them. Most of the countries have taken the approach to learning based on development of competencies. Despite recent action to link existing institutions, the sector is still not well coordinated. Substantially different approaches separate the formal education system and the vocational training system and set both apart from the production sector. Policies and programmes often lack continuity. They overlap and are sometimes irrelevant for the labour integration of young people.

The developed countries understand how important such education is to having the highly qualified labour force that on-the-job training cannot be expected to deliver. Changes in the production and manufacturing sector have done away with the long-term labour relationships that made investing in specialized training for employees

worthwhile for most businesses. According to OECD (2010), development of such programmes should focus on long-term career paths and deliver competencies that enable young people to enter the labour market directly while allowing them to continue their education in the future.

6. Support for continuing higher education

Education at the university level must meet the demands of the world of work and further the consolidation of the knowledge society, thereby helping enhance the university as a centre for producing and transferring knowledge (Malagón, 2004). The higher education system in Latin America and the Caribbean has expanded and grown substantially over the past few decades. However, as noted in preceding sections of this chapter, coverage is still limited and it is concentrated in the medium- and high-income levels.

Ensuring greater equality of opportunities at the university level calls for policies that offset the lack of monetary resources and of time among young people graduating from secondary school who need to work to survive or to help their families. Some such policies could include cross subsidies for higher education to ensure that it is free for those who cannot pay, and to make it bankable; scholarships and soft loans for students from lower-income households; and flexible class schedules with morning and evening modules.

Despite all efforts there is still no broad scholarship mechanism for disadvantaged students, just a mix of loans and scholarships that are mostly available to medium- and medium-low income groups. For young people in lower income brackets to have access to such funding and truly be able to attain education at this level requires enhancement of the entire educational chain. Once young people are inside the system, mechanisms must be developed to enable them —who are often the first generation to access this level of education— to stay in the system and complete the cycle. The internal rates of efficiency for higher education systems in the region are quite low overall compared with the developed countries. This means that many more young people are entering the system but few complete their education (especially those from lower-income households, who are usually the first generation to go on to higher education).

Appendix

Table II.A-1

LATIN AMERICA (18 COUNTRIES): NET AND GROSS PRIMARY SCHOOL ATTENDANCE AND COMPLETION RATES AMONG YOUNG PEOPLE AGE 15-19 BY SELECTED PER CAPITA INCOME QUINTILES, AREA OF RESIDENCE AND SEX, AROUND 2008 [a]

(Percentages)

	Net attendance rate, primary education							Gross attendance rate, primary education							Completion of primary education						
	Total	Income level		Geographical area		Sex		Total	Income level		Geographical area		Sex		Total	Income level		Geographical area		Sex	
		Quintile I	Quintile V	Urban	Rural	Male	Female		Quintile I	Quintile V	Urban	Rural	Male	Female		Quintile I	Quintile V	Urban	Rural	Male	Female
Argentina (2006)	99	99	100	99	…	99	99	109	112	105	109	…	110	109	98	96	99	98	…	97	98
Bolivia (Plurinational State of) (2007)	98	97	99	98	97	98	98	112	113	109	110	115	112	112	93	87	95	96	87	94	92
Brazil (2008)	99	98	99	99	98	98	99	121	129	105	117	135	125	116	95	90	99	96	89	93	96
Chile (2006)	99	98	100	99	98	99	99	114	116	110	114	115	115	114	99	98	99	99	98	98	99
Colombia (2008)	96	94	98	97	94	96	97	115	121	107	113	122	119	112	94	89	99	96	86	92	95
Costa Rica (2008)	99	98	99	99	98	99	99	120	122	114	118	123	123	118	94	91	100	96	91	94	94
Dominican Republic (2008)	97	94	100	97	96	97	97	118	122	109	117	121	123	113	88	83	94	91	83	84	92
Ecuador (2008)	98	96	99	98	97	98	98	104	105	101	102	106	105	103	95	91	98	96	92	94	95
El Salvador (2004)	92	86	98	94	90	92	92	107	105	102	107	108	109	105	76	60	95	86	64	74	78
Guatemala (2006)	89	84	98	92	87	90	88	105	100	109	106	105	107	103	63	38	89	77	49	67	58
Honduras (2007)	87	81	95	91	85	86	87	112	105	115	113	111	113	111	79	62	94	90	70	77	81
Mexico (2008)	98	97	99	99	98	98	99	105	106	102	104	106	106	105	96	91	99	98	92	95	96
Nicaragua (2005)	81	75	87	84	78	80	82	113	114	102	109	116	114	112	71	48	95	85	53	66	76
Panama (2008)	99	98	100	99	98	99	99	109	112	104	107	112	110	108	95	87	99	98	88	94	95
Paraguay (2008)	97	95	99	98	95	96	98	119	121	114	117	121	121	117	89	80	96	94	83	88	90
Peru (2008)	93	90	97	95	90	92	93	106	109	102	103	109	107	105	94	87	98	97	89	94	94
Uruguay (2008)	99	99	99	99	98	99	99	113	117	106	113	108	115	111	97	93	99	97	97	96	98
Venezuela (Bolivarian Republic of) (2008)	98	97	99	…	…	98	98	108	109	104	…	…	109	107	94	90	97	…	…	92	95
Latin America [b]	97	96	98	98	95	97	97	112	116	105	111	114	114	110	93	88	98	96	85	92	94

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Net attendance rate refers to children in the official age group for primary education; gross attendance rate refers to pupils in primary education regardless of age.

[b] National averages include urban areas of Argentina.

Table II.A-2

LATIN AMERICA (18 COUNTRIES): NET AND GROSS SECONDARY SCHOOL ATTENDANCE AND COMPLETION RATES AMONG POPULATION AGE 20-24 BY SELECTED PER CAPITA INCOME QUINTILES, AREA OF RESIDENCE AND SEX, AROUND 2008 [a]

(Percentages)

	Net attendance rate, secondary education							Gross attendance rate, secondary education							Completion of secondary education						
	Total	Income level		Geographical area		Sex		Total	Income level		Geographical area		Sex		Total	Income level		Geographical area		Sex	
		Quintile I	Quintile V	Urban	Rural	Male	Female		Quintile I	Quintile V	Urban	Rural	Male	Female		Quintile I	Quintile V	Urban	Rural	Male	Female
Argentina (2006)	89	84	97	89	...	88	85	110	102	114	110	...	110	110	69	45	92	69	...	64	73
Bolivia (Plurinational State of) (2007)	92	88	91	95	88	93	83	109	104	106	111	104	110	108	64	35	85	74	41	67	63
Brazil (2008)	93	91	98	93	90	92	90	114	110	117	114	112	114	114	55	24	90	60	27	50	60
Chile (2006)	95	92	98	95	92	95	91	110	105	113	110	106	110	109	80	61	95	82	61	79	81
Colombia (2008)	92	90	95	93	87	91	91	114	114	113	115	111	114	115	30	8	71	37	5	28	32
Costa Rica (2008)	88	82	93	92	82	86	81	136	121	141	146	124	136	136	45	15	80	53	30	42	48
Dominican Republic (2008)	96	96	96	96	94	95	95	127	124	119	129	122	126	127	52	32	69	58	39	45	59
Ecuador (2008)	85	79	96	91	74	84	79	111	106	123	118	100	112	110	56	32	82	66	31	53	58
El Salvador (2004)	81	73	91	87	71	83	68	95	85	105	102	83	97	93	37	9	70	49	17	37	36
Guatemala (2006)	71	50	89	82	55	71	50	91	62	109	104	72	91	90	26	3	67	40	9	27	24
Honduras (2007)	66	43	88	82	51	64	46	96	59	128	119	74	92	100	30	4	62	45	13	27	32
Mexico (2008)	80	74	93	84	73	79	75	89	80	105	95	79	89	89	45	18	80	53	29	45	46
Nicaragua (2005)	84	71	95	89	73	83	72	125	104	137	132	111	130	122	32	8	61	43	13	26	37
Panama (2008)	88	80	98	93	79	86	83	101	90	110	107	90	99	103	56	23	84	67	33	52	61
Paraguay (2008)	84	71	91	92	73	85	69	99	82	110	109	85	102	97	48	18	74	61	26	47	50
Peru (2008)	88	83	96	92	82	88	82	105	103	111	107	102	107	103	74	44	93	83	50	75	72
Uruguay (2008)	84	76	98	85	68	81	79	101	85	125	102	77	98	104	38	11	78	39	23	32	45
Venezuela (Bolivarian Republic of) (2008)	94	93	97	...	...	93	94	119	118	121	...	...	119	119	61	42	83	...	...	55	68
Latin America [b]	88	85	95	91	80	88	85	107	102	114	110	96	107	106	52	25	83	59	27	49	55

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Net attendance rate refers to children in the official age group for secondary education; gross attendance rate refers to students in secondary education regardless of age.

[b] National averages include urban areas of Argentina.

Table II.A-3
LATIN AMERICA (12 COUNTRIES): 13-TO-19-YEAR-OLD INTERNET USERS BY UPPER AND LOWER HOUSEHOLD PER CAPITA INCOME QUINTILES AND PLACE OF CONNECTION, AROUND 2008 [a]
(Percentages)

Country/year	Place	Quintile I	Quintile V	Quintile V-Quintile I	Total
Uruguay, 2009	Home	08.0	91.5	83.5	33.0
	School	20.6	40.6	20.0	23.3
	Commercial establishment	27.4	12.8	-14.6	28.3
Brazil, 2008	Home	04.4	72.2	67.8	26.6
	School	08.9	32.2	23.3	16.8
	Commercial establishment	27.5	26.2	-01.3	34.1
Chile, 2006	Home	03.7	60.9	57.2	21.5
	School	42.2	41.3	-00.9	41.5
	Commercial establishment	25.8	21.9	-03.9	30.4
Costa Rica, 2008	Home	01.7	48.1	46.4	13.9
	School	07.1	27.3	20.2	14.4
	Commercial establishment	28.3	30.9	02.6	37.8
Mexico, 2007	Home	01.1	45.3	44.2	10.6
	School	03.4	10.7	07.3	06.3
	Commercial establishment	28.0	25.8	-02.2	30.9
Panama, 2007	Home	00.6	47.4	46.8	09.3
	School	07.0	26.4	19.3	15.0
	Commercial establishment	06.1	26.4	20.3	19.6
Peru, 2009	Home	00.6	39.5	38.9	09.2
	School	01.9	09.4	7.5	05.2
	Commercial establishment	18.9	46.5	27.6	43.7
Ecuador, 2009	Home	01.3	34.0	32.7	09.9
	School	12.6	37.9	25.3	24.1
	Commercial establishment	...	...	...	...
Paraguay, 2008	Home	00.8	33.7	32.9	07.3
	School	01.3	17.8	16.5	06.1
	Commercial establishment	07.2	24.9	17.7	13.0
El Salvador, 2008	Home	0.00	22.0	22.0	04.0
	School	00.6	06.3	05.7	02.4
	Commercial establishment	05.4	26.6	21.2	14.3
Honduras, 2007	Home	00.1	10.3	10.2	01.9
	School	00.3	11.0	10.7	02.9
	Commercial establishment	02.5	40.2	37.7	15.2
Nicaragua, 2006	Home	00.0	04.3	04.3	00.7
	School	02.5	16.4	13.9	06.8
	Commercial establishment	04.8	40.0	35.2	15.3

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special processing of household surveys reconciled by the Observatory for the Information Society in Latin America and the Caribbean (OSILAC); and R. Kaztman, "Impacto social de la incorporación de las TIC en el sistema educativo", *Políticas sociales series*, No. 166 (LC/L.3254-P), Santiago, Chile, ECLAC, 2010.

Table II.A-4
LATIN AMERICA (17 COUNTRIES): EDUCATION-RELATED COMPONENTS OF CONDITIONAL TRANSFER PROGRAMMES

Country (Programme/Transfer)	Targets	Condition	Sanctions
Argentina (Universal allowance per child for social protection)	5-to-18-year-olds	Proof of regular attendance	Withholding of 20% of the transfer until proof of meeting the condition is provided
Bolivia (Plurinational State of) (Juancito Pinto Grant)	Children under 18 up to eighth grade	School attendance record of at least 80%	Benefit suspended if records delivered by the school principal are not correct
Brazil (*Bolsa Família*/Basic, variable benefit)	6-to-15-year-olds	School attendance record of at least 85%	Upon third absence, benefit suspended for 60 days. Upon fifth absence, family unenrolled
(*Bolsa Família*/Variable benefit linked to adolescents)	16-to-17-year-olds	School attendance record of at least 75%	Upon second absence, benefit suspended for 60 days. Definitive suspension upon third absence
Chile (Chile Solidario)	5-to-15-year-olds	Attendance at educational establishment	As provided in the family contract
Colombia (Families in Action)	7-to-17-year-olds in second to eleventh grade	School attendance record of at least 80%	Suspension of the benefit if more than eight unexplained absences per two-month period
Costa Rica (Let's Advance Together)	12-to-25-year-olds in secondary school (seventh to twelfth grade)	Enrolment in the school year; punctual, consistent school attendance	Suspension of the benefit if the student drops out
Dominican Republic (Programa Solidaridad/Incentivo a la asistencia escolar)	6-to-16-year-olds enrolled in basic public education grades one to eight	85% school attendance	Definitive suspension if noncompliance with co-responsibility in three consecutive periods (six months)
Ecuador (Human Development Grant)	5-to-17-year-olds	School attendance record of 75%	
El Salvador (Comunidades Solidarias Rurales)	6-to-15-year-olds	Enrolment and regular school attendance from nursery school (if space is available) to sixth grade	Suspension of the benefit if more than four unexplained absences per month
Guatemala (My Family Progresses)	6-to-15-year-olds	80% school attendance	Benefit cancelled if co-responsibilities not fulfilled on three occasions
Honduras (PRAF/School grant for first to sixth grade)	6-to-14 year-olds up to sixth grade in public schools	No more than nine unexplained absences per trimester, and 85% actual class attendance	13- and 14-year-olds who have not completed sixth grade and have not fulfilled the conditions are not entitled to the bimonthly grant
(PRAF/urban and rural youth grant)	13-to-24-year-olds	Daily attendance and minimum academic performance of 70%	...
Jamaica (PATH/*Education grant*)	6-to-17-year-olds	Monthly attendance of at least 85%	Transfers suspended for noncompliance, until responsibility met
(PATH/*Grant*)	Adolescents enrolled in higher education	...	...
Mexico (Oportunidades/ Education support)	Children and young people attending school at the basic, secondary and upper secondary levels	School attendance of at least 85%	Definitive suspension in the case of beneficiary duplication and if secondary-school students receive benefits for more than four years. For four or more unexplained absences per month, suspension applies for the current month
(Oportunidades/Jóvenes con oportunidades)	Students between third year of junior high school and fourth year of high school	Upper secondary education completed by age 22, and being a beneficiary of Oportunidades	Transfer suspended if re-enrolment in high school detected
Panama (Opportunity Network)	4-to-17-year-olds	Enrolment, and absences not to exceed 10% of actual class days; attendance at bimonthly meetings with managers	...
Paraguay (Tekoporã)	6-to-18-year-olds	Enrolled; with 85% attendance record. Participation of adults in literacy programmes	
Peru (Together)	6-to-14-year-olds	85% school attendance	Noncompliance with co-responsibility triggers suspension for three months
Uruguay (Family Allowances)	4-to-14-year-olds in primary school and 15-to-18-year-olds in high school	Enrolment and attendance	Benefit suspended if records forged or compliance with conditions not proven

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the database of social programmes.

Table II.A-5
LATIN AMERICA (12 COUNTRIES): ASSESSMENT OF THE EDUCATIONAL IMPACT OF CONDITIONAL TRANSFER PROGRAMMES

Country (Programme)	Type of assessment	Indicator	Age group and/or level of education	Baseline	Impact [a]	Author (year)
Brazil (*Bolsa Família*)	Longitudinal, quasi-experimental [b]	Likelihood of school absence in the most recent month	7-to-14-year-olds in families living in poverty	…	- 3.6 [c]	MDS (2007)
		Likelihood of dropping out of school			- 1.6 [c]	
Chile (Chile Solidario)	Review of secondary information	Effectiveness in eliminating child labour [e]	Families with children under 15	5 992 families	96.6%(5 787 families)	Alonso (2007)
Colombia (Families in Action)	Quasi-experimental [f]	Enrolment	8-to-13-year-olds	…	+1 to +3	Attanasio and others (2006)
			14-to-17-year-olds	…	+5 to +7	
		Domestic child labour	8-to-13-year-olds in rural areas	- 10 [g]	-13 [g]	
	Experimental, on the basis of a panel survey [h]	Attendance	Primary education (8-to-11-year-olds)	…	+2 (rural areas); no impact on urban areas	DNP (2008)
			Secondary education (12-to-17-year-olds)	…	+5 (urban areas) and +7 (rural areas)	
		Decrease in labour participation	10-to-17-year-old girls in rural areas	…	-35.6%	
			10-to-17-year-old girls in urban areas	…	-29.2%	
			10-to-17-year-old boys in rural areas	…	-19%	
Dominican Republic (Solidarity)	Experimental [i]	Likelihood of attending school	14-to-16-year-olds	…	+14	Solidarity (2008)
Ecuador (Bono Solidario)	Experimental [j]	Enrolment	Sixth-graders	…	+17.8	Schady and Araujo (2006)
		Child labour	Children enrolled in the programme	…	-17	
Honduras (PRAF II)	Experimental, on the basis of panel surveys [k]	Enrolment	5-to-12-year-olds	…	+17	IFPRI (2003)
Jamaica (PATH)	Experimental, on the basis of a survey [l]	Number of days of school attendance in a typical 20-day period	6-to-17-year-olds	17.5	+0.5	Levy and Ohls (2007)
Mexico (Progresa/ Oportunidades) [m]	Random experimental, with data from panel survey	Enrolment	Primary education	90%-94%	+0.96 to +1.25 (girls); +0.74 to +1.07 (boys)	Schultz (2000)
			Secondary education	67% (girls) 73% (boys)	+7.2 to +9.3 (girls) +3.5 to +5.8 (boys)	
	Random experimental	Enrolment	Children under 10	-1% [n]	+1.2%	Attanasio and others (2005)
			10-to-13-year-olds	-0.3% [n]	+2.4%	
			14-to-17-year-olds	+5.1% [n]	+7.5%	
			6-to-17-year-olds	+1.6% [n]	+3.3%	
	Random experimental	School attendance	Between sixth grade and the first level of secondary education	58%	+11.1 (both sexes); +14.8 (girls); +6.5 (boys)	Schultz (2004)
	Random experimental	Enrolment	Transition from primary to secondary education	63.2%	75.7%	De Janvry and Sadoulet (2006)

Table II.A-5 (conclusion)

Country (Programme)	Type of assessment	Indicator	Age group and/or level of education	Baseline	Impact [a]	Author (year)
Nicaragua (Social Protection Network)	Random experimental [n]	Enrolment	Children enrolled in the programme	…	+18	Maluccio and others(2005)
		Attendance	Children enrolled in the programme	…	+23	
		Promotion to sixth grade	Primary education	…	+7	
		Child labour	7-to-13-year-olds	…	-5	
Panama (Opportunity Network)	Analysis of the Standard of Living Survey (SLV) [o]	Enrolment	4-to-14-year-olds in non-indigenous rural areas	87.4%	91.3%	Bustos (2009) in Rodríguez (2010)
			4-to-14-year-olds in indigenous rural areas	67.1%	82.9%	
			6-to-11-year-olds in indigenous rural areas	78.5%	92.6%	
Paraguay (Tekoporã)	Quasi-experimental [p]	Attendance	Total children enrolled in the programme	93%	95.5%	Veras Soares and others (2008)
			Children enrolled	…	+6 to +11	
			11-to-15-year-olds	…	+9 to +15	
Peru (Together)	Non-experimental [q]	Enrolment	6-to-14-year-olds	81%	85%	Perova and Vakis (2009)
			7-year-olds	83%	93%	

Source: Economic Commission for Latin America and the Caribbean, (ECLAC).
[a] Refers to changes in the control group or in total beneficiaries as an effect of the programme. How this impact is expressed varies according to the indicator used in each study: increase (+) or decrease (-), percentage points or percentages (%).
[b] Study conducted in 2005.
[c] Results from the treatment group (beneficiary families) compared with the control group.
[d] Data from families exiting the Bridge programme in 2007.
[e] Percentage of families whose children were working at initiation of the programme and who resolved the situation.
[f] Data gathered in 2001 and 2003.
[g] Decrease in the domestic child labour rate among children enrolled in the programme in the same time period.
[h] Data from household surveys conducted in 2002, 2003 and 2006.
[i] Data gathered between 2003 and 2005.
[j] Data for 2000-2001.
[k] Data gathered between 2003 and 2005.
[l] Data gathered between 1997 and 1998.
[m] Changes in the control group in the same time period.
[n] Study conducted between 2001 and 2003.
[ñ] Data from the 2008 SLV. Lacking a baseline for the programme, considers historical administrative records for households and the results of the household survey conducted in 2007.
[o] Results drawn from the 2007 household survey.
[p] Data for the control group drawn from a survey conducted between 2006 and 2007.
[q] Control group defined as eligible children who were unable to participate in the programme. Results drawn from data gathered in 2002 and 2007.

Table II.A-6

LATIN AMERICA (18 COUNTRIES): DISTRIBUTION OF THE POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]

(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	2.9	1.3	34.4	6.7	30.6	17.0	7.1	100.0
		Age 30-64	8.7	0.6	33.4	8.0	21.8	8.3	19.2	100.0
		15 and older	8.8	0.8	35.3	7.0	24.0	10.6	13.5	100.0
Bolivia (Plurinational State of)	2007	Age 15-29	12.0	3.3	11.1	29.3	22.1	17.3	4.9	100.0
		Age 30-64	42.2	4.2	8.0	8.6	14.6	11.4	11.0	100.0
		15 and older	32.5	3.8	8.9	17.0	16.9	13.3	7.7	100.0
Brazil	2008	Age 15-29	7.9	4.3	29.8	16.4	29.1	10.7	1.8	100.0
		Age 30-64	23.4	13.0	23.5	4.3	21.4	10.7	3.7	100.0
		15 and older	21.3	10.5	24.4	8.3	22.6	10.0	2.9	100.0
Chile	2006	Age 15-29	2.7	1.4	11.9	29.2	32.0	18.7	4.2	100.0
		Age 30-64	14.0	7.4	14.7	15.9	27.0	13.2	7.7	100.0
		15 and older	14.3	6.7	13.0	19.6	26.6	13.8	6.0	100.0
Colombia	2008	Age 15-29	8.6	9.2	33.3	25.4	0.1	16.4	7.0	100.0
		Age 30-64	25.6	18.1	17.4	19.5	0.1	7.0	12.3	100.0
		15 and older	22.7	15.1	22.4	20.3	0.1	9.9	9.5	100.0
Costa Rica	2008	Age 15-29	8.7	21.3	27.6	8.9	13.6	17.1	2.8	100.0
		Age 30-64	17.2	31.1	14.7	2.3	12.1	13.9	8.7	100.0
		15 and older	17.6	26.7	18.8	4.6	12.0	14.3	6.0	100.0
Dominican Republic	2008	Age 15-29	14.5	4.1	16.0	28.4	18.9	17.0	1.2	100.0
		Age 30-64	35.8	5.6	17.1	12.3	11.8	14.4	3.0	100.0
		15 and older	31.4	4.7	16.1	17.8	13.6	14.3	2.2	100.0
Ecuador	2008	Age 15-29	6.8	14.3	23.8	16.3	20.2	14.7	4.0	100.0
		Age 30-64	20.9	28.6	11.1	4.4	16.1	9.6	9.4	100.0
		15 and older	19.8	23.0	15.0	8.5	16.5	10.6	6.7	100.0
El Salvador	2004	Age 15-29	26.1	9.0	30.1	8.8	16.1	8.4	1.6	100.0
		Age 30-64	47.8	12.3	14.2	2.6	12.0	5.5	5.6	100.0
		15 and older	42.1	10.6	19.9	5.0	12.8	6.3	3.4	100.0
Guatemala	2006	Age 15-29	41.5	18.5	19.5	2.9	5.7	10.6	1.2	100.0
		Age 30-64	62.2	13.6	6.3	0.6	3.9	9.0	4.4	100.0
		15 and older	54.7	15.3	11.8	1.6	4.5	9.2	2.8	100.0
Honduras	2007	Age 15-29	24.6	29.7	20.8	5.2	4.5	13.6	1.6	100.0
		Age 30-64	50.0	25.1	6.7	0.8	2.3	10.6	4.5	100.0
		15 and older	41.3	25.7	12.6	2.8	3.2	11.4	2.9	100.0
Mexico	2008	Age 15-29	7.2	11.3	36.3	13.8	15.4	12.5	3.5	100.0
		Age 30-64	25.4	19.5	23.4	5.0	11.2	8.1	7.4	100.0
		15 and older	22.6	16.1	26.7	8.0	12.0	9.1	5.5	100.0
Nicaragua	2005	Age 15-29	31.6	14.9	25.0	5.5	12.8	6.9	3.3	100.0
		Age 30-64	53.3	14.0	13.1	2.0	7.1	4.6	5.9	100.0
		15 and older	45.6	14.0	17.8	3.5	9.3	5.3	4.3	100.0
Panama	2008	Age 15-29	6.2	11.9	25.5	16.3	21.5	13.5	5.0	100.0
		Age 30-64	13.2	21.0	18.0	5.4	20.2	9.5	12.7	100.0
		15 and older	14.1	18.3	19.9	8.9	19.4	10.2	9.1	100.0
Paraguay	2008	Age 15-29	12.5	14.1	25.4	16.2	19.6	12.3	0.0	100.0
		Age 30-64	32.1	25.3	12.5	4.3	13.1	12.7	0.1	100.0
		15 and older	27.1	19.8	17.2	9.0	15.0	11.9	0.0	100.0
Peru	2008	Age 15-29	7.6	7.7	19.0	9.0	31.3	18.8	6.7	100.0
		Age 30-64	33.8	4.7	10.5	1.9	22.3	13.2	13.6	100.0
		15 and older	28.8	5.5	13.0	4.4	24.0	14.2	10.1	100.0
Uruguay	2008	Age 15-29	3.6	14.7	32.3	22.8	9.3	15.4	1.9	100.0
		Age 30-64	10.1	23.6	21.8	14.3	8.9	15.7	5.5	100.0
		15 and older	13.0	23.3	22.7	15.2	8.1	13.8	3.9	100.0
Venezuela (Bolivarian Republic of)	2008	Age 15-29	7.1	10.2	23.1	8.9	22.9	20.8	6.9	100.0
		Age 30-64	15.5	22.1	17.8	2.6	20.3	10.6	11.1	100.0
		15 and older	14.7	18.1	19.0	4.9	20.3	14.0	9.0	100.0
Latin America		Age 15-29	9.2	8.0	28.9	15.5	21.5	13.5	3.5	100.0
		Age 30-64	24.8	14.7	20.7	6.2	16.4	9.9	7.3	100.0
		15 and older	22.5	12.4	22.7	9.2	17.2	10.5	5.5	100.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).

[b] Total population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-7
LATIN AMERICA (18 COUNTRIES): PARTICIPATION RATES FOR THE POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	44.8	45.5	46.0	52.6	62.7	55.4	87.5	56.1
		Age 30-64	65.4	76.7	71.9	74.6	77.2	82.7	89.2	77.0
		15 and older	43.9	55.4	53.2	62.9	65.6	65.5	83.8	61.5
Bolivia (Plurinational State of)	2007	Age 15-29	75.3	81.0	62.3	48.3	63.6	48.3	83.5	59.3
		Age 30-64	84.7	91.2	80.8	81.6	80.3	83.5	89.0	84.1
		15 and older	79.1	84.4	69.1	56.7	69.6	62.3	85.9	71.3
Brazil	2008	Age 15-29	60.9	68.6	59.9	59.0	82.8	82.0	88.2	69.7
		Age 30-64	68.0	71.0	76.0	77.3	81.1	85.5	90.5	76.2
		15 and older	55.3	61.9	66.7	63.4	80.0	81.7	86.7	68.6
Chile	2006	Age 15-29	40.3	46.2	30.2	24.6	67.9	51.5	85.5	47.4
		Age 30-64	55.4	58.2	67.9	70.4	75.5	83.3	91.5	71.7
		15 and older	38.5	44.1	53.1	45.0	69.9	67.8	86.6	57.3
Colombia	2008	Age 15-29	59.2	67.9	38.0	74.7	51.3	57.2	79.5	58.0
		Age 30-64	66.7	71.7	75.1	79.1	74.5	84.8	90.5	75.7
		15 and older	55.3	64.2	52.7	75.4	58.3	67.0	85.2	64.1
Costa Rica	2008	Age 15-29	58.1	65.0	43.4	38.8	65.0	67.9	92.2	57.4
		Age 30-64	59.6	67.4	73.4	71.3	72.0	79.0	90.5	71.2
		15 and older	45.9	62.6	55.0	47.0	66.9	72.2	87.3	60.9
Dominican Republic	2008	Age 15-29	64.3	54.7	52.5	43.7	70.2	70.5	92.1	58.7
		Age 30-64	66.5	73.0	74.5	77.5	79.5	88.1	90.4	75.0
		15 and older	55.9	64.3	62.3	55.4	73.7	78.8	86.5	63.6
Ecuador	2008	Age 15-29	61.4	75.3	51.0	34.3	69.8	55.9	82.5	58.2
		Age 30-64	69.3	74.6	78.4	79.1	78.9	85.6	91.8	77.5
		15 and older	59.6	70.4	60.8	46.0	72.7	69.2	88.0	66.2
El Salvador	2004	Age 15-29	56.5	56.9	46.2	36.0	72.9	51.3	86.1	54.3
		Age 30-64	61.9	74.1	76.8	79.0	80.1	85.2	89.1	71.0
		15 and older	54.0	63.6	56.3	46.5	75.0	64.6	86.4	59.6
Guatemala	2006	Age 15-29	60.2	67.6	54.9	37.5	61.4	79.9	82.3	62.3
		Age 30-64	68.6	75.9	86.6	85.7	78.4	83.8	91.5	73.6
		15 and older	63.0	70.0	62.6	45.7	67.0	80.1	86.6	66.2
Honduras	2007	Age 15-29	58.6	61.3	38.8	29.2	38.8	60.5	80.0	53.5
		Age 30-64	64.6	71.2	74.4	71.7	75.0	78.4	90.9	69.9
		15 and older	58.7	65.0	47.3	35.0	50.6	67.0	86.2	59.7
Mexico	2008	Age 15-29	59.4	63.8	56.2	39.7	64.0	53.4	85.4	56.9
		Age 30-64	62.5	66.3	73.8	75.7	76.1	83.5	88.1	71.6
		15 and older	53.3	61.9	63.6	51.2	69.1	67.0	85.4	62.2
Nicaragua	2005	Age 15-29	61.0	61.1	51.7	43.8	63.0	56.4	85.7	58.5
		Age 30-64	66.1	73.5	79.0	81.7	80.2	82.6	90.3	72.3
		15 and older	60.1	65.4	60.5	53.6	68.7	66.6	88.3	63.0
Panama	2008	Age 15-29	57.6	67.1	48.7	38.0	72.2	63.6	88.6	58.8
		Age 30-64	63.5	68.9	74.1	74.4	78.6	84.7	88.3	75.3
		15 and older	51.8	61.4	59.1	49.1	72.6	72.8	84.2	63.9
Paraguay	2008	Age 15-29	67.8	72.0	52.5	52.3	77.7	78.0	100.0	65.2
		Age 30-64	72.0	77.7	79.2	85.1	80.9	92.5	77.7	78.7
		15 and older	63.8	73.5	61.8	59.6	77.9	83.9	82.7	69.5
Peru	2008	Age 15-29	72.4	76.6	58.9	48.8	70.1	68.5	81.1	67.2
		Age 30-64	83.2	85.9	85.0	88.4	83.1	84.4	89.4	84.6
		15 and older	73.6	79.8	69.1	57.4	75.0	75.3	84.8	74.4
Uruguay	2008	Age 15-29	50.4	67.3	57.7	58.3	67.9	72.1	84.4	62.7
		Age 30-64	67.6	76.1	82.4	83.9	84.9	88.8	94.6	81.5
		15 and older	40.3	57.4	66.7	67.6	73.2	77.4	85.8	64.0
Venezuela (Bolivarian Republic of)	2008	Age 15-29	66.3	70.9	48.3	31.6	59.1	53.4	72.1	55.6
		Age 30-64	68.7	74.0	78.3	78.3	80.6	83.5	87.2	77.9
		15 and older	57.9	67.1	62.7	44.7	69.6	65.2	80.3	65.2
Latin America		Age 15-29	61.0	66.8	54.0	51.8	74.0	64.8	83.2	62.1
		Age 30-64	67.7	70.6	75.4	77.2	79.7	84.7	89.5	75.5
		15 and older	56.7	63.6	62.8	60.1	75.1	73.6	85.1	65.7

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Total population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-8
LATIN AMERICA (18 COUNTRIES): EMPLOYMENT RATES FOR THE POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	37.9	33.4	37.4	45.1	50.7	46.3	80.6	46.5
		Age 30-64	60.4	71.6	66.6	69.8	71.8	77.7	87.2	72.4
		15 and older	40.0	46.7	47.6	57.6	57.7	58.3	80.9	55.7
Bolivia (Plurinational State of)	2007	Age 15-29	73.4	77.1	59.7	44.8	53.4	40.2	63.7	53.0
		Age 30-64	83.1	89.8	80.2	79.5	78.4	79.4	84.9	81.9
		15 and older	77.7	82.2	67.6	53.6	63.2	56.1	77.5	67.5
Brazil	2008	Age 15-29	55.2	62.9	52.0	48.3	72.3	73.9	81.3	60.9
		Age 30-64	65.5	68.7	72.3	73.2	77.0	82.9	88.2	73.0
		15 and older	53.0	59.4	61.4	54.8	73.1	77.1	83.5	63.7
Chile	2006	Age 15-29	33.3	40.9	25.9	20.3	58.6	44.8	78.2	40.8
		Age 30-64	52.1	55.8	64.1	66.2	71.7	79.4	89.2	68.1
		15 and older	36.0	42.1	49.4	40.9	64.1	62.7	83.3	53.1
Colombia	2008	Age 15-29	50.9	59.2	30.9	58.5	39.7	45.1	65.7	47.0
		Age 30-64	62.3	66.6	68.7	72.0	62.4	76.8	84.8	69.9
		15 and older	51.3	58.8	46.2	64.3	47.2	56.5	77.5	56.9
Costa Rica	2008	Age 15-29	52.2	57.5	38.9	34.6	60.5	63.6	90.5	52.2
		Age 30-64	56.8	65.4	71.0	68.8	70.7	77.1	90.0	69.2
		15 and older	43.3	59.1	51.5	43.2	64.3	69.3	86.6	57.9
Dominican Republic	2008	Age 15-29	53.1	45.4	40.6	33.2	49.0	57.2	82.5	45.4
		Age 30-64	60.8	64.9	66.4	67.9	69.7	80.0	86.4	67.4
		15 and older	50.5	56.3	53.2	45.4	57.8	68.4	81.6	54.5
Ecuador	2008	Age 15-29	58.3	70.6	45.9	30.2	57.7	48.4	71.6	51.5
		Age 30-64	67.5	72.6	75.9	76.9	75.1	81.6	88.7	74.9
		15 and older	58.1	68.0	56.8	42.5	65.2	63.5	83.3	62.3
El Salvador	2004	Age 15-29	51.4	50.9	41.8	33.2	65.2	47.2	72.1	49.1
		Age 30-64	58.8	71.0	72.5	74.6	76.8	81.4	85.9	67.6
		15 and older	50.5	59.6	52.0	43.4	69.4	60.7	81.2	55.5
Guatemala	2006	Age 15-29	59.3	66.3	52.1	35.3	57.3	76.1	78.6	60.4
		Age 30-64	68.0	75.4	85.1	85.7	76.7	81.6	90.5	72.7
		15 and older	62.4	69.0	60.2	43.8	63.9	77.1	85.2	64.9
Honduras	2007	Age 15-29	56.4	58.9	36.9	28.1	36.2	55.6	75.0	50.9
		Age 30-64	63.6	69.9	72.7	69.5	73.5	77.1	89.5	68.7
		15 and older	57.5	63.2	45.5	33.8	48.4	63.8	83.8	58.0
México	2008	Age 15-29	55.7	59.7	50.9	36.4	58.9	50.2	75.5	52.3
		Age 30-64	60.8	64.6	71.8	74.2	74.0	82.0	85.8	69.8
		15 and older	51.5	59.6	60.0	48.6	65.6	64.7	81.4	59.4
Nicaragua	2005	Age 15-29	59.2	58.1	48.0	38.8	57.1	50.4	71.9	54.7
		Age 30-64	65.0	72.1	76.2	78.7	77.1	78.1	87.5	70.5
		15 and older	58.8	63.2	57.2	49.2	63.8	61.2	81.6	60.4
Panama	2008	Age 15-29	54.9	63.2	42.6	33.2	61.5	56.2	79.9	52.0
		Age 30-64	62.7	67.2	71.3	72.1	76.3	80.7	86.3	73.2
		15 and older	50.9	59.4	55.0	45.2	67.1	67.3	81.0	60.3
Paraguay	2008	Age 15-29	62.6	69.3	46.6	45.8	69.2	69.9	100.0	59.0
		Age 30-64	70.0	75.0	75.3	81.5	78.7	90.7	77.7	76.2
		15 and older	61.5	70.9	56.7	53.9	72.3	79.5	82.7	65.6
Peru	2008	Age 15-29	71.4	74.6	53.7	43.7	65.1	61.3	73.1	62.1
		Age 30-64	82.5	85.3	83.5	85.5	80.4	81.7	85.9	82.7
		15 and older	73.0	78.4	65.7	52.8	71.3	70.5	80.2	71.4
Uruguay	2008	Age 15-29	42.4	56.3	46.6	49.3	57.8	63.8	75.9	52.7
		Age 30-64	63.7	72.3	77.6	80.1	81.9	85.9	92.8	77.8
		15 and older	37.8	53.3	59.9	62.0	68.2	73.1	83.1	59.2
Venezuela (Bolivarian Republic of)	2008	Age 15-29	59.8	63.4	42.9	27.8	52.0	46.9	62.6	49.1
		Age 30-64	65.7	70.5	74.8	75.0	77.2	78.8	83.9	74.4
		15 and older	54.7	62.9	58.4	41.1	64.7	59.5	75.3	60.7
Latin America		Age 15-29	56.4	61.8	47.4	43.3	64.8	57.5	73.6	54.8
		Age 30-64	65.3	68.1	71.8	72.6	76.0	81.5	86.6	72.4
		15 and older	54.5	60.7	58.0	53.2	69.0	68.6	80.7	61.3

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Total population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-9
LATIN AMERICA (18 COUNTRIES): UNEMPLOYMENT RATES FOR THE ACTIVE POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	15.3	26.5	18.6	14.2	19.1	16.5	7.9	17.0
		Age 30-64	7.6	6.7	7.4	6.3	6.9	6.1	2.3	6.0
		15 and older	8.9	15.7	10.5	8.4	12.1	11.0	3.4	9.5
Bolivia (Plurinational State of)	2007	Age 15-29	2.5	4.8	4.1	7.4	16.0	16.7	23.7	10.6
		Age 30-64	1.9	1.5	0.7	2.7	2.4	4.9	4.7	2.6
		15 and older	1.7	2.6	2.3	5.5	9.2	9.9	9.8	5.3
Brazil	2008	Age 15-29	9.3	8.2	13.3	18.1	12.7	9.9	7.8	12.7
		Age 30-64	3.7	3.3	4.8	5.4	5.0	3.1	2.6	4.2
		15 and older	4.2	3.9	8.0	13.6	8.6	5.6	3.7	7.1
Chile	2006	Age 15-29	17.4	11.5	14.4	17.5	13.6	13.0	8.5	13.8
		Age 30-64	6.0	4.2	5.5	6.0	5.1	4.7	2.5	5.0
		15 and older	6.4	4.5	6.9	8.9	8.3	7.5	3.8	7.3
Colombia	2008	Age 15-29	14.0	12.8	18.6	21.8	22.6	21.2	17.3	18.9
		Age 30-64	6.5	7.1	8.5	9.0	16.3	9.4	6.3	7.7
		15 and older	7.4	8.4	12.4	14.8	19.0	15.6	9.0	11.3
Costa Rica	2008	Age 15-29	10.2	11.5	10.3	10.9	6.9	6.3	1.8	8.9
		Age 30-64	4.7	3.0	3.2	3.5	1.9	2.4	0.6	2.8
		15 and older	5.8	5.6	6.3	8.0	4.0	4.0	0.8	4.9
Dominican Republic	2008	Age 15-29	17.4	17.1	22.7	23.9	30.2	18.9	10.4	22.6
		Age 30-64	8.7	11.1	10.9	12.5	12.4	9.2	4.4	10.1
		15 and older	9.7	12.5	14.6	18.1	21.6	13.2	5.6	14.3
Ecuador	2008	Age 15-29	5.0	6.2	10.1	12.1	17.4	13.4	13.2	11.6
		Age 30-64	2.6	2.7	3.2	2.8	4.9	4.7	3.4	3.4
		15 and older	2.7	3.5	6.7	7.7	10.3	8.3	5.4	6.0
El Salvador	2004	Age 15-29	9.0	10.6	9.5	7.6	10.6	8.0	16.3	9.6
		Age 30-64	5.1	4.2	5.7	5.6	4.0	4.5	3.6	4.8
		15 and older	6.5	6.3	7.6	6.8	7.4	6.0	6.0	6.8
Guatemala	2006	Age 15-29	1.6	2.0	4.9	5.9	6.7	4.8	4.5	3.1
		Age 30-64	0.8	0.6	1.8	0.0	2.2	2.6	1.1	1.1
		15 and older	1.0	1.4	3.8	4.0	4.5	3.7	1.7	1.9
Honduras	2007	Age 15-29	3.7	4.0	5.0	3.7	6.6	8.1	6.2	4.8
		Age 30-64	1.5	1.7	2.3	3.1	2.0	1.8	1.6	1.7
		15 and older	1.9	2.9	4.0	3.5	4.3	4.8	2.7	2.9
Mexico	2008	Age 15-29	6.2	6.4	9.3	8.2	8.0	6.0	11.6	8.1
		Age 30-64	2.7	2.6	2.7	2.0	2.7	1.7	2.6	2.5
		15 and older	3.3	3.6	5.7	5.1	5.1	3.5	4.7	4.5
Nicaragua	2005	Age 15-29	2.9	5.0	7.0	11.4	9.4	10.6	16.0	6.5
		Age 30-64	1.7	2.0	3.6	3.6	3.9	5.5	3.2	2.5
		15 and older	2.0	3.3	5.5	8.3	7.1	8.1	7.6	4.2
Panama	2008	Age 15-29	4.7	5.8	12.5	12.6	14.8	11.6	9.9	11.4
		Age 30-64	1.3	2.5	3.7	3.2	2.9	4.8	2.2	2.9
		15 and older	1.6	3.3	6.9	7.9	7.5	7.6	3.8	5.6
Paraguay	2008	Age 15-29	7.6	3.7	11.4	12.5	10.9	10.4	0.0	9.6
		Age 30-64	2.8	3.4	5.0	4.3	2.7	2.0	0.0	3.2
		15 and older	3.6	3.5	8.3	9.6	7.1	5.3	0.0	5.6
Peru	2008	Age 15-29	1.4	2.6	8.7	10.5	7.1	10.5	9.9	7.6
		Age 30-64	0.8	0.7	1.8	3.3	3.2	3.1	3.8	2.2
		15 and older	0.9	1.7	5.0	7.9	4.9	6.4	5.4	4.0
Uruguay	2008	Age 15-29	16.0	16.4	19.2	15.4	14.9	11.5	10.1	15.8
		Age 30-64	5.7	5.0	5.8	4.6	3.5	3.2	1.9	4.5
		15 and older	6.3	7.1	10.2	8.3	6.8	5.6	3.1	7.5
Venezuela (Bolivarian Republic of)	2008	Age 15-29	9.8	10.6	11.2	12.0	12.0	12.2	13.2	11.6
		Age 30-64	4.5	4.8	4.6	4.3	4.2	5.6	3.7	4.5
		15 and older	5.5	6.2	7.0	8.1	7.1	8.8	6.3	6.9
Latin America		Age 15-29	7.5	7.5	12.2	16.4	12.4	11.2	11.5	11.8
		Age 30-64	3.5	3.5	4.7	5.9	4.6	3.8	3.3	4.1
		15 and older	3.9	4.4	7.7	11.4	8.1	6.8	5.2	6.7

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Active population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-10
LATIN AMERICA (18 COUNTRIES): DISTRIBUTION OF EMPLOYED POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	2.4	0.9	27.6	6.5	33.3	16.9	12.3	100.0
		Age 30-64	7.2	0.6	30.7	7.7	21.7	8.9	23.2	100.0
		15 and older	6.3	0.7	30.2	7.3	24.9	11.1	19.6	100.0
Bolivia (Plurinational State of)	2007	Age 15-29	16.6	4.9	12.5	24.8	22.3	13.1	5.9	100.0
		Age 30-64	42.8	4.6	7.8	8.4	14.0	11.0	11.4	100.0
		15 and older	37.4	4.6	8.9	13.5	15.8	11.0	8.8	100.0
Brazil	2008	Age 15-29	7.1	4.5	25.5	13.0	34.6	12.9	2.4	100.0
		Age 30-64	21.0	12.2	23.3	4.4	22.5	12.1	4.5	100.0
		15 and older	17.7	9.8	23.5	7.1	25.9	12.1	3.8	100.0
Chile	2006	Age 15-29	2.2	1.4	7.5	14.5	45.9	20.5	8.0	100.0
		Age 30-64	10.7	6.1	13.8	15.5	28.5	15.3	10.1	100.0
		15 and older	9.7	5.3	12.1	15.1	32.1	16.2	9.4	100.0
Colombia	2008	Age 15-29	9.3	11.6	21.9	31.6	0.1	15.7	9.8	100.0
		Age 30-64	22.9	17.3	17.1	20.1	0.1	7.7	14.9	100.0
		15 and older	20.5	15.6	18.2	22.9	0.1	9.8	12.9	100.0
Costa Rica	2008	Age 15-29	8.7	23.5	20.6	5.9	15.8	20.8	4.8	100.0
		Age 30-64	14.1	29.3	15.1	2.3	12.4	15.5	11.3	100.0
		15 and older	13.1	27.3	16.7	3.5	13.3	17.1	9.0	100.0
Dominican Republic	2008	Age 15-29	16.9	4.0	14.3	20.8	20.3	21.5	2.1	100.0
		Age 30-64	32.2	5.3	16.9	12.4	12.2	17.0	3.9	100.0
		15 and older	29.1	4.9	15.7	14.8	14.5	17.9	3.2	100.0
Ecuador	2008	Age 15-29	7.7	19.6	21.2	9.6	22.6	13.8	5.5	100.0
		Age 30-64	18.9	27.8	11.2	4.5	16.1	10.4	11.2	100.0
		15 and older	18.5	25.1	13.7	5.8	17.2	10.8	9.0	100.0
El Salvador	2004	Age 15-29	27.3	9.3	25.7	6.0	21.4	8.0	2.3	100.0
		Age 30-64	41.6	13.0	15.3	2.8	13.7	6.6	7.1	100.0
		15 and older	38.4	11.4	18.6	3.9	16.0	6.8	5.0	100.0
Guatemala	2006	Age 15-29	40.7	20.4	16.8	1.7	5.4	13.4	1.6	100.0
		Age 30-64	58.2	14.1	7.3	0.7	4.1	10.1	5.5	100.0
		15 and older	52.5	16.2	11.0	1.1	4.5	11.0	3.7	100.0
Honduras	2007	Age 15-29	27.3	34.3	15.0	2.9	3.2	14.9	2.4	100.0
		Age 30-64	46.3	25.5	7.1	0.9	2.5	11.9	5.9	100.0
		15 and older	41.0	28.0	9.9	1.6	2.7	12.6	4.2	100.0
Mexico	2008	Age 15-29	7.7	12.9	35.4	9.6	17.4	12.0	5.1	100.0
		Age 30-64	22.1	18.0	24.0	5.4	11.8	9.5	9.2	100.0
		15 and older	19.6	16.2	27.0	6.6	13.2	10.0	7.5	100.0
Nicaragua	2005	Age 15-29	34.2	15.9	21.9	3.9	13.4	6.4	4.3	100.0
		Age 30-64	49.2	14.3	14.1	2.3	7.7	5.1	7.4	100.0
		15 and older	44.5	14.7	16.9	2.9	9.9	5.4	5.8	100.0
Panama	2008	Age 15-29	6.6	14.5	20.9	10.4	25.4	14.6	7.7	100.0
		Age 30-64	11.3	19.3	17.6	5.3	21.0	10.5	15.0	100.0
		15 and older	11.9	18.1	18.1	6.7	21.6	11.3	12.2	100.0
Paraguay	2008	Age 15-29	13.2	16.6	20.0	12.6	23.0	14.6	0.0	100.0
		Age 30-64	29.5	24.9	12.4	4.6	13.5	15.1	0.1	100.0
		15 and older	25.4	21.4	14.8	7.4	16.5	14.4	0.1	100.0
Peru	2008	Age 15-29	8.8	9.3	16.4	6.3	32.8	18.6	7.9	100.0
		Age 30-64	33.7	4.9	10.6	2.0	21.7	13.0	14.1	100.0
		15 and older	29.5	6.0	12.0	3.2	24.0	14.0	11.3	100.0
Uruguay	2008	Age 15-29	2.9	15.7	28.5	21.3	10.2	18.7	2.8	100.0
		Age 30-64	8.3	21.9	21.7	14.7	9.4	17.3	6.5	100.0
		15 and older	8.3	21.0	22.9	15.9	9.3	17.1	5.5	100.0
Venezuela (Bolivarian Republic of)	2008	Age 15-29	8.6	13.2	20.2	5.0	24.3	19.9	8.8	100.0
		Age 30-64	13.7	20.9	17.9	2.6	21.1	11.3	12.5	100.0
		15 and older	13.2	18.7	18.3	3.3	21.6	13.7	11.1	100.0
Latin America		Age 15-29	9.5	9.0	25.0	12.3	25.4	14.1	4.7	100.0
		Age 30-64	22.4	13.9	20.5	6.2	17.2	11.2	8.7	100.0
		15 and older	20.0	12.3	21.4	8.0	19.3	11.8	7.2	100.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Employed population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-11
LATIN AMERICA (18 COUNTRIES): SALARIED PROPORTION OF EMPLOYED POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas	2006	Age 15-29	80.0	71.7	86.8	82.1	87.6	86.4	88.1	86.5
		Age 30-64	71.3	68.4	72.8	71.2	73.0	72.3	74.9	73.0
		15 and older	68.8	69.4	75.5	72.8	77.9	78.2	76.6	75.9
Bolivia (Plurinational State of)	2007	Age 15-29	29.8	26.3	39.3	44.4	55.5	69.1	85.7	48.6
		Age 30-64	19.7	23.9	35.3	43.8	45.8	76.0	66.1	38.3
		15 and older	18.6	23.8	37.0	43.4	50.0	72.7	70.2	39.3
Brazil	2008	Age 15-29	62.6	60.3	72.0	78.6	86.0	87.7	81.3	78.7
		Age 30-64	48.5	55.0	62.2	64.6	71.1	76.1	69.4	62.6
		15 and older	46.4	53.6	65.1	72.8	77.4	79.8	70.9	66.4
Chile	2006	Age 15-29	78.7	82.6	79.2	84.5	90.2	87.1	88.3	87.4
		Age 30-64	66.2	64.4	70.5	71.2	75.8	77.9	80.3	73.4
		15 and older	63.4	62.1	70.9	73.5	80.5	80.3	81.3	75.7
Colombia	2008	Age 15-29	48.3	50.0	53.5	64.3	55.4	73.1	70.9	60.8
		Age 30-64	36.1	39.0	40.7	49.8	52.2	61.3	65.6	46.5
		15 and older	35.3	40.4	44.9	55.6	53.4	66.8	66.1	49.6
Costa Rica	2008	Age 15-29	80.7	83.7	83.0	86.3	90.5	91.4	89.2	86.4
		Age 30-64	64.0	61.4	64.4	61.0	69.2	75.1	80.2	67.4
		15 and older	64.8	67.1	71.8	75.7	77.6	81.5	80.7	72.9
Dominican Republic	2008	Age 15-29	29.6	54.1	50.2	56.7	67.1	82.3	79.5	59.2
		Age 30-64	36.2	40.9	46.5	50.6	57.1	73.5	73.3	50.3
		15 and older	33.3	44.0	47.4	53.0	61.6	77.0	73.0	52.1
Ecuador	2008	Age 15-29	68.1	65.0	64.2	58.2	75.1	78.7	84.5	69.7
		Age 30-64	42.5	46.2	49.3	51.4	58.0	66.9	69.7	52.8
		15 and older	40.4	49.0	55.8	54.6	64.4	71.3	71.6	55.7
El Salvador	2004	Age 15-29	64.4	69.0	69.8	69.9	83.9	82.3	81.8	72.5
		Age 30-64	42.9	52.2	57.6	51.3	68.2	80.3	78.4	55.0
		15 and older	47.3	56.4	63.4	61.9	75.7	81.1	78.6	60.3
Guatemala	2006	Age 15-29	54.5	59.2	60.2	67.3	72.4	81.1	85.6	61.7
		Age 30-64	36.3	53.7	55.7	51.6	66.2	70.1	75.1	47.0
		15 and older	40.6	56.0	58.5	62.0	68.5	75.7	74.3	51.6
Honduras	2007	Age 15-29	57.1	62.3	60.8	65.0	62.9	82.4	85.7	64.3
		Age 30-64	30.0	37.8	45.1	50.9	54.6	66.3	73.6	40.7
		15 and older	35.3	49.5	54.5	60.8	58.4	73.4	75.7	48.7
Mexico	2008	Age 15-29	74.1	78.0	83.3	83.3	86.9	88.2	88.9	83.4
		Age 30-64	54.7	63.0	72.8	76.9	75.3	81.2	80.0	69.0
		15 and older	53.0	65.9	77.2	79.7	80.1	83.7	81.6	72.1
Nicaragua	2005	Age 15-29	49.8	53.8	64.3	59.3	76.4	67.6	86.6	60.3
		Age 30-64	33.5	46.4	51.8	50.1	66.0	70.7	74.7	45.7
		15 and older	37.1	48.7	58.4	55.0	71.3	68.6	78.0	50.4
Panama	2008	Age 15-29	48.1	51.9	69.4	71.5	84.4	87.4	93.5	74.0
		Age 30-64	38.3	53.7	61.8	63.1	73.1	77.9	86.6	65.4
		15 and older	35.6	51.6	63.7	66.8	76.6	81.3	87.5	66.1
Paraguay	2008	Age 15-29	51.1	43.4	61.7	60.7	77.9	79.4	100.0	63.5
		Age 30-64	30.1	39.0	49.9	58.2	59.1	74.5	100.0	46.7
		15 and older	31.3	39.4	55.4	59.2	68.2	75.5	100.0	51.2
Peru	2008	Age 15-29	36.5	38.0	43.8	45.7	63.3	69.1	79.6	56.6
		Age 30-64	19.2	27.4	33.5	39.6	45.6	58.3	72.9	39.9
		15 and older	18.4	32.4	37.7	43.2	52.9	62.7	73.3	43.0
Uruguay	2008	Age 15-29	65.8	78.3	82.8	84.7	86.5	88.7	73.2	83.2
		Age 30-64	59.4	65.0	68.5	69.4	70.1	77.4	58.3	68.1
		15 and older	54.9	64.9	71.7	73.5	73.5	79.6	59.4	70.0
Venezuela (Bolivarian Republic of)	2008	Age 15-29	55.2	58.6	63.5	64.1	71.9	77.8	84.2	68.9
		Age 30-64	39.9	45.2	50.1	49.9	58.3	69.5	78.9	55.2
		15 and older	40.3	47.0	54.4	56.6	62.8	73.2	79.7	58.4
Latin America		Age 15-29	58.3	63.2	72.3	73.0	82.8	83.4	82.9	75.0
		Age 30-64	43.8	53.1	62.0	61.7	68.5	74.1	73.6	60.1
		15 and older	42.5	54.0	65.4	67.0	74.3	77.4	74.9	63.4

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Employed population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-12
LATIN AMERICA (18 COUNTRIES): PROPORTION OF EMPLOYED POPULATION AGE 15-29, 30-64 AND 15 AND OVER, WORKING IN THE INFORMAL SECTOR BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	56.9	70.4	52.3	46.3	39.2	26.3	13.0	38.6
		Age 30-64	61.2	65.7	54.2	50.4	37.3	27.4	13.6	39.0
		15 and older	63.1	67.8	54.4	50.0	38.6	27.2	13.7	39.8
Bolivia (Plurinational State of)	2007	Age 15-29	89.7	88.3	84.8	81.4	66.7	38.9	7.6	70.4
		Age 30-64	89.6	87.6	82.3	74.0	63.2	26.3	16.4	68.6
		15 and older	91.0	88.3	83.6	78.9	64.9	31.7	14.4	71.2
Brazil	2008	Age 15-29	45.1	48.1	36.7	28.2	16.6	8.3	8.0	25.4
		Age 30-64	61.4	55.7	46.6	39.8	25.7	13.4	10.6	40.1
		15 and older	62.2	55.9	43.4	32.9	21.8	11.8	10.2	36.5
Chile	2006	Age 15-29	37.4	39.5	36.9	29.7	19.5	12.8	4.2	20.4
		Age 30-64	52.0	52.3	47.8	42.2	30.7	18.5	5.3	34.0
		15 and older	53.4	53.2	46.2	39.6	27.0	17.0	5.2	31.5
Colombia	2008	Age 15-29	85.3	82.3	75.8	55.7	62.0	34.6	15.5	58.7
		Age 30-64	87.4	80.6	74.7	59.4	59.0	39.4	17.0	64.3
		15 and older	88.1	81.5	75.4	58.1	59.4	37.3	16.9	63.7
Costa Rica	2008	Age 15-29	50.6	44.7	42.6	39.3	25.0	10.6	4.2	32.3
		Age 30-64	62.1	56.9	49.9	49.0	37.9	19.8	7.5	42.7
		15 and older	62.0	54.0	47.2	43.4	32.7	16.1	7.4	40.1
Dominican Republic	2008	Age 15-29	80.3	66.5	67.6	58.6	43.1	22.7	0.6	51.8
		Age 30-64	77.8	70.2	65.0	59.2	47.3	16.4	13.2	56.2
		15 and older	78.8	69.4	65.8	58.9	45.6	18.8	12.5	55.7
Ecuador	2008	Age 15-29	68.8	70.5	72.1	72.3	52.2	31.1	15.8	58.3
		Age 30-64	82.0	77.7	71.6	66.5	55.2	33.7	19.6	62.6
		15 and older	82.6	76.6	72.1	69.7	54.2	32.9	19.2	63.0
El Salvador	2004	Age 15-29	76.1	67.4	60.1	53.3	30.6	22.3	9.1	54.2
		Age 30-64	81.5	65.6	58.6	54.8	38.6	20.2	15.2	60.5
		15 and older	80.7	66.8	59.7	53.9	34.7	21.1	14.3	59.4
Guatemala	2006	Age 15-29	61.9	53.5	43.9	36.9	28.3	15.6	9.6	47.9
		Age 30-64	75.1	52.3	42.1	30.1	24.4	22.4	6.1	58.0
		15 and older	71.5	53.1	43.3	34.6	27.3	18.9	6.5	54.9
Honduras	2007	Age 15-29	76.8	61.1	58.7	49.0	40.0	17.9	6.1	56.3
		Age 30-64	74.4	56.9	47.8	37.8	30.1	21.8	12.1	56.8
		15 and older	76.0	59.1	54.5	45.8	35.1	20.3	10.8	57.8
Mexico	2008	Age 15-29	64.5	59.7	51.3	46.9	35.5	22.8	10.1	44.7
		Age 30-64	74.9	66.0	52.5	37.2	37.9	23.2	15.3	51.2
		15 and older	75.9	64.8	52.1	42.1	36.9	23.3	14.1	50.4
Nicaragua	2005	Age 15-29	77.2	67.6	59.4	61.5	44.3	41.1	14.9	61.8
		Age 30-64	83.0	69.8	62.2	53.1	46.0	32.5	17.6	67.3
		15 and older	82.0	69.2	60.8	57.9	45.3	37.3	17.3	66.1
Panama	2008	Age 15-29	79.0	73.5	55.7	49.3	29.9	19.6	5.3	43.5
		Age 30-64	81.6	67.6	53.1	51.0	35.6	24.1	9.1	45.7
		15 and older	84.1	70.3	54.7	50.4	33.8	22.6	8.7	47.0
Paraguay	2008	Age 15-29	85.1	84.2	74.5	68.4	47.1	24.4	40.4	63.1
		Age 30-64	88.7	79.8	63.8	56.3	45.8	18.2	0.0	65.4
		15 and older	88.9	81.5	69.6	64.3	46.9	21.2	11.0	65.9
Peru	2008	Age 15-29	85.6	83.3	81.0	79.3	62.8	44.0	21.3	64.0
		Age 30-64	89.3	84.1	78.8	74.9	66.6	47.5	20.6	67.6
		15 and older	90.4	83.9	80.1	77.9	65.2	46.0	21.3	68.3
Uruguay	2008	Age 15-29	62.8	55.4	46.2	36.0	27.7	14.0	5.0	36.9
		Age 30-64	66.8	57.9	48.7	38.1	29.8	16.5	8.2	40.7
		15 and older	69.7	59.0	48.5	37.9	29.6	16.2	8.3	41.3
Venezuela (Bolivarian Republic of)	2008	Age 15-29	68.6	62.5	57.6	53.5	40.7	28.9	12.9	45.2
		Age 30-64	73.9	63.9	57.4	55.3	44.6	29.2	10.4	49.2
		15 and older	74.5	64.5	57.7	54.6	43.5	29.2	11.2	48.9
Latin America		Age 15-29	63.9	62.1	49.3	43.3	27.7	20.2	11.7	39.7
		Age 30-64	72.5	64.1	52.9	48.3	34.2	21.5	13.9	48.4
		15 and older	73.5	64.4	51.8	46.1	31.7	21.2	13.6	47.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Employed population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-13
LATIN AMERICA (18 COUNTRIES): SOCIAL SECURITY SYSTEM ENROLMENT RATES FOR EMPLOYED POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Percentages)

Country	Year	Education level attained								Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	9.6	9.9	24.3	31.7	46.7	49.8	67.3	41.4
		Age 30-64	25.3	19.9	35.6	42.1	54.0	59.0	68.5	49.0
		15 and older	21.7	15.8	31.7	38.4	50.3	54.4	67.2	45.6
Bolivia (Plurinational State of)	2007	Age 15-29	10.3	16.8	9.9	12.7	15.7	38.0	46.0	18.1
		Age 30-64	11.7	11.8	15.7	22.4	22.8	63.8	64.0	26.2
		15 and older	15.3	15.3	13.3	17.2	20.1	53.5	60.2	24.3
Brazil	2008	Age 15-29	21.2	24.7	34.3	42.2	68.6	73.3	76.5	51.9
		Age 30-64	27.8	43.1	51.2	57.0	71.1	81.7	83.0	55.2
		15 and older	24.5	38.6	44.6	47.8	69.7	78.3	80.7	52.6
Chile	2006	Age 15-29	46.5	41.4	48.7	52.1	72.9	69.1	73.8	66.3
		Age 30-64	49.4	52.3	56.3	60.7	70.5	78.2	86.0	66.4
		15 and older	46.2	49.1	54.3	57.8	71.0	75.0	82.6	65.1
Colombia	2008	Age 15-29	5.4	9.1	12.4	35.3	20.3	54.0	72.7	31.1
		Age 30-64	9.9	19.3	25.7	41.4	37.3	61.0	75.6	34.3
		15 and older	8.7	16.8	20.8	38.8	30.0	57.6	74.8	32.4
Costa Rica	2008	Age 15-29	46.3	56.4	62.2	63.1	78.5	83.9	92.9	68.1
		Age 30-64	57.7	67.3	66.8	69.7	74.1	84.6	89.0	71.9
		15 and older	53.1	63.4	64.7	65.8	75.5	83.8	88.5	69.7
Dominican Republic	2008	Age 15-29	9.6	22.9	18.1	25.1	42.8	64.9	75.6	34.6
		Age 30-64	18.1	25.4	29.4	31.3	43.7	69.5	69.5	35.9
		15 and older	16.0	24.6	25.7	28.2	43.1	67.7	69.2	34.7
Ecuador	2008	Age 15-29	9.1	14.5	15.6	18.8	30.0	43.5	61.5	24.8
		Age 30-64	17.9	22.9	27.2	27.0	43.4	61.0	70.8	35.3
		15 and older	16.8	21.5	21.9	23.1	38.3	54.4	69.6	31.5
El Salvador	2004	Age 15-29	7.1	15.3	22.9	26.6	55.0	63.1	67.2	29.2
		Age 30-64	7.7	24.8	32.3	36.3	55.5	77.0	77.0	30.5
		15 and older	7.1	21.5	27.5	30.8	55.2	70.9	74.9	28.9
Guatemala	2006	Age 15-29	8.4	15.8	21.9	25.0	46.6	49.7	53.4	20.8
		Age 30-64	8.0	23.8	31.6	29.4	44.5	53.4	57.1	20.9
		15 and older	7.7	19.2	25.2	26.5	45.0	51.4	54.5	19.9
Honduras	2007	Age 15-29	5.3	15.1	20.9	26.6	30.5	53.7	66.1	21.1
		Age 30-64	5.7	16.5	25.7	32.8	36.8	51.4	68.4	20.0
		15 and older	5.2	15.6	22.7	28.3	33.6	52.1	67.5	19.5
Mexico	2008	Age 15-29	7.0	14.4	25.3	29.8	42.3	47.9	57.2	30.2
		Age 30-64	9.9	18.8	34.1	52.0	48.7	61.2	63.7	34.0
		15 and older	8.3	17.1	30.1	41.1	45.8	55.7	61.6	31.5
Nicaragua	2005	Age 15-29	2.6	10.1	17.2	22.9	35.7	40.1	59.6	17.1
		Age 30-64	5.6	17.5	22.8	29.3	38.1	50.6	59.3	19.0
		15 and older	4.2	13.7	19.6	25.4	36.3	45.0	59.1	17.4
Panama	2008	Age 15-29	11.8	18.8	29.7	35.0	60.4	72.7	87.1	46.0
		Age 30-64	17.1	34.0	45.0	47.2	63.9	74.7	86.8	53.2
		15 and older	13.1	28.6	38.7	40.7	62.0	73.4	86.1	48.7
Paraguay	2008	Age 15-29	0.8	1.4	3.5	7.5	17.5	38.7	59.6	11.7
		Age 30-64	4.5	6.8	15.5	30.5	35.2	58.6	100.0	20.0
		15 and older	3.5	5.2	9.2	15.7	25.7	50.5	89.0	16.0
Peru	2008	Age 15-29	1.8	2.5	3.8	3.5	15.4	28.9	42.8	15.0
		Age 30-64	7.5	6.6	19.3	22.9	34.4	54.2	76.2	30.6
		15 and older	8.8	5.1	13.1	10.6	26.3	43.8	69.0	25.1
Uruguay	2008	Age 15-29	29.2	43.4	53.4	65.4	74.2	82.1	88.5	62.1
		Age 30-64	46.4	61.3	66.7	73.9	81.0	87.9	94.9	71.8
		15 and older	39.5	55.5	61.8	70.4	78.5	85.8	93.6	67.4
Venezuela (Bolivarian Republic of)	2008	Age 15-29	28.6	37.8	42.4	43.4	60.8	69.9	82.7	55.9
		Age 30-64	40.4	58.2	63.9	67.6	77.3	84.4	91.0	71.4
		15 and older	36.7	52.2	54.9	53.8	70.4	77.3	88.7	65.3
Latin America		Age 15-29	12.6	18.2	27.9	35.4	56.8	59.9	66.9	40.3
		Age 30-64	18.7	32.5	43.0	48.9	62.6	72.3	75.0	46.1
		15 and older	16.5	28.3	36.8	41.9	59.8	67.2	72.7	42.9

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Employed population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-14
LATIN AMERICA (18 COUNTRIES): LABOUR INCOME OF EMPLOYED POPULATION AGE 15-29, 30-64 AND 15 AND OVER, BY LEVEL OF EDUCATION [a]
(Dollars at constant 2000 prices, expressed in purchasing power parity)

Country	Year	Education level attained							Total
		Population group [b]	Incomplete primary	Complete primary	Incomplete lower secondary	Incomplete upper secondary	Complete secondary	Incomplete tertiary	Complete university	
Argentina (urban areas)	2006	Age 15-29	567	685	718	863	949	1 022	1 349	929
		Age 30-64	825	831	1 091	1 411	1 596	1 873	2 485	1 597
		15 and older	801	772	995	1 284	1 357	1 526	2 291	1 406
Bolivia (Plurinational State of)	2007	Age 15-29	151	136	143	170	285	345	738	244
		Age 30-64	191	252	297	431	415	568	1 115	401
		15 and older	168	214	233	267	353	480	1 031	329
Brazil	2008	Age 15-29	202	221	281	301	458	750	1 539	427
		Age 30-64	282	409	512	583	801	1 502	2 886	747
		15 and older	260	380	432	412	650	1 240	2 609	631
Chile	2006	Age 15-29	380	369	433	448	563	784	1 771	671
		Age 30-64	554	602	627	748	931	1 542	3 116	1 114
		15 and older	540	593	598	688	803	1 301	2 860	998
Colombia	2008	Age 15-29	315	346	338	473	357	606	1 212	507
		Age 30-64	376	472	512	672	812	1 027	2 073	779
		15 and older	361	441	449	591	606	823	1 880	684
Costa Rica	2008	Age 15-29	525	544	557	554	725	976	1 483	709
		Age 30-64	546	651	713	793	948	1 458	2 470	1 016
		15 and older	531	615	646	654	859	1 254	2 314	905
Dominican Republic	2008	Age 15-29	579	568	593	663	601	675	1 925	651
		Age 30-64	667	865	957	948	1 041	1 589	2 806	1 048
		15 and older	640	779	851	830	838	1 231	2 649	907
Ecuador	2008	Age 15-29	169	185	172	168	281	354	584	247
		Age 30-64	200	290	344	394	491	624	957	425
		15 and older	189	265	262	279	409	517	926	362
El Salvador	2004	Age 15-29	217	286	299	311	414	568	782	334
		Age 30-64	305	414	458	533	632	864	1 235	497
		15 and older	271	373	377	405	522	733	1 152	423
Guatemala	2006	Age 15-29	202	251	268	268	484	525	1 013	296
		Age 30-64	359	560	919	888	910	1 075	2 248	630
		15 and older	319	400	496	478	698	797	2 225	493
Honduras	2007	Age 15-29	145	208	259	278	364	512	1 221	275
		Age 30-64	197	339	452	462	700	795	1 730	427
		15 and older	175	274	334	333	536	659	1 614	353
Mexico	2008	Age 15-29	254	291	354	356	465	643	1 036	427
		Age 30-64	360	518	640	907	901	1 505	2 272	832
		15 and older	337	458	516	640	713	1 169	2 022	684
Nicaragua	2005	Age 15-29	216	255	338	377	422	528	1 028	338
		Age 30-64	430	587	621	866	702	919	2 266	670
		15 and older	354	439	468	580	627	728	1 865	527
Panama	2008	Age 15-29	205	231	368	356	504	597	871	443
		Age 30-64	271	406	577	589	732	964	1 575	733
		15 and older	254	364	503	474	661	822	1 453	633
Paraguay	2008	Age 15-29	235	247	279	339	499	642	463	379
		Age 30-64	377	472	683	646	844	1 203	711	639
		15 and older	329	407	477	449	662	1 012	644	530
Peru	2008	Age 15-29	123	145	176	153	272	416	576	274
		Age 30-64	203	238	361	376	465	645	1 011	454
		15 and older	180	192	277	237	377	544	906	375
Uruguay	2008	Age 15-29	271	341	376	424	494	615	970	451
		Age 30-64	413	507	605	779	981	1 207	2 215	838
		15 and older	386	471	535	666	854	1 047	2 070	731
Venezuela (Bolivarian Republic of)	2008	Age 15-29	485	541	566	532	619	689	980	628
		Age 30-64	555	671	718	688	819	964	1 328	810
		15 and older	529	638	664	613	748	838	1 243	746
Latin America		Age 15-29	242	286	335	362	480	676	1 165	449
		Age 30-64	332	470	598	730	837	1 343	2 165	789
		15 and older	307	424	500	548	686	1 086	1 964	666

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).
[b] Employed population in each age group. The category "15 and older" includes the population age 65 and older.

Table II.A-15

LATIN AMERICA (18 COUNTRIES): RESULTS OF THE GENERAL REGRESSION MODEL (WITH CONTROL VARIABLES) FOR ASSESSING THE IMPACT OF ADDITIONAL YEARS OF SCHOOLING PER EDUCATIONAL CYCLE ON WAGES OF WAGE-EARNERS AGE 20 AND OLDER WHO WORK 20 OR MORE HOURS PER WEEK, AROUND 2008

Country	Year	Parameters [a]									Adjusted R^2 [a]
		β_0	β_1	β_2	β_3	β_4	β_5	β_6	β_7	β_8	
Argentina (urban areas)	2006	5.079	0.0304	0.0453	0.0076	0.0258	-0.0003	0.4781	0.1579	…	0.285
			(5.94)	(7.55)	(2.31)	(26.82)	(-15.21)	(55.78)	(21.99)	…	
Bolivia (Plurinational State of)	2007	3.110	0.0512	-0.0219 *	0.1355	0.0422	-0.0006	0.3050	0.1829	0.5922	0.452
			(3.56)	(-1.13)	(10.91)	(12.92)	(-9.28)	(10.12)	(6.91)	(15.34)	
Brazil	2008	3.651	0.0670	0.0249	0.1628	0.0364	-0.0004	0.2687	0.2450	0.1872	0.484
			(31.16)	(9.49)	(92.67)	(73.84)	(-41.54)	(42.38)	(62.87)	(29.86)	
Chile	2006	4.440	0.0296	0.0453	0.1188	0.0210	-0.0002	0.2429	0.2066	0.0741	0.375
			(12.09)	(14.6)	(53.4)	(36.69)	(-21.29)	(41.98)	(43.91)	(15.34)	
Colombia	2008	3.746	0.0508	0.0047 *	0.0849	0.0297	-0.0004	0.4080	0.1180	0.0771	0.488
			(23.99)	(1.75)	(54.71)	(65.37)	(-38.94)	(101.22)	(35.55)	(11.08)	
Costa Rica	2008	4.859	0.0100	0.0457	0.1043	0.0183	-0.0003	0.2954	0.2300	0.0071 *	0.452
			(2.79)	(9.29)	(21.98)	(15.11)	(-11.43)	(27.33)	(24.82)	(0.79)	
Dominican Republic	2008	3.765	0.0443	0.0003 *	0.1373	0.0292	-0.0004	0.3031	0.2171	0.0909	0.436
			(7.23)	(0.03)	(15.59)	(14.2)	(-10.88)	(14.8)	(13.51)	(5.21)	
Ecuador	2008	3.543	0.0430	0.0167	0.0483	0.0260	-0.0003	0.2841	0.1755	0.1273	0.397
			(12.08)	(3.63)	(12.11)	(22.81)	(-14.92)	(28.62)	(18.02)	(12.51)	
El Salvador	2004	4.138	0.0368	0.0346	0.1019	0.0255	-0.0004	0.2313	0.1079	0.1387	0.390
			(10.59)	(6.33)	(16.42)	(17.27)	(-13.99)	(18.95)	(9.56)	(11.73)	
Guatemala	2006	3.669	0.0751	0.0490	0.0239	0.0320	-0.0004	0.0972	0.1568	0.0804	0.419
			(22.67)	(8.09)	(3.05)	(19.5)	(-15)	(6.51)	(11.52)	(6.38)	
Honduras	2007	2.945	0.0866	0.0224	0.0354	0.0314	-0.0004	0.6710	-0.0022 *	0.4443	0.570
			(23.03)	(3.85)	(5.31)	(19.63)	(-14.36)	(45.53)	(-0.18)	(32.48)	
Mexico	2008	4.127	0.0449	0.0455	0.0580	0.0395	-0.0005	0.3324	0.1762	0.2136	0.343
			(11.99)	(8.91)	(13.02)	(34.66)	(-24.36)	(34.07)	(19.56)	(21.06)	
Nicaragua	2005	3.421	0.0518	0.0277	0.0609	0.0289	-0.0004	0.2150	0.1560	0.1019	0.374
			(11.1)	(3.26)	(6.28)	(12.3)	(-9.04)	(12.18)	(8.97)	(5.53)	
Panama	2008	4.200	0.0526	0.0088 *	0.0613	0.0220	-0.0003	0.5541	0.1867	0.1107	0.506
			(10.22)	(1.42)	(15.43)	(17.83)	(-10.36)	(45.5)	(18.34)	(10.59)	
Paraguay	2008	3.633	0.0555	0.0215 *	0.0891	0.0378	-0.0005	0.3053	0.1088	0.0413 *	0.403
			(5.92)	(1.75)	(7.54)	(13.61)	(-9.98)	(12.55)	(4.9)	(1.69)	
Peru	2008	3.322	0.0626	-0.0257	0.0729	0.0262	-0.0003	0.4312	0.3266	0.2518	0.367
			(8.88)	(-2.54)	(11.68)	(16.5)	(-10.12)	(28.57)	(24.71)	(15.44)	
Uruguay	2008	4.567	0.0292	0.0578	0.0615	0.0371	-0.0004	0.3575	0.2155	-0.0306	0.357
			(5.81)	(10.32)	(18.31)	(42.36)	(-27.13)	(45.74)	(32.77)	(-2.48)	
Venezuela (Bolivarian Republic of)	2008	5.415	0.0294	0.0067	0.0615	0.0193	-0.0003	0.3599	0.1454	…	0.333
			(12.47)	(2.13)	(26.69)	(28.76)	(-19.3)	(54.18)	(28.91)	…	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] β_0: Constant term (wage value —natural log— with other variables equal to 0); β_1: Regression coefficient for the number of years of schooling. Gives the rate of private return for each additional year of primary schooling; β_2: Regression coefficient for the number of additional years of schooling after completing the primary cycle. The expression $\beta_1 + \beta_2$ gives the rate of private return for each additional year of secondary schooling; β_3: Regression coefficient for the number of additional years of schooling after completing the secondary cycle. The expression $\beta_1 + \beta_2 + \beta_3$ gives the rate of private return for each additional year in the higher education cycle; β_4: Regression coefficient for the individual's potential experience; β_5: Regression coefficient for potential experience squared; β_6: Regression coefficient for the dummy variable for informal or formal market integration (informal integration =0); β_7: Regression coefficient for the dummy variable for sex (female=0); β_8: Regression coefficient for the dummy variable for geographic area (rural areas=0).
T-statistic values for the significance test for each regression are shown in parentheses. An asterisk (*) shows when the regression is not statistically significant at 5%.
Adjusted r2: Squared correlation coefficient, adjusted for sample size and number of independent variables.

Chapter III

Public social spending in Latin America: general trends and investment in developing the skills of the new generations

A. Introduction

In the past two decades, the countries of the region have made a substantial effort to increase the resources available for social policy implementation. Practically all public social spending items have increased not just in absolute terms but in relative terms, too, except for a few cases and periods.

Much of this effort has been concomitant with economic growth, which has helped to expand resources. Overall budget growth, particularly social spending budgets, has outpaced GDP growth (especially in the 1990s). But minor GDP contractions have also led to larger-than-necessary budget cuts. While procyclical budget execution is generally driven by fiscal responsibility and international recommendations, budget cuts in some spending areas, such as education, health and social security, can come at substantial economic and social cost.

To counter this trend, most of the region's countries took what have so far been temporary measures to increase public spending in order to deal with the fallout from the global financial crisis. Many of these spending measures were taken to diminish the effects of the crisis on the real economy and contain the increase in unemployment and ultimately poverty. The following pages will review both long-term trends and the latest shifts in public social spending growth in countries for which adequate information is available, from the time the potential impact of the international economic crisis was first identified.

This chapter will also examine trends in social spending geared towards the development and protection of the new generations, in accordance with the approach chosen for the 2010 edition of *Social Panorama of Latin America*. Specifically, it will review the countries' efforts to invest more in education and the factors that have been most important in the expansion of resources to develop the skills of the region's children and young people. Lastly, it will analyse the distributive impact of social spending, showing that the beneficiaries of stepped-up investment to extend educational coverage are, precisely, children and young people in the lowest income strata. This furthers social integration and mobility and lays a broader foundation for future economic development.

B. Public social spending in Latin America and effects of its procyclicality on economic growth

Public social spending has risen substantially in the region over recent decades, both absolutely (from US$ 445 per person in 1990-1991 to US$ 880 in 2007-2008) and in terms of the macroeconomic priority given to it (up from 12.3% of GDP to 18.4% of GDP). Investment in social areas has also increased as a share of public social spending. Nonetheless, both public spending generally and social spending in particular remain very procyclical, especially in education and health. However, the great majority of countries developed active social and fiscal policies to confront the international financial crisis, not merely maintaining but actually increasing spending to implement a variety of pro-employment and subsidy and transfer programmes. This reflects a recognition that periods of economic contraction are precisely when social policy efforts need to be stepped up and resources increased.

As different editions of *Social Panorama of Latin America* have noted, the region has made a fairly systematic effort to increase public spending, and social spending in particular. This began after a period of crisis, structural adjustment and subsequent fiscal measures that resulted in sharp cutbacks in all expenditure items, market deregulation and privatization of social services, among other actions recommended by the international financial organizations and embodied in the Washington Consensus.

While most of the region's countries implemented these reforms, at different speeds, between the mid-1980s and late 1990s, social spending recovered gradually in the latter decade, largely thanks to economic growth that was relatively sustained if also highly volatile.

In line with the recommendations for greater fiscal discipline, public expenditure trends in the region closely tracked the ups and downs of its economies. Put another way, volatile growth was reflected in the highly procyclical behaviour of fiscal expenditure, with recurrent cutbacks in public spending precisely at times of economic retrenchment and rising unemployment and poverty.

In the mid-1990s, new social policy tools began to be tested with a view to addressing the persistent problems of poverty, equity and inequality. The economic crises of the late 1990s (the Asian crisis, natural disasters in Central America, falling international prices for staple grains, the slowdown in the world economy in 2000 and, shortly afterwards, the crisis affecting Argentina and Uruguay) prompted a reformulation of social policy generally and anti-poverty policies in particular.

New approaches emerged, emphasizing protection against falling incomes, income poverty and social exclusion that expose individuals to vulnerability and risk (Serrano, 2005). This shift was cast primarily in terms of new networks and social protection system reforms. Among other things, they spurred a drive for coordinated social programmes combining traditional social security, social services and assistance programmes. Although these were originally seen as provisional responses to particular crises, there has been an increasing determination to strengthen these networks in pursuit of greater income stability and minimum levels of well-being, given the evidence that the problem of economic volatility has not been eradicated once and for all (Acosta and Ramírez, 2004).

The guiding principle behind this new social policy trend was so-called social risk management. One of the risks considered when programmes of this type are designed is the absence or loss of employment, particularly for certain population groups (young people, women, ethnic minorities, the low-skilled) and the drop in household income when the head of household loses his or her job. Also considered are the risks associated with certain stages of the life cycle (such as old age or

motherhood), the negative effects on human skills that arise from dropping out of school, inadequate nutrition and lack of health care, and the impact of natural disasters (floods, earthquakes, droughts). The programmes that have arisen under this new social policy approach can largely be divided into three major groups: job creation programmes (public works, subsidies for new jobs and subsidized credit lines), training programmes (young people and the unemployed) and conditional transfer or co-responsibility programmes.

The growth of social spending since the 1990s, the rise of these more integrated new forms of social policy and the expanded coverage of public-sector social transfers in the present decade have borne down on poverty and, in some cases, on inequality. This was particularly true of the years running up to the 2008 global financial crisis. The actual and threatened impact of the crisis in terms of social costs gave even greater impetus to the debate in the region about the role of the State as regulator, arbiter, main redistributor of resources and guarantor of more universal systems of social protection against vulnerability and poverty. The countercyclical measures adopted by most national States in Latin America and the Caribbean when faced with the impact of the crisis on employment, economic activity and social vulnerability reflect this change of course. The countercyclical logic of social spending has played a decisive part in forestalling the social costs of the crisis, unlike what happened during the debt crisis of the 1980s. Although the social role of the State in response to the crisis has varied from country to country, depending on the volume of resources it can mobilize, its institutional strength and the degree of coordination between anti-crisis measures and between these and more permanent sectoral programmes, there can be no doubt that the idea of a more active role for the State and the idea that social spending is less subject to the vagaries of economic growth have gained purchase in the region.

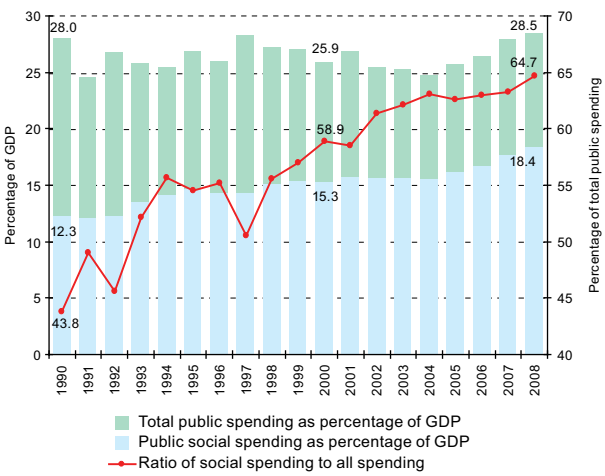
This chapter will analyse long-term trends in public social spending and use the information available to examine the reaction of the Latin American States to the recent financial crisis, including anti-poverty programmes.

1. The long-term trend of public social spending

As the countries of the region came to recognise the importance of public social spending as an instrument for channelling resources to the poorest in society and the role of social development as a driver of economic development, they began to ratchet up this spending. Public spending, and social spending in particular, has burgeoned across the region over the past two decades: while public spending has held steady at around 26% of GDP, social spending rose from 12.3% of GDP in 1990-1991 to 18.4% in 2007-2008. Social spending as a percentage of total public spending has thus risen considerably, from just under 45% to 65% (see figure III.1).

The countries are enormously diverse, not only in the extent to which they have increased social spending but also in their past and current levels of public spending. There are obvious differences in the macroeconomic priority they give to social spending, which ranges from less than 8% of GDP in Ecuador, Guatemala and Peru (central government) to more than a fifth of GDP in Argentina, Brazil, Cuba and Uruguay (see box III.1 for institutional coverage of public social spending), even though virtually all the countries have striven to increase such coverage since the 1990s.

Figure III.1
LATIN AMERICA (21 COUNTRIES): TOTAL PUBLIC SPENDING AND PUBLIC SOCIAL SPENDING (WEIGHTED AVERAGES), 1990-2008
(Percentages of regional GDP and total public spending)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.

Box III.1
UPDATING SOCIAL EXPENDITURE FIGURES

To update social expenditure figures for the present edition of *Social Panorama of Latin America*, up-to-date public social spending data running up to 2009 were obtained in accordance with the total and sectoral series published in previous editions. Information up to 2009 was obtained for 6 of the 21 countries considered, and these figures have been published because it is important to have recent data, even if they are provisional, estimated or incomplete. The figures were updated during the third quarter of 2009; the cut-off point was mid-September.

In most cases it was possible to collect data on central government budget execution, and in a number of countries figures were obtained for actual spending by agencies with budgetary autonomy, local governments and non-financial public enterprises. Although differences in institutional coverage make comparisons between countries difficult, the most extensive data available for each country are being published except when they involve significant constraints for constructing a series for 1990-2009. This is because ECLAC's primary interest is to establish the amount of public social spending in each country as accurately as possible, in order to convey the effort being made by States in this area.

The following is a classification of the countries by institutional coverage of the social expenditure series used:

- Total public sector (NFPS + FPS): Costa Rica
- Non-financial public sector (GG + NFPE): Argentina, Brazil and Plurinational State of Bolivia
- General government (CG + LG): Peru and El Salvador
- Central government (BCG + AA): Chile, Colombia, Cuba, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Panama, Trinidad and Tobago and Uruguay
- Budgetary central government: Bolivarian Republic of Venezuela, Mexico, Nicaragua, and Paraguay

where:
AA: agencies with budgetary autonomy; BCG: budgetary central government; CG: central government; LG: local government; NFPE: non-financial public enterprises; PFE: public financial enterprises.

Considering that a number of countries only very recently adopted the classification system of the International Monetary Fund (IMF) *Government Finance Statistics Manual 2001*, which is harmonized with the 1993 System of National Accounts (SNA), the 1990-2009 series is not always compatible at the subfunctions or subgroups level, or both. Most of the countries publish the functional classification in aggregated form and use classifications of their own.

Data continuity problems brought about by the switch include a lack of information for the full series or for certain years or functions (or both) in particular cases. This is the case with social protection in the Plurinational State of Bolivia between 1990 and 1994, social protection in El Salvador between 1990 and 1992 and in Trinidad and Tobago between 1990 and 1999, and figures relating to social security in Nicaragua. In other countries such as Jamaica and Trinidad and Tobago, it was not possible to construct the full series from 1997 to 1999 as data on intermediate periods were lacking. The 2009 and 2010 figures for Colombia are provisional: a methodological change and a switch in the basis for calculating GDP mean that the series is not comparable between 1990-1999 and 2000-2009, and the guidelines of the *Government Finance Statistics Manual 2001* are being incorporated into the classification of functions. In Peru, whereas the 1990-1999 series covers budgetary central government, the series for 2000 onward is for general government. Lastly, the Bolivarian Republic of Venezuela has series for agreed public social spending (budget act and amendments as of 31 December each year) and for disbursed public spending, the latter beginning in 1999. The institutional coverage of the country's figures is budgetary central government. Because it is a federal country, the published figures may underestimate total social spending by more than those of other countries reporting this coverage. The same is true of Mexico, although what is known about highly decentralized spending execution in that country indicates that the figures should be read more carefully than in other cases because social spending execution may be substantially underestimated. ECLAC (2006) gives examples of centralized and decentralized execution of social spending.

Like previous editions, *Social Panorama of Latin America 2010* uses biennial averages to present social spending data. The indicators published are for total public social spending and its component functions and sectors (education, health, social security and assistance, and housing, sanitation and other functions not included in the above categories) as a percentage of GDP, in dollars per capita, and as a percentage of total public spending. In the case of this last indicator, official information from the countries is used, but these figures may differ from those based on other systems (such as economic or administrative classification of spending) because some include interest payments on the public debt and others do not, and because different methodologies are used to classify disbursements.

The figures used to calculate percentages are in current prices for each year and each country. These proportions are then applied to the GDP series in dollars at 2000 prices to obtain per capita social spending, expressed in dollars. This may result in certain variations in relation to the data in constant currency reported by the countries, which depend on the degree of exchange-rate appreciation or depreciation implicit in the official parity of each country's currency in relation to 2000, and also on the population data on which the per capita calculations are based.

Figures at current prices on overall and social public spending (and the sectoral breakdown of the latter) are official data provided by the corresponding government bodies. Depending on the country, these may be directorates, departments, sections or units for planning, budgeting or social policy within the ministries of the treasury, finance or the economy. In addition, information on budgetary execution was obtained from the countries' general accounting offices or treasury departments, and occasionally from central banks, national statistical institutes, and national social and economic information systems.

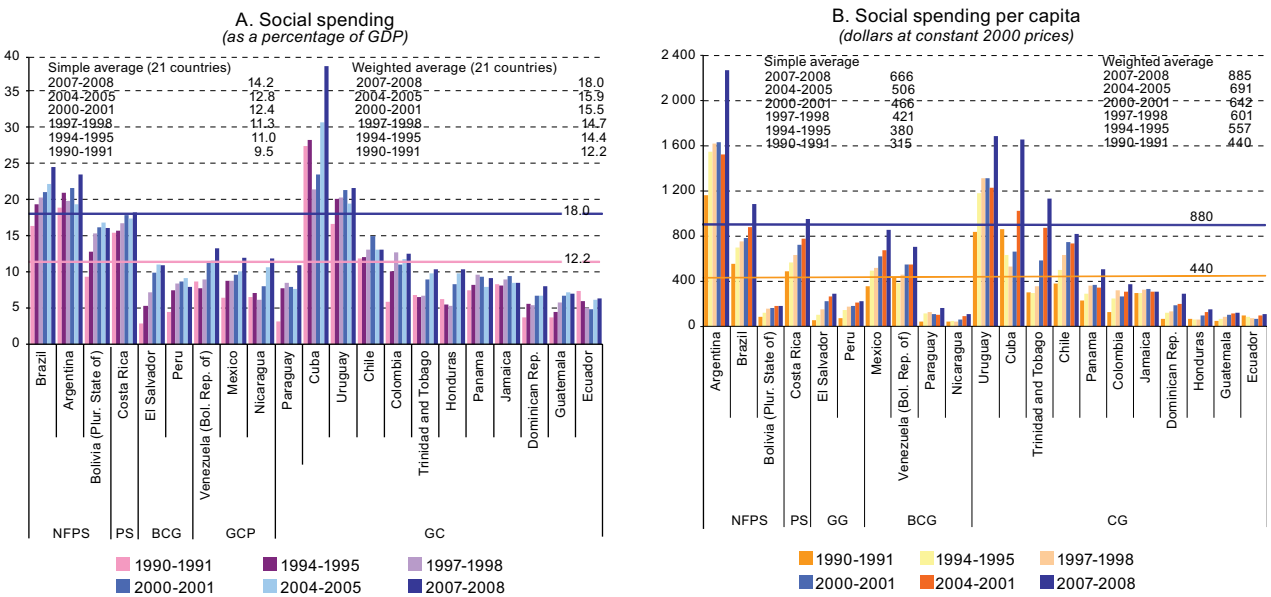
The figures for constant 2000 dollar GDP are official ECLAC statistics; the population figures come from projections by the Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America 2006* (LC/G.2326-P), Santiago, Chile, 2007. United Nations publication, Sales No. E.06.II.G.133; for GDP: ECLAC, on the basis of official figures; for population: Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC; and United Nations, *System of National Accounts 1993* (ST/ESA/STAT/SER.F/2/Rev.4), New York, 1993. United Nations publication, Sales No. E.94.XVII.4.

Only in Ecuador did social spending become less of a macroeconomic priority between 1990-1991 and 2007-2008. In Brazil, Colombia, Cuba, El Salvador, Paraguay and the Plurinational State of Bolivia such spending increased by more than 6 percentage points in this period. Other than in Cuba, Ecuador, Honduras and Nicaragua, the largest increases in social spending as percentages of GDP were during the 1990s (see figure III.2.A and table III.A-1).

However, the differences between countries lie not only in the share of GDP devoted to social spending but also in the wealth level of each country. Different development levels and tax burdens and thence the size of general public budgets and, specifically, social budgets are behind the large disparities in the amount of resources per capita that States can spend on social areas such as education, health and social security and assistance. The lowest spending per capita is in Ecuador, Guatemala, Honduras and Nicaragua; the first two give social spending a low priority as a share of GDP. The countries spending the largest amounts per capita are Argentina (more than US$ 2,000 per capita), Brazil, Cuba, Trinidad and Tobago and Uruguay, all of which have social spending of over US$ 1,000 a year per inhabitant. On average, the highest-spending countries devote 13 times more per capita funding to this area than those that spend the least. The Dominican Republic, El Salvador, Paraguay, Peru and Trinidad and Tobago are the countries which increased funding the most in absolute terms between 1990-1991 and 2007-2008 (at least tripling their per capita expenditure in the period), although only Trinidad and Tobago currently has a high level of expenditure (see figure III.2.B and table III.A-2).

Figure III.2
LATIN AMERICA (21 COUNTRIES): EVOLUTION OF SOCIAL SPENDING RELATIVE TO GROSS DOMESTIC PRODUCT AND SOCIAL SPENDING PER CAPITA



Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
Note: NFPS = non-financial public sector; PS = public sector; GG = general government; BCG = budgetary central government; CG = central government.

2. The procyclicality of social spending relative to economic growth: an ongoing debate

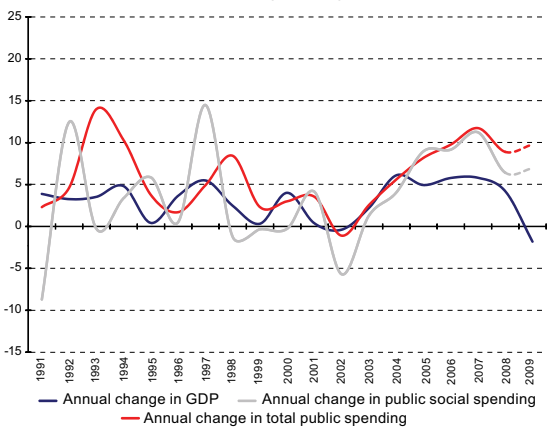
Although the region's countries have steadily increased th1eir public budgets, particularly where social spending is concerned, in most cases these have fluctuated for reasons generally determined by local economic developments. This section takes a look at the procyclical nature of spending.

The debate centres on the following considerations. Although budgeting tied to the economic cycle generally reflects responsible fiscal management, it can sometimes impair economic and social development processes that depend on a stable flow of resources. This is because many of the processes involved in the production of public services entail a large proportion of recurrent expenditure deriving from legal or contractual commitments, such as wages and retirement and other pensions. Budgetary fluctuations can sometimes affect pay levels and continuity for the personnel required to maintain public services. In other cases the non-discretionary nature of some public spending results in drastic cuts to investment (for example, in building, maintaining, renovating and equipping public facilities such as schools and hospitals).

Accordingly, while responsible fiscal management is vital to long-term economic development, the over-adjustments often made to public spending and social spending when growth slows can adversely affect the very processes that prudent fiscal management is meant to safeguard. As a rule, when cuts to public social spending occur in the region, they are sharper than the slowdown in growth: between 1991 and 2008, there were 45 episodes in which countries cut public social spending in absolute terms. On 93% of these occasions (42) the cut was larger than the decline in GDP (including periods in which GDP continued to rise).

Notwithstanding this, social spending is less sensitive to the economic cycle than the overall budget, as figure III.3 shows. For all its procyclicality, then, social spending has been better protected against economic fluctuations than non-social public budget items.

Figure III.3
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): ANNUAL CHANGE IN PUBLIC SOCIAL SPENDING, TOTAL PUBLIC SPENDING AND GROSS DOMESTIC PRODUCT, 1991-2009 [a]
(Percentage change)

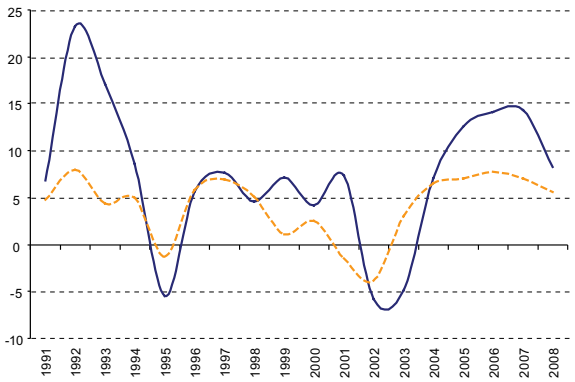


Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] Weighted averages. The 2009 expenditure figures are estimates based on information from seven countries.

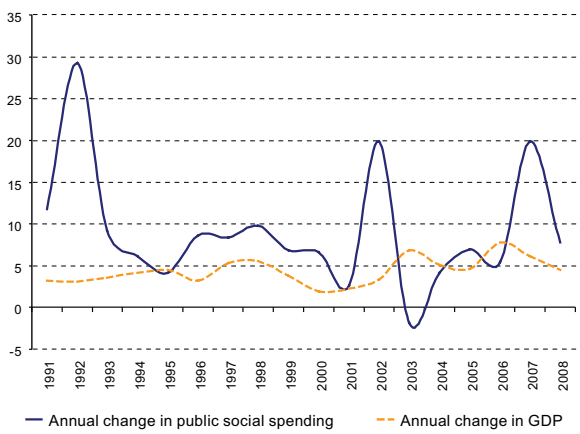
Once again, there are outliers in the region. While GDP and social spending are highly correlated in countries such as Argentina, Brazil, the Dominican Republic, Mexico, Panama and Uruguay, in others such as Costa Rica, Guatemala, Honduras, Jamaica, Paraguay, the Plurinational State of Bolivia and Trinidad and Tobago social spending is fairly independent of growth. However, this does not just mean that the social services budget is protected during economic downturns, but also that any budget growth can far outpace (or be outpaced by) upswings in the economy. The differences between the countries that are most and least procyclical in their social spending can be seen in figure III.4.

Figure III.4
LATIN AMERICA (SELECTED COUNTRIES): CHANGES IN SOCIAL SPENDING RELATIVE TO ECONOMIC GROWTH
(Percentages)

A. Countries with highly procyclical spending: Argentina, Dominican Republic, Mexico and Uruguay [a]



B. Countries where spending is not procyclical: Costa Rica, Paraguay, Plurinational State of Bolivia and Trinidad and Tobago [a]



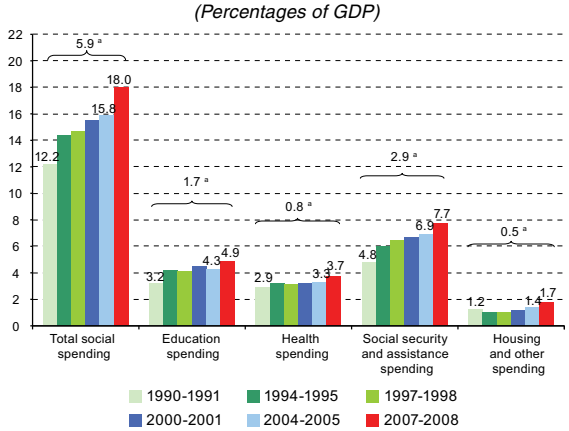
Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] Simple average of growth rates in the countries.

Lastly, evaluation criteria based on how closely or otherwise the budget tracks economic growth cycles provide only a general guide: the fact of public spending not being highly procyclical does not mean that the social area is neglected. In most cases, spending has effectively expanded. Inertial social spending may be insensitive to economic downturns, but it will not be sensitive to economic expansion either, and wholly countercyclical social spending is not desirable because it would fall just when the economy was growing. Of course, it is to be expected that some specific spending items will indeed be countercyclical, like those which finance emergency programmes at times of crisis and rising poverty and tail off in periods of economic growth. Others may prove more stable because they involve regular payment commitments, as is the case with social security. Still others can be expected to expand along with the economy to a reasonable degree that does not trigger macroeconomic imbalances or a tendency towards deficit spending.

3. The evolution of social spending by sector

As social spending has risen, all sectors or major spending items have risen with it, but this growth has been uneven. Social security and assistance have recorded the strongest increase: almost three percentage points of GDP, or just over half of the total rise in public social spending. This is due in some degree to the new emphasis on anti-poverty policies and conditional cash transfer programmes in particular, as will be seen further on. At the same time, population ageing and associated commitments for funding retirement and other pensions, together with improvements to social security systems in a number of the region's countries (including the strengthening of their non-contributory components), have caused this sector to grow faster than the rest (see figure III.5).

Figure III.5
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): EVOLUTION OF PUBLIC SOCIAL SPENDING BY SECTOR, 1990-1991 TO 2007-2008
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] Percentage point increases in spending between 1990-1991 and 2007-2008.

Education spending is the item that has seen the next-largest increase, in accordance with the international commitments entered into by the region's countries, rising by just over 50% as a proportion of GDP. This substantial rise in resources has not been free of volatility, however, as the following section will discuss. Together with social security and assistance, education spending accounts for almost 80% of the rise in total social spending between 1990-1991 and 2007-2008.

Lastly, of the sectors that can be examined separately across all the countries analysed, spending on public health systems saw the lowest growth over almost two decades, lagging behind even housing expenditure and related items (such as water and sanitation). This is partly due to the tendency in a number of countries for health service expansion to be carried out by the private sector, in line with the reforms that followed the structural adjustment of the 1980s. Another reason, though, is that this is a highly procyclical item with a significant investment spending component that is cut back severely at times of economic contraction or slow growth (ECLAC, 2008a).

Uneven growth across spending items led to something of a shift in the weight of different sectors within total social spending. Social security increased its share to almost 43% of the region's social expenditure. The share of education also rose slightly, to 27%, all to the detriment of spending on housing (9.7%) and, above all, health, whose share of total social spending dropped from 24.1% in 1990-1991 (just under US$ 110 per capita) to 20.5% in 2007-2008 (just over US$ 180 per capita).

4. Expenditure trends during the financial crisis

The region's countries adopted a broad range of measures in the face of the financial crisis. Unlike action taken on similar occasions (such as the crises of the 1980s and 1990s), these measures set out not to shrink spending but to expand it, at least temporarily (see figure III.3). Measures of this kind (including those announced and those actually implemented) encompassed monetary and financial policy, fiscal policy, exchange-rate and foreign trade policy, sectoral policies, employment and social policies and multilateral financing (ECLAC, 2010c). Broadly speaking, they were aimed, first, at restoring confidence and making financial markets operational again and, second, at strengthening demand.

The range of measures was quite wide, not just because the impact of the crisis varied from one country to another, requiring different instruments to counter it, but also because of differences in each country's capacity to implement initiatives, as determined by the availability of resources.

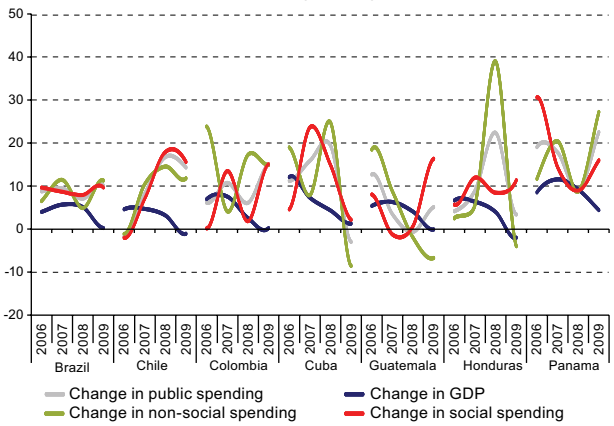
In the early stages, central banks mobilized to inject liquidity into financial systems in order to restore normal functioning to local credit markets or provide financing resources where these were in shortest supply. But the nature of the crisis, particularly the nose-dive in confidence, called for additional measures. Although it was necessary to shore up liquidity and hold interest rates as low as possible, the former would not guarantee an increased supply of credit and the latter would not ensure higher demand for goods. This made fiscal policy important as well.

In the area of fiscal policy, measures to increase spending had greater potential than those based on reducing taxes. While tax cuts do increase the disposable income of the private sector, in a crisis a large proportion could go to savings. Conversely, spending measures directly increase demand. If higher spending takes the form of direct transfers, however, it will have the greatest impact when targeted on sectors more inclined to consume. Transfers of this type are harder to implement in the short run and more demanding institutionally than untargeted transfers, however. Programmes to boost infrastructure investment were also implemented, although not all such projects were equally effective in bolstering employment and demand for locally produced inputs.

At the time the present edition of *Social Panorama of Latin America* went to press, information on 2009 public spending and social spending levels was available for seven countries. These data show that while GDP contracted in absolute terms in most of these countries, they all continued to increase their social spending. A number had already done so in 2008, and five of the seven countries (Brazil, Colombia, Guatemala, Honduras and Panama) made a still greater effort in 2009. Although the others also stepped up social spending, they did so more slowly than in 2008.

All the countries other than Cuba also increased total public spending, albeit almost always to a lesser degree than its social component. As figure III.6 shows, however, Cuba, Guatemala and Honduras had to make absolute cuts in public spending on non-social functions to be able to increase their social spending. Of the countries analysed, only Brazil and Panama increased non-social spending by more than social spending (Panama by almost twice as much).

Figure III.6
LATIN AMERICA (SEVEN COUNTRIES): CHANGES IN PUBLIC SPENDING, SOCIAL SPENDING, NON-SOCIAL SPENDING AND GROSS DOMESTIC PRODUCT DURING THE FINANCIAL CRISIS
(Percentage change)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.

The most commonly used fiscal measures in the countries have included cutting taxes, increasing tax benefits and subsidies and raising or bringing forward expenditure. In the social and production sectors, considerable extra resources have been put into housing, water and sanitation, support for small and medium-sized enterprises and the agricultural sector (easier credit and repayment terms), enhanced employment policies (unemployment insurance, recruitment subsidies, job creation programmes) and social programmes, especially conditional cash transfer programmes.

5. Conditional cash transfer programmes: protecting the poor throughout the life cycle

Conditional cash transfer programmes (CCTPs) are now the leading mechanism for combating the intergenerational reproduction of poverty in the region's countries. The beneficiary population for these programmes consists of poor and vulnerable families with children. These families receive monetary transfers on condition they meet certain requirements intended to develop skills and improve educational attainments (see chapter II for more information on CCTPs and education). These programmes provide protection in the early stages of the life cycle: transfers with health- and nutrition-related conditions attached are aimed at the neonatal stage and early childhood, while those with educational conditions target children and adolescents.[1] However, some countries' programmes also include transfers for older persons (Dominican Republic, Ecuador, Honduras, Jamaica, Mexico, Paraguay and Peru), persons with disabilities (Argentina, Ecuador, Jamaica and Paraguay) and poor working-age adults (Jamaica), usually without conditions (Cecchini and Madariaga, 2010).

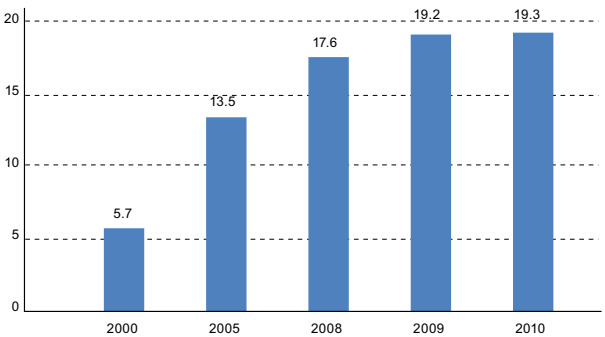
(a) The growth of CCTPs

In the decade and a half that has passed since the first CCTPs were implemented in Brazil, with its *Bolsa Escola*, and Mexico, with its education, health and nutrition programme (PROGRESA), these social assistance programmes have grown at a steady pace in the Latin American and Caribbean countries in terms of both population coverage and spending. Around 2000, CCTPs or their direct precursors —major poverty reduction programmes based on direct income transfers such as Ecuador's solidarity grant and the Family Allowance Programme (PRAF) in Honduras— were already operating in six countries, covering about 6% of the region's population and spending the equivalent of 0.19% of GDP.[2] These programmes expanded very rapidly in the following five years, so that by 2005 they had spread to 17 countries in the region and covered 14% of the region's population, spending the equivalent of 0.24% of GDP.

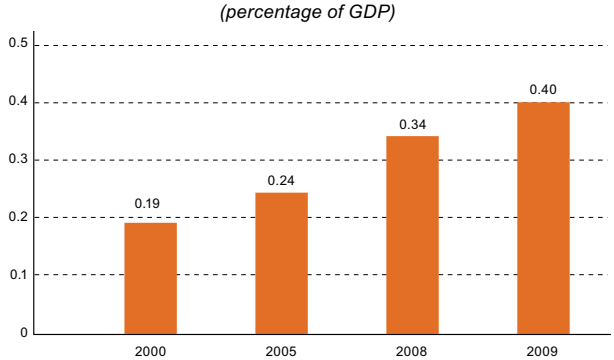
Spending on CCTPs increased to 0.34% of GDP in 2008 and 0.40% of GDP in 2009; this latter increase was due to the combined effects of rising budgets for these programmes and falling GDP as a result of the global economic crisis (see figure III.7). In 2010, six of the 10 countries for which information is available increased their CCTP budgets in nominal terms, while four cut them.

Figure III.7
LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES): COVERAGE OF CONDITIONAL CASH TRANSFER PROGRAMMES AND PUBLIC EXPENDITURE ON THEM [a]

A. Coverage, 2000-2010
(percentage of total population)



B. Expenditure, 2000-2009
(percentage of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Weighted averages.

Thanks to this expansion, as of 2010 one in five inhabitants of Latin America and the Caribbean (113 million people) are receiving State cash transfers through CCTPs. About 52 million of these are children aged 0 to 14.

[1] In Latin America and the Caribbean, the maximum age for receiving transfers with educational conditions attached is generally about 18. The exceptions are the Programa Ciudadanía Porteña of the city of Buenos Aires and Avancemos in Costa Rica, which cover young people up to the age of 25 (Cecchini and Madariaga, 2010).

[2] Brazil, Costa Rica, Ecuador, Honduras, Mexico and Nicaragua.

Eighteen countries now have CCTPs, following the launch of the Conditional Cash Transfer Programme (CCTP) in Trinidad and Tobago in 2006 and *Mi Familia Progresa* in Guatemala in 2008, and the halting of such programmes by Nicaragua in 2006. In addition, new programmes have been launched or existing ones modified in recent years. In 2009, Argentina launched its Universal Child Allowance for Social Protection, which took over the beneficiaries of the Families for Social Inclusion programme, and the Plurinational State of Bolivia created the Juana Azurduy de Padilla mother-and-child voucher. In 2010, Honduras added a transfer of 10,000 lempiras a year to the benefits of the Family Allowance Programme (the *Bono 10000*, worth about US$ 500) with a view to improving education, health and nutrition in indigent households with children and adolescents (see table III.1).

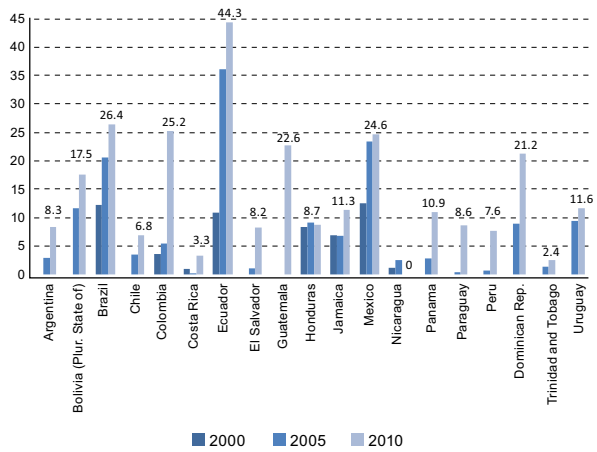
(b) Dissimilar experiences

Although rising spending and population coverage are common to the region's CCTPs, the coverage levels actually achieved by each programme vary substantially.

As of about 2010, Ecuador, with its Human Development Voucher, is the country where the largest percentage of the population (44%) is covered by a CCTP. The programmes with the largest number of beneficiaries in absolute terms are *Bolsa Família* family grants in Brazil (52 million people, or about half of all CCTP beneficiaries in the region), *Oportunidades* in Mexico (27 million) and Families in Action in Colombia (12 million) (see figure III.8 and table III.1). In six countries (Argentina, Brazil, Chile, Ecuador, Mexico and Uruguay), the number of beneficiaries is as great as or greater than the number of indigent people,[3] although it could be argued that there is still scope to expand programmes of this type and cover a larger number of families that are unable to meet their basic needs, since in 2009 some 190 million people were living in poverty.

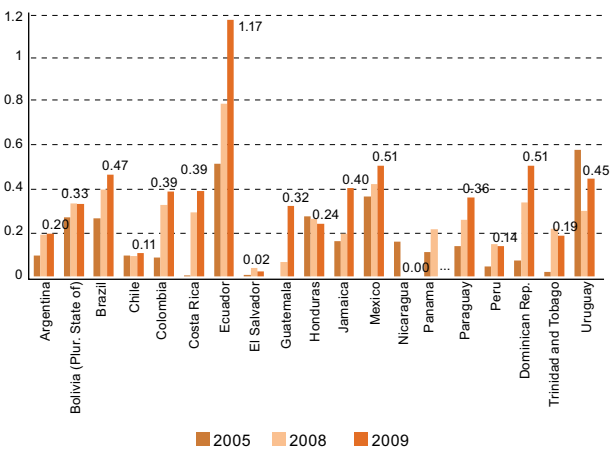
Bolsa Família and *Oportunidades* are also the programmes with the largest budgets in the region (US$ 6.2 billion and US$ 3.5 billion, respectively), although as percentages of GDP (0.47% and 0.51%, respectively) they are surpassed by Ecuador's Human Development Voucher (1.17%) (see figure III.9 and table III.1).

Figure III.8
LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES): COVERAGE OF CONDITIONAL CASH TRANSFER PROGRAMMES, AROUND 2000, 2005 AND 2010
(Percentages of total population)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Figure III.9
LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES): PUBLIC SPENDING ON CONDITIONAL CASH TRANSFER PROGRAMMES, AROUND 2005, 2008 AND 2009
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[3] Not considering programme inclusion and exclusion errors.

Table III.1
LATIN AMERICA (18 COUNTRIES): INDICATORS OF COVERAGE AND PUBLIC SPENDING ON CONDITIONAL CASH TRANSFER PROGRAMMES (CCTPS), 2007-2010

Country	Programme	Coverage		CCTP coverage (percentage of total population)	CCTP coverage [a] (percentage of poor population)	CCTP coverage [a] (percentage of indigent population)	CCTP spending, 2009 [b c]	Financing sources
		(thousands of households)	(thousands of people)				(percentage of GDP)	
Argentina	Universal Social Protection Benefit for Each Child	756 [d] (2010)	3 400 (2010)	8.3	46.4	> 100.0	0.20	Government of Argentina
Bolivia (Plurinational State of)	Juancito Pinto Grant	…	1 729 (2009)	17.5	32.4	50.7	0.33	Government of the Plurinational State of Bolivia, World Bank
Brazil	*Bolsa Família*	12 583 (2010)	51 590 [d] (2010)	26.4	84.6	> 100.0	0.47 [e]	Government of Brazil, World Bank
Chile	*Chile Solidario*	333 [f] (2008)	1 147 [f] (2008)	6.8	51.7	> 100.0	0.11	Government of Chile
Colombia	Families in Action	2 589 [g] (2010)	11 651 [d g] (2010)	25.2	56.5	> 100.0	0.39 [e]	Government of Colombia, IDB, World Bank
Costa Rica	*Avancemos*	…	151 (2009)	3.3	17.4	52.2	0.39	Government of Costa Rica, World Bank
Dominican Republic	*Solidaridad*	758 (2010)	2 098 (2010)	21.2	46.3	89.0	0.51 [e]	Government of the Dominican Republic
Ecuador	Human Development Voucher	1 179 [h] (2010)	6 100 [d h] (2010)	44.3	> 100.0	> 100.0	1.17	Government of Ecuador, IDB, World Bank
El Salvador	Solidarity in Rural Communities	106 (2009)	508 [d] (2009)	8.2	17.1	38.7	0.02	World Bank, IDB, other bilateral and multilateral sources
Guatemala	*Mi Familia Progresa*	592 (2010)	3 254 [d] (2010)	22.6	39.7	70.5	0.32	Government of Guatemala
Honduras	Family Allowance Programme (PRAF)	132 [i] (2010)	661 [d i] (2010)	8.7	12.3	17.2	0.24 [j]	Government of Honduras, IDB, other bilateral and multilateral sources
Jamaica	Programme of Advancement Through Health and Education (PATH)	…	307 (2009)	11.3	> 100.0 [k]	>100.0 [k]	0.40	Government of Jamaica, World Bank
Mexico	*Oportunidades*	5 561 (2010)	27 247 [d] (2010)	24.6	62.8	> 100.0	0.51	Government of Mexico, IDB, World Bank
Panama [l]	*Red de Oportunidades*	77 (2009)	377 [d i] (2009)	10.9	39.5	81.0	0.22 [em]	World Bank, IDB
Paraguay	*Tekoporã*	99 [n] (2010)	554 [n] (2010)	8.6	13.9	25.2	0.36 [n]	IDB
Peru	*Juntos*	410 (2009)	2 253 [d] (2009)	7.6	21.2	60.6	0.14	Government of Peru
Trinidad and Tobago	Targeted Conditional Cash Transfer Programme (TCCTP)	…	33 (2009)	2.4	14.6 [k]	>100.0 [k]	0.19	Government of Trinidad and Tobago
Uruguay	Family Allowances	91 [d] (2009)	390 (2009)	11.6	84.6	>100.0	0.45	Government of Uruguay
Latin America and the Caribbean		**25 263** [o]	**113 449** [o]	**19.3** [p]	**47.5** [q]	**> 100.0** [q]	**0.40** [p]	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures; and ECLAC, *Economic Survey of Latin America and the Caribbean, 2008-2009* (LC/G.2410-P), Santiago, Chile, 2009. United Nations publication, Sales No. E.09.II.62.

[a] Programme inclusion and exclusion errors are not taken into account.
[b] Unless otherwise indicated, data correspond to the budget for each programme.
[c] GDP figures are projections.
[d] Coverage estimated on the basis of the number of beneficiary families and average size of urban households in the poorest Quintilee in the most recent year for which information is available from the CEPALSTAT social indicators and statistics database (BADEINSO) of ECLAC.
[e] Budget as executed.
[f] *Puente* programme beneficiaries.
[g] Includes indigenous and displaced beneficiary families.
[h] Includes beneficiaries who are older persons or persons with disabilities.
[i] Planned coverage.
[j] Includes Family Allowance Programme (PRAF)/IDB phase III pilot stage.
[k] Figure calculated on the basis of national poverty estimates which are incompatible with ECLAC estimates on the countries of Latin America.
[l] Includes Family Vouchers for Food Purchases programme.
[m] 2008 data.
[n] Includes Ñopytyvo and ProCountry II programmes.
[o] Total relates to all countries for which information is available.
[p] Weighted average.
[q] Simple average.

C. Social investment at early ages: spending per student

The social sectors which saw the greatest increases in public-sector resources were social security and assistance, followed by education. Some social assistance spending goes into the effort to combat the intergenerational reproduction of poverty, and to that extent is directed at the new generations. Undoubtedly, however, it is education spending that is chiefly directed at children and the young, and copious resources are dedicated to this. Spending per student has increased significantly, although this is largely due to the substantial economic growth of the past two decades. The States have also made a significant effort to increase the weight of this spending within their budgets. But population ageing and the decline in the school-age population ratio can be a factor in lowering per-student spending, and the expansion of education coverage itself has constrained further increases in this area. Still, this expansion has also helped to make education spending more progressive, since more of it goes to lower-income students, at least at the preschool, primary and lower secondary levels.

Much of the social spending growth discussed earlier herein has been maintained at times of economic upheaval precisely because spending items associated with social protection have been increased, especially social security and assistance. The strengthening of social protection systems, combining contributory and non-contributory mechanisms, has unquestionably been a major advance for social policy and its impact on the well-being of the poorest.

A great deal certainly remains to be done both in expanding coverage and in improving benefits. Conditional cash transfer programmes enshrine a determination to combat the intergenerational reproduction of poverty (see chapter II); most of these programmes take a life cycle approach in which income transfers to cover basic needs in the poorest families are combined with investment in developing the skills of the new generations in these families so that they have greater opportunities in their adult lives. It is important to highlight these in the present edition of *Social Panorama*, whose focus is precisely on the life cycle and the reproduction (or reversal) of intergenerational inequalities.

These programmes, and the solidarity components of social security and health systems, complement broad social policy goals and are thus but a part of overall public spending in this area. By way of example, while public social spending in the region is around 18% of GDP, spending on anti-poverty programmes is only 0.4% of GDP.

The very design of social protection systems in the region, specifically the weight of their contributory component and thus their dependence on the operation of labour markets, means that the future role of the younger generations in funding and sustaining these systems in the long run is critical. As ECLAC has stressed on numerous occasions, the region currently has the potential to benefit from a demographic dividend (a growing ratio of working-age people to dependents), but this is clearly time-limited and the opportunity needs to be seized now (ECLAC/OIJ, 2008; ECLAC, 2009).

Taking advantage of this demographic dividend means first and foremost investing in the new generations. Their lesser relative weight in the total population has opened a window of opportunity, but these new generations will have to be highly productive in their adult lives, when society will have to sustain a larger demographic burden as the elderly population swells. Investing in skills development for the young thus becomes doubly important —to keep pace with the demographic transition and to halt the intergenerational reproduction of poverty, inequality and low productivity. It is also important to have a more productive economically

active population as a driver of economic growth bringing knowledge and innovation into the productive system. Combined with policies fostering social and labour rights, this will also boost social protection systems.

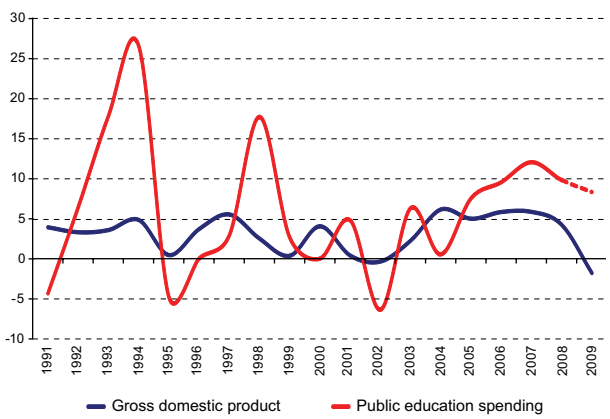
The prime areas for investment in the new generations are health (especially mother and child health) and education. Budgets for both sectors have increased substantially over the past two decades, although they have been very much subject to economic fluctuations. It is public spending in these areas that has suffered most from the economic instability (whether internally or externally generated) of many of the region's countries.

There can be no doubt, in any case, that the countries have made enormous efforts to increase their social investment in education and health, partly with the support of international initiatives and commitments, particularly where education is concerned (see the first section of chapter II). Not enough information is available to conduct a specific region-wide analysis of health spending on infants, children and adolescents, so the following pages will examine trends in public-sector education spending (particularly at the primary and secondary levels) and the factors that have most influenced the growth of this spending. They will also review the distributive impact of public education spending at the preschool, primary, secondary and tertiary levels and assess how progressive this is, especially in the case of educational levels where universal access has been achieved.

1. Public-sector education spending

Education spending is highly procyclical, growing strongly in periods of vigorous economic growth but also contracting sharply during economic slowdowns or downturns, sometimes by even more than would be expected on the basis of GDP performance (see figure III.10).

Figure III.10
LATIN AMERICA (19 COUNTRIES): RATES OF ANNUAL VARIATION IN GROSS DOMESTIC PRODUCT AND PUBLIC-SECTOR EDUCATION SPENDING, 1991-2009 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and information from the Commission's social expenditure database.

[a] The 2009 education spending figures are estimates based on official information for six countries.

Despite this procyclicality, the countries' efforts have resulted in their education budgets increasing relative to GDP. To a large degree, economic growth has facilitated the extension of education services in this decade. Thus, education spending in the countries for which adequate information is available increased on average from 3.1% of GDP in 1990 to 3.6% in 2000 and 4.2% in 2008.[4] The region's GDP almost doubled between 1990 and 2008 (growing by 3.4% a year and 84% over the whole period), and public-sector education spending in the region expanded 5% a year in absolute terms, or 140% over the whole period. In per capita terms, the average increase was from US$ 86 per person in 1990 to US$ 119 in 2000 and US$ 171 in 2008.

The above figures mask vastly dissimilar levels of per capita spending and rates of increase. Countries such as the Dominican Republic, Ecuador, El Salvador, Guatemala, Nicaragua, Paraguay, Peru and the Plurinational State of Bolivia spent less than US$ 100 per inhabitant on education in 2008, while Argentina, Costa Rica, Mexico and Uruguay spent over US$ 250. Ecuador, Nicaragua and Panama are the countries that increased their per capita spending by the least (in Ecuador it actually fell slightly), while Guatemala, Paraguay, Peru and the Plurinational State of Bolivia at least trebled it (see table III.2).

[4] These figures might not match those presented in the first section of the chapter because the information used in the present section comes from the administrative classification of spending (by origin) rather than the functional classification (by destination).

Table III.2
LATIN AMERICA (18 COUNTRIES): INDICATORS OF PUBLIC-SECTOR EDUCATION SPENDING, 1990 AND 2008 [a]
(Percentages and dollars)

	Education spending as percentage of GDP		Education spending per inhabitant		Primary or secondary school-age population		Spending on primary and secondary schooling per school-age person [b]	
	1990	2008	1990	2008	1990	2008	1990	2008
Argentina	3.4	4.9	190	489	23.7	20.6	616	1 773
Bolivia (Plurinational State of)	2.7	6.7	23	76	29.2	27.8	70	166
Brazil	4.6	5.3	154	232	24.6	19.3	349	911
Chile	2.7	3.6	83	224	22.3	19.8	258	837
Colombia	2.8	5.1	59	147	25.3	21.4	139	531
Costa Rica	4.5	5.2	140	268	23.8	20.2	331	974
Dominican Republic	2.0	2.5	37	91	28.7	25.1	80	279
Ecuador	2.6	2.1	34	36 [c]	29.3	24.7	72	120
El Salvador	2.0	3.6	33	82	31.4	25.2	70	196
Guatemala	1.4	3.2	20	61	28.8	27.8	43	160
Honduras	3.7	7.0	39	101 [c]	30.7	29.0	84	288
Mexico	4.0	5.8	197	378	27.8	21.6	398	1185
Nicaragua	4.4	3.2	30	29 [c]	30.8	26.3	37	49
Panama	5.4	4.1	159	229	26.9	22.8	356	463
Paraguay	1.1	4.1	15	62	29.0	26.8	35	173
Peru	1.5	2.7	25	81	26.5	22.2	48	269
Uruguay	3.1	3.1	169	272 [c]	20.8	18.9	551	998
Venezuela (Bolivarian Republic of)	3.1	3.8	150	227	25.7	21.7	144	515
Simple average	3.1	4.2	86.5	171.4	27.0	23.4	205	549

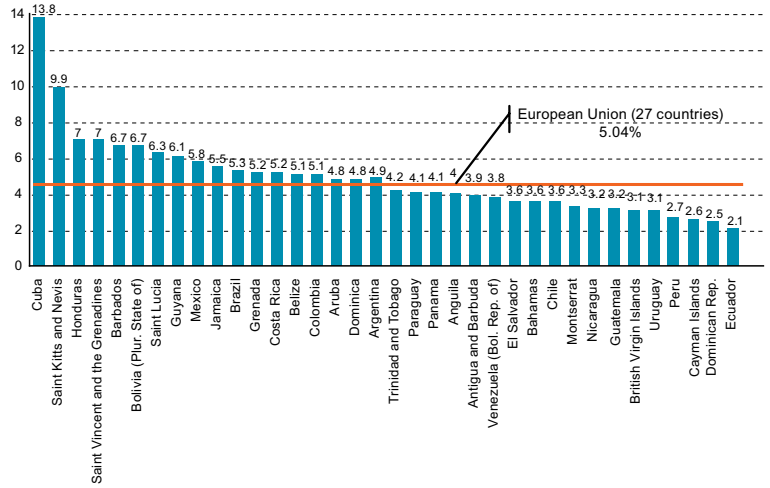
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.
[a] The figures follow the administrative classification of public spending and might not match those based on the functional classification.
[b] Primary and secondary school-age population as per the 1997 International Standard Classification of Education (ISCED).
[c] Estimates based on data from the UNESCO Institute of Statistics (UIS).

Despite the efforts made in the region, public-sector resources remain inadequate. Although the average commitment of public resources by the developed countries has been taken as the benchmark and it has been suggested that the region's countries need to set out to achieve the same percentage expenditure (public education spending in 27 countries of the European Union averaged 5.04% of GDP in 2006),[5] a number of countries in Latin America and the Caribbean actually spend a higher proportion, as figure III.11 shows, but the absolute amounts still fall short of needs.

Notwithstanding the above, many countries still have some room to expand public-sector education spending. In a context of relatively sustained future growth, this could involve substantial resources that could be used to achieve universal primary and secondary education and to enhance other areas such as school retention and learning quality.

[5] See [online] http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsdsc510&plugin=1.

Figure III.11
LATIN AMERICA AND THE CARIBBEAN (36 COUNTRIES): PUBLIC-SECTOR EDUCATION SPENDING, 2006-2008 [a]
(Percentages of GDP)



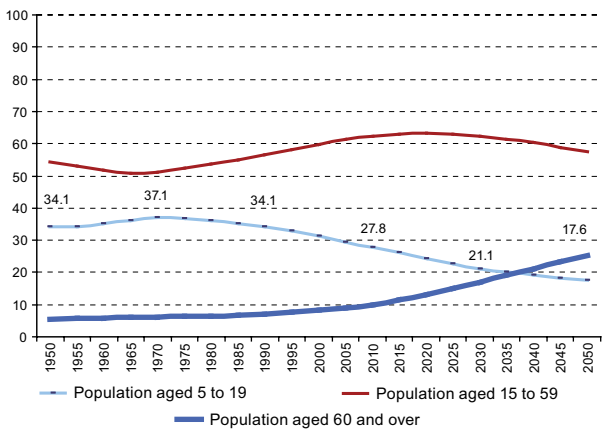
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Documentos de proyecto*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.
[a] The figures follow the administrative classification of public spending and might not match those based on the functional classification.

2. Primary and secondary education spending

A better way of analysing the evolution of spending is to focus on the target population. Education is a lifelong process; the public resources used to provide it should therefore benefit all members of society to a greater or lesser degree. However, the formal education system (preschool, primary, secondary and tertiary) is generally aimed at more specific populations: children and young people. Neither preschool nor tertiary education is compulsory in most of the countries, and there are no age limits for tertiary education, so our focus at this stage is on spending on primary and secondary education.[6]

The effect of population ageing is germane to any analysis of education spending on the target population of young people that is the focus of this edition of *Social Panorama*. In Latin America, this effect is mainly in the form of the demographic dividend. As can be seen in figure III.12, the decline between 1990 and 2010 in the demographic weight of the age groups typically in school (5 to 19), combined with a steady increase in the working-age group, has been an important development. The growth of the older adult population is a trend that will accelerate in the coming years.

Figure III.12
LATIN AMERICA: POPULATION BY MAJOR AGE GROUP, 1950-2050
(Percentages)



Source: Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC, population estimates and projections.

Table III.3 provides a more precise account of the primary and secondary school age population, following the educational cycle duration criteria of the United Nations Educational, Scientific and Cultural Organization (UNESCO) 1997 International Standard Classification

[6] The full secondary cycle is not compulsory in all the region's countries; the basic education cycle, encompassing primary school and the lower cycle of secondary school, is compulsory, however, and typically represents nine years of schooling (see table III.3).

of Education (ISCED).[7] On average, this population declined from 27% of the total in 1990 to 23.4% in 2008. The countries are naturally at different stages of the demographic transition, and this affects the rate of decrease. In Brazil, Ecuador, El Salvador, Mexico and Nicaragua the decline in the primary and secondary school-age population ratio has been in excess of 4.5 percentage points (which does not mean an absolute decline in the number of people). In Guatemala, Honduras, the Plurinational State of Bolivia and Uruguay the relative decline has been very small. While the first three of these countries are at a moderate stage of the demographic transition, the last is at the very advanced stage (Chackiel, 2004).

Because the school-age population represents only about a quarter of the total and has been declining, average public spending on primary and secondary education has increased significantly in relation to the potential target population, from US$ 215 per school-age person in 1990 to US$ 352 in 2000 and US$ 549 in 2008. Thus, the demographic transition has helped boost education spending, since for every US$ 1 per potential student budgeted in 1990, US$ 2.7 were budgeted in 2008. These demographic conditions have enabled the region to accelerate the skills development in the younger generations.

However, to determine effective spending per student (i.e., in relation to the proportion of the primary or secondary school age population benefiting from public investment in these levels of education), two other key factors must come into the picture: the actual percentage of students enrolled and the percentage attending publicly-funded establishments.

Regarding the percentage of students enrolled, much of the progress with education in the region has consisted precisely in increasing the coverage of and access to education systems. On average, the level of access among the region's primary and secondary school-age population is almost 90%, with substantial growth seen mainly between 1990 and 2000 (from 71% to 85%). Much educational investment has been designed to increase educational coverage at the secondary level (primary education was already virtually universal by the beginning of the 1990s). Spending growth has made it possible to integrate a larger proportion of children and young people, particularly those from low-income families. In half the 18 countries analysed, over 90% of children and young people of compulsory school attendance age actually do attend. Only in the Dominican Republic, Guatemala, Honduras, Nicaragua and Paraguay are actual access levels below 85%. In 1990, access levels were below this in virtually all the countries, while in 13 countries over 20% of the school-age population was outside the education system (see table III.4). Nonetheless, this very increase in coverage also kept spending per student from rising more.

Regarding the percentage of students attending publicly-funded establishments, some of the large expansion of education system access is due in part to gradually increasing private investment in education services, including services provided through church- and community-associated foundations and organizations. This has shifted a large proportion of students to privately-funded establishments, freeing up capacity in the public sector (and helping to raise public spending per student), but it also set into motion the processes of school segregation and gradual differentiation in the quality of education services.

Almost 84% of students were attending publicly financed institutions in 1990, a percentage that had dropped to just under 81% by 2008. Although this is a fairly widespread trend in the region's countries, there are large differences in the extent to which education services have been privatized. In Brazil, Colombia, El Salvador, the Plurinational State of Bolivia and Uruguay, the percentage of students in public education systems increased, although the number of students attending private institutions (either for-profit or non-profit) also rose in all but Uruguay, by 2.5 million. In Chile, Ecuador, Honduras and Peru, meanwhile, the percentage of private students rose substantially (by seven percentage points or more), although the absolute number of public-sector students did not fall in any of these countries. Only in Chile do more than 50% of students attend private-sector educational establishments (including publicly-subsidized private establishments); the percentage in the other countries is 30% or less.

The number of primary and secondary school students attending public establishments in the region increased by almost 29 million between 1990 and 2008 to a total of 91.2 million (with 18.5 million attending private schools).[8]

[7] Children and young people aged approximately 6 to 17. This varies from country to country according to the official starting age of the primary cycle and the duration of this and the secondary level.

[8] The students analysed here are those of primary or secondary education age who are actually in those levels of education. The figures do not include secondary school students who are behind their year (generally aged 18 or over).

Table III.3
LATIN AMERICA AND THE CARIBBEAN (41 COUNTRIES AND TERRITORIES): COMPULSORY EDUCATION AND OFFICIAL DURATION OF THE PRIMARY AND SECONDARY CYCLES, 2007-2008 [a]
(By age groups and number of years)

Country or territory	Compulsory education [b]			Primary education		Secondary education		Compulsory years and total duration of primary and secondary education
	Age group	Duration in years		Official age group	Duration in years	Official age group	Duration in years	
		Total	Excluding preschool					
Anguila	5-17	13	13	5-11	7	12-16	5	12/12
Antigua and Barbuda	5-16	12	12	5-11	7	12-16	5	12/12
Netherlands Antilles	6-15	10	10	6-11	6	12-17	6	10/12
Argentina	5-15	11	10	6-11	6	12-17	6	10/12
Aruba	6-16	11	11	6-11	6	12-16	5	11/11
Bahamas	5-16	12	12	5-10	6	11-16	6	12/12
Barbados	5-16	12	12	5-10	6	11-15	5	11/11
Belize	5-14	10	10	5-10	6	11-16	6	10/12
Bermuda	5-16	12	12	5-10	6	11-17	7	12/13
Bolivia (Plurinational State of)	6-13	8	8	6-11	6	12-17	6	8/12
Brazil	7-14	8	8	7-10	4	11-17	7	8/11
Chile	6-17	12	12	6-11	6	12-17	6	12/12
Colombia	5-15	11	10	6-10	5	11-16	6	10/11
Costa Rica	6-15	10	10	6-11	6	12-16	5	10/11
Cuba	6-14	9	9	6-11	6	12-17	6	9/12
Dominica	5-16	12	12	5-11	7	12-16	5	12/12
Dominican Republic	5-14	10	9	6-11	6	12-17	6	9/12
Ecuador	5-14	10	9	6-11	6	12-17	6	9/12
El Salvador	7-15	9	9	7-12	6	13-18	6	9/12
Grenada	5-16	12	12	5-11	7	12-16	5	12/12
Guatemala	6-15	10	9	7-12	6	13-17	5	9/11
Guyana	6-15	10	10	6-11	6	12-16	5	10/11
Haiti	6-11	6	6	6-11	6	12-18	7	6/13
Honduras	6-13	8	8	6-11	6	12-16	5	8/11
Cayman Islands	5-16	12	12	5-10	6	11-16	6	12/12
Turks and Caicos Islands	4-16	13	11	6-11	6	12-16	5	11/11
British Virgin Islands	5-16	12	12	5-11	7	12-16	5	12/12
Jamaica	6-12	7	7	6-11	6	12-16	5	7/11
Mexico	6-15	10	10	6-11	6	12-17	6	10/12
Montserrat	5-16	12	12	5-11	7	12-16	5	12/12
Nicaragua	6-11	6	6	6-11	6	12-16	5	6/11
Panama	6-14	9	9	6-11	6	12-17	6	9/12
Paraguay	6-14	9	9	6-11	6	12-17	6	9/12
Peru	6-18	13	13	6-11	6	12-16	5	11/11
Saint Kitts and Nevis	5-16	12	12	5-11	7	12-16	5	12/12
Saint Vincent and the Grenadines	5-15	11	11	5-11	7	12-16	5	11/12
Saint Lucia	5-15	11	11	5-11	7	12-16	5	11/12
Suriname	7-12	6	7	6-11	6	12-18	7	7/13
Trinidad and Tobago	6-12	7	8	5-11	7	12-16	5	8/12
Uruguay	6-15	10	10	6-11	6	12-17	6	10/12
Venezuela (Bolivarian Republic of)	5-14	10	9	6-11	6	12-16	5	9/11

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), *Education for All Global Monitoring Report 2010: Reaching the Marginalized*, Paris, 2010.
[a] Cycle durations as per the 1997 International Standard Classification of Education (ISCED).
[b] Ages at which school attendance or the right to an education can be enforced until completion of the educational cycle. The last column shows how many grades of the primary and secondary education cycles are compulsory within the age range shown in the first column.

Table III.4
LATIN AMERICA (18 COUNTRIES): INDICATORS OF EDUCATION COVERAGE AND PUBLIC EDUCATION SPENDING, 1990 AND 2008
(Percentages and dollars at constant 2000 prices)

	Total percentage studying		Percentage in public-sector establishments		Public-sector students as percentage of school-age population		Public spending per student (primary and secondary) [a]	
	1990	2008	1990	2008	1990	2008	1990	2008
Argentina	84.6 [b]	97.2	78.9 [b]	74.9	66.7 [b]	72.8	893	2 348
Bolivia (Plurinational State of)	64.1	89.9	89.1 [b]	89.9	57.1 [b]	80.8	119	193
Brazil	50.7	98.7	85.1 [b]	87.6	43.1 [b]	86.5	750	937
Chile	78.1	94.9	60.0	45.3	46.9	43.0	517	1890
Colombia	76.4	93.3	78.0	78.4	59.6	73.1	196	645
Costa Rica	74.0	94.2 [b]	94.0	91.2	69.6	85.9	450	1 072
Dominican Republic	61.8	81.9	78.8 [b]	78.8	48.7 [b]	64.5	151	409
Ecuador	82.7 [b]	90.5	85.6 [b]	70.5	70.8 [b]	63.8	92	171
El Salvador	48.9	86.1	78.3	87.1	38.3	75.0	176	249
Guatemala	53.3 [b]	82.6	77.0 [b]	75.9	41.0 [b]	62.7	99	241
Honduras	69.1	79.8 [b]	93.6	86.6	64.7	69.1	117	345
Mexico	83.0	95.3	92.5	89.3	76.8	85.1	478	1 275
Nicaragua	70.0 [b]	84.2	86.1	82.7	60.3	69.6	58	62
Panama	79.0	89.1	90.4	87.5	71.4	78.0	462	573
Paraguay	69.9	82.4	83.8	81.5	58.6	67.2	57	244
Peru	86.5	93.5	86.5	78.9	74.8	73.8	57	339
Uruguay	81.2 [b]	90.7	83.7	86.4	68.0	78.4	695	1 099
Venezuela (Bolivarian Republic of)	63.4	88.0	84.1	80.0	53.3	70.4	247	694
Simple average	70.9	89.6	83.6	80.7	59.4	72.2	311.9	710.3

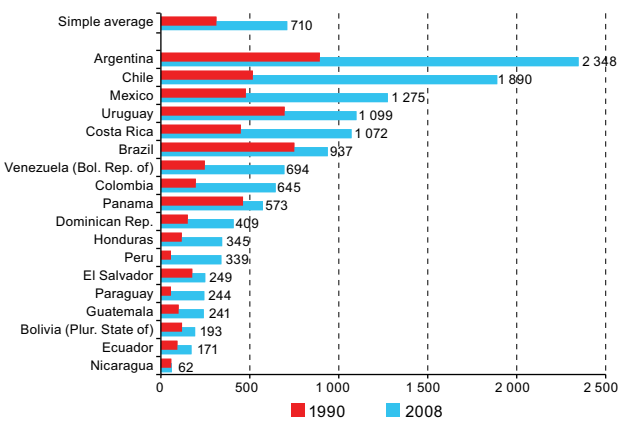
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.
[a] In 2000 dollars.
[b] Estimates based on data from the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS).

3. The rise in per-student spending and associated factors

The factors noted above (economic growth, fiscal measures, population growth and ageing and the rise in education coverage, among others) caused public spending per primary and secondary school student to rise unevenly. On the one hand, Argentina, Chile, Costa Rica and Mexico increased their public spending per student by US$ 600 or more over the whole period, and all the countries of Latin America, including Uruguay, topped US$ 1,000 per student.

In Ecuador, El Salvador, Guatemala, Panama and the Plurinational State of Bolivia, on the other hand, the increase over practically two decades was less than US$ 150 per student. According to the information available, Nicaragua saw no significant increase in spending per student between 1990 and 2008. Within the group of countries where there has been little increase in funding, Panama spends over US$ 500 per student and El Salvador and Guatemala about US$ 250 (see figure III.13). On average, spending on students attending public establishments more than doubled in the region, rising by 4.7% a year.

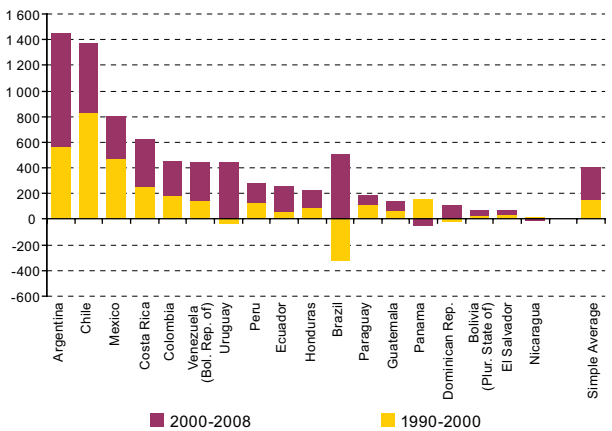
Figure III.13
LATIN AMERICA (18 COUNTRIES): PUBLIC SPENDING PER PRIMARY AND SECONDARY SCHOOL STUDENT, 1990 AND 2008 [a]
(Dollars at constant 2000 prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.
[a] Ranked in order of spending per student in 2008.

An examination of the timing of the rise in public spending per student (1990-2000 and 2000-2008) shows that the majority of the countries increased their spending the most between 2000 and 2008, even though this was the shorter time period. The exceptions are Chile, Mexico, Panama and Paraguay, which recorded greater progress in the 1990s (see figure III.14). This is mainly because most of the countries increased coverage more in the earlier period. On average, coverage increased by about 14 percentage points between 1990 and 2000, compared with a further 5 percentage points between 2000 and 2008 (see table III.4). This meant that much of the extra public education spending went to incorporating new students, which limited the growth of average spending per student. Since the progress of the 1990s (and earlier decades), extra spending has largely gone into improving the conditions that directly or indirectly affect the education process: better infrastructure, equipment, teaching material and teacher pay, among other things.

Figure III.14
LATIN AMERICA (18 COUNTRIES): TIMING OF THE RISE IN PUBLIC SPENDING PER STUDENT, 1990-2000 AND 2000-2008 [a]
(Dollars at constant 2000 prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/ Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

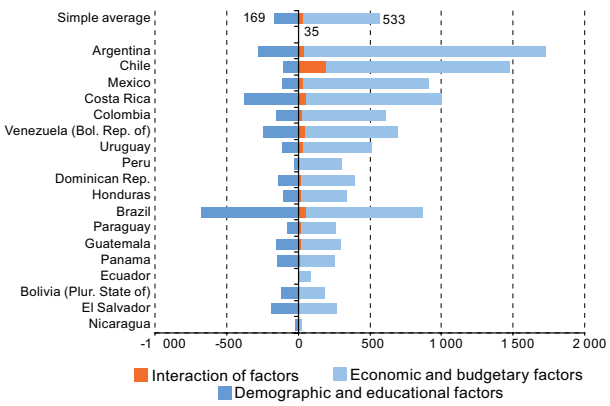
[a] Ranked by total change between 1990 and 2008.

The rise in public education spending per student can also be examined in terms of the positive or negative impact of different factors. The factors considered in the present analysis are:

- Economic and budgetary factors: economic growth, the macroeconomic priority given to public spending, the fiscal priority given to public spending on primary and secondary education, and the ratio between daily spending per student and the total number of students (additional expenditure of public resources because of school repetition).[9]
- Demographic and educational factors: population growth, population ageing (school-age population ratio), greater access to education and the extent to which education services have been privatized.
- The interaction between the two groups of factors.

In the first place, while economic growth and budgets have been the main drivers of the rise in public spending per student, demographic factors and the expansion of public education systems have tended to restrain this spending, as noted earlier, largely because increasing numbers of people have gained access to education services. Thus, the average increase in the region has been the result of an absolute expansion of public education spending (largely thanks to economic growth, as will be seen later) that would have taken the level up to just under US$ 850 per student (compared with the actual level of US$ 710 at present) and a population and public education coverage effect that has reduced spending per student by just under US$ 170. Nonetheless, the greater weight of economic and budgetary factors, and the favourable interaction between the two groups of factors, allowed spending to increase by some US$ 400 per student between 1990 and 2008 (see figure III.15).

Figure III.15
LATIN AMERICA (18 COUNTRIES): GROUPS OF FACTORS ASSOCIATED WITH CHANGES IN PUBLIC SPENDING PER STUDENT
(Dollars at constant 2000 prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/ Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

[9] The differences in these spending levels only relate to secondary school students who are not in the age group that is supposed to be attending that level. This effect was recorded only for spending differences and not for the number of people covered, to avoid double counting of the effect produced by repeaters.

In all the countries analysed, economic and budgetary factors made the greatest contribution to the change in spending per student. This is particularly striking in Argentina, Chile, Mexico and, to a lesser extent, Costa Rica, Paraguay and Uruguay. In Brazil, El Salvador, Guatemala, Nicaragua, Panama and the Plurinational State of Bolivia, these factors barely sufficed to counteract the negative contribution of population and coverage factors. With the exception of Nicaragua, where progress was slightly less, all countries increased educational coverage by 20 percentage points or more (see table III.4).

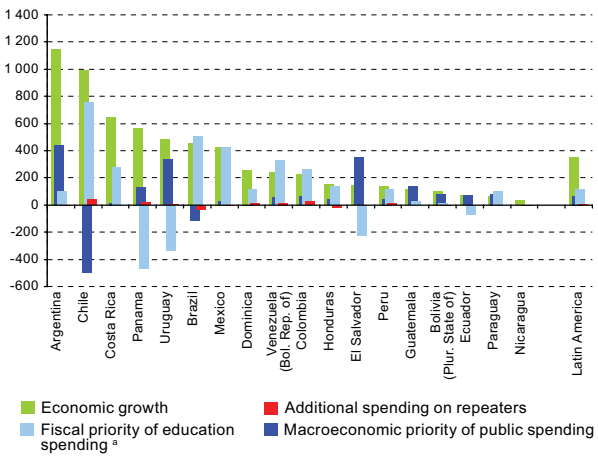
Again, it is interesting to note that Chile, Ecuador and Peru were the countries where the number of public-sector students increased the least (by 3.6%, 2.1% and 7.1%, respectively). All three made great progress with educational coverage, but this went with a large expansion of the private-sector presence in the education sector. This was largely responsible for the limited effect of demographic factors on the increase in spending per student in these countries.

There can be no doubt that budget-related economic factors did the most to drive up spending per student and that the demographic dynamic and the rise in education coverage in general constrained this expansion.

Economic growth has been one of the economic and budgetary factors contributing most to the rise in spending per student. This has been particularly true of Argentina, Chile, Costa Rica, the Dominican Republic, Honduras, Panama, Peru, the Plurinational State of Bolivia and Uruguay, as figure III.16 shows. In some countries, much of the increase in spending per student has been due to rising public budgets, bringing an inertial increase in education budgets (Argentina, Ecuador, El Salvador, Guatemala, Panama, Paraguay, the Plurinational State of Bolivia and Uruguay). But in others the specific effort made to increase education budgets was also important (the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, Honduras, Mexico, Paraguay and Peru). Broadly speaking, the second most important factor (after economic growth) in the rise in spending per student was the greater fiscal priority given to education spending. Lastly, a relatively small proportion of resources need to be spent on retaining secondary school students and helping those who fall behind to complete the cycle, whether by repeating grades or by leaving the system and returning to it later.

In general, increasing educational coverage incorporates students from lower-income groups. Because it is harder for them to keep up, this tends to push per-student spending up at the expense of expansion in countries that have made greater efforts with education. Between 1990 and 2008 some countries succeeded in reducing the proportion of students lagging behind, even in a context of expanding education coverage. This led to an average increase of about US$ 11 a year per student. Argentina, Brazil, El Salvador, Honduras, Mexico, Nicaragua and the Plurinational State of Bolivia increased the proportion of additional spending for over-age students at the secondary level, the result being a loss of about US$ 10 per student. Brazil is the country where the rise in the number of secondary school students who lag behind their age group has had the greatest impact, entailing additional spending of some US$ 1 billion a year.

Figure III.16
LATIN AMERICA (18 COUNTRIES): ECONOMIC AND BUDGETARY FACTORS ASSOCIATED WITH CHANGES IN SPENDING PER STUDENT [a]
(Dollars at constant 2000 prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

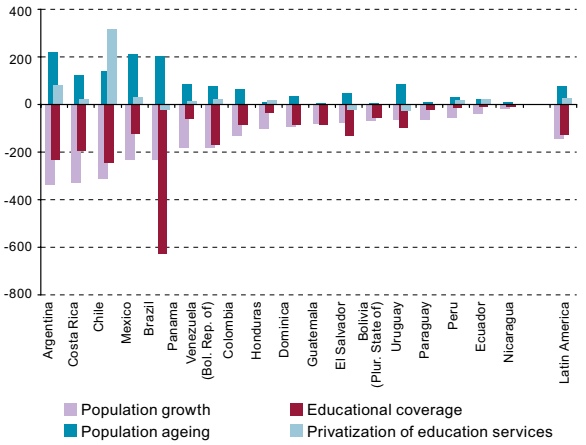
[a] Ranked by the contribution of economic growth to the rise in spending per student.

Taken together, demographic factors affecting education coverage and the roles of public and private agents in providing education have restrained the rise in spending per student, even though not all the factors considered have pushed in the same direction or had the same weight. First, natural population growth, which is still strong in most of the region's countries, has played

the largest part in limiting the increase in resources per student. To put it another way, the considerable rise in education spending over the past two decades has been mainly extensive in character (rise in the number of students) and has been a major complicating factor for public investment in education (increased resources per student). This is also reflected in the negative impact of rising public education coverage, as can be seen in figure III.17. Population growth has been the most important factor in all the countries except the Bolivarian Republic of Venezuela, Brazil, the Dominican Republic, El Salvador, Guatemala, the Plurinational State of Bolivia and Uruguay. In Brazil, El Salvador and Uruguay, the rise in public education coverage has been the most important factor.

Lastly, two factors that have operated in favour of higher spending per student are population ageing (which has caused the school-age proportion of the population to shrink, particularly in Argentina, Brazil, Chile and Mexico) and the rise of private-sector involvement in the provision of education services (especially in Argentina and Chile). Table III.5 provides an overview of the different weight of all these factors.

Figure III.17
LATIN AMERICA (18 COUNTRIES): INCREASE IN SPENDING PER STUDENT AS DETERMINED BY DEMOGRAPHIC AND EDUCATIONAL FACTORS [a]
(Dollars at constant 2000 prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

[a] Ranked by the contribution of population growth in holding down spending per student.

Table III.5
LATIN AMERICA (18 COUNTRIES): CONTRIBUTION OF ECONOMIC AND DEMOGRAPHIC FACTORS TO THE RISE IN SPENDING PER STUDENT, 1990-2008
(Dollars at constant 2000 prices)

	Contribution of economic and budgetary factors				Contribution of demographic and educational coverage factors					
	Economic growth	Macroeconomic priority of public spending	Fiscal priority of education spending in public spending [a]	Additional spending on repeaters [b]	Population growth	Population ageing	Increase in education coverage	Private-sector involvement	Interaction of factors	Increase in spending per student
Argentina	1 153	436	101	-5	-339	218	-235	82	45	1 454
Bolivia (Plurinational State of)	104	75	9	-5	-69	8	-56	-2	9	74
Brazil	457	-117	509	-33	-230	203	-628	-25	52	188
Chile	988	-501	754	39	-313	142	-248	316	197	1 373
Colombia	228	63	264	23	-135	67	-89	-2	30	449
Costa Rica	643	17	280	1	-330	121	-194	23	63	622
Dominican Republic	258	-5	114	9	-93	37	-85	0	23	79
Ecuador	73	70	-71	0	-42	22	-12	25	13	72
El Salvador	146	347	-227	-2	-78	46	-133	-23	-5	258
Guatemala	112	135	26	0	-82	7	-84	2	27	142
Honduras	150	43	141	-22	-105	13	-35	18	25	227
Mexico	428	25	428	-6	-232	212	-126	32	37	797
Nicaragua	38		-9	-5	-20	10	-11	2	-2	4
Panama	566	127	-470	21	-183	85	-63	17	13	112
Paraguay	63	82	102	0	-66	12	-27	5	17	282
Peru	135	46	115	11	-57	33	-16	18	-2	187
Uruguay	485	335	-342	6	-67	87	-101	-29	29	404
Venezuela (Bolivarian Republic of)	241	57	330	17	-180	77	-170	24	53	447
Simple average of the countries	348	68	114	3	-145	78	-128	27	35	398

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

[a] Primary and secondary education spending.

[b] Cost for secondary students who are not in the right age group for their level.

4. Resources needed to achieve universal primary and secondary education

As was seen in previous pages, Latin America has experienced a remarkable expansion in public-sector education spending over the past decades. Much of this increase has gone to extending education coverage. However, some of the extra funding has also gone to improving the operating conditions of education systems, something that is expressed in the growth of spending per student. Both processes have been buoyed by substantial economic growth in this period, by measures to increase the public budget and the education budget, by the relative decline in the school-age population and, in some countries, by the greater involvement of the private sector in providing education services.

For all the progress made with education coverage, a large percentage of the region's population has yet to be incorporated and kept in the formal education system: a total of almost seven million children and adolescents, chiefly from the lowest-income sectors of each country.

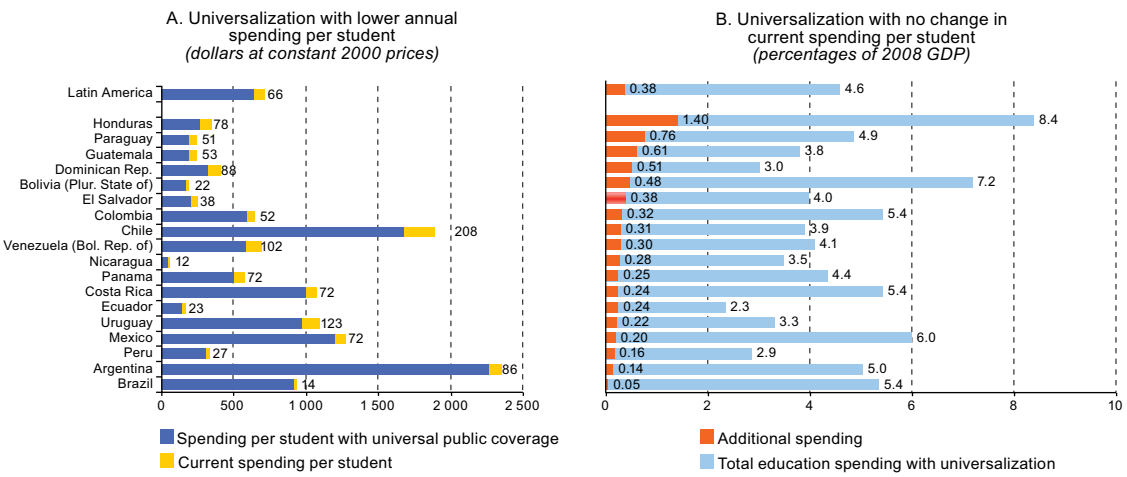
Given the major advances made, the extra investment required is not very onerous from a budgetary standpoint. However, the situation is somewhat more complicated in the region's poorest countries, which are also the ones with the largest proportions of children and young people outside the education system. Assuming that the entire school-age population currently outside the education system is to be covered from public funds, effective universalization of educational access would entail redistributing public resources within the education system or expanding its budget.

Redistributing resources to cover the whole school-age population would mean cutting per-student spending by some US$ 66 a year on average. The largest proportional reductions in funding per student would be in the Dominican Republic, Guatemala, Honduras and Paraguay, ranging between US$ 51 and US$ 88 a year per student (see figure III.18.A).

Lastly, if the method chosen to universalize primary and secondary education is an increase in budgetary funding, the average budget increase would represent only 0.4% of 2008 GDP. This increase is affordable for most of the countries and would bring average public-sector education spending up to about 4.6% of GDP for the 18 countries analysed. In view of international normative standards and the scope for budget increases, most of the countries ought to be in a position to carry out this expansion. The exceptions are Honduras and the Plurinational State of Bolivia, where education spending is already well in excess of 6.5% of GDP (see figure III.18.B). In any event, with gradual budget increases over the coming years and, in some cases, with a little international assistance, it is possible for the region to achieve universal access to and completion of primary and secondary education. Noteworthy among other initiatives to increase national budgets in combination with international financial and technical assistance is "Educational Goals for 2021: the education we want for the bicentennial generation", a project recently approved by the governments of the Ibero-American countries that sets financial targets and lays down goals for different areas of the education system.

Figure III.18

LATIN AMERICA (18 COUNTRIES): ESTIMATES OF THE COST OF UNIVERSALIZING PRIMARY AND SECONDARY EDUCATION



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the UNESCO Institute of Statistics (UIS) and ECLAC/Organization of Ibero-American States for Education, Science and Culture (OIS), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf, 2010.

Box III.2
ESTIMATING EXPENDITURE PER STUDENT

Expenditure per student is public-sector education spending divided by the number of students attending public establishments. Both spending and the number of students can be expressed, in turn, as a series of ratios whose impact on changes in spending and student numbers, and thus on spending per student, can then be identified. The following formula expresses this identity, budgetary priorities and the ratios between educational coverage and population:

$$ExpenditurexStudent = \frac{PSE_t}{PubStu_t} = \frac{\frac{PSE_t}{GPSE_t} \cdot \frac{GPSE_t}{TPS_t} \cdot \frac{TPS_t}{GDP_t} \cdot GDP_t}{\frac{PubStu_t}{StuS_t} \cdot \frac{StuS_t}{StuP_t} \cdot \frac{StuP_t}{Pop_t} \cdot Pop_t}$$

where:
Economic indicators

$\frac{TPS_t}{GDP_t}$	is total public spending as a percentage of GDP in year t, an indicator of the macroeconomic priority given to public spending overall;
$\frac{GPSE_t}{TPS_t}$	represents (gross) public spending on primary and secondary education as a proportion of all public spending in year *t*, an indicator of the fiscal priority given to public-sector education spending (primary and secondary);
$\frac{PSE_t}{GPSE_t}$	is public spending on primary and secondary education (not including grade repetition) as a proportion of (gross) public spending on primary and secondary education in year *t*, a proxy for internal efficiency (or lack of it) in the education system (school repetition);

Coverage and population indicators

$\frac{StuP_t}{Pop_t}$	is the school-age population as a share of the whole population in year *t*, an indicator of educational dependency (demographic dividend);
$\frac{StuS_t}{StuP_t}$	represents students as a share of the school-age population in year *t*, an indicator of educational access or coverage, and
$\frac{PubStu_t}{StuS_t}$	represents public-sector students as a share of all students in year *t*, an indicator of the commercialization or otherwise of education services.

Viewed over time, fluctuations in a country's spending per student depend on changes in spending and in the number of students, and can be analysed by way of these. To estimate the influence of the economic factor (spending) and the demographic factor (students) on changes in expenditure per student, the methodology used to explain changes in poverty (Datt and Ravallion, 1992) was used. This consists in estimating expenditure per student by taking public spending in the final period and the number of students in the initial period; the difference between this estimate and the initial spending per student observed is interpreted as the (economic) expenditure effect. Similarly, an estimate of spending per student is calculated by considering public spending in the initial period and the number of students in the final period; in this case, the difference is interpreted as the (demographic) student effect.

This procedure can be expressed using the following formula:

$$ExS_{t+1} - ExS_t = \underbrace{\left[\left(\frac{PSE_{t+1}}{PubStu_t}\right) - \left(\frac{PSE_t}{PubStu_t}\right)\right]}_{\text{Economic factors}} + \underbrace{\left[\left(\frac{PSE_t}{PubStu_{t+1}}\right) - \left(\frac{PSE_t}{PubStu_t}\right)\right]}_{\text{Demographic factors}} + R$$

where ExS is expenditure per student in the starting period (*t*) or final period (*t*+1), PSE is public spending on primary and secondary education in the initial and final periods (*t*, *t*+1) and PubStu is the number of primary and secondary school students in public establishments in the initial and final periods (*t*, *t*+1). This procedure has the drawback of generating a residual (R) which does not have an analytical interpretation for each factor, as it is the interaction between them.

Changes in public spending and the number of students can be cast in the form of an expression that shows different budgetary priorities and education coverage indicators. The effects are calculated in the present chapter using the full formula for spending per student, i.e., by conducting separate and joint analyses of the effects of budgetary priorities and coverage indicators on spending per student.

To deal with the residual, Kakwani (1997) developed a procedure that allows this to be removed from the two-factor analysis. It consists in averaging out the effects calculated with two base years, the initial base year and the final base year. This procedure does not completely do away with the residual when the analysis includes three or more effects, although it does reduce it significantly by comparison with analyses of factors of change involving just one base year. The calculations in the present chapter were carried out using this procedure.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Gaurav Datt and Martin Ravallion, "Growth and redistribution components of changes in poverty measures", *Journal of Development Economics*, vol. 38, No. 2, 1992; Nanak Kakwani, "On measuring growth and inequality components of changes in poverty with application to Thailand", *Discussion Paper*, University of New South Wales, 1997; and ECLAC, *Social Panorama of Latin America 2009* (LC/G.2423-P), Santiago, Chile, 2009. United Nations publication, Sales No. E.09.II.G.135.

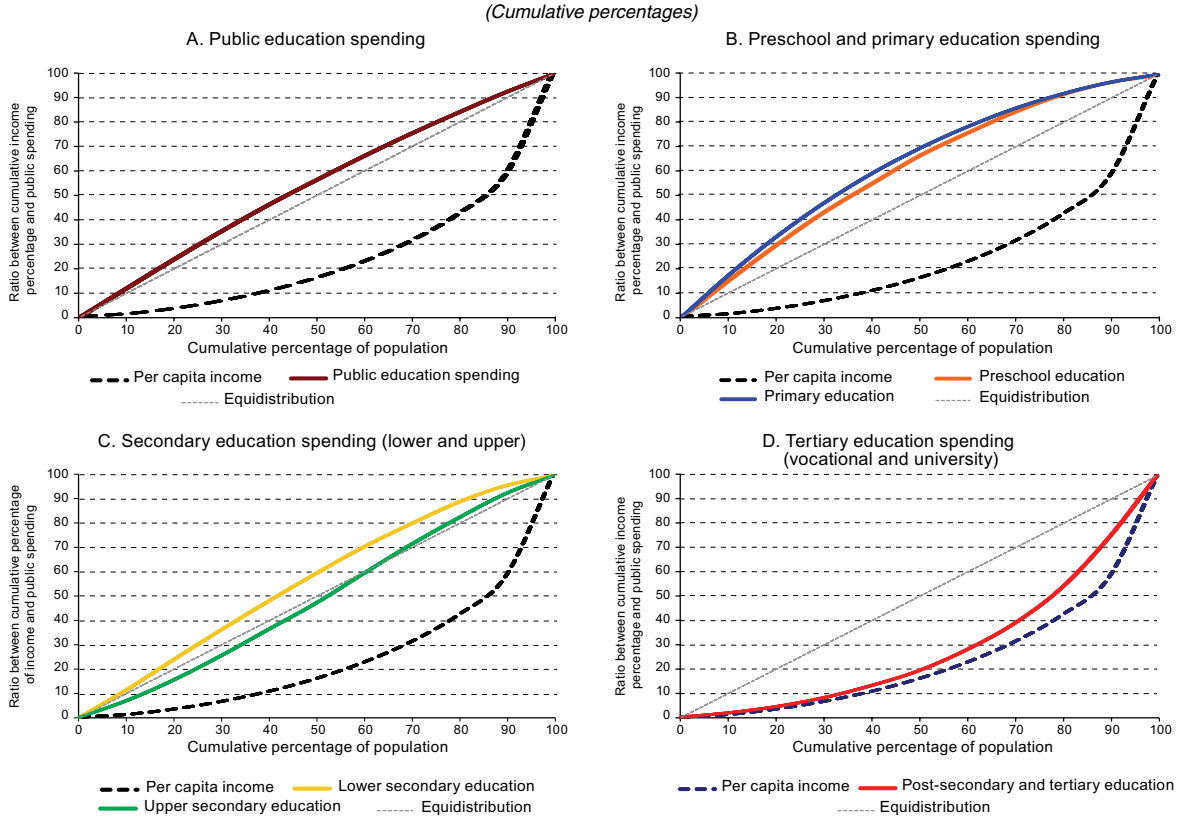
5. The distributive impact of public-sector education spending

This section will analyse the distribution of public-sector education spending used to finance public-sector schools not run by the private sector, although in some cases there might be some private financing from households. The procedure involves imputing expenditure per student at each level, expressed in monthly values, to those reporting they attend public-sector schools in household surveys. This is then expressed in per capita terms by household and compared with the per capita income distribution of the different income groups. The distribution of spending is analysed in accordance with the ranking by disposable per capita income before this transfer in kind.

In the first place, taking a simple average for 15 countries in the region, public-sector education spending is slightly progressive in absolute terms and far more progressive than per capita income distribution, as can be seen in figure III.19.A.

Furthermore, primary education spending is the most progressive in the region. This is largely because virtually universal coverage has been achieved at this level in the great majority of the countries, even though the private sector only serves an average of just over 17% of students. Next in progressiveness comes preschool education spending.[10] This level is not compulsory in most of the countries, however, which means that coverage is fairly low, especially in low-income sectors, while high-income families generally use private services at this level.

Figure III.19
LATIN AMERICA (15 COUNTRIES): DISTRIBUTION OF PUBLIC EDUCATION SPENDING BY INCOME STRATA AND COMPARISON WITH PER CAPITA INCOME [a]
(Cumulative percentages)

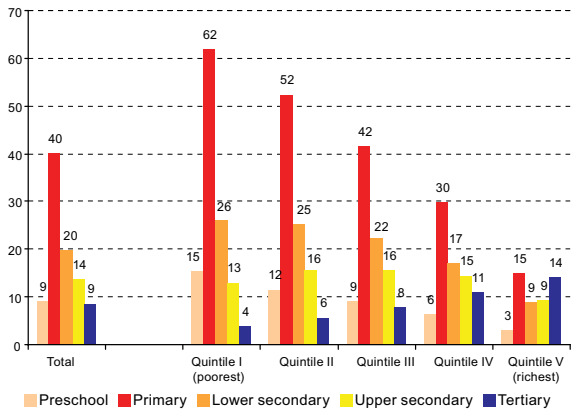


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries and information from the UNESCO Institute for Statistics (UIS).
[a] Simple averages.

[10] Given the information available in household surveys, in most of the countries it was only possible to analyse the distribution of preschool spending for children aged 4 and 5.

Spending on secondary education is less progressive. At the lower secondary level, it remains progressive in absolute terms (see figure III.19.C) because attendance remains compulsory in all the countries and access levels are high. However, by the last years of secondary education, which is not compulsory in all the countries (see table III.3), access for the lowest-income strata falls off sharply and by more than in the other socio-economic groups (see figure III.20). This makes the distribution of public spending at this level less progressive. Moreover, the private-sector share of secondary education services is higher: an average of 25% of students, most of them from high-income strata, go to private schools.

Figure III.20
LATIN AMERICA (15 COUNTRIES): ACCESS TO PUBLIC EDUCATION [a]
(Percentages of household members)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries and information from the UNESCO Institute for Statistics (UIS).

[a] Simple average of the countries, taking the percentage of people in households where some member is attending a public education establishment, and not the percentage of households, to obtain statistics comparable with those for per capita income distribution.

Lastly, for spending on post-secondary education (especially university education) to be progressive, coverage must obviously be expanded towards young people in lower socio-economic strata. In any case, it is less regressive than per capita income, albeit not in all countries. This spending is even more regressive than income distribution in El Salvador, Guatemala and Honduras, and is almost as regressive in Nicaragua and Paraguay (see table III.6). Access to post-secondary education is very low in all these countries and is largely confined to the high-income strata.

The fact that spending on post-secondary education, and university education in particular, is highly regressive is often used as an argument for reducing public spending at this level and redirecting it to lower levels, where it can be targeted better on the lower-income strata. Given that what operate in education systems are really self-targeting mechanisms, however, it is precisely the existence of publicly funded higher education that gives lower-income sectors a chance of genuine social mobility. Consequently, public-sector efforts should be oriented towards enabling a larger and larger proportion of low-income students to continue their post-secondary studies and making spending at this level more progressive. Witness the fact that spending is considerably less regressive in countries where higher education has greater coverage. The evidence speaks for itself. The more children and young people are incorporated at all education levels and universal progression to upper cycles is attained, the larger the egalitarian redistributive impact of spending on education. There are, then, no policies with a greater egalitarian impact than those that achieve universal coverage. The data reflected herein show that greater coverage at all education levels is associated with the most redistributive impact of spending on those levels.

Table III.6
LATIN AMERICA (15 COUNTRIES): GINI CONCENTRATION RATIO FOR PER CAPITA PERSONAL INCOME DISTRIBUTION AND EDUCATION SPENDING BY LEVEL

Country	Year	Per capita income	Spending by education level					Total education spending
			Preschool education spending	Primary education spending	Lower secondary spending	Upper secondary spending	Post-secondary education spending	
Argentina	2008	0.519	-0.298	-0.432	-0.304	-0.102	0.120	-0.228
Bolivia (Plurinational State of)	2007	0.572	-0.174	-0.222	-0.176	-0.026	0.308	-0.045
Brazil	2008	0.595	-0.360	-0.397	-0.290	-0.106	0.472	-0.265
Chile	2006	0.525	-0.201	-0.210	-0.191	-0.129	0.303	-0.150
Colombia	2008	0.574	-0.289	-0.327	-0.234	-0.128	0.335	-0.169
Costa Rica	2008	0.475	-0.245	-0.296	-0.199	-0.047	0.453	-0.115
Dominican Republic	2008	0.550	0.022	0.151	0.121	0.273	0.442	0.269
El Salvador	2008	0.493	-0.142	-0.240	-0.091	0.092	0.506	-0.127
Guatemala	2006	0.587	-0.246	-0.211	0.109	0.272	0.692	0.074
Honduras	2007	0.583	-0.124	-0.183	0.067	0.233	0.592	0.080
Mexico	2008	0.519	-0.232	-0.263	-0.163	0.018	0.333	-0.109
Nicaragua	2005	0.538	...	-0.223	0.035	0.177	0.529	0.021
Paraguay	2008	0.531	-0.116	-0.295	-0.106	0.008	0.510	-0.115
Peru	2008	0.476	-0.249	-0.327	-0.214	-0.114	0.251	-0.205
Uruguay	2008	0.446	-0.460	-0.462	-0.346	-0.044	0.434	-0.215
Simple average of the countries		0.532	-0.222	-0.263	-0.132	0.025	0.419	-0.086

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries and information from the UNESCO Institute for Statistics (UIS).

Appendix

Table III.A-1
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PUBLIC SOCIAL SPENDING AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT
(Percentages)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	19.1	20.1	21.1	20.0	21.0	21.8	19.4	19.6	22.1	24.2
Bolivia (Plurinational State of) [b]	…	…	12.9	14.6	16.2	16.3	17.4	17.0	16.2	…
Brazil	16.6	16.1	19.5	19.4	21.6	21.2	22.1	22.4	24.1	26.2
Chile	12.0	12.4	12.2	12.8	14.3	15.1	14.8	13.2	12.2	15.3
Colombia [c]	5.9	7.0	10.2	13.6	12.2	11.1	11.1	11.9	12.4	13.5
Costa Rica	15.6	15.2	15.8	16.8	16.4	18.0	18.7	17.6	17.2	19.3
Cuba	27.6	32.8	28.5	23.1	22.4	23.7	26.5	31.0	34.5	40.8
Dominican Republic	3.8	5.4	5.7	5.4	5.6	6.8	6.5	6.8	8.0	…
Ecuador [d]	7.4	8.0	6.1	5.6	4.9	4.9	5.5	6.2	6.4	…
El Salvador [e]	…	2.9	5.4	6.3	8.2	10.0	10.8	11.1	11.3	…
Guatemala	3.7	4.6	4.6	4.8	6.7	6.8	7.3	7.3	7.5	7.6
Honduras	6.3	6.3	5.5	5.5	6.2	8.4	9.5	9.9	10.0	11.4
Jamaica [f]	8.4	8.0	8.2	9.0	…	9.5	8.3	8.6	…	…
Mexico	6.5	8.1	8.8	8.5	9.2	9.7	10.2	10.2	11.2	12.5
Nicaragua	6.6	6.5	7.2	6.5	7.6	8.1	9.3	10.8	11.4	12.3
Panama	7.5	9.3	8.3	8.8	9.7	9.5	8.3	8.0	9.2	9.8
Paraguay	3.2	6.6	7.8	8.7	9.1	8.0	8.9	7.7	11.3	8.9
Peru [g]	3.9	5.1	6.5	6.9	8.5	8.8	9.5	9.2	8.2	7.8
Trinidad and Tobago [h]	6.9	7.3	6.6	6.4	…	9.1	9.7	9.9	8.7	12.1
Uruguay	16.8	18.9	20.2	21.3	20.0	21.6	21.8	19.6	21.2	21.7
Venezuela (Bolivarian Republic of)	8.8	9.2	7.8	8.6	8.8	11.6	11.7	11.7	13.4	…
Latin America and the Caribbean [i]	**9.5**	**10.6**	**11.0**	**11.1**	**11.7**	**12.4**	**12.7**	**12.8**	**13.6**	**14.4**
Latin America and the Caribbean [j]	**12.2**	**12.8**	**14.4**	**14.3**	**15.3**	**15.5**	**15.7**	**15.9**	**17.2**	**18.4**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-2
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PER CAPITA PUBLIC SOCIAL SPENDING
(Dollars at constant 2000 prices)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	1 166	1 409	1 551	1 547	1 683	1 635	1 299	1 527	1 997	2 387
Bolivia (Plurinational State of) [b]	…	…	122	143	164	165	177	179	178	…
Brazil	554	537	697	713	784	785	827	883	1 009	1 165
Chile	381	458	501	595	686	747	758	734	732	945
Colombia [c]	129	160	249	338	295	264	270	309	355	401
Costa Rica	486	516	566	606	651	727	773	775	856	1006
Cuba	864	779	632	563	568	661	772	1028	1395	1793
Dominican Republic	69	109	121	127	146	188	188	201	276	…
Ecuador [d]	99	107	82	76	65	66	78	98	106	…
El Salvador [e]	…	53	104	128	175	222	248	266	290	…
Guatemala	49	62	64	70	100	105	113	114	124	127
Honduras	67	71	61	63	70	97	114	127	139	162
Jamaica [f]	294	284	298	324	…	331	294	309	…	…
Mexico	358	457	492	482	559	621	644	673	784	889
Nicaragua	45	42	47	45	57	63	73	90	100	110
Panama	229	317	287	315	377	371	328	345	457	559
Paraguay	45	95	115	128	129	107	116	105	162	135
Peru [g]	64	85	125	140	172	179	201	211	214	229
Trinidad and Tobago [h]	303	312	294	304	…	588	728	874	909	1 318
Uruguay	841	1 034	1 180	1 317	1 289	1 314	1 173	1 232	1 524	1 740
Venezuela (Bolivarian Republic of)	433	480	388	430	426	549	474	547	708	…
Latin America and the Caribbean [i]	**315**	**357**	**380**	**403**	**435**	**466**	**459**	**506**	**601**	**697**
Latin America and the Caribbean [j]	**440**	**481**	**557**	**573**	**623**	**642**	**637**	**691**	**813**	**917**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-3
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PUBLIC SOCIAL SPENDING AS A PERCENTAGE OF TOTAL PUBLIC SPENDING [a]
(Percentages)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [b]
Argentina	62.2	63.4	65.7	65.5	64.3	62.8	66.2	64.2	63.9	62.8
Bolivia (Plurinational State of) [c]	…	…	36.6	44.1	50.0	42.8	49.4	48.1	49.1	…
Brazil	48.9	47.2	58.6	51.0	55.8	62.1	70.4	73.2	73.4	73.6
Chile	61.2	63.0	64.5	65.5	66.4	68.4	68.1	67.3	66.3	67.0
Colombia [d]	28.8	32.2	36.5	…	…	…	…	74.8	71.5	69.5
Costa Rica	38.9	41.2	38.2	42.0	40.7	40.5	37.8	36.1	36.0	35.6
Cuba	35.6	34.7	39.4	45.7	44.8	47.0	51.4	53.0	52.4	53.4
Dominican Republic	43.1	44.3	50.6	45.6	43.3	49.9	47.9	46.2	48.6	…
Ecuador [e]	42.8	48.5	33.7	27.6	21.7	20.9	25.2	28.5	27.9	…
El Salvador [f]	…	22.2	23.2	28.1	32.5	38.6	39.5	45.8	45.7	…
Guatemala	29.9	33.3	41.3	42.7	45.1	47.3	50.4	53.8	51.8	54.1
Honduras	40.7	36.6	40.6	40.5	39.5	45.4	49.9	52.8	53.6	50.0
Jamaica [g]	26.8	23.2	20.6	19.2	…	17.1	17.3	16.3	…	…
Mexico	41.3	50.2	53.1	52.3	59.4	61.3	57.8	58.6	59.3	68.7
Nicaragua	34.0	38.5	39.9	37.0	37.1	38.4	42.0	47.9	50.2	53.8
Panama	38.1	50.6	48.6	39.6	46.4	42.5	39.1	39.3	42.1	41.6
Paraguay	39.9	42.9	43.3	47.1	44.5	38.3	48.5	41.6	57.1	55.0
Peru [h]	33.0	35.0	39.4	39.6	0.0	52.2	52.3	52.3	53.1	51.2
Trinidad and Tobago [i]	40.6	40.6	42.8	40.7	…	43.5	44.6	37.9	29.4	34.4
Uruguay	62.3	67.7	70.8	70.8	67.3	68.1	61.4	61.8	67.5	75.4
Venezuela (Bolivarian Republic of)	32.8	40.1	35.3	35.4	36.6	37.8	38.6	41.0	44.0	…
Latin America and the Caribbean [j]	**40.0**	**42.9**	**44.8**	**44.6**	**45.5**	**47.3**	**48.9**	**49.4**	**50.4**	**51.0**
Latin America and the Caribbean [k]	**44.1**	**46.5**	**51.8**	**50.7**	**54.6**	**57.3**	**60.2**	**61.8**	**62.3**	**63.9**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] Official public spending totals are taken from the functional classifications of public spending in the countries, but it is possible that they may differ from other officially reported figures based on classifications of other types.
[b] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[c] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[d] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE). Discontinued series. The 1994-1995 figure is from 1994 and the 2004-2005 figure from 2005.
[e] The 2006-2007 figure is from 2006.
[f] The 1992-1993 figure is from 1993.
[g] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[h] The figures from 1990 to 1999 are budgetary central government data, while those from 2000 onward are general government data.
[i] The 1996-1997 figure is from 1996.
[j] Simple average of the countries. Includes estimates for countries without available information.
[k] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-4
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PUBLIC SOCIAL SPENDING ON EDUCATION AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT
(Percentages)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	3.6	4.0	4.2	4.2	4.7	5.1	4.2	4.5	5.3	6.0
Bolivia (Plurinational State of) [b]	…	…	5.5	5.9	6.0	5.8	6.6	6.6	6.3	…
Brazil	3.4	2.8	5.1	4.3	5.5	5.0	4.7	4.6	5.0	5.7
Chile	2.3	2.4	2.6	3.0	3.6	3.9	4.0	3.6	3.3	4.3
Colombia [c]	2.4	2.9	3.0	4.2	4.1	3.3	3.8	3.2	3.0	3.1
Costa Rica	3.9	4.2	4.2	4.6	4.4	5.1	5.7	5.5	5.2	5.9
Cuba	10.8	11.9	9.0	7.3	7.7	9.1	11.1	13.3	14.6	18.4
Dominican Republic	0.9	1.3	1.6	1.8	2.2	2.5	2.6	1.8	2.3	…
Ecuador [d]	2.8	3.0	2.6	2.5	2.5	2.1	2.6	2.6	2.6	…
El Salvador [e]	…	1.8	2.0	2.5	3.0	3.4	3.5	3.2	3.1	…
Guatemala	1.8	2.0	1.9	1.9	2.5	2.9	2.9	2.9	3.0	3.2
Honduras	3.6	3.6	3.1	3.3	3.8	5.2	6.0	6.6	6.7	7.5
Jamaica [f]	4.1	4.0	4.1	4.9	…	5.8	4.5	4.7	…	…
Mexico	2.6	3.5	3.9	3.7	3.8	3.9	4.0	3.8	4.0	4.1
Nicaragua	2.6	2.2	2.8	2.9	3.4	3.7	4.4	4.7	5.1	5.5
Panama	3.6	3.7	3.5	4.0	4.1	4.2	4.1	3.8	4.0	3.9
Paraguay	1.3	2.9	3.6	4.2	4.4	4.3	4.0	3.9	4.5	4.1
Peru [g]	1.6	2.0	2.7	2.5	2.9	2.8	3.0	3.0	2.6	2.6
Trinidad and Tobago [h]	3.2	3.3	3.0	3.0	…	3.9	4.4	4.4	3.8	5.0
Uruguay	2.5	2.5	2.5	3.0	3.0	3.0	3.3	3.3	3.9	4.3
Venezuela (Bolivarian Republic of)	3.5	4.0	3.8	3.2	4.0	5.1	5.1	5.0	5.5	…
Latin America and the Caribbean [i]	**3.2**	**3.5**	**3.6**	**3.7**	**4.0**	**4.3**	**4.5**	**4.5**	**4.7**	**5.1**
Latin America and the Caribbean [j]	**3.2**	**3.4**	**4.2**	**3.9**	**4.5**	**4.5**	**4.4**	**4.3**	**4.6**	**5.0**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. The figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-5
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PUBLIC SOCIAL SPENDING ON HEALTH AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT
(Percentages)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	4.3	4.6	4.9	4.6	4.9	5.0	4.4	4.5	4.9	5.3
Bolivia (Plurinational State of) [b]	…	…	3.3	3.3	3.3	3.0	3.1	3.2	3.2	…
Brazil	3.3	2.4	4.1	3.8	3.8	4.1	4.0	4.3	4.6	5.0
Chile	1.8	2.1	2.3	2.4	2.7	2.9	3.0	2.8	2.9	3.7
Colombia [c]	0.9	1.1	2.6	2.9	3.3	2.2	1.8	2.0	1.9	1.9
Costa Rica	4.9	4.5	4.7	4.7	4.8	5.2	5.7	5.0	5.0	5.8
Cuba	5.0	6.6	5.6	4.9	5.4	5.6	5.7	6.5	8.5	10.5
Dominican Republic	0.8	1.0	1.0	1.1	1.2	1.6	1.4	1.2	1.4	…
Ecuador [d]	1.4	1.6	0.8	0.9	0.7	0.8	1.1	1.2	1.3	…
El Salvador [e]	…	1.1	2.6	2.8	3.2	3.3	3.4	3.4	3.6	…
Guatemala	1.0	1.1	1.0	0.8	1.2	1.2	1.1	1.1	1.2	1.3
Honduras	2.4	2.4	2.2	2.0	2.0	2.8	3.2	3.0	2.8	3.1
Jamaica [f]	2.2	2.4	2.2	2.3	…	2.2	2.2	2.4	…	…
Mexico	3.0	3.4	2.3	2.2	2.3	2.3	2.3	2.5	2.8	2.8
Nicaragua	2.8	2.5	2.8	2.5	2.7	2.9	3.3	3.3	3.6	3.7
Panama	1.6	1.9	1.8	1.9	2.0	2.3	2.0	2.3	2.1	2.2
Paraguay	0.3	1.1	1.2	1.3	1.4	1.2	1.4	1.2	2.1	1.5
Peru [g]	0.9	0.9	1.3	1.4	1.2	1.4	1.5	1.4	1.2	1.2
Trinidad and Tobago [h]	2.6	2.8	2.2	2.0	…	2.1	2.3	2.6	2.3	3.4
Uruguay	2.9	3.0	3.4	2.5	3.2	3.5	3.4	3.3	3.8	4.5
Venezuela (Bolivarian Republic of)	1.6	1.7	1.1	1.1	1.4	1.5	1.6	1.6	1.8	…
Latin America and the Caribbean [i]	**2.2**	**2.4**	**2.5**	**2.4**	**2.6**	**2.7**	**2.7**	**2.8**	**3.0**	**3.2**
Latin America and the Caribbean [j]	**2.9**	**2.9**	**3.2**	**3.0**	**3.2**	**3.2**	**3.1**	**3.3**	**3.6**	**3.7**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-6
LATIN AMERICA AND THE CARIBBEAN (20 COUNTRIES): PUBLIC SOCIAL SPENDING ON SOCIAL SECURITY AND ASSISTANCE AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT
(Percentages)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	9.6	9.9	10.3	9.8	9.9	10.3	9.7	9.2	10.1	11.1
Bolivia (Plurinational State of) [b]	…	…	1.5	2.8	3.9	5.6	5.8	5.1	4.7	…
Brazil	8.5	9.7	10.0	10.6	11.7	11.2	12.0	12.1	12.8	13.6
Chile	7.7	7.6	7.1	7.1	7.6	7.9	7.5	6.5	5.8	6.9
Colombia [c]	2.3	2.6	4.0	5.4	3.8	4.8	4.9	6.0	7.0	7.9
Costa Rica	4.9	4.7	5.2	5.8	5.7	6.1	5.5	5.3	5.2	5.5
Cuba	7.0	9.9	8.6	7.0	7.0	6.5	7.1	8.2	8.7	9.2
Dominican Republic	0.3	0.3	0.3	0.5	0.6	1.1	0.9	2.1	2.2	…
Ecuador [d]	3.2	3.4	2.2	2.0	1.5	1.7	1.7	2.2	2.3	…
El Salvador [e]	…	0.0	0.8	0.9	1.1	1.1	2.2	2.5	2.3	…
Guatemala	0.8	0.9	0.8	0.8	1.0	1.2	1.3	1.2	1.1	1.2
Honduras	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.8
Jamaica [f]	0.6	0.4	0.4	0.3	…	0.4	0.4	0.4	…	…
Mexico	0.1	0.1	1.3	1.5	1.9	2.3	2.4	2.2	2.4	3.7
Panama	1.2	2.2	1.5	1.0	1.9	1.6	1.2	1.1	1.5	1.6
Paraguay	1.2	2.3	2.4	2.7	3.1	2.1	3.3	2.5	4.3	2.9
Peru [g]	1.3	2.2	2.5	2.8	3.6	4.0	4.5	4.4	3.8	3.3
Trinidad and Tobago [h]	0.1	0.1	0.1	0.1	…	1.4	1.8	1.5	1.2	1.8
Uruguay	11.2	13.1	13.9	15.3	12.6	13.7	13.6	11.7	12.0	11.0
Venezuela (Bolivarian Republic of)	2.0	2.1	2.3	3.0	2.5	3.7	4.1	4.1	4.6	…
Latin America and the Caribbean [i]	**3.2**	**3.7**	**3.8**	**4.0**	**4.0**	**4.3**	**4.5**	**4.4**	**4.6**	**4.7**
Latin America and the Caribbean [j]	**4.8**	**5.4**	**6.0**	**6.4**	**6.6**	**6.7**	**6.9**	**6.9**	**7.3**	**8.0**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information. Nicaragua is not included.
[j] Weighted average of the countries. Includes estimates for countries without available information. Nicaragua is not included.

Table III.A-7
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PUBLIC SOCIAL SPENDING ON HOUSING AND OTHER ITEMS AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT
(Percentages)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	1.7	1.6	1.6	1.4	1.5	1.4	1.1	1.5	1.9	1.9
Bolivia (Plurinational State of) [b]	…	…	2.6	2.6	2.9	1.8	1.9	2.1	2.0	…
Brazil	1.4	1.3	0.4	0.8	0.6	1.1	1.5	1.4	1.7	2.0
Chile	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.4
Colombia [c]	0.5	0.5	0.7	1.0	1.0	0.9	0.6	0.7	0.5	0.5
Costa Rica	1.9	1.8	1.7	1.8	1.5	1.6	1.8	1.8	1.8	2.1
Cuba	4.8	4.4	5.3	4.0	2.3	2.6	2.6	3.0	2.8	2.8
Dominican Republic	1.8	2.8	2.9	2.1	1.7	1.6	1.7	1.8	2.1	…
Ecuador [d]	0.0	0.1	0.4	0.2	0.1	0.4	0.2	0.2	0.2	…
El Salvador [e]	…	0.0	0.0	0.2	0.8	2.1	1.7	2.0	2.3	…
Guatemala	0.1	0.6	0.8	1.3	1.9	1.6	1.9	2.1	2.2	1.9
Honduras	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	…	…
Jamaica [f]	1.5	1.2	1.6	1.4	…	1.1	1.2	1.1	…	…
Mexico	0.9	1.2	1.3	1.2	1.1	1.3	1.5	1.8	2.1	1.9
Nicaragua	1.2	1.8	1.5	1.2	1.5	1.5	1.6	2.7	2.8	3.1
Panama	1.1	1.4	1.4	1.9	1.7	1.3	1.0	0.8	1.5	1.6
Paraguay	0.5	0.3	0.6	0.4	0.2	0.5	0.2	0.2	0.4	0.4
Peru [g]	0.1	0.1	0.1	0.2	0.8	0.6	0.5	0.4	0.6	0.8
Trinidad and Tobago [h]	1.0	1.1	1.3	1.3	…	1.5	1.3	1.4	1.3	1.8
Uruguay	0.3	0.4	0.5	0.5	1.2	1.4	1.5	1.4	1.6	1.9
Venezuela (Bolivarian Republic of)	1.7	1.4	0.6	1.3	0.9	1.3	0.9	1.0	1.6	…
Latin America and the Caribbean [i]	**1.1**	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**	**1.3**	**1.5**	**1.6**
Latin America and the Caribbean [j]	**1.2**	**1.2**	**1.0**	**1.1**	**1.0**	**1.2**	**1.3**	**1.4**	**1.7**	**1.7**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-8
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PER CAPITA PUBLIC SOCIAL SPENDING ON EDUCATION
(Dollars at constant 2000 prices)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	218	278	311	328	374	382	281	349	480	588
Bolivia (Plurinational State of) [b]	…	…	52	58	61	59	67	69	69	…
Brazil	114	93	181	157	200	183	175	180	208	252
Chile	73	90	105	139	175	195	206	198	195	268
Colombia [c]	51	66	72	106	100	78	94	83	85	93
Costa Rica	123	142	151	164	176	206	234	241	261	305
Cuba	338	283	200	178	196	253	324	442	589	808
Dominican Republic	17	26	33	41	57	70	74	52	79	…
Ecuador [d]	37	40	36	35	33	28	37	41	44	…
El Salvador [e]	…	31	39	51	64	76	81	77	79	…
Guatemala	24	27	27	27	38	44	45	45	49	54
Honduras	39	41	34	37	43	61	72	84	94	107
Jamaica [f]	144	142	147	175	…	201	159	170	…	…
Mexico	143	196	219	207	233	250	255	250	276	291
Nicaragua	17	14	19	20	26	30	35	39	45	49
Panama	109	128	122	145	160	164	162	165	199	222
Paraguay	18	41	53	62	63	57	53	53	64	63
Peru [g]	27	33	51	50	58	57	64	68	68	75
Trinidad and Tobago [h]	139	142	134	142	…	264	330	386	399	550
Uruguay	123	135	143	187	195	185	175	205	281	349
Venezuela (Bolivarian Republic of)	174	210	188	161	194	243	207	233	290	…
Latin America and the Caribbean [i]	**95**	**105**	**111**	**118**	**134**	**147**	**149**	**163**	**191**	**227**
Latin America and the Caribbean [j]	**115**	**126**	**163**	**156**	**183**	**184**	**177**	**186**	**218**	**247**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. The figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-9
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PER CAPITA PUBLIC SOCIAL SPENDING ON HEALTH
(Dollars at constant 2000 prices)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	261	320	362	356	392	378	294	349	439	520
Bolivia (Plurinational State of) [b]	…	…	31	33	34	30	32	34	35	…
Brazil	110	80	145	138	138	150	148	171	193	223
Chile	59	80	95	112	129	144	153	157	172	227
Colombia [c]	19	24	63	72	79	52	43	51	54	58
Costa Rica	153	154	168	171	189	210	235	220	248	303
Cuba	157	157	125	119	135	156	166	215	345	459
Dominican Republic	14	20	21	25	31	44	39	36	50	…
Ecuador [d]	19	21	11	12	10	11	15	19	21	…
El Salvador [e]	…	20	50	57	70	75	77	82	93	…
Guatemala	13	15	14	13	18	18	18	17	20	22
Honduras	26	27	24	22	22	32	39	39	39	44
Jamaica [f]	77	85	79	84	…	78	77	87	87	…
Mexico	162	189	129	122	142	146	147	166	193	198
Nicaragua	19	17	18	18	20	23	26	28	31	33
Panama	49	66	63	66	79	90	79	98	106	…
Paraguay	4	16	18	20	20	16	18	17	31	23
Peru [g]	15	15	24	29	0	28	32	31	32	34
Trinidad and Tobago [h]	115	119	99	94	…	136	170	234	242	372
Uruguay	146	164	201	155	207	211	185	205	271	358
Venezuela (Bolivarian Republic of)	77	87	55	57	68	69	65	76	94	…
Latin America and the Caribbean [i]	**73**	**81**	**85**	**84**	**95**	**100**	**98**	**111**	**133**	**159**
Latin America and the Caribbean [j]	**106**	**108**	**123**	**120**	**129**	**133**	**126**	**144**	**168**	**187**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. The figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-10
LATIN AMERICA AND THE CARIBBEAN (20 COUNTRIES): PER CAPITA PUBLIC SOCIAL SPENDING ON SOCIAL SECURITY AND ASSISTANCE
(Dollars at constant 2000 prices)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	586	697	758	755	795	773	650	716	910	1 095
Bolivia (Plurinational State of) [b]	…	…	15	28	40	57	59	54	52	…
Brazil	283	322	357	389	423	413	448	477	538	603
Chile	244	279	291	331	366	392	386	364	345	424
Colombia [c]	49	58	97	135	92	114	119	157	201	235
Costa Rica	152	160	187	208	226	248	227	234	260	288
Cuba	217	234	191	171	178	181	206	273	349	402
Dominican Republic	5	7	7	12	16	31	27	62	75	...
Ecuador [d]	43	46	29	27	21	24	24	35	38	…
El Salvador [e]	…	1	15	18	24	25	50	60	60	…
Guatemala	11	13	12	12	15	18	21	19	18	20
Honduras	3	4	3	3	4	2	3	3	6	11
Jamaica [f]	21	15	15	12	…	13	14	14	…	…
Mexico	7	6	71	86	116	146	149	142	166	264
Panama	37	76	54	35	72	64	48	47	78	…
Paraguay	17	33	36	40	44	27	43	33	62	44
Peru [g]	23	36	48	57	0	82	95	102	99	95
Trinidad and Tobago [h]	3	4	4	5	…	90	133	129	132	195
Uruguay	558	717	807	948	812	833	732	734	861	883
Venezuela (Bolivarian Republic of)	100	108	113	149	122	175	165	192	241	…
Latin America and the Caribbean [i]	**118**	**142**	**156**	**171**	**173**	**185**	**180**	**192**	**225**	**252**
Latin America and the Caribbean [j]	**197**	**233**	**278**	**301**	**320**	**321**	**311**	**334**	**396**	**470**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data, while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information. Nicaragua is not included.
[j] Weighted average of the countries. Includes estimates for countries without available information. Nicaragua is not included.

Table III.A-11
LATIN AMERICA AND THE CARIBBEAN (21 COUNTRIES): PER CAPITA PUBLIC SOCIAL SPENDING ON HOUSING AND OTHER ITEMS
(Dollars at constant 2000 prices)

Country	Period									
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009 [a]
Argentina	102	116	121	108	121	103	74	114	168	184
Bolivia (Plurinational State of) [b]	…	…	25	26	30	19	20	22	22	…
Brazil	47	42	15	29	23	39	57	56	70	87
Chile	7	9	10	13	17	17	14	16	19	27
Colombia [c]	10	12	16	25	25	22	14	18	15	16
Costa Rica	58	61	61	64	60	64	77	81	88	109
Cuba	154	105	118	96	59	72	77	99	112	123
Dominican Republic	34	57	61	49	44	44	49	52	72	…
Ecuador [d]	0	1	6	3	2	6	3	4	3	…
El Salvador [e]	…	1	1	5	18	47	40	47	58	…
Guatemala	2	8	12	20	30	25	30	34	37	33
Honduras	0	0	0	0	2	2	1	1	…	…
Jamaica [f]	53	43	59	52	…	40	44	38	38	…
Mexico	47	67	74	67	69	81	93	116	149	136
Nicaragua	8	11	10	8	12	12	13	23	25	27
Panama	35	49	49	68	67	52	40	36	76	…
Paraguay	6	5	9	6	4	7	3	3	6	6
Peru [g]	0	0	0	0	0	13	11	10	15	24
Trinidad and Tobago [h]	46	47	58	64	…	98	95	126	137	199
Uruguay	15	19	29	29	76	85	81	88	112	150
Venezuela (Bolivarian Republic of)	83	76	32	63	43	63	38	46	82	…
Latin America and the Caribbean [i]	**34**	**36**	**37**	**38**	**40**	**43**	**41**	**49**	**64**	**74**
Latin America and the Caribbean [j]	**44**	**47**	**38**	**43**	**41**	**48**	**53**	**62**	**80**	**87**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), social expenditure database.
[a] The figures for Brazil, Chile, Colombia, Cuba, Guatemala, Honduras and Panama are from 2009.
[b] The 1994-1995 figures are from 1995 and the 2006-2007 figures from 2006.
[c] Preliminary figures. Figures from 2000 onward are from the Ministry of Finance and are not comparable with earlier ones. The data in the earlier series are from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).
[d] The 2006-2007 figure is from 2006.
[e] The 1992-1993 figure is from 1993.
[f] The 1996-1997 figure is from 1996 and the 2004-2005 figure from 2004.
[g] The figures from 1990 to 1998 are budgetary central government data while those from 1999 onward are general government data. The 1998-1999 figure is from 1999.
[h] The 1996-1997 figure is from 1996.
[i] Simple average of the countries. Includes estimates for countries without available information.
[j] Weighted average of the countries. Includes estimates for countries without available information.

Table III.A-12
LATIN AMERICA (15 COUNTRIES): DISTRIBUTION OF PUBLIC SPENDING ON EDUCATION, BY EDUCATION LEVEL AND PER CAPITA INCOME QUINTILE, AROUND 2008
(Percentages)

Country	Preschool education						
		Personal per capita income quintile					Total
	Year	Quintile I (poorest)	Quintile II	Quintile III	Quintile IV	Quintile V (richest)	
Argentina	2008	34.8	26.9	19.1	14.3	4.9	100.0
Bolivia (Plurinational State of)	2007	25.9	27.8	20.0	17.5	8.8	100.0
Brazil	2008	38.9	27.6	18.9	10.5	4.1	100.0
Chile	2006	29.7	25.0	18.9	16.9	9.5	100.0
Colombia	2008	32.5	28.1	20.7	13.5	5.2	100.0
Costa Rica	2008	32.0	26.8	18.7	13.9	8.6	100.0
Dominican Republic	2008	13.4	23.8	22.6	21.9	18.3	100.0
El Salvador	2008	24.3	24.6	22.2	18.9	10.0	100.0
Guatemala	2006	31.3	24.4	20.6	16.4	7.3	100.0
Honduras	2007	26.1	22.3	20.2	18.5	12.8	100.0
Mexico	2008	31.7	23.9	20.3	16.6	7.5	100.0
Nicaragua	2005	…	…	…	…	…	…
Paraguay	2008	20.8	20.6	29.8	21.4	7.4	100.0
Peru	2008	31.4	24.8	22.3	14.6	6.8	100.0
Uruguay	2008	47.3	26.7	16.4	7.7	1.9	100.0
Simple average		30.0	25.3	20.8	15.9	8.1	100.0

Country	Upper secondary education						
		Personal per capita income quintile					Total
	Year	Quintile I (poorest)	Quintile II	Quintile III	Quintile IV	Quintile V (richest)	
Argentina	2008	23.9	22.9	21.2	18.8	13.3	100.0
Bolivia (Plurinational State of)	2007	16.2	23.2	23.6	24.0	13.0	100.0
Brazil	2008	19.5	25.3	26.0	19.3	9.8	100.0
Chile	2006	24.5	24.4	20.5	18.2	12.4	100.0
Colombia	2008	22.4	24.9	23.3	19.8	9.6	100.0
Costa Rica	2008	20.0	19.8	24.8	21.8	13.6	100.0
Dominican Republic	2008	9.5	14.1	17.4	22.6	36.3	100.0
El Salvador	2008	10.9	19.9	22.9	27.7	18.7	100.0
Guatemala	2006	4.2	12.0	27.9	25.4	30.5	100.0
Honduras	2007	6.1	13.9	23.4	30.4	26.3	100.0
Mexico	2008	14.9	22.1	23.6	23.0	16.3	100.0
Nicaragua	2005	8.7	18.0	21.2	27.1	25.0	100.0
Paraguay	2008	16.2	22.8	21.0	23.3	16.8	100.0
Peru	2008	21.2	26.0	22.4	19.6	10.8	100.0
Uruguay	2008	15.4	24.7	26.3	22.9	10.7	100.0
Simple average		15.6	20.9	23.0	22.9	17.5	100.0

Country	Primary education						
		Personal per capita income quintile					Total
	Year	Quintile I (poorest)	Quintile II	Quintile III	Quintile IV	Quintile V (richest)	
Argentina	2008	45.4	28.2	14.2	8.2	3.9	100.0
Bolivia (Plurinational State of)	2007	28.7	26.6	21.5	15.2	8.1	100.0
Brazil	2008	42.7	27.0	16.9	9.6	3.7	100.0
Chile	2006	31.1	23.8	19.0	15.7	10.3	100.0
Colombia	2008	36.4	27.6	19.1	12.0	4.8	100.0
Costa Rica	2008	34.4	27.1	19.8	12.6	6.1	100.0
Dominican Republic	2008	14.3	18.0	16.6	20.2	30.9	100.0
El Salvador	2008	29.5	27.6	21.5	14.3	7.1	100.0
Guatemala	2006	28.0	25.8	22.4	16.6	7.2	100.0
Honduras	2007	26.8	25.3	21.9	17.2	8.7	100.0
Mexico	2008	32.9	26.0	19.8	13.7	7.5	100.0
Nicaragua	2005	30.8	24.7	20.3	15.7	8.5	100.0
Paraguay	2008	32.6	29.2	19.3	13.9	5.0	100.0
Peru	2008	37.6	25.7	19.8	11.5	5.4	100.0
Uruguay	2008	48.0	26.6	15.2	7.6	2.5	100.0
Simple average		33.3	26.0	19.2	13.6	8.0	100.0

Country	Vocational and university education						
		Personal per capita income quintile					Total
	Year	Quintile I (poorest)	Quintile II	Quintile III	Quintile IV	Quintile V (richest)	
Argentina	2008	14.7	16.1	19.9	23.3	25.9	100.0
Bolivia (Plurinational State of)	2007	3.5	14.2	19.0	30.2	33.0	100.0
Brazil	2008	3.2	8.4	13.2	22.7	52.4	100.0
Chile	2006	8.8	10.8	16.9	26.7	36.7	100.0
Colombia	2008	4.9	10.4	18.5	29.9	36.3	100.0
Costa Rica	2008	3.8	6.7	15.6	25.0	48.9	100.0
Dominican Republic	2008	3.9	8.2	12.8	26.9	48.3	100.0
El Salvador	2008	2.3	6.6	11.2	25.9	54.0	100.0
Guatemala	2006	0.6	2.3	5.9	13.8	77.4	100.0
Honduras	2007	1.6	3.2	10.5	21.2	63.5	100.0
Mexico	2008	5.1	11.3	18.4	28.6	36.7	100.0
Nicaragua	2005	1.1	5.5	12.5	27.1	53.7	100.0
Paraguay	2008	3.1	5.8	11.1	25.1	54.9	100.0
Peru	2008	7.2	13.9	20.3	29.5	29.0	100.0
Uruguay	2008	1.9	8.1	16.3	29.9	43.8	100.0
Simple average		4.4	8.8	14.8	25.7	46.3	100.0

Country	Lower secondary education						
		Personal per capita income quintile					Total
	Year	Quintile I (poorest)	Quintile II	Quintile III	Quintile IV	Quintile V (richest)	
Argentina	2008	36.2	26.8	17.6	13.3	6.1	100.0
Bolivia (Plurinational State of)	2007	24.9	26.4	23.7	16.4	8.6	100.0
Brazil	2008	32.3	28.4	21.8	12.4	5.1	100.0
Chile	2006	30.0	23.6	18.3	18.0	10.2	100.0
Colombia	2008	29.1	26.9	21.8	15.6	6.6	100.0
Costa Rica	2008	26.3	26.4	23.3	17.3	6.7	100.0
Dominican Republic	2008	16.4	14.5	20.6	23.4	25.1	100.0
El Salvador	2008	21.4	22.8	23.0	21.9	10.9	100.0
Guatemala	2006	8.8	19.4	24.8	27.5	19.5	100.0
Honduras	2007	13.2	19.0	24.3	25.1	18.5	100.0
Mexico	2008	26.4	24.8	21.6	16.4	10.8	100.0
Nicaragua	2005	13.4	20.9	25.1	22.8	17.8	100.0
Paraguay	2008	20.8	24.1	25.1	20.3	9.7	100.0
Peru	2008	26.2	28.2	23.0	16.4	6.2	100.0
Uruguay	2008	35.6	30.2	19.9	11.1	3.2	100.0
Simple average		24.1	24.2	22.3	18.5	11.0	100.0

Country	Total public spending on education						
		Personal per capita income quintile					Total
	Year	Quintile I (poorest)	Quintile II	Quintile III	Quintile IV	Quintile V (richest)	
Argentina	2008	32.9	24.4	17.6	14.6	10.5	100.0
Bolivia (Plurinational State of)	2007	19.6	22.8	21.4	20.7	15.6	100.0
Brazil	2008	33.1	26.3	20.0	12.8	7.8	100.0
Chile	2006	27.4	23.3	19.3	17.6	12.5	100.0
Colombia	2008	27.1	24.5	20.6	17.1	10.7	100.0
Costa Rica	2008	25.5	22.6	20.5	17.0	14.4	100.0
Dominican Republic	2008	9.5	13.9	16.1	23.5	36.9	100.0
El Salvador	2008	24.0	24.4	21.4	18.3	11.8	100.0
Guatemala	2006	17.9	18.5	18.7	17.5	27.4	100.0
Honduras	2007	17.0	17.9	19.5	20.4	25.2	100.0
Mexico	2008	24.3	23.0	20.9	18.3	13.5	100.0
Nicaragua	2005	17.6	20.3	20.8	22.1	19.2	100.0
Paraguay	2008	23.7	24.3	20.6	18.5	12.9	100.0
Peru	2008	28.2	25.8	21.6	16.1	8.3	100.0
Uruguay	2008	31.4	24.2	19.0	15.1	10.3	100.0
Simple average		23.9	22.4	19.9	18.0	15.8	100.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries and information from the UNESCO Institute for Statistics (UIS).

Chapter IV

The generational economy, transfer systems and inequality in Latin America and the Caribbean

A. The generational economy

As part of a look at the intergenerational reproduction of inequality throughout the life cycle, this chapter takes the observed differences between generations and examines how public and private transfers target two periods of life: youth and old age. In this framework, analyses based on National Transfer Accounts for a set of countries in the region are provided as a basis for comparing the generational nature of such transfers in countries of Latin America and in developed countries.

A generational and life-cycle approach like the one described in this edition of the *Social Panorama of Latin America*, is essential for any analysis of how to achieve greater equality in Latin America and the Caribbean. This is particularly important because the region is experiencing considerable demographic changes that have significant impacts on the age structure of the population, particularly with the rising proportion of adults and older persons. This is shifting the relative sizes of the potentially active segment (adults) and the potentially dependent one (children, young people and older persons) and is thus changing the mix of investments in human capital (education) and consumption of health care, social security, and personal care for dependent persons.

In the region, with its high levels of inequality (ECLAC, 2010a), public and private mechanisms for funding and meeting the needs and consumption of dependent persons have profound consequences in terms of generations, gender and geography. All this contributes to the intergenerational transmission of poverty and can be worsened by trends such as population ageing. For example, if population ageing requires increasing public transfers to older population segments, rising pension and health care costs for these segments can eat into transfers

to younger groups that are not yet independent in terms of income generation and need public or private investment to develop skills. This chapter takes a critical look at a key dimension of this hard-to–solve equation discussed in earlier chapters of this edition of the *Social Panorama* on childhood and youth as stages of the life cycle: financing consumption via public and private transfers to differing age groups.

The life cycle includes two major periods of economic dependency —one at the beginning, the other at the end— during which consumption exceeds labour income. This economic life cycle is present in all modern economies. Children and older persons have consumption needs ranging from the most basic, such as food, clothing and housing, to more complex ones, such as education in the case of children and health care in the case of older adults. There are variations, but the consumption needs of these two groups are mainly met through large flows of economic resources from the working-age population. Some of these flows are direct, as in the case of parents providing for their children. Others are more indirect, such as transfers through governments, charitable organizations and other economic and social institutions. Other mechanisms are still more complex, like savings from labour income that are subsequently converted, through direct investments or financial institutions, into the financial flows needed to meet the needs of older persons. The generational economy is the total of all these flows.

In all societies, intergenerational flows —public or private— tend to be large-scale transfers and usually have a major impact on social equality or inequality and on economic growth. The degree of development of a particular generation of young people depends mostly on the resources it receives from older generations, particularly in terms of education and health care. Older persons depend for their well-being on factors that include the savings they may have built up, family support, and social programmes funded by current generations of taxpayers. Economic growth is closely related to the accumulation of capital for two purposes: to help support older persons and to transfer wealth to future generations.

Relative consumption varies widely throughout the life cycle, so intergenerational transfers are not age-neutral. Changes in the age structure therefore tend to have a major impact on intergenerational resource flows. For example, during the demographic transition there is a period when the workforce grows more rapidly than the population groups that depend on it, not only because of falling fertility rates but also owing to women's growing labour-force participation.[1] All other things being equal, this situation produces a demographic dividend, freeing resources that can then be used for bettering family well-being or for investing in human and physical capital in order to promote long-term economic growth and development (Bloom and Williamson, 1998; Bloom, Canning and Sevilla, 2003).[2]

With the passage of time, and following a sustained period of low fertility rates, working-age population growth begins to slow while the older segments start to grow more quickly, partly owing to falling mortality rates among older adults. Population ageing considerably increases the burden borne by families and governments in providing health care and pensions to older adults. Most of the Latin American countries are now in the favourable stage of the demographic dividend, but many of them will very soon face the challenges of population ageing, as the developed countries have been doing for some time (Saad, Miller and Martínez, 2009; Saad and others, 2009; ECLAC/CELADE, 2008; ECLAC, 2008c; Rosero and Robles, 2008; Mejía, Vélez and García, 2010).

Intergenerational flows do not necessarily change direction smoothly (as an ever-increasing share goes to older persons), and these shifts are not necessarily conducive to economic progress or generational equity. The speed and intensity of change can shake hallowed practices, entrenched political systems and obsolete and inflexible economic systems. The problems are tending to worsen in Latin America, where a number of countries are likely to experience headlong population ageing with relatively low levels of development, low income levels and relatively undeveloped political and financial institutions that, in industrialized societies, have been instrumental in dealing with population ageing. Furthermore, since income distribution is still extremely unequal in most of the Latin American countries, population ageing is very likely to take place against a background of persistently high levels of inequality.

Having a full picture of the generational economy makes it easier to design and assess the public policies that are needed to face the challenges of population ageing —all the more so with the benefit of the experience of countries which have been dealing with those challenges over a longer period. Intergenerational transfers clearly

[1] The demographic transition is the shift from a mainly rural and agricultural society, with high fertility and mortality rates to predominately urban and industrial society with low fertility and mortality rates.

[2] The demographic dividend is referred to both in this chapter and in the one on social spending. It is a stage in the demographic transition when the productive population increases in proportion to the dependent population as the ratio of children falls, the share of working-age persons climbs and the ratio of older persons is only just beginning to increase. Such is the situation in most Latin American countries, although there are some differences in the timing of the beginning and end of the demographic dividend period. The period ends when the relative weight of the older population increases to a point that the ratio of the working-age population to the dependent population is no longer favourable.

help to improve the socio-economic well-being of specific population subgroups. In many cases, the transfers are substitutes for the accumulation of wealth during the life cycle. In others, they may influence childbearing decisions, with considerable impacts on fertility rates. Financial equity between generations hinges on historical development and future changes in private and public transfer systems. As for public transfers, their structure generally reflects the emphasis placed by each society on human capital in relation to consumption.

Despite the major implications of intergenerational transfers for economic growth and for combating inequality and poverty, the ensemble of reallocations between age groups have not been analysed comprehensively. As a rule, the components of the generational economy have been studied separately. The National Transfer Accounts system provides the first comprehensive approach to overall measurement of aggregate financial flows between age groups and across time (see box IV.1). The accounts include flows relating to capital accumulation and to transfers, distinguishing those passing through public institutions from those taking place privately. They estimate all aggregate flows in accordance with the System of National Accounts (SNA) of the United Nations. Estimates are mostly based on analyses of household surveys relating to income, spending, assets, workforce and transfers, in addition to detailed administrative records available from various government bodies.

Box IV.1
THE NATIONAL TRANSFER ACCOUNTS SYSTEM

The national transfer accounts system was created as part of an international project led by professors Ronald Lee, of the University of California at Berkeley, and Andrew Mason, of the East-West Center. The project began in 2004 with three participating countries (Brazil, Chile and the United States) as well as Taiwan Province of China. There are now over 30 participating countries across all the continents. They vary in terms of demographic configuration, levels of development, support systems for older adults, ways of investing in educating children and young people, and savings patterns. Comparisons between their accounts underline these differences and define the economic implications of population ageing under different institutional structures.

Through the Latin American and Caribbean Demographic Centre (CELADE) - Population Division, ECLAC has since 2007 been coordinating a regional project on national transfer accounts for Latin America and the Caribbean as part of the global project. This project receives financial support from the International Development Research Centre (IDRC) of Canada[a] and the University of California at Berkeley. The first phase of the project has recently been completed, with the participation of five countries (Brazil, Chile, Costa Rica, Mexico and Uruguay). The second phase has begun with three additional participants: Argentina, Colombia and Jamaica.[b]

This study uses data on national transfer accounts available for 22 countries, which are listed below with the abbreviations used in the figures and the year to which the estimates relate.

Country	Abbreviation	Year
Germany	DEU	2003
Austria	AUT	2000
Brazil	BRA	1996, 2003
Chile	CHL	1997, 2007
China	CHN	2002
Costa Rica	CRI	2004
Slovenia	SVN	2004
Spain	ESP	2000
United States	USA	2003
Philippines	PHL	1999
Finland	FIN	2004
Hungary	HUN	2005
India	IND	2004
Indonesia	IDN	2005
Japan	JPN	2004
Kenya	KEN	1994
Mexico	MEX	2004
Nigeria	NGA	2004
Republic of Korea	KOR	2000
Sweden	SWE	2003
Thailand	THA	2004
Uruguay	URY	2006

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the national transfer accounts project [online] http://www.ntaccounts.org.

[a] "Intergenerational Transfers, Population Aging and Social Protection in Latin America", project, No. 104231 [online] http://www.idrc.ca.

[b] Project on intergenerational transfers, population aging and social protection in Latin America (see http://www.cepal.cl/celade/proyecto_transferencias).

While the national transfer accounts are not without limitations (see box IV.2), the system is grounded in wide-ranging research in the field of intergenerational transfers. Following the pioneering work of Samuelson (1958) and Willis (1988), Lee and his colleagues established a theoretical framework on transfers which has been applied in a number of contexts (Bommier and Lee, 2003; Lee, 1994a and 1994b). "Generational accounting" was developed as well, and has been used in several countries to project public-sector accounts into the future (Auerbach, Gokhale and Kotlikoff, 1991; Auerbach, Kotlikoff and Leibfritz, 1999). And considerable progress has been made in modelling private and family transfers (Altonji, Hayashi and Kotlikoff, 2000; Frankenberg, Lillard and Willis, 2002; Lillard and Willis, 1997; McGarry and Schoeni, 1997).

Family transfers play a particularly vital role because, in the case of children, they are almost universally the main source of income. Family transfers to older persons generally have a profound effect on intergenerational

equity (Mason and Miller, 2000). Advances in modelling household resource allocation have been vitally important for estimating intergenerational transfers within the household and their interaction with alternative transfer systems and for studying how population ageing affects this system (Bourguignon, 1999; Bourguignon and Chiappori, 1992; Deaton, 1997; Lazear and Michael, 1988, Mason and others, 2009).

With a robust, well-defined conceptual framework, a broad set of analyses, and the growing availability of household surveys, it has been possible to estimate a complete set of National Transfer Accounts for a significant group of countries (see box IV.1). This chapter uses that information to analyse the role of public and private intergenerational transfers in a number of Latin American contexts, focusing on their impact on inequality and the potential effects of current demographic changes on these transfers in the near future. Thus, the information provided here is essential for moving forward in the areas covered by the two previous chapters concerning social spending on education (that is, on the current young generation) and the ability of public policies to sustain, over the long run, investment designed to reduce gaps and improve in educational system achievements.

The remainder of this chapter is organized into four sections. Following this introduction, section B provides an international comparison of national transfer accounts, underlining the particularities of the Latin American countries in terms of the economic life cycle, consumption and labour income by age group, and public and private transfers. Section C analyses how public transfers help to satisfy the consumption needs of children and older persons from different socio-economic subgroups in Brazil and Chile, in order to assess the impact of those transfers on the reduction of inequality in each of the countries. Lastly, section D summarizes the main conclusions arising out of the previous sections and offers some general recommendations on the use of National Transfer Accounts as a tool for guiding public policies. It also sets out specific public-policy recommendations based on the results of this study.

Box IV.2
METHODOLOGICAL PROBLEMS OF NATIONAL TRANSFER ACCOUNTS

Although the national transfer accounts system provides a fairly comprehensive conceptual and methodological framework for assessing how economic resources are allocated among different age groups and generations, its empirical estimates are subject to implicit assumptions which may affect the findings. Differences between countries in terms of data availability and quality may impair the comparability of the analyses. As a result, a number of methodological challenges need to be explained.

The first challenge is that the national transfer accounts system uses a fixed age matrix of economic profiles. Estimates of relationships between economic and demographic variables therefore do not take into account changes in economic behaviour caused by exogenous demographic variations, such as fertility or mortality rates (Shultz, 2009). A clear example of this methodological limitation is the non-inclusion of any changes in family transfers to children (such as education and health care) which may result from smaller family size or longer life expectancy. While national transfer accounts should have a more flexible age matrix that includes endogenous effects, the evidence shows that pure composition effects captured in the framework of the system are too significant to be disregarded.

The second problem is that the accounts use average flows between age groups to estimate how resources are allocated during the life cycle. Nonetheless, in societies with high levels of inequality, as in the case of Latin America, average flows may be masking substantial differences within socio-economic groups. Recently, some of the countries participating in the national transfer accounts project —including Brazil, Chile, South Africa and Uruguay— began to produce estimates which do take account of socio-economic levels (see section C of this chapter). A further methodological problem is how to incorporate the effects of social mobility into estimates of inter- and intragenerational transfers.

A third issue is that the accounts do not consider time transfers. As a result, their accounting system fails to include unpaid activities that often replace other types of financial flows. Since women generally bring less into the household in monetary terms but spend much of their time caring for children and older persons, estimates of transfers by gender are probably biased. A research group in the project is working on this issue. The main methodological problem facing them is how to, on the basis of surveys, identify and assign a cost to unpaid activities so that they are comparable internationally (data on time transfers are not available for all countries).

Lastly, the lack of sufficient information prevents most of the countries taking part in the global National Transfer Accounts project from having longer time series for the accounts as would be necessary in order to construct the cohorts' real experience. Current estimates use synthetic cohorts, which might entail biased age profiles if the events examined were to vary between cohorts.

Source: Economic Commission for Latin America and the Caribbean, on the basis of information from studies of national transfer accounts.

B. National transfer accounts: Latin America in the international context

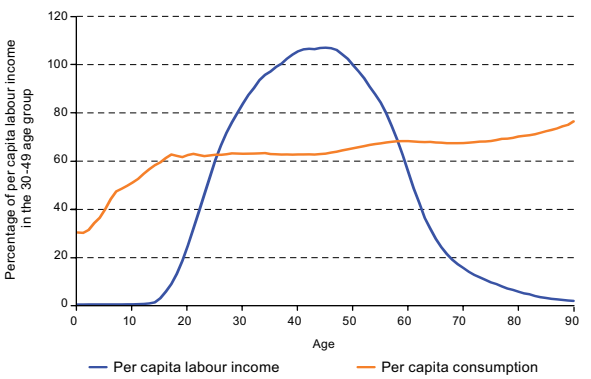
Consumption profiles based on age vary significantly among the countries participating in the global National Transfer Accounts project. In middle-income countries consumption varies very little during adulthood and consumption by children is slightly lower than for the average adult. In high-income countries, consumption by children is relatively higher compared with medium-income countries and consumption levels rise with age. This is because middle-income countries invest less in education and because, in higher-income countries, public pension systems provide greater coverage and spending on health care for older people is higher. Corroborating the findings on consumption, the countries of Latin America present relatively low levels of public investment in children and young people.

1. The economic life cycle

In modern societies, the economic life cycle comprises three stages: a surplus stage (when labour income exceeds consumption) between two dependency or deficit stages (when consumption exceeds labour income). The deficit stages involve massive resource flows from the working-age population towards dependent age groups. These flows between age groups and generations —via the family, the State, and financial markets— define the generational economy. Falling family sizes and rising longevity are altering the age structure of the Latin American population. This is having a profound impact on intergenerational flows and, consequently, on economic growth and inequality in the region, including the economic well-being of children and older persons.

While the general economic life-cycle pattern shown in figure IV.1 is observed in all the countries participating in the global project on National Transfer Accounts, there are some significant differences which merit further examination. The general characteristics of the two main components of the economic life-cycle (consumption and labour income) should be considered first.

Figure IV.1
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: AVERAGE LABOUR INCOME AND AVERAGE PER CAPITA CONSUMPTION RELATIVE TO PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/East-West Center, October 2010.

[a] Simple average of 22 countries participating in the global national transfer accounts project: in Latin America, Brazil, Chile, Costa Rica, Mexico and Uruguay; in Asia, China, India, Indonesia, Japan, Philippines, Republic of Korea and Thailand; in Africa, Kenya and Nigeria; in Europe, Austria, Finland, Germany, Hungary, Slovenia, Spain and Sweden; and the United States. Per capita consumption includes private and public consumption. Per capita labour income includes fringe benefits and self-employed income.

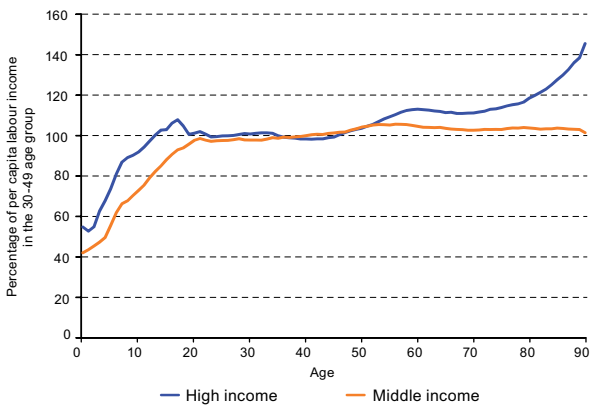
(a) Consumption profile by age group

The per capita consumption profile includes both private and public consumption (the latter being public-sector transfers in kind). There is a wide variety of consumption profiles among the countries participating in the global National Transfer Accounts project, in terms of both the shape and the relative height of the curves (Tung, 2011). In the case of private consumption, in most countries the curves have a classical shape with a single peak, where consumption rises with age, reaches a maximum level and then decreases. But in some countries the curves have multiple peaks at different ages. In the case of public consumption, while public programmes usually target the young and the old, their relative scale tends to vary with the size of the economy and the types of institutional arrangements available.

Figure IV.2 shows per capita consumption by age group relative to per capita consumption between ages 30 and 49 for the countries participating in the global National Transfer Accounts project, distributed between two groups: high-income and middle-income, according to the World Bank classification.[3] For the middle-income countries, relative consumption begins at 0.43 at birth, reaches 1 at around age 20 and remains more or less at that level throughout life. Very little variation in consumption is observed during adult life, whereas children's consumption is, as expected, somewhat lower than that of the average adult.

For the high-income countries, the consumption pattern differs from that of middle-income countries in at least two major respects. First, children's consumption is relatively higher because during the first 15 years of life relative consumption in the high-income economies is between 15% and 33% higher than in the middle-income group. This is mostly due to the countries' investment in human capital. According to Becker's hypothesis on the quantity-quality trade-off in fertility (Becker, Murphy and Tamura, 1990), lower fertility levels entail lower dependency ratios in households and, as a result, higher private investment per child.[4] Lee and Mason (2009) found a negative correlation between fertility levels and human-capital investment per child in the countries participating in the global project on national transfer accounts. This may help to explain the differences shown in figure IV.2. The higher investment in education observed in the higher-income economies is largely due to the leading role played by the State in this area. Data from the project, for example, show that public consumption as a proportion of children's total consumption in Europe is 62% above the level in Latin America.

Figure IV.2
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: PER CAPITA CONSUMPTION BY AGE IN MIDDLE- AND HIGH-INCOME ECONOMIES, RELATIVE TO PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

[a] Per capita consumption in middle-income economies is calculated as a simple average of Brazil, Chile, China, Costa Rica, India, Indonesia, Mexico, Philippines, Thailand and Uruguay. Per capita consumption in high-income economies is calculated as a simple average of Austria, Finland, Germany, Hungary, Japan, Republic of Korea, Slovenia, Spain, Sweden and United States.

Figure IV.2 also shows higher consumption levels at more advanced ages in high-income countries. At age 85, for example, consumption in that group of countries is approximately 25% higher than at age 45. This pattern differs widely from that seen in the middle-income countries, where consumption is fairly stable throughout adulthood, for two reasons. First, public-sector pensions are practically universal in the high-income countries, where they make up a significant part of the resources used for older persons' consumption. Second, public and private spending on health care at more advanced ages tends to be much greater in the richer countries compared with the middle-income ones. Data from the National Transfer Accounts project show that average per capita spending on health care at age 80 in the high-income countries (approximately 20% of per capita GDP per worker) is almost triple the relative spending observed

[3] The middle-income countries are those whose per capita GDP was between US$ 996 and US$ 12,195 in 2009. The high-income countries had per capita GDP exceeding US$ 12,195. Of the economies participating in the global project on National Transfer Accounts, the high-income ones are the European countries, Japan, the Republic of Korea and the United States. The other participating economies are middle-income ones.

[4] The dependency ratio is the ratio of persons of economically dependent age (children and older persons) to working-age persons.

in the middle-income countries (around 7% of per capita GDP per worker).

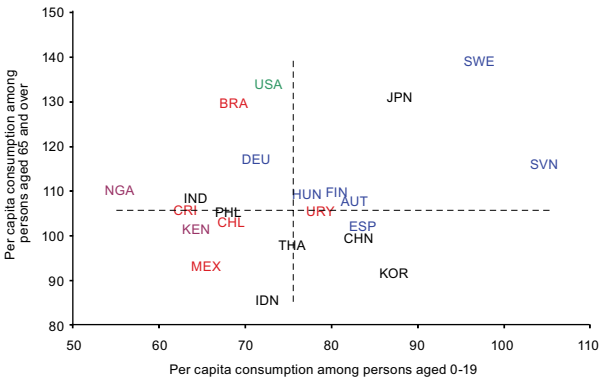
There are a number of possible reasons for this difference in health care. First, there have been changes in medical procedures for chronic illnesses such as cancer, heart disease and diabetes, with increasingly aggressive and costly forms of treatment. Second, much long-term care for older persons in the middle-income countries is given within the household by family members (and is therefore not taken into account financially), whereas in the high-income countries such care is provided in institutions or by health workers in the home (and is therefore taken into account). The expectation of rising health-care costs among older persons amplifies the impact of demographic ageing on health-care spending. In a recent study, CELADE-Population Division of ECLAC forecasts that as the ratio of older persons in the population rises and the intensity of health-care consumption among those older adults grows, there can be profound changes in the supply of services by the region's health-care systems and a significant rise in health-care spending. The rise may amount to three percentage points of GDP by 2040 in Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Panama (ECLAC/CELADE, 2010). Some projections show that in a number of the region's countries, the fiscal burden for funding health care will probably be greater than for pensions (Miller, Mason and Holz, 2009). While much of the public debate in Latin America has focused on pensions, these studies draw attention to the urgent need to include public health-care funding in the discussions.

Figure IV.2 highlights the differences between the two groups of countries in terms of consumption by children and older persons. The figures are still more striking when these two population groups' per capita consumption is compared directly. In figure IV.3, which shows the distribution of the participating countries for which data are available on per capita consumption among the 0-19 and 65-and-over age groups (in relation to per capita consumption in the 20-64 age group), Brazil, Chile, Costa Rica and Mexico stand out for their low levels of consumption among children and young people (values to the left of the median), reflecting the low general levels of investment in human capital in Latin America. This situation reflects the concentration of poverty among children in those societies, which could also partly explain the relatively low levels of consumption observed among children in Germany and the United States, which are close to Brazil's level in figure IV.3.

Figure IV.3

ECONOMIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: PER CAPITA CONSUMPTION BY OLDER PERSONS AND THE YOUNG, RELATIVE TO PER CAPITA CONSUMPTION IN THE 20-64 AGE GROUP, AROUND 2000 [a]

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

[a] Per capita consumption includes private and public consumption. The dotted line shows the median for the variable on each axis. The key to country and territory abbreviations is in box IV.1.

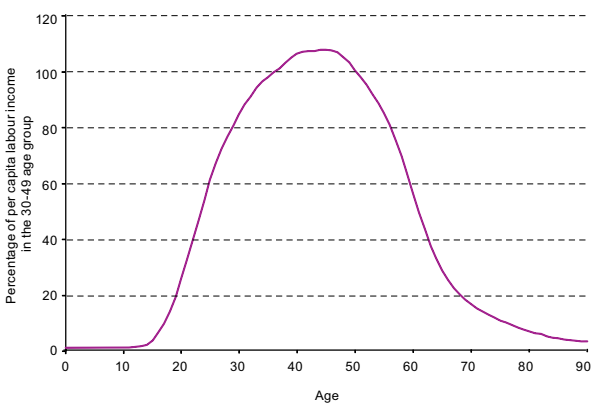
On the other hand, following the pattern seen in figure IV.2, relative consumption by older persons in most Latin American countries is proportionate to adults' consumption (value close to 1 in figure IV.3). In Brazil, however, relative consumption among older persons is almost double the level among children and young people. Only three of the participating countries surpass Brazil in terms of consumption by older persons: Japan, Sweden and the United States. In these three countries, higher consumption is due mostly to generous public-sector spending on health care for older persons.

On the bottom right-hand side of figure IV.3, China and the Republic of Korea stand out for their high levels of consumption among children and young people, reflecting their commitment to education. At the same time, the relatively low per capita consumption among persons aged 65 and over reflects the lack of more general pensions systems and public health-care programmes, and, consequently, how much consumption by older persons depends on family transfers. Co-residence of older persons and adult children in the family home tends to be quite high in these societies. Another factor may be the widespread practice whereby health care is provided to older persons within the home by family members. As mentioned above, this is not taken into account in the national transfer accounts system.

(b) The age profile of labour income

As has already been stated, the economic life cycle is defined by age patterns in consumption and labour income. In the framework of the National Transfer Accounts system, labour income is the sum of wages and fringe benefits plus part of self-employed income. Figure IV.4 shows the profile of average labour income by age for the countries participating in the global National Transfer Accounts project, in relation to per capita labour income in the 30-49 age group. As might be expected, the curve is bell-shaped: it rises gradually with age, reaches a peak around age 35-55 and then falls with advancing age. There are, however, considerable variations between countries, as has been widely illustrated in the economic literature. The factors responsible for these include changes in individual productivity according to age, preferences regarding consumption and leisure, and institutional factors such as the existence of State pension programmes and each society's commitment to education. Other factors, such as age and gender discrimination in the labour market, may also be producing differentiated effects on rates of activity and wages among the countries participating in the global National Transfer Accounts project.

Figure IV.4
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: AVERAGE PER CAPITA LABOUR INCOME BY AGE, RELATIVE TO PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

[a] Per capita labour income includes fringe benefits and self-employed income. Uses the simple average of 22 countries participating in the global National Transfers Accounts project: in Latin America, Brazil, Chile, Costa Rica, Mexico and Uruguay; in Asia, China, India, Indonesia, Japan, Philippines, Republic of Korea and Thailand; in Africa, Kenya and Nigeria; in Europe, Austria, Finland, Germany, Hungary, Slovenia, Spain and Sweden; and the United States.

No clear regional pattern appears from the analysis of labour income age profiles for the participating countries, but there is considerable regional variation in the typical ages for entering and exiting the labour market. In order to illustrate these differences, an estimate was first made of modal ages at which the variance of labour income is the greatest between the countries considered, that is, 21 and 57 years. Second, for each country, labour income at those two modal ages was calculated against labour income in the 30-49 age group. The results are shown in figure IV.5. Inasmuch as per capita labour income is calculated by dividing total labour income for a given age group by the total population in that age group, this indicator reflects not only labour income per worker but also workforce activity rates by age.

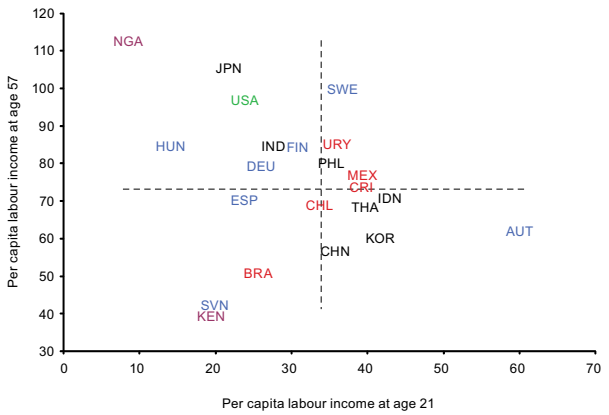
Dividing figure IV.5 into four quadrants according to the median per capita labour income at ages 21 and 57 in the countries participating in the global National Transfer Accounts project reveals that most high-income countries are in the upper left-hand quadrant, meaning that they have low incomes at age 21 and high incomes at 57. This reflects, on the one hand, longer education periods for young people and, on the other hand, the fact that adults stay longer in the labour market, probably owing to the gradual rise of the minimum retirement age. Four countries (Brazil, Kenya, Slovenia and Spain) stand out because of relatively low incomes both at age 21 and at age 57. Brazil is particularly noteworthy because gradual improvements in the State education system have prompted children and young people to stay in the educational system longer, and a generous State pension system has been developed. The remaining Latin American countries present no distinctive patterns, with most of them grouped around the average levels of labour income (see figure IV.5).

A related question is the duration of economic independence through the life cycle, in other words, how long labour income exceeds consumption. To analyse this issue, figure IV.6 shows the ages at which economic independence begins and ends in a number of countries participating in the global National Transfer Accounts project.[5] The results show that the median duration of economic independence for the sample of the countries is only 32 years. Aside from Uruguay, the countries of Latin America have the shortest periods of economic independence, ranging from around 20 years in Brazil and Mexico to 28 years in Chile and Costa Rica. A number of microeconomic factors are involved, such

[5] The results are ordered by country from top to bottom according to the length of the period of economic independence.

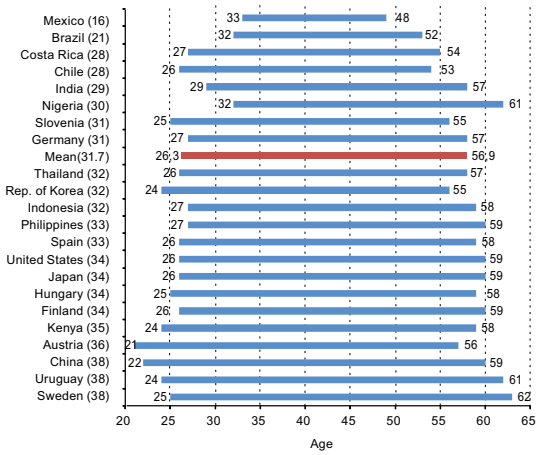
as high levels of income inequality and the relatively low rates of labour-market participation by women in the countries of Latin America compared with other countries participating in the National Transfer Accounts project. However, this situation reflects mainly the high aggregate levels of consumption in relation to labour income, resulting from low levels of savings (as in the case of Brazil) and from dependence on natural resources to finance current consumption (as in the case of petroleum in Mexico and copper in Chile) (Tung, 2011).

Figure IV.5
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: PER CAPITA LABOUR INCOME AT AGE 21 AND AGE 57, RELATIVE TO PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.
[a] The dotted line shows the median for the variable on each axis.

Figure IV.6
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: DURATION OF ECONOMIC INDEPENDENCE, AROUND 2000 [a]
(Years)



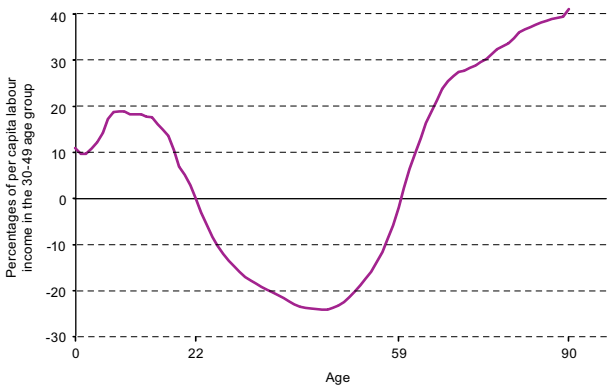
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.
[a] Economic independence is defined as the period during which labour income exceeds consumption. The countries are ordered from low to high (values in parentheses beside country name abbreviations). The figure shows the ages of onset and end of independence.

2. Financing consumption throughout the life cycle: intergenerational transfers

A sizeable part of the life cycle is generally spent in economic dependency, so sources of support other than labour income are needed to help to meet consumption needs during the life cycle. In the framework of the National Transfer Accounts system, there are three main reallocation mechanisms between age groups and generations: public transfers, family transfers and asset-based reallocations. Figure IV.7 shows net public transfers, that is, the difference between benefits received and taxes paid, as a percentage of per capita labour income in the 30-49 age group, for 19 of the countries participating in the global National Transfer Accounts project. During the working-age period, when individuals reach the highest surplus in their life cycle and therefore have the greatest capacity to pay taxes and contribute to the public sector, net public transfers are negative. Taxes are generally low in the case of older persons, lower still for children and young people, and considerably higher in the case of working-age adults because of how economic activities are taxed. Taxes that depend heavily on labour income lead to higher flows of public transfers from working-age adults; higher property taxes tend to increase flows of public transfers from older adults. Taxes on consumption, on the other hand, tend to be distributed more equitably among the age groups. Since the combination of income sources varies between countries, there are also differences in the flows of public transfers among age groups. The

general pattern, however, is that public transfers mostly come from the working-age population.

Figure IV.7
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: AVERAGE PER CAPITA NET PUBLIC TRANSFERS, BY AGE, RELATIVE TO PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



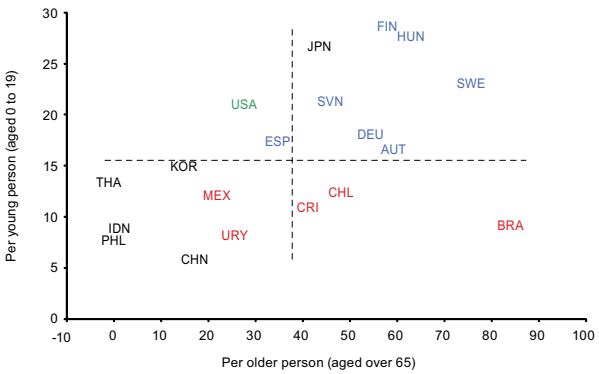
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

[a] Per capita net public transfers are calculated as the difference between benefits received from the State and taxes paid. They are expressed as a percentage of per capita labour income in the 30-49 age group in the respective countries. Simple average of 22 countries participating in the global national transfer accounts project: in Latin America, Brazil, Chile, Costa Rica, Mexico and Uruguay; in Asia, China, India, Indonesia, Japan, Philippines, Republic of Korea and Thailand; in Africa, Kenya and Nigeria; in Europe, Austria, Finland, Germany, Hungary, Slovenia, Spain and Sweden; and the United States.

Children and older persons tend to be net beneficiaries of public transfers. Health care is generally the main source of public transfers towards those aged under five. In the 5-to-15 age group, public education becomes the main component. As for older persons, as might be expected, social security and health care make up almost all public transfers. Benefits are generally the lowest for the working-age population, higher for children and young people, and significantly higher in the case of older persons. The high levels of per capita net benefits among children and older persons are the combined result of higher levels of transfers and low levels of taxation.

After analysing the typical pattern of net transfers on the basis of the simple average of the participating countries, the impact of each government's taxation and public spending policies on per capita benefits received by children and young people from birth to age 19 was compared with benefits received by older persons (65 and over). As can be seen in figure IV.8, the countries vary widely in this regard. Per capita net transfers received by children and young people as a percentage of the per capita labour income of adults aged 30-49 range from 6% in China to 29% in Finland. In the case of older persons, the range is from -2% in Thailand (showing that older persons in that country pay more in taxes than they receive in benefits) to 87% in Brazil, where a wide-reaching pension programme, including non-contributory pensions, is in place.

Figure IV.8
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: PER CAPITA NET PUBLIC TRANSFERS TO YOUNG PEOPLE (AGED 0 TO 19) AND OLDER PERSONS (65 AND OVER), RELATIVE TO PER CAPITA LABOUR INCOME IN THE 30-49 AGE GROUP, AROUND 2000 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

[a] Per capita net public transfers are calculated as the difference between benefits received from the State and taxes paid. They are expressed as a percentage of per capita labour income in the 30-49 age group in the respective countries. The dotted line shows the median for the variable on each axis.

Corroborating the findings for consumption, the countries of Latin America show relatively low levels of public investment in children and young people. In Brazil, Chile and Costa Rica, these low levels of investment in children and young people are combined with high levels of public transfers to older persons. Brazil is an extreme example of a system of public transfers skewed towards older persons, owing to the high volume of pensions going to that age group (around 12% of GDP). In Brazil, average net public transfers to children and young people are one ninth of the average level going to older persons.

As can be seen in figure IV.8, the ratio of net public transfers to older adults and to children and young people is much more balanced in the high-income countries than in the countries of Latin America. Governments

in Europe, Japan and the United States spend on older persons (as a percentage of labour income) approximately the same as the Latin American countries do, but they invest twice as much on children and young people. In considering these results it is important to take into account that the sample of Latin American countries participating in the global National Transfer Accounts project does not include the region's poorest countries, where the public sector plays a smaller part in supporting consumption by children and young people and by older persons.

As a general pattern, figure IV.8 shows a strong positive correlation between public transfers to young people and transfers to older persons. The simple correlation between the two transfers is 0.55, rising to 0.73 if the atypical result from Brazil is discounted. This cross-cutting evidence is consistent with the approach which considers government action to be the result of intergenerational cooperation. It generally coincides with the ideas of Becker and Murphy (1988), who held that generations cooperate through the public sector to deal with low levels of income security in old age and to ensure the necessary investment in education during youth. The countries of Latin America, however, are clear exceptions to this pattern. In most Asian countries net public transfers are relatively low both for young people and for older adults. In most European countries and in Japan, both types of transfers are relatively high. But in most Latin American countries the transfers are significantly lower for the young than for older persons. Turra and Queiroz (2005) suggest that these imbalances in the Latin American countries may be more closely related to high levels of income inequality than to the political influence of older persons.

Figure IV.9, which expands the analysis presented in figure IV.8 by including all sources of support available during the economic life cycle, shows clearly that family transfers are the main source of support for consumption by children and young people in the Asian economies, except for Japan (between 68% and 79%). The same occurs in the Latin American countries (68% to 77%), although in this case overdependence on family transfers may be more harmful to the well-being of children and young people than in Asia because income inequality among Latin American families is greater. In Europe, Japan and the United States, family transfers are relatively lower (39% to 63%), owing to more significant public-sector investment, as has already been mentioned.

In many economies, older persons continue to work up to quite advanced ages and their labour income is an important source of support for their consumption needs. Examples include Indonesia (44%) and the Philippines (39%). In European countries such as Austria and Germany, on the other hand, the labour income of older persons represents a very small fraction of consumption (2% to 3%). The Latin American countries are between these two extremes. As a percentage of consumption, the labour income of older persons in these countries ranges from a low of 18% in Brazil to a high of 26% in Mexico. Net public transfers are the main source of support for older persons in both Europe (59% to 94%) and Latin America, except Mexico (49% to 89%). In Mexico, income from assets, particularly State-owned assets, is the main source of support for older persons (71%). The use of assets for consumption by older persons varies considerably among the participating countries, from 2% in Hungary to 81% in Indonesia. Family transfers are a large part of consumption in some economies, particularly in Asia; one example of this is Thailand (30%). In most of the participating countries, however, net family transfers are downward, from older persons to younger family members. This pattern is particularly strong in Brazil (-31%), Mexico (-19%) and Uruguay (-11%).

Noteworthy in figure IV.10 is the negative value of net private transfers in countries where public transfers play a major part in consumption by older persons, such as Austria, Brazil, Costa Rica, Spain, Sweden, United States and Uruguay. At first sight, these findings might suggest a substitution effect between public-sector transfers and family support for older persons in high-income countries and in Latin America. Nonetheless, the negative correlation between net public-sector and private-sector transfers to older persons is quite weak among the countries participating in the global national transfer accounts project (r=- 0.22, excluding the atypical values for Brazil).

Figure IV.9
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: SOURCES OF SUPPORT FOR YOUNG PEOPLE (AGED 0 TO 19) RELATIVE TO PER CAPITA CONSUMPTION, AROUND 2000
(Percentages)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

Figure IV.10
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: SOURCES OF SUPPORT FOR OLDER PERSONS (65 AND OVER), RELATIVE TO PER CAPITA CONSUMPTION, AROUND 2000
(Percentages)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010.

3. The fiscal impact of population ageing

The age patterns in intergenerational transfers, particularly public transfers, can be used to assess the impacts of demographic change in terms of fiscal risks in the different regions of the world. Population ageing is likely to reduce the support ratio, that is, the ratio of net contributors to net beneficiaries, in countries where public transfers to older persons predominate. On the other hand, in countries where public transfers to children are more significant, demographic change may bring about fiscal relief. Table IV.1 shows the direction of net public transfers between age groups in a number of countries participating in the global national transfer accounts project, based on the aggregate and per capita values of transfers to older persons relative to children and young people.

The results in table IV.1 generally reflect those obtained from previous analyses. As mentioned above, in the Latin American countries participating in the global National Transfer Accounts project, public investment on children and young people is relatively low, while public transfers to older adults are relatively high. It is therefore unsurprising that the ratio of net public transfers to older persons in relation to young people is above one in all the Latin American countries, particularly in Brazil (9.53), Chile (3.99) and Costa Rica (3.90), where these values are the highest of all the participating countries. Since population ageing in the Latin American countries is still not very advanced, this pattern of public transfers skewed towards older persons is mitigated by an age structure that is still relatively young. Consequently, the aggregate average of net public transfers to older persons as a ratio of transfers to young people in the Latin American countries (0.77) is significantly lower than in Europe and Japan (1.84). As the demographic transition progresses in the Latin American countries, however (and if there are no major changes in the pattern of age transfers), it can be expected that these countries will come to spend relatively more on older persons, in aggregate terms, than the developed countries.

Table IV.1
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: AGE-GROUP DIRECTION OF NET PUBLIC TRANSFERS, AROUND 2000

	Ratio of total net public transfers received by older persons to those received by young people	Ratio of the population of older persons to that of young people	Ratio of per capita net public transfers received by older persons to those received by young people
Germany	2.56	0.88	2.91
Sweden	2.38	0.72	3.33
Austria	2.32	0.67	3.48
Japan	1.67	1.02	1.65
Hungary	1.65	0.73	2.26
Spain	1.62	0.79	2.05
Slovenia	1.58	0.73	2.16
Uruguay	1.39	0.42	3.29
Finland	1.34	0.67	1.99
Brazil	1.21	0.13	9.53
Chile	0.79	0.20	3.93
China	0.73	0.23	3.11
United States	0.63	0.44	1.42
Costa Rica	0.55	0.15	3.67
Republic of Korea	0.26	0.25	1.07
Mexico	0.23	0.12	1.90
Indonesia	0.01	0.15	0.08
Philippines	-0.01	0.07	-0.09
Thailand	-0.03	0.21	-0.16

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010; Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC, population estimates and projections, 2008 and United Nations, *World Population Prospects: The 2008 Revision*, New York, 2008.

Changes in the age structure of the population throughout the demographic transition have a fiscal impact because older persons and children and young people are net recipients of public benefits, whereas working-age adults are net contributors (see figure IV.7). At the early stages of population ageing, during the demographic dividend period, the working-age population grows more quickly than the younger population. These changes decrease the tax burden for governments. In the case of federal systems such Brazil and the United States, this is felt more strongly at the state and local government level, which are traditionally the main sources of funding for publicly-funded education. This weakening of tax burdens does not necessarily imply a real reduction in taxes. In many countries, in fact, the funding of State education has remained unchanged or even increased, leading to wider coverage and higher investment per student. As the countries continue to move through the demographic transition, the demographic dividend period comes to an end and the older adult population begins to grow more quickly than the working-age population. From that point onward, governments face decades of continuously increasing fiscal pressure caused by population ageing.

The age profiles of public transfers can be used as a first approximation for assessing fiscal pressures by calculating the fiscal support ratio, which is the ratio of aggregate taxation to benefits. In the absence of asset-based government reallocations, such as loans and debt repayments, that ratio should be equal to 1, with total aggregate tax receipts equal to total aggregate benefits paid. As the population ages, the fiscal support ratio drops as the number of contributors falls in relation to the number of beneficiaries of public transfers. Changes in the fiscal support ratio indicate, in relative terms, the amount by which taxes should rise or benefits fall in order to return to the initial fiscal position.

Table IV.2 shows changes in the fiscal support ratio over a period of 100 years (1950-2050) for a selected group of countries participating in the global National Transfer Accounts project. The estimates are based on the age profiles of public transfer flows observed in each country around 2005, applied to population estimates and projections by age from 1950 to 2050. The reference year is 2010, and countries are ranked in the table according to the size of the fiscal adjustment needed by 2050 as a result of population ageing.

Table IV.2
COUNTRIES PARTICIPATING IN THE GLOBAL NATIONAL TRANSFER ACCOUNTS PROJECT: FISCAL SUPPORT RATIO, 1950-2050

Country	Fiscal support ratio					Most favourable demographic period	
	1950	2010	2020	2030	2050	Year	Fiscal support ratio
Brazil	1.00	1	0.94	0.86	0.69	2000	1.02
Chile	0.94	1	0.93	0.83	0.72	2004	1.01
Slovenia	1.01	1	0.91	0.81	0.72	2002	1.04
Spain	0.94	1	0.96	0.87	0.73	2010	1.00
Austria	1.08	1	0.93	0.83	0.74	1950	1.08
Japan	0.91	1	0.92	0.87	0.74	1976	1.15
Germany	1.11	1	0.94	0.84	0.75	1950	1.11
Costa Rica	0.89	1	0.97	0.91	0.76	2012	1.00
Hungary	1.06	1	0.97	0.93	0.77	1950	1.06
China	0.93	1	0.94	0.87	0.80	2007	1.00
Republic of Korea	0.76	1	0.97	0.89	0.80	2008	1.00
Finland	1.08	1	0.92	0.87	0.83	1991	1.11
Mexico	0.85	1	1.02	0.99	0.86	2019	1.02
Sweden	1.15	1	0.96	0.90	0.86	1950	1.15
United States	0.99	1	0.96	0.92	0.89	2006	1.00
Uruguay	1.08	1	1.00	0.98	0.90	1959	1.09
Thailand	0.66	1	1.04	1.04	1.04	2039	1.04
Indonesia	0.79	1	1.06	1.10	1.08	2033	1.10
Philippines	0.87	1	1.06	1.11	1.16	2050	1.16

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ronald Lee and Andrew Mason, "National Transfer Accounts Version 1.0", Berkeley, Center for the Economics and Demography of Aging, University of California/ East-West Center, October 2010; Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC, population estimates and projections, 2008 and United Nations, *World Population Prospects: The 2008 Revision*, New York, 2008.

Of the countries taking part in the global National Transfer Accounts project, Brazil is expected to feel the strongest fiscal impact associated with population ageing. In combination with the current tax and benefits policies, population ageing in Brazil will bring the fiscal support ratio down by 31% by 2050. This means a cut of 31% in benefit transfers by 2050 or a 45% increase in taxation, or a combination of both. Brazil is not alone in facing this situation of growing fiscal pressure. In Europe, the reduction in the fiscal support ratio by 2050 will vary between 14% in Sweden and 28% in Slovenia. In the other Latin American countries, the fall will range from 10% in Uruguay to 28% in Chile. In the United States, the fiscal support ratio is expected to be down 11% by 2050 (a little less than in Sweden and somewhat more than in Uruguay). In Asia, the three countries where the fiscal impacts are expected to be the most severe are Japan (with a 26% decline in the fiscal support ratio) and China and the Republic of Korea (with declines of about 20%).

These figures demonstrate that population ageing is a worldwide phenomenon that is not restricted to the developed countries. Consequently, it should not come as a surprise that some of the most serious fiscal impacts of population ageing will be felt outside Europe. A major issue in several of those countries is that not only will the fiscal support ratio tend to decline rapidly in future, but also that this decline will represent a sharp departure from earlier decades, when the fiscal support ratio remained stable or even rose. This is true, for example, for Brazil, Chile, China, the Republic of Korea, Slovenia, Spain and the United States, which reached the stage of lowest fiscal pressure during the 2000s with rising fiscal pressure thereafter in response to demographic changes (see table IV.2). There is another group of countries where the fiscal support ratio will increase because under their current tax and expenditure policies, older persons are net contributors or their fiscal costs are only moderate. This is true for Indonesia, the Philippines and Thailand.

The scale and direction of demographic effects on fiscal risks will depend on how public policies change in the future. Rather than relying on the fiscal support ratio, data from national transfer accounts can easily be combined with more realistic assumptions as to future changes in public benefits policies, in order to provide governments with medium- and long-term fiscal projections. Some

projections prepared for Latin American countries (for example, Miller, Mason and Holz (2009), for 10 countries; Miller and Castanheira (2010), for Brazil) show that the fiscal impact of population ageing in the region will be similar to that for Europe.

All these fiscal projections are based on assumptions regarding future public-policy changes. As fiscal pressures increase in countries where net public transfers by age are skewed upward, society can be expected to respond by seeking to reform pension and health-care programmes and to increase investment in education, in order to foster economic growth and promote equality. In countries where public transfers to children currently predominate, as in the case of Indonesia and some Latin American countries which are not yet part of the global National Transfer Accounts project, population ageing together with changes in family structures may, in the future, necessitate public welfare programmes for older persons, reversing the age orientation of net public transfers and increasing the fiscal pressure on governments.

C. Public transfers by age and educational level in Brazil and Chile

A look at Brazil and Chile shows that public transfers towards older persons are proportionately higher and that family transfers are the principal component of transfers to children and young people. This bias is found at all socio-economic levels but is significantly more pronounced in the highest-level group. Overall, public spending on children exhibits greater absolute progressivity that diminishes with age and then turns regressive, with greater benefits for groups at higher socio-economic levels. Despite public-sector involvement, total investment in education is quite unequal among different socio-economic groups. This is due especially to enormous gaps in spending on education between high- and low-income families.

1. Public transfers and inequality

In recent years, the role of government in allocating resources among population subgroups has been the focus of numerous empirical and theoretical analyses. In cases of market failure, government interventions are needed to ensure income equality and redistribution, to provide insurance against certain types of risk and to generate public goods. To a great extent, the multiple functions and goals of government are complementary. For example, policies to combat poverty can lead to improved distribution of income. Government actions, however, are subject to faulty information, and this may lead to unexpected adverse effects. Policymakers might also favour private interests that might not be consistent with public interest principles.

To understand the role of government it is necessary to understand the incidence of public transfers in different population groups. As was seen at length in section B, the incidence of public transfers by age group is no longer unknown territory, thanks to recent research mainly associated with the National Transfer Accounts project. And researchers are increasingly interested in issues relating to income-linked public

transfers (for example, Barro and others, 2006; Breceda, Rigolini and Saavedra, 2009; Lindert, Skouflas and Shapiro, 2006). National Transfer Accounts provide answers regarding the fiscal effects of ageing and intergenerational equity but yield little information on differences between socio-economic groups and the effects of ageing on their well-being. As a result, CELADE-Population Division of ECLAC is working to expand the analytical framework of these accounts in order to measure resource flows, not only between age groups but also between socio-economic groups. This section presents the preliminary results of this exercise for Brazil and Chile.

Latin America is an interesting context for identifying associations between intergenerational transfers, population ageing and social inequality that have not yet been fully explored. Compared with other emerging regions, Latin America has a relatively large public sector and a rapidly ageing population, combined with one of the world's highest levels of inequality in income distribution. There has been much research on the causes of income inequality and poverty in Latin America. For example, in a thorough study on Brazil, Barro and others (2006) examine the reasons for the rapid reduction of inequality in recent years. The authors report that nearly half of the considerable change in the Gini coefficient between 2001 and 2004 (from 0.593 to 0.569) was due to improvements in social security programmes for the poorest (in particular, the launch of conditional cash transfer programmes) and to narrowing gaps in educational levels among workers. This suggests that, in the long term, greater investment in education to promote equal opportunities among workers as well as increasing the progressivity of public taxes and spending could have a positive effect on income distribution on an even more significant scale.

In another study for Brazil, Wajnman and Turra (2010) use microsimulation modelling to analyse inequality over a much longer period (1983 to 2008). They believe that changes in the proportion of adults per household as a result of transitions in fertility and mortality, as well as changes in living arrangements, have contributed a good deal (around 22%) to improving income distribution over the period under consideration. Over those 25 years, demographic effects were not as important as the impacts of social policies geared towards income transfer, such as social security and, particularly, cash transfers targeting the poorest, such as the *Bolsa Família* programme.

There are currently many studies in Brazil and other Latin American countries highlighting the importance of public transfers (particularly social security benefits) for poverty reduction in certain age groups. Many of these studies use simple hypothetical analyses to compare poverty rates with and without public benefits. Turra, Marri and Wajnman (2008), using household data for 2005, show that the incidence of poverty among people aged 60 and over in Brazil would increase by some 4% to 64% in the case of men, and by 16% to 83% in the case of women, if pension income were not taken into account. Cotlear and Tornarolli (2009) compare poverty rates with and without pensions for two major age groups (60 and over, and under 15) for a number of Latin American countries. They report that Argentina, Brazil, Chile and Uruguay are the countries where pensions have the greatest impact on poverty among older persons. Public transfers have only a minor impact on poverty levels in Colombia, Mexico and Paraguay. The impacts tend to be greater in rural areas, where non-contributory pensions account for a major part of household income.

In a more recent document, Turra and Rocha (2010) use an age-period-cohort model to distinguish effects associated with historical changes (cohort effects) and contemporaneous changes (period effects) on poverty rates among children and older persons in Brazil. The findings suggest that poverty reduction in these two dependent age groups happens in two different ways. Among older people, period effects predominate and are probably associated with the expansion of social benefits (public pensions), which is consistent with the National Transfer Accounts estimates presented above. As for children, the long-term effects related to gradual changes in the cohorts' life trajectories (such as changes in parents' educational levels and in the support relationship within the household) played a preponderant role during most of the observation period. This explains why poverty reduction has been slower among children. In the 2000s, period effects accelerated poverty reduction, coinciding with increases in the real minimum wage, and the development and expansion of the *Bolsa Família* programme.

Ros (2009), in a broad study comparing 12 Latin American countries, uses cross-sectional data to estimate the relative contribution of changes in the demographic dependency ratio, income inequality, levels of public social spending and economic growth to the recent drops in poverty rates. The results show that, on average, reductions in the demographic dependency ratio have a much greater positive impact on poverty levels than other factors do. The declines in poverty (and consequently in income inequality) in smaller households (with low proportions of dependent children) are probably larger in the early stages of the demographic transition. In countries where the fertility rate has already fallen to low levels, there is little scope for additional direct impacts from

the demographic transition. Unfortunately, Ros (2009) does not distinguish the effects of social spending and the other independent variables by age or cohort. The results of the analysis are therefore not comparable with those of other studies in that regard (for example, Turra and Rocha, 2010).

Despite researchers' growing interest in issues relating to public transfers by age and income level, few studies look at the role of intergenerational transfers relating to age and socio-economic level at the same time, although research in this area has been growing. Turra and Queiroz (2005), for example, analysed intergenerational transfer systems in Brazil by socio-economic level, finding different patterns for public and private transfers in different subgroups defined by the educational level of the head of household. The analysis showed that consumption by children of higher socio-economic levels depends mainly on private transfers, whereas consumption by children at lower socio-economic levels depends more on public transfers, particularly in education. In contrast, it was public transfers, mainly social security and health-care benefits, that contributed the most to funding consumption by older persons regardless of socio-economic level.

Turra, Holz and Cotlear (2009) observed the incidence of public spending by five-year age groups and by income quintile on social sectors in Brazil and Chile. They found interesting patterns in absolute progressivity (social spending by socio-economic group) in both countries. Their findings show that public spending is neutral in the case of education, slightly progressive in the case of health care (more favourable to the low-income quintiles) and strongly regressive in the case of public pensions (favouring higher-income quintiles). This last shows that in Brazil and Chile there is a strong correlation between spending targeting older persons and spending targeting wealthy people, which is consistent with the idea that, although all older persons receive something from the public sector, there is still much inequality in the distribution of resources to that age group.

The remainder of this section will discuss the incidence of public spending by age group and socio-economic level in Brazil and Chile, assessing the results by sectoral composition (social security, education and health care). The analysis complements the existing literature by looking jointly at social spending and taxation and presenting a comparative analysis of two Latin American countries.

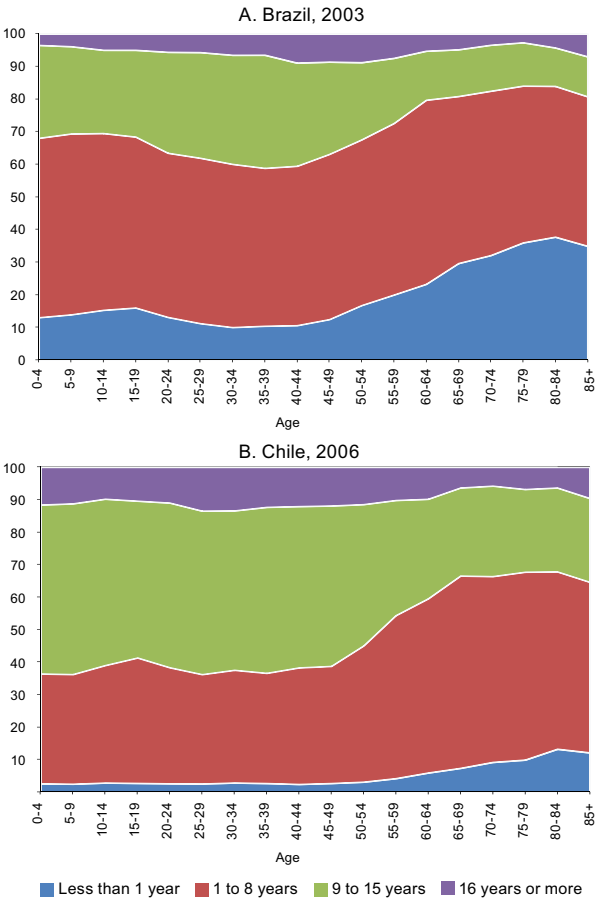
2. Public transfers by age and educational level

Section B grouped the population by age and examined the resource flows between age groups, using data from the National Transfer Accounts project. This section will extend the National Transfer Accounts methodology in order to estimate resource flows between socio-economic groups, dividing the population by age and by the educational level of the head of household, in order to analyse transfers from the public sector among these groups.[6] Household survey microdata are combined with administrative records to estimate per capita age profiles for public transfers at each socio-economic level (for an explanation of the methodology, see box IV.3). Unfortunately, such estimates in the National Transfer Accounts project are not yet more widely available, which is why the findings in this section are restricted to the cases of Brazil and Chile.

Figure IV.11 shows the distribution of the population of Brazil and Chile by age and level of education of the head of household. The major transformation that has occurred in these societies is evident. Around 30% of older persons in Brazil live in households where the head of household has no formal education. Among Brazilian children, however, this proportion is only 15%. In Chile, 60% of older persons live in households where the head of household has fewer than eight years of formal education, but only 35% of Chilean children live in such households. As population ageing progresses in these societies, the distribution of workers (and, eventually, of older persons) by level of education will shift markedly towards higher educational levels, with profound economic and social consequences.

[6] The educational categories were: (a) no formal schooling; (b) 1 to 8 years of schooling; (c) 9 to 15 years of schooling; and (d) 16 or more years of schooling.

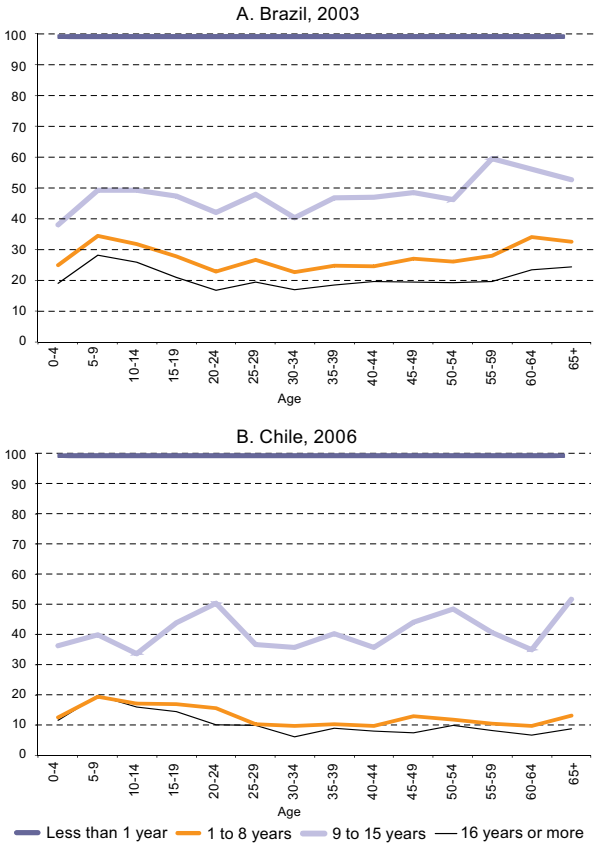
Figure IV.11
POPULATION BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003, in the case of Brazil, and from the National Socio-economic Survey (CASEN) 2006, in the case of Chile.

While inequality in these societies has been well documented using measurements such as poverty rates and income levels, data from National Transfer Accounts can show inequality in per capita consumption throughout the life cycle. Figure IV.12 shows annual per capita consumption by age and by the level of education of the head of household in Brazil and Chile, in relation to consumption by the group with the highest educational level (those with 16 or more years of schooling). In both countries, those living in households headed by a person with nine to 15 years' schooling consume, on average, less than half (40% to 50%) of what is consumed by members of households where the head of household has at least 16 years' schooling. The differences are sharper still at lower educational levels. In Brazil, those living in households whose head has no formal education consume a fifth of what is consumed by those living in households whose head has 16 years or more of schooling. This difference is greater still in Chile, with the first group consuming only a tenth of the amount consumed by individuals in households whose head has 16 or more years of formal education. These major differences persist throughout the life cycle, underscoring the impact of education on the opportunities available to people throughout their lives.

Figure IV.12
ANNUAL PER CAPITA CONSUMPTION BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD RELATIVE TO THE GROUP WITH THE HIGHEST LEVEL OF EDUCATION [a]
(Percentages)



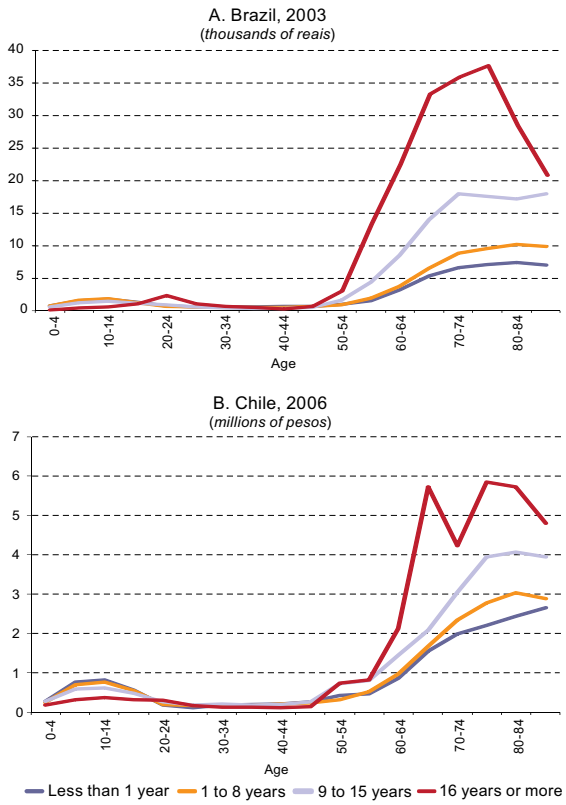
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Family Budgets Survey (POF), 2006/2007, in the case of Brazil, and the Budgeting and Expenditure Survey (EPG), 2006/2007, in the case of Chile.

[a] Per capita private consumption includes consumption in the areas of health care, education, durables and others.

Understanding the role of public transfers in this unequal pattern of consumption during the life cycle requires examination of the benefits received and the taxes paid by age and educational level. The analysis begins by looking at the absolute incidence of public spending by age and educational level. The results for Brazil and Chile are shown in figure IV.13. As discussed in section B, public transfers for older persons are substantial in both countries, and especially in Brazil.

In the four educational groups considered, older persons receive the highest benefits. For example, at the lowest educational level, the per capita benefits in the 80-84 age group in Brazil are five times higher than in the 10-14 age group. This bias towards public spending targeting older persons is significantly greater for the group with the highest education level, where per capita benefits in the 80-84 age group are 45 times higher than in the 10-14 age group. The results for Chile show that in the group with the lowest level of education, the ratio is three times more benefits for older persons than for young people. As in Brazil, the difference tends to increase along with socio-economic level and is 15 times larger for the group with the highest level of education.

Figure IV.13
PER CAPITA PUBLIC SOCIAL BENEFITS BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD [a]

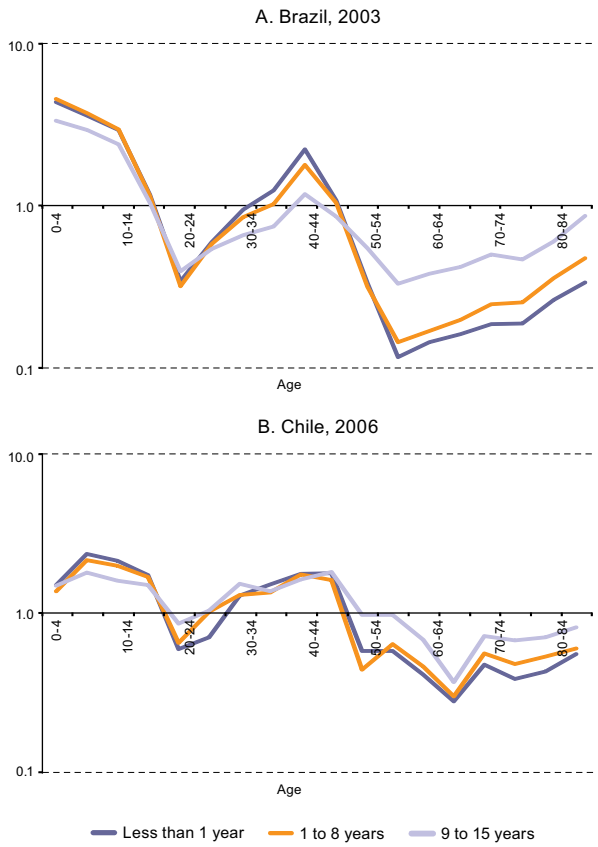


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003, in the case of Brazil, and the Household Quality of Life Survey, 2006, in the case of Chile.

[a] Per capita public social benefits include public spending on education, health care and pensions.

The same data show how spending on each age group is distributed according to educational levels. Figure IV.14 shows per capita public spending by age and educational group in relation to the highest-educated group. In both countries, absolute progressivity is greater for children. In Brazil, per capita public spending on children in the lowest-educated group is 3.5 to 4.5 times higher than for children in the highest-educated group. In Chile the gap is narrower but still considerable, ranging from 1.5 to 2.4 times. With rising educational levels, absolute progressivity diminishes and public spending eventually becomes regressive, with higher benefits for the groups with the most years of schooling. In Brazil, the turning point where spending becomes regressive is at age 45. In the 80-84 age group, benefits in comparison with the group with the highest educational level stand at 0.26 for the lowest-educated group and around 0.6 for the second-highest group. The turning point occurs somewhat later in Chile, in the 50-54 age group, and public spending on older persons is generally less regressive than in Brazil. The ratios in Chile are between 0.42 and 0.71 in the 80-84 age group.

Figure IV.14
PER CAPITA PUBLIC SOCIAL BENEFITS BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD, RELATIVE TO PER CAPITA BENEFITS RECEIVED BY THE GROUP WITH THE HIGHEST LEVEL OF EDUCATION [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006, in the case of Chile.

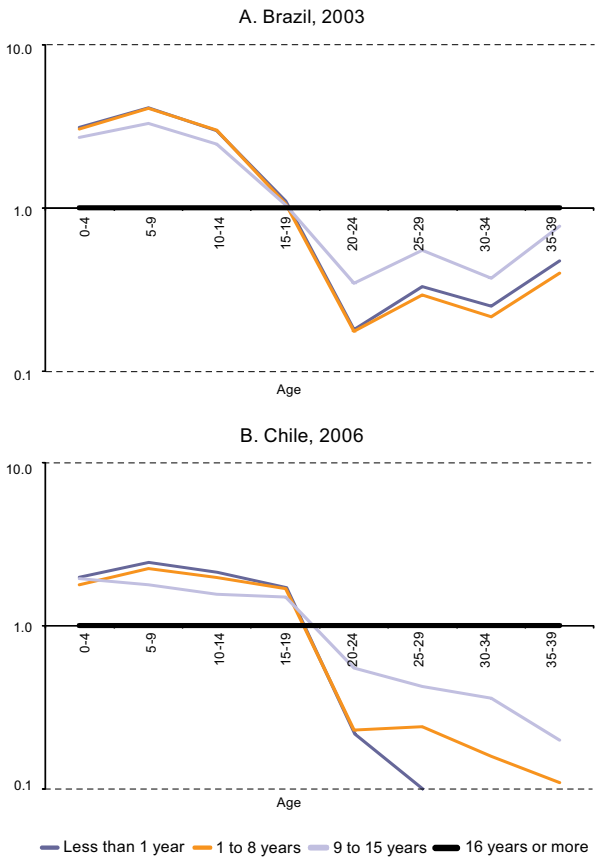
Note: Per capita public social benefits include public spending on education, health care and pensions.

For the life cycle as a whole, the educational levels attained during childhood and youth clearly help determine the share of public spending received later in life. It is not only a matter of regressive distribution of university education in the corresponding age group; this regressivity is more strongly reflected later in the life cycle, especially because the attainment of higher educational levels by young people will lead to greater access to social security during their working lives and thus to higher returns from social security when they are older. Chapter III showed the high incidence of social security in public social spending, which means greater resources not only for older persons but also for those who received more education when younger. Chapter II showed the strong correlation between household socio-economic level and children's educational achievement level. Thus, there is a vicious circle of inequality throughout the life cycle, since the poorer children and young people will receive less education, will obtain less well-paid and more informal employment, and will receive a lower proportion of social security benefits later in life.

What explains these differences? In order to form a fuller picture, public transfers received by each educational and age group were broken down into three areas: education, health care and social security. Figure IV.15 shows per capita public education benefits by age and educational group in relation to the highest-educated group. In the 5-14 age group in Brazil, individuals at the lowest educational level receive 2.5 to 4 times more public education transfers than those in the highest educational level; this pattern has already been described (see Turra and Queiroz, 2005). There is a turning point in the 15-19 age group, where the incidence of per capita public spending in the richest group becomes higher. The pattern in Chile is very similar.

The reason for this pattern is that children from the lowest socio-economic level generally depend on publicly-funded education at the primary and secondary levels, whereas children from the higher socio-economic levels usually attend private primary and secondary schools. Levels of investment in education for these children are considerably higher at early stages of the life cycle. It is therefore unsurprising that these children are much more likely to attend publicly-funded universities, which select their students on the basis of competitive examinations. Governments invest heavily in public universities. In Brazil, for example, public spending per student at the university level is 14 times higher than at the primary education level.

Figure IV.15
PER CAPITA PUBLIC EDUCATION BENEFITS BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD, RELATIVE TO PER CAPITA BENEFITS RECEIVED BY THE GROUP WITH THE HIGHEST LEVEL OF EDUCATION [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006, in the case of Chile.

[a] Per capita public education benefits include public spending on preschool, primary, secondary and tertiary education.

Despite strong public-sector participation in education, there are wide differences in education investment (public and private) between the different educational groups. Figure IV.16 shows total per capita spending on education in Brazil and Chile for the four educational groups. In both countries, the amount invested in the education of a child in the highest socio-economic group is, on average, more than twice that invested in a child from the second-highest socio-economic group —and more than triple that invested in a child from the lower socio-economic groups. These major differences in education investment are probably an important factor in lifelong inequality for these children, perpetuating the high levels of inequality observed in these societies.

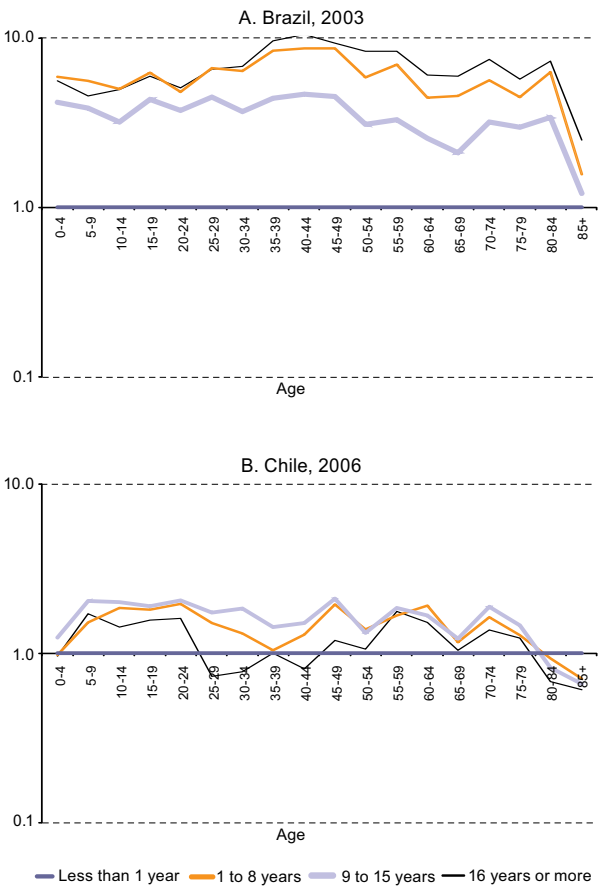
Figure IV.16
TOTAL PER CAPITA EDUCATION SPENDING, BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD [a]

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003 and Family Budgets Survey (POF), 2006/2007, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006, in the case of Chile.

[a] Total per capita education spending includes public and private spending on preschool, primary, secondary and tertiary education.

As for the progressivity of public spending on health care, the conclusions are different (see figure IV.17). While in public education there is a clear tipping point towards a more regressive system during adulthood, spending on the public health-care system is progressive at almost all ages. In Brazil, children and older persons in the group with the lowest educational level mostly depend on the public health-care system and the per capita benefits are always higher for the groups with the lowest educational level. Some caution is needed when working with these estimates because they do not break down costs according to the type of health care. People in the groups with the most education tend to demand more expensive treatments in the public health-care sector than those in the lowest education group, so the system may be less progressive than the observations seem to indicate. The public health-care system in Chile appears less progressive than that of Brazil. In fact, in the highest age groups (85 and over), those from the group with the highest level of education receive more in public health-care benefits than any other group.

Figure IV.17
PER CAPITA PUBLIC HEALTH-CARE BENEFITS BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD, RELATIVE TO PER CAPITA BENEFITS RECEIVED BY THE GROUP WITH THE HIGHEST LEVEL OF EDUCATION [a]

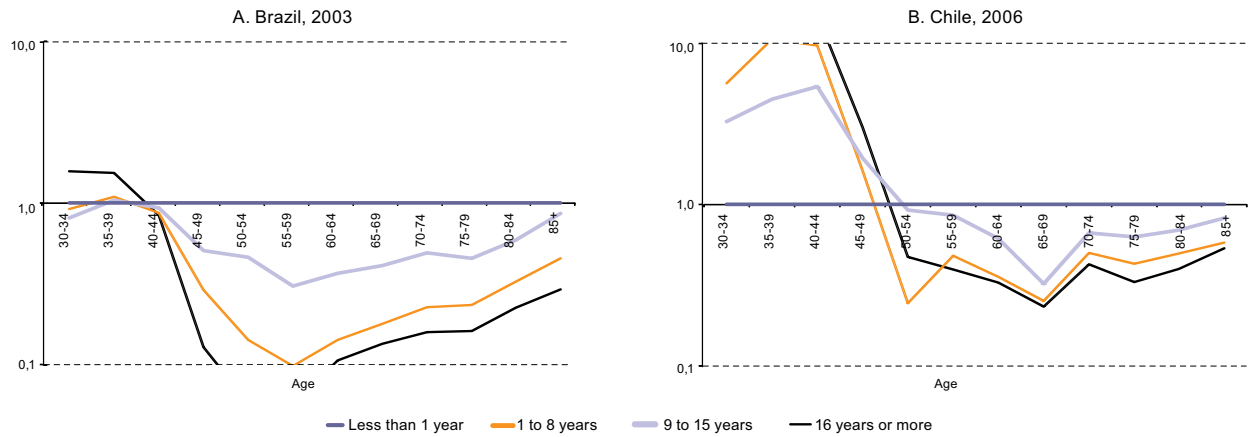


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006, in the case of Chile.

[a] Per capita health-care benefits include public spending on hospital and non-hospital health services.

Lastly, figure IV.18 contrasts per capita public spending on social security among the various education groups. The generosity of the pay-go pension scheme in Brazil, particularly for to the highest education groups, is the reason why public transfers are higher not only among the older people but also among the richest. These differences may be due to higher labour income during people's working lives (a determining factor for benefits) among those with higher educational levels, in addition to the high proportion of public-sector professionals who belong to this group (and who therefore enjoy an income replacement rate close to 100%). Social security benefits for older persons are also regressive in Chile, although less markedly so than in Brazil. With time, public pensions are expected to decrease significantly for the highest education group, as workers in this group retire under the new pension system of State-mandated private retirement accounts. Pension benefits are more progressive among younger people (aged under 50), particularly in Chile. This is probably due to a higher level of non-contributory benefits received by groups having lower educational levels.

Figure IV.18
PER CAPITA PUBLIC PENSION BENEFITS BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD, RELATIVE TO PER CAPITA BENEFITS RECEIVED BY THE GROUP WITH THE HIGHEST LEVEL OF EDUCATION [a]

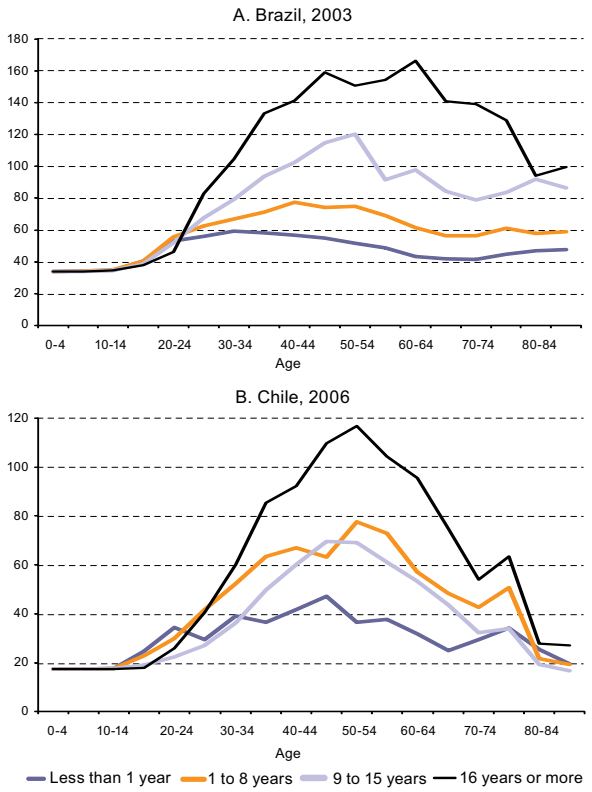


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006, in the case of Chile.
[a] Per capita public spending on pensions includes contributory and non-contributory pensions from all public-sector institutions (including the armed forces).

3. Net public transfers and taxation

The following analysis focuses on tax incidence: in particular, the capacity of each age group and socio-economic group to contribute to total government tax receipts. Although the relative capacity to pay taxes is generally measured in relation to income, this analysis will estimate taxes in relation to private consumption, which offers a better measurement of capacity at ages when income is close to zero, such as during childhood. Figure IV.19 shows that there are no great differences in rates of taxation (as a percentage of private consumption) by socio-economic level up to age 19. This is because most taxes paid at that age are taxes on consumption. Among older persons the rate of taxation drops sharply in all educational groups in both countries, contrasting with increases in social spending on those age groups. The strong net fiscal impact of older persons is therefore the product of rising public benefits and falling rates of taxation. In Brazil and Chile, adults pay the majority of taxes. Among adults, groups with high educational levels pay significantly higher taxes than those with low educational levels; this is mostly due to taxes on labour income and on capital. In the 60-64 age group, the category with the highest educational level in Brazil pays, in relative terms, three times more than the group with the lowest level. There are also marked differences in Chile, although they appear to be smaller for intermediate educational groups owing to the low relative weight of income taxes as a proportion of the total taxes that they pay.

Figure IV.19
RATE OF TAXATION: PER CAPITA TAXES RELATIVE TO PER CAPITA CONSUMPTION [a]
(Percentages)

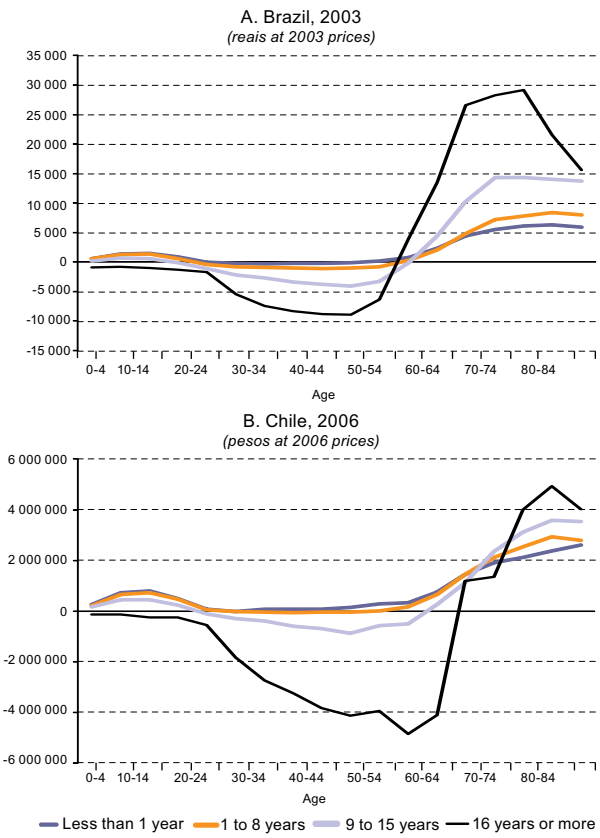


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003 and Family Budgets Survey (POF), 2006/2007, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006 and Budgeting and Expenditure Survey (EPG), 2006/2007, in the case of Chile.

[a] Total taxation includes taxes on income, capital and consumption. The rate of taxation is the result of dividing total per capita taxes by pewr capita consumption for each age group.

To show the fiscal impact on the various socio-economic groups, figure IV.20 compares net transfers (public benefits received minus taxes paid), by age group and level of education of the head of household. In both countries, the group with the lowest level of education is a net recipient of public transfers at all ages; that is, it receives more in benefits than it pays in taxes. Social spending in both countries is funded by of working-age adults in the highest educational groups, through their net tax payments. As the transition towards higher educational levels continues in the two countries, the distribution of the working-age population will tend towards higher educational levels, and the same will occur in relation to the population of older persons as new, better-educated cohorts grow older. The fiscal impact of this change is clearly apparent in the data. If the current structure of taxes and benefits remains, the educational change in the working-age population will tend to boost tax receipts; the educational change in the highest age groups will tend to increase the payout of social benefits.

Figure IV.20
PER CAPITA NET PUBLIC TRANSFERS BY AGE GROUP AND YEARS OF SCHOOLING OF THE HEAD OF HOUSEHOLD [a]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Brazilian National Household Survey (PNAD), 2003 and Family Budgets Survey (POF), 2006/2007, in the case of Brazil, and the National Socio-economic Survey (CASEN) 2006 and Budgeting and Expenditure Survey (EPG) 2006/2007, in the case of Chile.

[a] Per capita net public transfers are calculated as the difference between benefits received from the State and taxes paid.

D. Conclusions

The international review of the generational economy presented in the foregoing sections has identified a number of particular characteristics of the economies of Latin America. One of the most notable concerns the low levels of consumption among children and young people associated with low levels of public investment in these population groups. The analysis showed that in the highest-income economies the State plays a fundamental part in providing support to children and young people and that public transfers make up almost half of consumption by these age groups. Support is provided mostly in the form of publicly-funded education. Naturally, this may not be the only possible route to the high investment levels needed in modern economies. In many Asian countries, education is mainly funded by families, with relatively low levels of State participation. This route to development, however, appears to be open only to economies with low levels of income inequality, where a sizeable middle class has the means to pay for quality education for its children.

In the case of Latin America, the high levels of inequality that still persist in these societies call for strong State involvement to provide the necessary investment for the development of young people. That investment, as mentioned earlier in this document, should take account not only of aspects related to formal education, but also the full spectrum of the development of children and young people, including investment in families in order to provide a favourable environment for development. Investment in education can help reduce inequality and can also help prepare for rapid population ageing, which is imminent. In a recent study, Lee and Mason (2009) found that investments in education can compensate for the negative economic effects of population ageing. It seems clear that the current inaction of the governments of the region will have considerable long-term consequences when they are faced with growing fiscal and economic pressure resulting from population ageing in a context of considerable social inequality.

National transfer accounts are a particularly useful instrument for contributing to public policy discussions and increasing governments' capacity to take action, providing a comprehensive and consistent measurement of the considerable and increasingly vital role of governments in the provision of financial support to young people and older persons. They also enable governments to monitor the impact of their policies and evaluate the effects of all taxation and public expenditure programmes. National transfer accounts also provide governments with a comprehensive view of the functions of other economic agents (the financial market, the family, civil society) in providing support to young people and older persons. The fact that the National Transfer Accounts project involves a diverse group of countries provides space for an international exchange of experience, for example, in terms of public policies and their impact on the well-being of young people and older persons.

National transfer accounts are also a flexible tool that can encompass other key social dimensions in addition to age. This is true, for example, of the methodology which is being developed for measuring the generational economy by socio-economic levels. Section C of this chapter showed the usefulness of this approach in the case of Brazil and Chile. The levels of inequality present in those two economies are well known, but National Transfer Accounts show that reality in a new light, underlining the major differences in terms of consumption and investment in the education of young people, as well as the long-term consequences of low investment in education.

Box IV.3
METHODOLOGICAL NOTES ON ESTIMATING NATIONAL TRANSFER ACCOUNTS BY AGE GROUP AND SOCIO-ECONOMIC LEVEL

Socio-economic levels for individuals are measured by the level of education of the head of household. This measurement is strongly correlated with the household's overall socio-economic level, and is preferred to other indicators (such as income or wealth) because it provides better comparability between age groups. Levels of education are classified into four categories: no formal education, 1 to 8 years' education, 9 to 15 years' education and 16 or more years of education. Since a relatively high number of observations are needed to avoid stochastic errors in the estimates, economic flows are calculated by five-year age groups.

In the case of Brazil, household surveys are used: the Brazilian National Household Survey (PNAD) for 2003 and the Family Budgets Survey (POF) for 2002-2003. PNAD has been applied every year in Brazil (except in census years) since the late 1970s; it contains a broad and comparable set of demographic and economic variables. In 2003, 384,834 people in 133,255 households were interviewed for PNAD. The sample is representative of the population at the national level, except for the population of rural areas in the country's northern states. POF is a household budget survey conducted in 1987-1988, 1995-1996, 2002-2003 and then in 2008-2009. The 2002-2003 POF comprises data from a representative sample of the total population comprising 48,470 households interviewed over a period of 12 months.

In the case of Chile, data from two household surveys are combined: the National Socio-economic Survey (CASEN) 2007 and the Budgeting and Expenditure Survey (EPG) 2006/2007. CASEN is a nationwide representative survey which has been conducted every two years since 1985. It includes a complete set of socio-economic variables and is used for producing estimates of poverty and inequality in Chile. The sample for 2007 comprised 268,673 persons in 73.720 households. EPG is a household budget survey conducted in the principal regional capitals in Chile; it has been conducted every 10 years since 1987.

In addition to the household survey data, administrative information is used for both countries, yielding aggregate values for total taxation and public spending on health care, education and social security.

Public health-care spending is allocated on the basis of usage rates by age group and socio-economic level from PNAD (Brazil) and CASEN (Chile). PNAD reflects individual persons who report having made use of hospital and non-hospital medical services provided by the public sector during the reference period. It is assumed that the users generate the same per capita cost within each type of health care. Administrative information from the Ministry of Health is therefore used to determine total public spending in these two broad categories. In Chile, rates of use are estimated by type of care (for example, hospitalization or surgery) and by financial modality (without payment or with co-payment). Then the average cost is assigned to each type of care, using administrative data.

Public spending on education in Brazil and Chile is estimated on the basis of enrolment rates by age group and socio-economic level for children and adults who report, in PNAD and CASEN, that they are enrolled in publicly-funded schools. To allocate spending in accordance with administrative data, the calculation takes into account variations in the cost per student by level of education and the distribution of students between the levels.

Pension profiles by age group and socio-economic level are estimated on the basis of data from PNAD and CASEN, in relation to amounts received in the form of benefits during the reference period. Unfortunately, in neither country is it possible to distinguish between types of benefits (for example, survivor's and old age benefits), or between social security systems (such as general pension systems and systems for public employees). To control for discrepancies between the weighted amount of benefits and the actual cost of these programmes, the data are adjusted to reproduce the official aggregate values.

Estimating taxation profiles by age group and socio-economic level involves several steps. First, taxes are classified in accordance with the category to which they refer. Then, for Brazil, it is assumed that (i) taxes on wages and income are applied to taxable labour income, and they are estimated by applying the 2003 rate to the information on labour income (PNAD); (ii) taxes on gains are on capital income, estimated using data on owners of assets (POF); (iii) taxes on production and consumption are on private consumption, estimated using individual and household-level data on private consumption (POF); (iv) property taxes are on taxable property estimated on the basis of information on vehicle and dwelling ownership (POF); and (v) other taxes are on taxable labour income. Social security contributions are estimated directly from PNAD.

The method for Chile is basically the same, although some changes were made to capture specific characteristics of the Chilean taxation system and the availability of data. It is therefore assumed that (i) capital taxes refer to a combination of information from entrepreneurs and owners of assets (CASEN); (ii) other taxes on production are on labour and capital income estimated on the basis of survey data (CASEN); (iii) local taxes are estimated on the basis of information from entrepreneurs and the owners of assets, such as real estate (CASEN); (iv) taxes on consumption are estimated using individual and household-level information on private consumption (EPG); and (v) taxes on wages, pensions and social contributions apply to formal workers and recipients of public social security.

On the basis of the classifications described above, and using aggregate values from administrative data, taxation profiles by age group and socio-economic group were adjusted to the official aggregate for each type of tax.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from national transfer accounts studies.

Lastly, national transfer accounts provide a basis for governments' long-term fiscal projections. Generally speaking, these projections anticipate the significant economic changes which will be brought about by the slow but inexorable advance of various social forces, such as population ageing, the epidemiological transition or changes in educational levels.[7]

Long-term projections are important for governments for at least two key reasons. First, policy options with greater rates of return (such as investment in public education) tend to take a relatively long time between implementing the policy and obtaining the results. Approaches essentially based on short-term policies are more at risk from mistaken or less effective decision-making, which generally fails to take account of the full scope of longer-term investments such as those designed to increase skills development. Second, a long-term approach fosters marginal changes and corrections in policy that are politically more feasible to implement. These avoid imposing an unfair burden on any particular generation and enable smooth fiscal and public-spending policy transitions.

[7] The epidemiological transition is a change, largely caused by population ageing, where acute illnesses, more common among children, give way to chronic and degenerative diseases, more common among older persons, as main causes of morbidity and mortality. For further details, see ECLAC/CELADE (2010).

Chapter V

Public transfers early in the life cycle: a major challenge in the effort to combat inequality across time

A. Social deficits associated with life-cycle stages

Poverty in Latin America is highly concentrated in the early stages of life. The large share of family spending that goes on child and youth development and the low share of public transfers to these generations combine with stratified educational attainments and learning to foster the intergenerational reproduction of inequality and social vulnerability. Three types of measures are proposed to address this: cash transfers to households with children aged 0 to 14 to improve the environment for child socialization (nutrition, housing, clothing); funding to cover the ongoing costs of extending the education and care system to uncovered 0- to 17-year-olds; and a range of cash transfers combined with employment and training services targeting vulnerable young people who are on their way to becoming emancipated adults (15 to 24 years of age).

If progress is to be made with the equality agenda, it is essential for the State to lead the way in several areas. As noted earlier in this document, it basically falls to the State to decouple children's and young people's educational attainments and learning from their socio-economic background and to foster greater convergence of these attainments throughout society. The State must also seek to close labour market gaps and reduce vulnerability to various risks through active employment and wage policies and by means of clearly redistributive public transfers throughout the life cycle.

The welfare State model shows that universal, non-market-based policies achieve the greatest systemic impact in terms of progressive redistribution of opportunities and assets and of access to well-being. This can also include selective transfers to more vulnerable groups, where the guiding principle is not targeting but precisely the development of more egalitarian conditions in society as a whole.[1]

This chapter presents options for public transfers to vulnerable sectors during childhood and youth and provides cost estimates for the universalization of education coverage, based on evidence given in preceding chapters. In Latin America, States and the transfers they make have little influence on the consumption structures of families with children and adolescents. As seen in chapter IV, which discusses generational balances and transfers, the consumption needs of 0- to 19-year-olds in countries such as Finland, Hungary, Japan and Norway are met almost equally by family transfers and State transfers. In countries like Germany and Spain, 35% to 40% of this age group's consumption needs are met by the State. By contrast, in Latin America (for those countries on which data are available) the average is no more than 20%. Indeed, in all the Latin American countries reviewed, more than 70% of consumption by people in this age group (including types of consumption that are vital to the development of capabilities, such as nutrition, health care and education) is provided for by their families or their own labour. These transfers are therefore patterned on the unequal structure of primary family income or on the earnings of children and young people who work.

It should thus come as no surprise that inequality persists despite public transfers targeting families with children and young people. This constraint is compounded by education systems, which absorb a large share of the public transfers targeting the youngest population segment, but are ineffective in reversing underlying structures of inequality. In short, the region faces enormous challenges in the effort to harness the redistributive role of the State and its capacity to combat inequality over time.

Table V.1
LATIN AMERICA: MEASURES PROPOSED TO COMBAT INEQUALITY EARLY IN THE LIFE CYCLE

Life-cycle stage	Problem to be addressed or prevented	Type of transfer
Early childhood (ages 0 to 4 or 5)	Inequities strongly determined early in life, inability of households to provide certain basic resources such as nutrition, early cognitive development and psychosocial development.	Cash transfers to vulnerable households equivalent to 1 poverty line per child aged 0 to 4 and 1.5 poverty lines in the case of single-parent households. Investment in the care and education systems equivalent to the current monthly operating cost at the level concerned, times the number of children at the official age for that cycle who are not attending. Cash transfers to vulnerable households equivalent to 0.5 poverty lines per child aged 5 to 14 and 0.75 poverty lines for single-parent households.
Intermediate stage (ages 4 or 5 to 14)	Persistence and entrenchment of inequality, regressive distribution of learning and attainment.	Investment in the education system equivalent to the current monthly operating cost at the level concerned, times the number of children at the official age for that cycle who are not attending school, to cover the cost of incorporating non-attending children. Although no estimate is provided, these costs should vary (increase) by educational attainment equalization goal (repetition, timely completion, learning, digital literacy). Should be accompanied by heavy investment in primary and lower secondary education (starting with the former) to extend full school day coverage.
Start of emancipation (ages 15 to 29)	Incomplete, low-quality emancipation process, crystallization of the tendency towards exclusion and intergenerational transmission.	Cash transfers to individuals in vulnerable households equivalent to the current monthly cost of upper secondary education. These transfers should operate as an incentive subsidy for institutional reaffiliation in education or vocational training (estimated for the population aged 15 to 24).

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

[1] ECLAC (2009), Filgueira (2007 and 2009), Filgueira, Papadópulos and Tobar (2005) and Kaztman (1999) discuss the role of the State in providing certain basic goods outside the market and offer descriptions of welfare regimes in Latin America.

Given this situation, the countries should at least reflect on the advisability of implementing measures to address the predicament of the younger generations and their inadequate share of State transfers geared towards maintaining basic standards of well-being regardless of market status or family affiliation. Right from birth, a significant proportion of children in vulnerable households are set upon a life path that is very likely to reproduce their social status of origin and transmit it to ensuing generations.

This idea is supported by the existence of three segmentation dynamics operating throughout childhood and youth that have been examined in preceding chapters and will now be summarized.

(i) Firstly, while progress has been made, the multidimensional methodology for measuring poverty shows that as of around 2007, 17.9% of children in Latin America were living in extreme poverty and 45% in total poverty (with less severe deprivations). In six countries of the region, between about a third and half of all children lived in extreme poverty (at least one severe deprivation). Only in four countries was the figure below 10%.

Poverty means that children's socialization has to take place in households with multiple deficiencies, at the very ages when they depend most on family resources. Because the market is the only mechanism available for obtaining needed resources, but is inaccessible to families, these resources must be secured either by redistributing income via transfers to these households that enable them to access market services, or by the State providing benefits and services directly.

(ii) Secondly, chapter II of this publication shows that education systems in the region's countries have not established themselves as powerful mechanisms for the equalization of opportunities. The very advances made with coverage, access and progression through cycles of education over the past few decades have gone together with greater stratification of learning and attainment by the socio-economic, ethnic and territorial (rural versus urban, and urban segregation) status of pupils' households of origin. Chapter II showed that in addition to tremendous gaps in attainment between countries, there are striking inequalities between groups of children and young people within each country in terms of access to early childhood education (which is vital for early stimulation and preparation for subsequent cycles), the rate of progression through primary and secondary education, completion of the secondary cycle, access to post-secondary education and the quality of education available.

The following considerations concerning age subgroups are germane to the approach taken to education in the present chapter. To date, access to early childhood care and stimulation has generally been via private spending and the market. This limits the options of the vulnerable population at a key stage of development in terms of nutrition, psychomotor skills, protection and cognitive development. Virtually universal coverage at the primary school level is good news for the region, but the system is not addressing inequalities accumulated during the preschool stage or the socio-economic and educational conditions of children's households of origin. This means that a high percentage of children from this age group in vulnerable sectors suffer from educational underperformance and low learning attainment and have no access to the language of ICT, making their progress through the system little more than a formality in some cases (Kaztman, 2010). So, while broadening coverage is a prerequisite for dealing with these issues, it must be accompanied by measures such as lengthening the school day and achieving greater quality convergence between private and publicly funded education.

Segregation and segmentation increase throughout secondary education. Completing secondary education is a vital gateway to greater employment opportunities that enable individuals to break free of poverty and exclusion and achieve upward social mobility. Moreover, this cycle is important because it is where the first steps towards emancipation are taken. Staying in the education system during this stage thus helps to keep young people from making a premature and unsatisfactory transition to autonomy.

(iii) Thirdly, chapter I showed that the paths to emancipation and adulthood vary significantly between young people from different socio-economic strata. Premature and ill-prepared emancipation is common in low socio-economic strata, whereas the socialization patterns of higher strata and the availability of material resources there favour the postponement of labour market entry, family formation and parenthood. Furthermore, the proportion of young people who are neither in school nor working is far higher in the lower socio-economic strata, with the resulting risks of social exclusion. For this group, the challenge is to create mechanisms that can reverse situations of disaffiliation through training or work.

Taken together, these points highlight the need to address a sequence of asset accumulation shortfalls that originate early in life (early childhood and the preschool cycle), structuring different attainment trajectories and

routes out of primary and secondary education and crystallizing and intensifying with emancipation and adulthood (end of the education cycle, emancipation from the household of origin, first job, family formation and reproduction). These incipient exclusion circuits thus need to be "switched off" in order to pre-empt irreversible processes of disaffiliation and marginalization that so starkly perpetuate the intergenerational reproduction of inequalities. To be consistent with the generational, life-cycle character of these issues, measures to address them must also be tailored to the different stages in life. That is what this chapter proposes.[2]

This set of measures would comprise the following:

(i) Cash transfers equivalent to one poverty line for children aged 0 to 4, half a poverty line for children aged 5 to 14 and the equivalent of one month's current upper secondary expenditure for young people aged 15 to 24 who are neither in school nor working.[3]

(ii) A budgetary top-up at each educational level equivalent to current spending at that level for each child or young person of the official age for that cycle who is not attending school.[4]

The following sections of this chapter assess the cost and impact of these measures.[5]

B. Poverty, inequality and cash transfers: costs and impacts

Activating and completing the proposed transfers involves varying levels of financial effort for the countries. In one group of countries, the costs are affordable at around 2% of GDP. For another they represent approximately 5% of GDP, while the third group would have to cope with a far higher fiscal burden necessitating a more gradual approach and additional sources of funding. This transfer regime would bring the poverty rate down by nearly 10 percentage points in Argentina, Brazil, Chile, Costa Rica and Uruguay, by nearly 30% in Nicaragua and by 25% in Guatemala. This means that in some countries poverty would fall to some two thirds of its current rate. Poverty would be nearly halved in countries with the highest poverty rates at present.

1. Costing the measures

The simplest way to express gaps in well-being within countries is to start with the monetary gaps for poverty and indigence and the aggregate amounts that would be required to remedy them, as proportions of current GDP, if they could be allocated perfectly to households below the poverty and indigence lines. This calculation cannot be used to break down the factors affecting the well-being gap (demography, distribution, employment and social spending), but it does provide an approximate absolute value for the population deemed to be poor and extremely poor. It also shows the magnitude of the additional expenditure that, if perfectly allocated to the relevant households, would be needed to eliminate these gaps.

2 Risks associated with issues of sanitation and access to preventive and curative health care at different stages of the life cycle are not discussed in this chapter and are not among the subjects addressed in this issue of the *Social Panorama*.

3 Although the baseline age group for the emancipation stage is 15 to 29, it was thought best to base the estimates on a modal group of the most disadvantaged socio-economic strata in the 15 to 24 age range.

4 In this case, the amount allocated should be adjusted to reflect the level completed by the non-attending child or young person. For example, the cost calculated for a non-attending young person aged 15 to 17 will be equivalent to the monthly operating cost at the upper secondary level. Nonetheless, this young person might not have completed the lower secondary cycle.

5 See ECLAC (2010a) for a direct precursor of this exercise.

Table V.2
LATIN AMERICA (18 COUNTRIES): POVERTY AND INDIGENCE GAPS

Country	Indigence			
	Year of measurement	Gap per person (in local currency)	Total annualized amount (millions of current dollars)	Indigence gap (percentage of GDP)
Chile	2006	8 054.2	94.7	0.1
Uruguay	2008	413.7	27.3	0.1
Argentina	2006	52.5	358.3	0.2
Costa Rica	2008	10 855.2	62.6	0.2
Mexico	2008	228.5	2 848.4	0.3
Brazil	2008	41.9	3 850.2	0.3
Peru	2008	35.5	500.5	0.4
Panama	2008	17.1	93.2	0.4
Venezuela (Bolivarian Republic of)	2008	106.6	1 636.6	0.5
Ecuador	2008	14.1	423.1	0.8
Colombia	2005	39 620.5	1 788.4	1.2
El Salvador	2004	12.7	195.4	1.2
Dominican Republic	2008	782.8	578.4	1.3
Paraguay	2008	98 172.1	472.9	2.8
Guatemala	2006	147.1	874.8	2.9
Bolivia (Plurinational State of)	2007	88.9	417.0	3.2
Nicaragua	2005	158.9	185.1	3.8
Honduras	2007	377.6	826.6	6.7
Country	Poverty			
	Year of measurement	Gap per person (in local currency)	Total annualized amount (millions of current dollars)	Indigence gap (percentage of GDP)
Chile	2006	14 386.9	723.0	0.5
Uruguay	2008	903.8	238.8	0.7
Argentina	2006	108.4	2 138.9	1.0
Costa Rica	2008	17 406.6	298.6	1.0
Panama	2008	33.4	373.0	1.6
Mexico	2008	545.1	21 020.0	1.9
Brazil	2008	91.8	29 944.3	2.1
Venezuela (Bolivarian Republic of)	2008	187.2	8 007.7	2.6
Peru	2008	82.2	3 332.0	2.6
Ecuador	2008	29.8	2 114.4	3.9
Dominican Republic	2008	1 695.3	2 455.2	5.4
Colombia	2005	83 667.6	8 755.2	6.1
El Salvador	2004	27.5	1 059.1	6.7
Bolivia (Plurinational State of)	2007	186.6	1 517.7	11.6
Paraguay	2008	216 177.7	1 963.2	11.6
Guatemala	2006	334.7	3 752.6	12.4
Nicaragua	2005	376.5	850.1	17.4
Honduras	2007	787.6	2 604.3	21.0

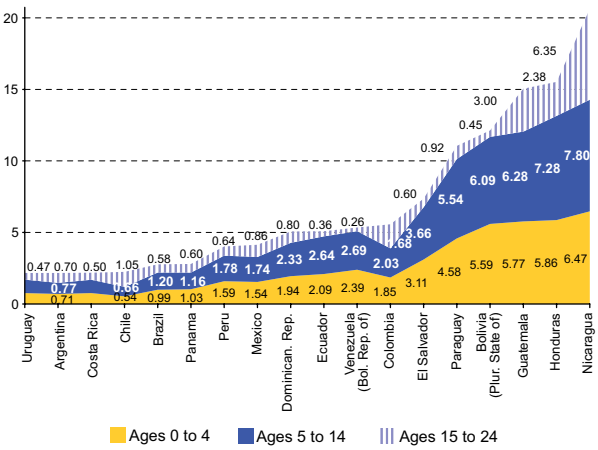
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned and GDP series.

All cash transfer systems should take account of two factors that prevent them from being fully targetable. First, poverty is a discrete cut-off point on the household income scale at a given moment in time. The rationale for a guaranteed partial income system is to create a basic floor that does not depend on the labour market but provides a permanent cushion against economic and life cycles (even though it does not ensure an exit from poverty) and substantially mitigates economic privation.

Second, the amounts allocated to each household are not calculated for each specific case. In other words, households' individual or per capita income shortfall relative to the poverty line can be measured by a household survey, but this cannot be the basis for allocating the exact amount that would bring each household above the poverty line. What can be allocated is a standard amount that would bring some households above the poverty line and not others. In other words, a basic guaranteed partial income system for households with children and adolescents seeks not to remove poverty surgically but to decrease its likelihood systemically, prevent it from becoming permanent in individual households and lessen its structural severity.

The mechanisms that are most direct and easiest to evaluate in terms of impacts and costs are income transfers for children aged 0 to 14 and transfers or subsidies for jobs and training for young people aged 15 to 24 who are neither in education nor working. In both cases, the cost and impact of these transfers is estimated on the basis that they are limited to the vulnerable population (those in households whose per capita income is below 1.8 poverty lines). As figure V.1 shows, the cost of such a system is easily affordable for one group of countries, represents a major effort for a second and requires a longer-term effort or more diversified funding sources for a third.

Figure V.1
LATIN AMERICA (18 COUNTRIES): COST OF ALL CASH TRANSFERS TARGETING THE VULNERABLE POPULATION, BY AGE GROUP, AROUND 2008 [a]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned and GDP series.

[a] Data relate to 2004 for El Salvador, 2005 for Nicaragua, 2006 for Argentina, Chile and Guatemala and 2007 for Honduras and the Plurinational State of Bolivia.

For Argentina, Chile, Costa Rica, Uruguay and, to a lesser extent, Brazil and Panama, the additional costs are manageable and affordable over a short period of time, representing some 2% of GDP. For the Bolivarian Republic of Venezuela, Colombia, Dominican Republic, Ecuador and Mexico, the effort is considerable (some 5 percentage points of GDP or more). For Guatemala, Honduras, Nicaragua, Paraguay and the Plurinational State of Bolivia, lastly, it would clearly entail an unaffordable fiscal commitment. In such cases, a very selective, gradualist strategy would be needed for progress to be made with these schemes, and the option of mobilizing additional international cooperation resources should be considered.

These differences should come as no surprise, as the three country groups are situated very differently in terms of GDP and current levels of social spending and public revenue. For the countries with a higher degree of economic and social development, the transfers proposed here constitute a strategy for creating universal basic minimum incomes that fit in with an existing income transfer structure. For the intermediate countries it is a more ambitious undertaking that involves setting up a system of transfers to vulnerable population segments which was formerly non-existent or rudimentary. For the least developed countries, lastly, the proposal entails the creation of a welfare system from scratch or upon very partial foundations.

The proposed transfers are costly. Coverage is not universal, although it is not limited to the poor as it encompasses a considerable proportion of the population and households (between 30% of the population in countries with fewer vulnerable people and nearly 80% in the poorest countries). These percentages are even greater when the child and adolescent population alone is considered, exceeding 50% of children aged 0 to 14 in all cases.

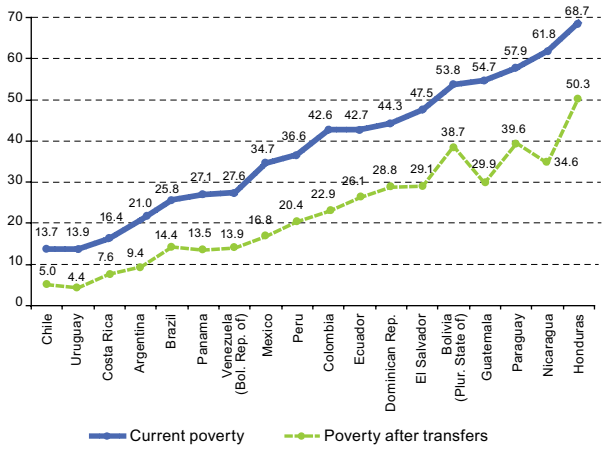
2. Impacts

Implementing and completing this transfer system would have very significant impacts in terms of poverty reduction, bringing the poverty rate down by nearly 10 percentage points in Argentina, Brazil, Chile, Costa Rica and Uruguay, by close to 30% in Nicaragua and by 25% in Guatemala. This means that the poverty rate would come down to some two thirds of its current level in countries like Chile and Uruguay and fall by more than half in the poorest countries.

The measures proposed would also reduce the poverty gap for people who would not actually exit poverty despite receiving the benefit. For those who did not exit poverty, the gap would narrow by between 20% and almost 45%. Where inequality is concerned, lastly, the Gini coefficient would come down by between 7% (in Brazil) and 24% (in Honduras).

These impacts would bring about substantial changes in the region's societies: childhood and adolescence would no longer be the most vulnerable period or the one in which inequalities were reproduced and entrenched. These effects do not take account of improvements in poverty and inequality that would anyway be expected over time thanks to economic growth itself and the measures analysed here, or of their consequences for the life cycle and the intergenerational reproduction of well-being.

Figure V.2
LATIN AMERICA (18 COUNTRIES): IMPACT OF TRANSFERS ON POVERTY, AROUND 2008 [a]
(Percentages of people)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned and GDP projections.
[a] Data relate to 2005 for Nicaragua, 2006 for Argentina, Chile and Guatemala and 2007 for Honduras and the Plurinational State of Bolivia.

C. Poverty, inequality, the education cycle and the life cycle

Taking aim at inequality and poverty requires initiatives on at least three critical fronts: extending coverage in early childhood by means of early childhood care and education systems (between ages 0 and 4); completing the universalization of coverage at basic and lower secondary education ages (0 to 14); and working towards universal coverage among adolescents and young people of upper secondary age (15 to 17). All these targets, and the additional cost per student in each country and cycle, are within the reach of all of the region's countries. In 15 of the 18 countries reviewed, the cost does not exceed one percentage point of GDP. It can be seen that this would signify an enormous increase in coverage at both ends of the education cycle (preschool and upper secondary), especially for the poor and vulnerable.

1. Costing the measures

As already discussed here and in earlier issues of this publication (ECLAC, 2008a and ECLAC, 2009), addressing inequality and poverty via the education system involves, at the least, extending coverage in early childhood with early childhood care and stimulation systems (0 to 4 years of age), completing the universalization of basic and lower secondary education coverage (5 to 14) and working towards universal coverage for adolescents and young people in the upper cycle of secondary education (15 to 17).

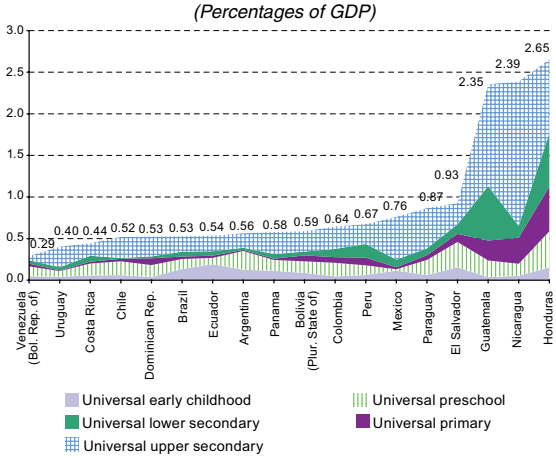
How much would achieving these goals cost the countries of the region? Unlike the cash transfers discussed earlier, whose threshold for evaluation and determination of benefit levels is an officially decreed amount (the poverty line), the amounts involved here derive from a concrete situation, namely average expenditure per pupil by education systems in each country. This per capita cost estimation basis yields cost units that vary widely from country to country. For example, the chapter on social spending reports that public expenditure per primary and secondary pupil in the region's countries ranges from a low of US$ 62 to a high of more than US$ 2,000.

In countries where the cost is low, of course, the additional cost pressure from incorporating children and young people not currently enrolled will likewise be lower. In this case, the cost will not reflect the real effort required. Instead, it will underestimate that effort because the system in question does not currently invest enough per pupil. Where the per capita cost of the education system is sufficiently high, raising the level of expenditure, while necessary, should not be as pressing a requirement because there is likely to be some scope for making the current spending structure more efficient. In short, a low estimate of the cost of incorporating the unenrolled can actually mask inadequate investment per student. Conversely, an estimate that might seem high could be manageable within the margin provided by the current spending level. Again, basing estimates on per capita cost means that the current coverage of each education system must be considered. Hence, countries facing major coverage challenges will have to spend heavily to incorporate children and young people who are not currently enrolled.

The estimates do not take account of the additional investments that expanding coverage would require. The cost per reincorporated child or young person is calculated by dividing total expenditure by the number of students enrolled. This amount includes investments planned for the period under review but not those that might be called for by a specific education quality improvement policy (such as the cost of lengthening the school day). The figure presented here, then, is the minimum cost of completing coverage at constant investment rates, because only current expenditure per pupil is considered. Creating the infrastructure and improved conditions that would turn system coverage into a real force for equality will require substantially heavier outlays. The cost of training human resources for educational services is not considered either.

A look at the results of the estimates shows that the additional costs estimated from spending per current pupil are affordable for all the countries in the region. Indeed, as figure V.3 shows, in 15 of the 18 countries reviewed they do not exceed one percentage point of GDP.

Figure V.3
LATIN AMERICA (18 COUNTRIES): COST OF INCORPORATING CHILDREN AND YOUNG PEOPLE AGED 0 TO 17 INTO THE EDUCATION SYSTEM, AROUND 2008 [a]
(Percentages of GDP)

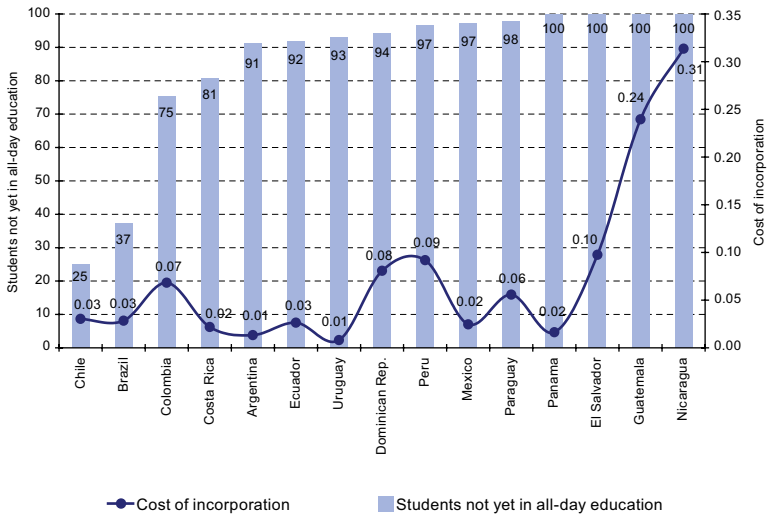


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned and GDP series.

[a] Data relate to 2004 for El Salvador, 2005 for Nicaragua, 2006 for Argentina, Chile and Guatemala and 2007 for Honduras and the Plurinational State of Bolivia.

These estimated costs cover the minimum required to ensure the system can operate with the new students. Figure V.4 shows, as an example, that the cost of universalizing primary education is almost marginal when compared with the percentage of students in each country who do not follow the extended school day, based on enrolment in publicly funded urban schools. It follows that the cost in infrastructure and human resources of extending the school day is far higher than that of universalizing coverage for the age group in this cycle. Extending the school day is one of the pending items on our countries' agenda. This at least is what studies in this area seem to suggest, although findings vary (ANEP, 2005; Raczynski, 2001; García-Huidobro and Concha, 2009).

Figure V.4
LATIN AMERICA (15 COUNTRIES): COST OF UNIVERSALIZING SCHOOL ENROLMENT FOR CHILDREN AGED 6 TO 11 AND PERCENTAGE OF CHILDREN IN PUBLICLY FUNDED URBAN SCHOOLS WHO ARE NOT YET IN ALL-DAY EDUCATION, AROUND 2008 [a]
(Percentages of GDP and percentages of all students)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned, special tabulations of microdata from the Second Regional Comparative and Explanatory Study (SERCE) and GDP series.
[a] The data used to calculate costs are from 2004 in El Salvador, 2005 in Nicaragua and 2006 in Argentina, Chile and Guatemala.

2. Impacts

The impacts of the estimated spending required to incorporate children and young people into the education system differ in their logic from those of direct cash transfers. The challenge of incorporation is not equivalent to the cost. In other words, it would be difficult to relate incorporation directly to increased spending as its cause. It is a goal with political and social ramifications that transcend the financial aspect. Because the basic costs of incorporation are being discussed here, what can be examined are the gains they would deliver by bringing in children and young people who are not currently attending any educational establishment.

Incorporation does not guarantee that everyone will progress satisfactorily or complete their schooling when they should, since what is considered is the official age of those who are not attending school irrespective of the level they have reached in the event of incorporation or re-enrolment. If a 15-year-old is not in school, in other words, what is estimated is the impact of incorporating that pupil, even if it is not at the appropriate level. The child might not be incorporated into the upper secondary cycle, despite being of the official age for this, if he or she has not completed the lower secondary cycle. This consideration aside, the first thing is to incorporate the child, and this means having resources available to expand coverage. The internal dynamics of the system that go to the heart of inequality can be addressed later.

Looking at either end of the education cycle (preschool and upper secondary) shows how enormously this would expand coverage, especially for the poor and vulnerable. Table V.3 shows the percentages of children and young people not attending school at these critical levels, by income decile, highlighting the coverage "gained" for all population deciles and the coverage resulting from a more gradual incorporation strategy limited to vulnerable households.

For the early childhood level, which is the most critical in the majority of countries, even gradual incorporation would benefit a very substantial portion of the corresponding age group in a large number of countries. In countries like El Salvador, Guatemala, Honduras and Nicaragua, between three fourths and nearly 9 out of 10 children in the vulnerable deciles would be incorporated.

Table V.3

LATIN AMERICA (16 COUNTRIES): NUMBER OF CHILDREN AND YOUNG PEOPLE NOT ATTENDING UPPER SECONDARY SCHOOL (AGES 15 TO 17) AND PRESCHOOL (AGES 3 TO 5), BY INCOME DECILE AND VULNERABILITY STATUS, AROUND 2008 [a]

(Percentages of each age group)

Country	Education level	Income decile									
		I	II	III	IV	V	VI	VII	VIII	IX	X
Argentina	Preschool	55.6	55.0	43.6	45.6	38.4	41.4	30.1	28.9	25.4	24.3
	Upper secondary	25.2	25.5	23.1	20.9	18.5	13.4	11.8	7.8	10.7	4.6
Bolivia (Plurinational State of)	Preschool	63.7	38.1	36.1	23.6	48.9	48.1	33.8	33.0	29.7	36.9
	Upper secondary	32.7	16.2	15.5	17.3	13.5	11.8	11.5	9.0	7.1	14.7
Brazil	Preschool	39.1	40.7	38.1	33.5	34.7	31.1	28.4	23.5	19.3	12.2
	Upper secondary	22.3	19.4	20.5	20.3	17.9	17.6	14.0	12.7	8.2	5.9
Chile	Preschool	43.4	44.7	44.3	38.3	36.1	37.3	35.0	35.4	32.9	23.1
	Upper secondary	14.0	11.9	9.7	12.6	7.8	7.9	8.0	4.3	2.5	2.9
Colombia	Preschool	56.1	55.5	56.4	51.6	53.8	50.3	44.8	43.6	36.1	24.3
	Upper secondary	22.2	21.1	20.5	19.6	19.4	20.1	18.1	15.3	13.8	8.9
Costa Rica	Preschool	71.7	67.1	69.3	72.2	76.2	67.1	70.2	67.0	48.0	30.9
	Upper secondary	34.9	23.6	14.3	22.3	16.8	17.9	21.6	16.8	16.4	11.9
Ecuador	Preschool	29.2	23.9	16.8	11.6	20.3	4.8	5.6	3.6	0.1	2.9
	Upper secondary	29.7	33.7	30.1	31.7	30.5	25.2	24.8	19.4	15.3	8.8
El Salvador	Preschool	73.9	65.0	71.9	64.1	63.6	63.6	55.8	51.7	46.4	36.4
	Upper secondary	57.9	54.1	49.4	57.4	46.7	42.7	34.7	34.3	30.4	18.7
Guatemala	Preschool	93.6	89.5	90.9	91.1	92.5	87.2	86.1	89.5	92.7	84.8
	Upper secondary	71.0	71.8	67.8	57.4	64.7	54.6	52.1	41.0	29.5	17.7
Honduras	Preschool	84.3	85.5	82.1	84.3	83.0	83.1	83.2	79.2	75.2	67.5
	Upper secondary	63.6	67.8	58.5	51.3	47.4	38.4	38.7	35.0	24.8	17.1
Mexico	Preschool	35.5	38.5	29.8	37.5	33.8	30.4	28.0	26.4	23.7	19.3
	Upper secondary	47.8	46.3	42.0	42.0	37.6	42.7	28.7	30.0	17.4	12.3
Nicaragua	Preschool	77.7	69.2	77.2	68.1	70.2	66.4	56.3	64.0	59.8	48.0
	Upper secondary	48.5	48.1	45.2	43.5	51.2	27.2	32.8	29.0	23.5	9.7
Panama	Preschool	29.3	32.8	33.7	31.7	22.7	21.3	19.9	12.5	7.1	2.4
	Upper secondary	44.9	35.4	28.9	25.9	19.8	20.1	19.3	13.1	8.0	5.2
Paraguay	Preschool	68.6	50.8	58.2	46.0	53.8	29.1	30.8	22.1	20.4	10.1
	Upper secondary	53.5	40.8	27.4	27.2	32.1	28.2	13.6	23.8	11.9	16.0
Uruguay	Preschool	33.3	30.8	30.4	30.3	27.1	27.0	22.8	17.3	12.7	6.6
	Upper secondary	44.1	41.6	34.9	32.3	27.1	25.6	17.2	15.8	11.6	3.6
Venezuela (Bolivarian Republic of)	Preschool	41.5	42.1	39.9	35.4	35.6	32.7	28.5	26.7	25.1	23.4
	Upper secondary	19.5	17.7	19.5	18.9	18.0	14.4	16.4	16.2	14.0	12.2

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned.

[a] Data relate to 2004 for El Salvador, 2005 for Nicaragua, 2006 for Argentina, Chile and Guatemala and 2007 for Honduras and the Plurinational State of Bolivia. For preschool age (3 to 5) in countries for which data on the entire age group was not available, the earliest age for the level was used, this being 5 in Ecuador, Guatemala, Panama, Paraguay and the Plurinational State of Bolivia. The income data used to define deciles in the vulnerable population are from around 2007. The shaded areas indicate vulnerability (per capita income of 1.8 poverty lines or less).

D. Funding from an intertemporal perspective

Provision of the resources needed to implement the transfer scheme and support services would differ in timing from country to country, depending on GDP performance, the tax burden, public spending goals and access to complementary resources such as international cooperation. Assuming GDP growth and an expanding tax burden in cases where this is possible, the countries of Latin America break down into three broad groups. The first comprises countries whose revenues, measured in points of GDP, should be very close to (or exceed) the level required to fund the proposed measures by the end of 2012. A second group should be in a position to afford them by about 2014. The other countries would not have enough revenue to meet the costs involved by the end of the period and would therefore need complementary sources of funding.

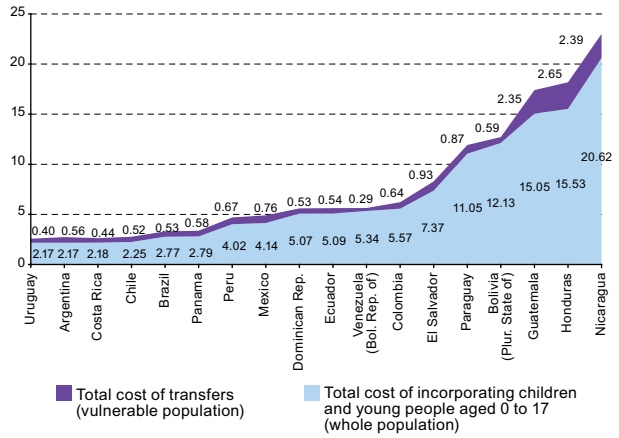
This exercise should be treated with care because it does not consider alternative costs in other strategic social areas such as health care, social security or housing. What are discussed here are orders of magnitude for social investment in the younger generations and the fiscal leeway needed to address these challenges. The primary aim is to help define priorities and timing, not to map out a strict predetermined spending path.

The region's countries have already allocated all their fiscal receipts to the various spending items, so implementing an additional transfer and coverage scheme is difficult (Jiménez, 2009). Generally speaking, their ability to address these shortcomings depends on the performance of the variables mentioned (growth, tax revenues, reallocation of spending and mobilization of external resources).

Figure V.6 shows the fiscal space available to the countries over the next 10 years to cover the additional cost of the proposed measures. The economic growth rate is therefore assumed to be somewhat greater than 2% and, in countries whose GDP offers potential room for expanding the tax burden, the impact of that expansion (in annual increments) is shown. This projection does not take into account resources that might come from retargeting spending or from external cooperation. As can be seen, most of the countries could reach the break-even point before the end of the period, with a sizeable surplus after covering the deficit.

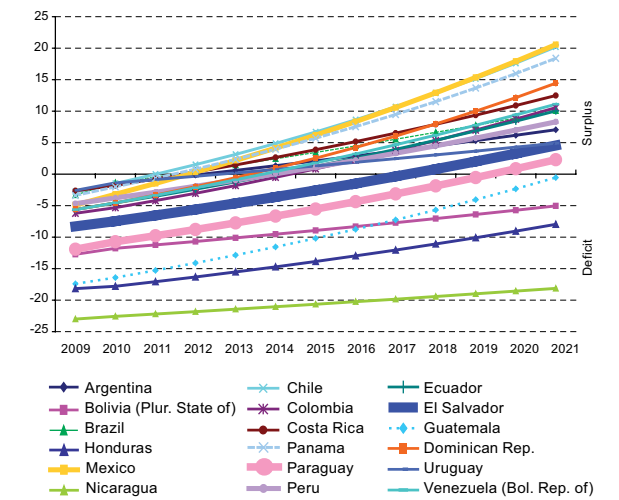
In the most optimistic scenarios (GDP growth combined with an expanding tax burden where this is possible), the countries of Latin America fall into three groups. The first comprises those whose revenues, measured in points of GDP, should be very close to (or exceed) the level required to fund the proposed measures by the end of 2012. This group includes Argentina, Brazil, Chile, Costa Rica, Panama and Uruguay (Mexico lies between this group and the next on the basis of GDP growth alone, but would fall squarely into the first group if its tax burden were to increase). A second group, including the Bolivarian Republic of Venezuela, Colombia, Dominican Republic, Ecuador and Peru, should be in a position to afford them by about 2014 or 2015. El Salvador is not expected to raise the requisite funding until about 2018. Even if the different variables combine to broader fiscal capacity in the most optimistic scenario, the other countries (Guatemala, Honduras, Nicaragua, Paraguay and the Plurinational State of Bolivia) are not expected to have enough revenue by the end of the period to cover the costs (except Paraguay, and then only in the very last year). These countries therefore need to mobilize external resources.

Figure V.5
LATIN AMERICA (18 COUNTRIES): TOTAL COST OF CASH TRANSFERS TO VULNERABLE POPULATIONS AND INCORPORATION OF CHILDREN AND YOUNG PEOPLE AGED 0 TO 17 INTO EDUCATION SYSTEMS, AROUND 2008 [a]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned and GDP series.
[a] Data relate to 2004 for El Salvador, 2005 for Nicaragua, 2006 for Argentina, Chile and Guatemala and 2007 for Honduras and the Plurinational State of Bolivia.

Figure V.6
LATIN AMERICA (18 COUNTRIES): FISCAL DEFICIT OR SURPLUS AVAILABLE TO FUND THE TRANSFER SYSTEM AND ENHANCED CARE AND EDUCATION SERVICES IN SCENARIOS OF GROWING GDP AND A GROWING TAX BURDEN
(Percentages of 2008 GDP)

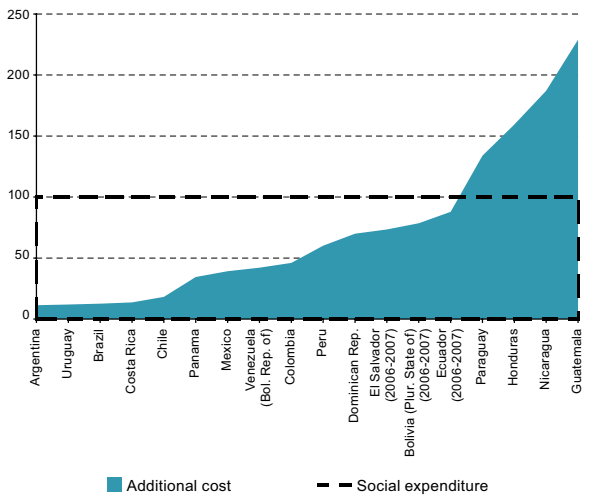


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the countries concerned, GDP projections and data from the Latin American and Caribbean Institute for Economic and Social Planning (ILPES) for actual tax burdens.

Lastly, it is worth taking at least an exploratory look at the other potential source of funding for these measures: the reorientation of social expenditure itself. Once again, the countries that would be best positioned to take advantage of this potential fiscal space are those where the least additional effort is needed. In other words, the less the additional effort needed over and above current expenditure, the greater the likelihood that fiscal margin can be found within the social spending budget itself.

One final requirement is to consider the relative cost of monetary measures and services measures and to determine differentiated baselines for each group of countries based on their capacity to afford these costs, as just discussed. In less developed countries, it is most realistic to start by universalizing education system coverage, which costs far less in these countries, while having more modest basic transfer amounts. The more developed countries can address themselves to all the proposed measures at once. Table V.4 summarizes the balance between coverage and transfers for the country groups, the costs they can afford and the potential impact on poverty reduction and expansion of educational coverage.

Figure V.7
LATIN AMERICA: ADDITIONAL COSTS OF THE TRANSFERS AND EDUCATIONAL SERVICES MODEL, 2007-2008 [a]
(Percentages of current social expenditure)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of cost estimates, GDP series and social expenditure.
[a] Both figures (social expenditure and additional cost) are expressed as percentages of GDP.

Table V.4
LATIN AMERICA: MEASURES, COSTS AND IMPACTS OF EQUALITY STRATEGIES, BY FISCAL CAPACITY

	Countries in first group [a]	Countries in second group [b]	Countries in third group [c]
Measures proposed	All proposed coverage and income transfer measures: cash transfers to households with children aged 0 to 14, coverage of education and care services (ages 0 to 17) and cash transfers coordinated with employment and training services (ages 15 to 24)	Cash transfers to households with children aged 0 to 4 and 15 to 24 All coverage measures	All coverage measures Cash transfers to households with children aged 0 to 4; half the benefit or half the coverage
Estimated cost	Between 2.5% and 3.5% of GDP	Between 2.9% and 4.2% of GDP	Between 2.5% and 5.6% of GDP
Estimated aggregate effects on poverty	Drop in poverty rate of between 13.5 and 8.7 percentage points. Drop of between 70% and 50% from original poverty level	Drop in poverty rate of between 6.6 and 11.9 percentage points. Drop of between 30% and 16.6% from original poverty level	Drop in poverty rate of between 2.8 and 4.0 percentage points. Drop of between 4% and 8% from original poverty level
Percentage of preschool-age children who would be brought into the system	Between 24% and 64%	Between 30% and 47%	Between 59% and 90%
Percentage of upper secondary school-age children who would be brought into the system	Between 8% and 25%	Between 17% and 35%	Between 36% and 53%

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of continuous household surveys and GDP data.
[a] Argentina, Brazil, Chile, Costa Rica, Panama and Uruguay.
[b] Bolivarian Republic of Venezuela, Colombia, Dominican Republic, Ecuador, Mexico and Peru.
[c] El Salvador, Guatemala, Honduras, Nicaragua, Paraguay and Plurinational State of Bolivia.

These costs can be met in a period of 10 years in all the countries reviewed (except Nicaragua, which can raise 95% of the resources needed). The impact on poverty is lower in the less developed countries, but the poverty gap can be expected to narrow considerably and the educational gains to translate over time into lower levels of poverty and inequality. To plan for these differentiated measures is not utopian, although their viability, given the fiscal revenue-raising and prioritization efforts proposed here, is certainly quite surprising.

Bibliography

Abramovich, Víctor (2006), "The rights-based approach in development. Policies and strategies", *CEPAL Review*, No. 88 (LC/G.2289-P/I), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), April.

Acosta, L. and J.C. Ramírez (2004), "Las redes de protección social: modelo incompleto", *Financiamiento del desarrollo series,* No. 141 (LC/L.2067-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.04.II.G.10.

Alkire, Sabina (2008), "Choosing dimensions: the capability approach and multidimensional poverty", *MPRA Paper*, No. 8862, May.

Alkire, Sabina and James Foster (2009), "Counting and multidimensional poverty measurement", *Working Paper*, No. 32, Oxford Poverty and Human Development Initiative (OPHI), December.

Alkire, Sabina and Maria Emma Santos (2010), "Acute multidimensional poverty: a new index for developing countries", *Human Development Reports Research Paper*, July.

Altonji, J.G., F. Hayashi and L. Kotlikoff (2000), "The effects of income and wealth on time and money transfers between parents and children", *Sharing the Wealth: Demographic Change and Economic Transfers between Generations*, A. Mason and G. Tapinos, Oxford, Oxford University Press.

ANEP (National Public Education Administration) (2005), *Panorama de la educación en el Uruguay. Una década de transformaciones, 1992-2004*, Montevideo, Central Administrative Council of the National Public Education Administration.

Attanasio, O. and others (2008), "Child education and work choices in the presence of a conditional cash transfer programme in rural Colombia" (WP06/13), London, Institute for Fiscal Studies.

Auerbach, A.J., L.J. Kotlikoff and W. Leibfritz (1999), *Generational Accounting around the World*, Chicago, The University of Chicago Press.

Auerbach, A.J., Jagadeesh Gokhale and Laurence J. Kotlikoff (1991), "Generational accounts: a meaningful alternative to deficit accounting", *NBER Working Paper*, No. 3589.

Barrera-Osorio, F. and others (2008), "Conditional cash transfers in education: design features, peer and siblings effects. Evidence from a randomized experiment in Colombia", *NBER Working Paper*, No. 13890, March.

Barros, R. and others (2006), "Uma análise das principais causas da queda recente na desigualdade de renda brasileira", *Econômica*, Rio de Janeiro, vol. 8, No. 1.

Bastagli, F. (2008), "Conditionality in public policy targeted to the poor: promoting resilience?", *Social Policy & Society*, vol. 8, No. 1.

Becker, Gary S. (1964), *Human Capital: A Theoretical Analysis with Special Reference to Education*, New York, Columbia University Press.

Becker, Gary and Kevin Murphy (1988), "The family and the State", *Journal of Law and Economics*, vol. 21.

Becker, G., K. Murphy and R. Tamura (1990), "Human capital, fertility, and economic growth", *Journal of Political Economy*, vol. 98, No. 5.

Betts, J., A. Zau and L. Rice (2003), *Determinants of Student Achievement: New evidence from San Diego*, San Francisco, CA, Public Policy Institute of California.

Bloom, D. and J. G. Williamson (1998), "Demographic transitions and economic miracles in emerging Asia", *The World Bank Economic Review*, vol. 12.

Bloom, D., D. Canning and J. Sevilla (2003), "The demographic dividend: a new perspective on the economic consequences of population change", *RAND Population Matters Program*, No. MR-1274, Santa Monica, California.

Boarini, R., A. Johansson and M. Mira d'Ercole (2007), "Alternative measures of well-being", *OECD Social, Employment and Migration Working Papers,* No. 33 (DELSA/ELSA/WD/SEM(2006)2).

Bobonis, G. and F. Finan (2009), "Neighbourhood peer effects in secondary school enrollment decisions", *The Review of Economics and Statistics*, vol. 91, No. 4.

Bommier, A. and R.D. Lee (2003), "Overlapping generations models with realistic demography", *Journal of Population Economics*, vol. 16.

Bourguignon, F. (1999), "The cost of children: may the collective approach to household behavior help?", *Journal of Population Economics*, vol. 12.

Bourguignon, F. and S. Chakravarty (2003), "The measurement of multidimensional poverty", *Journal of Economic Inequality*, vol. 1, No. 1.

Bourguignon, F. and P.A. Chiappori (1992), "Collective models of household behavior: an introduction", *European Economic Review*, vol. 36.

Breceda, K., J. Rigolini and J. Saavedra (2009), "Latin America and the social contract: patterns of social spending and taxation", *Population and Development Review*, vol. 35, No. 4.

Brickman, P. and D.T. Campbell (1971), "Hedonic relativism and planning the good society", *Adaptation Level Theory: A Symposium*, M.H. Apley (ed.), New York, Academic Press.

Brickman, P., D. Coates and R. Janoff-Bulman (1978), "Lottery winners and accident victims: is happiness relative?", *Journal of Personality and Social Psychology*, vol. 36, No. 8.

Brown, J. and K. Dutton (1995), "Truth and consequences: the costs and benefits of accurate self-knowledge", *Personality and Social Psychology Bulletin,* vol. 21.

Carrasco, S., J. Martínez and C. Vial (1997), *Población y necesidades básicas en Chile. 1982 - 1994*, Santiago, Chile, Ministry of Planning and Cooperation (MIDEPLAN)/ United Nations Population Fund (UNFPA).

Cecchini, S. and A. Madariaga (2010), "La trayectoria de los programas de transferencias con corresponsabilidad (PTC) en América Latina y el Caribe: balance de experiencias y tendencias a futuro", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Cecchini, S. and others (2009), "Desafíos de los programas de transferencias con corresponsabilidad. Los casos de Guatemala, Honduras y Nicaragua", *Project documents*, No. 248 (LC/W.248), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).

Chackiel, Juan (2004), "La dinámica demográfica en América Latina", *Población y desarrollo series*, No. 52 (LC/L.2127-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.04.II.G.55.

Clark, A. and others (2005), "Heterogeneity in reported well-being: evidence from twelve European countries", *The Economic Journal,* vol. 115.

CONEVAL (National Council of Evaluation of Social Development Policy) (2009), *Metodología para la medición multidimensional de la pobreza en México*, Mexico City, December.

Costa, P.T. and R. McCrae (1980), "Influence of extraversion and neuroticism on subjective well-being: happy and unhappy people", *Journal of Personality and Social Psychology*, vol. 38.

Cotlear, D. and L. Tornarolli (2009), "Poverty, the aging and the lifecycle in Latin America and the Caribbean", document presented at the Workshop on demographic change and social policy in Latin America and the Caribbean, Washington, D.C., World Bank, 14-15 July.

Datt, Gaurav and Martin Ravallion (1992), "Growth and redistribution components of changes in poverty measures", *Journal of Development Economics*, vol. 38, No. 2.

Deaton, A. (1997), *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*, London, World Bank.

De Brauw, A. and J. Hoddinott (2008), "Must conditional cash transfer programs be conditioned to be effective? The impact of conditioning transfers on school enrollment in Mexico", *IFPRI Discussion Paper*, vol. 00757.

Di Cesare, Mariachiara (2007), "Patrones emergentes en la fecundidad y la salud reproductiva y sus vínculos con la pobreza en América Latina y el Caribe", *Población y desarrollo series,* No. 72 (LC/L.2652-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.07.II.G.04.

Diener, E. (2006), "Guidelines for national indicators of subjective well-being and ill-being", *Applied Research in Quality of Life*, vol.1.

___ (2000), *Subjective Well-Being. The Science of Happiness and a Proposal for a National Index*, Urbana-Champaign, University of Illinois.

Diener, E. and E. Suh (1999), "Societies we live in: international comparisons", *Well-being: The Foundations of Hedonic Psychology*, D. Kahneman, E. Diener and N. Schwarz (eds.), New York, Russell Sage Foundation.

Diener, E. and F. Fujita (1997), "Social comparisons and subjective wellbeing", *Health, Coping, and Social Comparison*, B. Buunk and R. Gibbons (eds.), Mahwah, New Jersey, Erlbaum.

Diener, E. and R. Biswas-Diener (2002), "Will money increase subjective well-being? A literature review and guide to needed research", *Social Indicators Research,* vol. 57.

Diener, E. and W. Tov (2005), "National accounts of well-being" [online] http://diener.socialpsychology.org/.

Diener, E., D. Kahneman and J. Heliwell (eds.) (2010), *International Differences in Well-Being*, Oxford University Press.

Diener, E., R. Lucas and C. Scollon (2006), "Beyond the hedonic treadmill. Revising the adaptation theory of well-being", *American Psychologist*, vol. 61, No. 4.

Diener, E., S. Oishi and R. Lucas (2003), "Personality, culture and subjective well-being: emotional and cognitive evaluations of life", *Annual Review of Psychology*, vol. 54.

Diener, E. and others (2010), "Income's association with judgements of life versus feelings", *International Differences in Well-Being*, E. Diener, D. Kahneman and J. Heliwell (eds.), Oxford University Press.

___ (1999), "Subjective well-being: three decades of progress", *Psychological Bulletin*, vol. 125, No. 2.

DNP (National Planning Department of Colombia) (2008), "Programa Familias en Acción: impactos en capital humano y evaluación beneficio-costo del Programa", Bogota.

Dolan, P., T. Peasgood and M. White (2008), "Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being", *Journal of Economic Psychology,* vol. 29.

Dominican Republic, Government of (2008), "Impacto del programa Solidaridad en asistencia escolar y niveles nutricionales: un enfoque empírico", August [online] http://www.solidaridad.gov.do/LinkClick.aspx?fileticket=XrqXuqlC2Lg%3d&tabid=514.

Easterlin, Richard (2005), "Feeding the illusion of growth and happiness: a reply to Hagerty and Veenhoven", *Social Indicators Research*, vol. 74, No. 3.

___ (1995), "Will raising the income of all increase the happiness of all?", *Journal of Economic Behavior and Organization,* vol. 27, No. 1.

___ (1974), "Does economic growth improve the human lot? Some empirical evidence", *Nations and Households in Economic Growth: Essays in Honor of Moses Abramowitz*, Paul A. David and Melvin W. Reder (eds.), Academic Press.

___ (1973), "Does money buy happiness?", *The Public Interest,* vol. 30.

ECLAC (Economic Commission for Latin America and the Caribbean) (2010a), *Time for equality: closing gaps opening trails* (LC/G.2432(SES.33/3)), Santiago, Chile, May.

___ (coord.) (2010b), *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile.

___ (2010c), The reactions of the Governments of the Americas to the international crisis: an overview of policy measures up to 31 December 2009 (LC/L.3025/Rev.6), Santiago, Chile.

___ (2010d), *Latin America in the Mirror. Objective and Subjective Dimensions of Social Inequity and Well-Being in the Region* (LC/G.2419-P), Santiago, Chile.

___ (2010e), *Economic Survey of Latin America and the Caribbean, 2009-2010* (LC/G.2458-P), Santiago, Chile, July. United Nations publication, Sales No. E.10.II.G.3.

___ (2009), *Social Panorama of Latin America, 2009* (LC/G.2423-P/I), Santiago, Chile, November. United Nations publication, Sales No. E.09.II.G.135.

___ (2008a), *Social Panorama of Latin America, 2008* (LC/G.2402-P/I), Santiago, Chile, December. United Nations publication, Sales No. E.08.II.G.89.

___ (2008b), *Millennium Development Goals. Progress Towards the Right to Health in Latin America and the Caribbean* (LC/G.2364), Santiago, Chile, August.

___ (2008c), "The demographic dividend: an opportunity to improve coverage and progression rates in secondary education", *Social Panorama of Latin America, 2008* (LC/G.2402-P/I), Santiago, Chile, chapter 3. United Nations publication, Sales No. E.08.II.G.89.

___ (2007), *Social Panorama of Latin America, 2007* (LC/G.2351-P/I), Santiago, Chile. United Nations publication, Sales No. E.07.II.G.124.

___ (2006), *Social Panorama of Latin America, 2005* (LC/G.2288-P/I), Santiago, Chile. United Nations publication, Sales No. E.05.II.G.161.

___ (2004), *Social Panorama of Latin America, 2004* (LC/G.2259-P/I), Santiago, Chile. United Nations publication, Sales No. E.04.II.G.148.

___ (2002), *Social Panorama of Latin America, 2001-2002* (LC/G.2183-P/I), Santiago, Chile, October. United Nations publication, Sales No. E.02.II.G.65.

___ (2000), *Equity, Development and Citizenship* (LC/G.2071/Rev.1-P/I), Santiago, Chile, August. United Nations publication, Sales No. E.00.II.G.81.

ECLAC/CELADE (Economic Commission for Latin America and the Caribbean/Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC) (2010), "Illustrative projection of health care spending in Latin America and the Caribbean in the 2006-2040 period", *Population and Health in Latin America and the Caribbean: Outstanding Matters, New Challenges* (LC/L.3216(CEP.2010/3)), Santiago, Chile, May.

___ (2008), *Demographic Change and its Influence on Development in Latin America and the Caribbean* (LC/G.2378(SES.32/14)), Santiago, Chile, June.

ECLAC/ILO (Economic Commission for Latin America and the Caribbean/International Labour Organization) (2010), "Crisis, stabilization and reactivation: performance of the labour market in 2009", *ECLAC/ILO Bulletin: The Employment Situation in Latin America and the Caribbean*, No. 3, Santiago, Chile, June.

ECLAC/OEI (Economic Commission for Latin America and the Caribbean/Organization of Ibero-American States for Education, Science and Culture) (2010), "Metas Educativas 2021: estudio de costos", *Project documents*, No. 327 (LC/W.327), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC) [online] http://www.eclac.org/publicaciones/xml/0/40520/metas-educativas-2021.pdf.

ECLAC/OIJ (Economic Commission for Latin America and the Caribbean/Ibero-American Youth Organization) (2008), *Youth and Social Cohesion in Ibero-America: a Model in the Making* (LC/G.2391), Santiago, Chile, October.

___ (2004), *La juventud en Iberoamérica. Tendencias y urgencias* (LC/L.2180-P/E), Santiago, Chile, October.

ECLAC/SEGIB (Economic Commission for Latin America and the Caribbean/Ibero-American Secretariat) (2010), *Las clases medias en Iberoamérica: retrospectiva y nuevas tendencias*, Santiago, Chile, ECLAC/Siglo XXI, forthcoming.

ECLAC/UNESCO (Economic Commission for Latin America and the Caribbean/United Nations Educational, Scientific and Cultural Organization) (1992), *Education and Knowledge: Basic Pillars of Changing Production Patterns with Social Equity* (LC/G.1702/Rev.1-P/E), Santiago, Chile. United Nations publication, Sales No. E.92.II.G.6.

ECLAC/OEI/SEGIB (Economic Commission for Latin America and the Caribbean/Organization of Ibero-American States for Education, Science and Culture/Ibero-American Secretariat) (2010), "Metas Educativas 2021: la educación que queremos para la generación de los bicentenarios", forthcoming.

Escobar, A. and M. De la Rocha (2008), "Girls, mothers and poverty reduction in Mexico: evaluating Progresa-Oportunidades", *The Gendered Impacts of Liberalization: towards "embedded liberalism"*?, S. Razavi (ed.), New York, Routledge.

___ (2002), "Evaluación cualitativa del Programa de Desarrollo Humano Oportunidades. Seguimiento de impacto 2001-2002, comunidades de 2,500 a 50,000 habitantes. Evaluación de resultados de impacto del Programa de Desarrollo Humano Oportunidades", Mexico City.

Espíndola, Ernesto and María Nieves Rico (2010), "Child poverty: a priority challenge", *Challenges Bulletin*, No. 10, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC)/United Nations Children's Fund (UNICEF).

Esping Andersen, Gösta (1990), *The Three Worlds of Welfare Capitalism*, Cambridge, Polity Press.

Feres, Juan Carlos and Xavier Mancero (2001), "El método de las Necesidades Básicas Insatisfechas (NBI) y sus aplicaciones en América Latina", *Estudios estadísticos y prospectivos series*, No. 7 (LC/L.1491-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.01.II.G.31.

Filgueira, F. (2009), *El desarrollo maniatado en América Latina: estados superficiales y desigualdades profundas*, Buenos Aires, Latin American Social Sciences Council (CLACSO).

___ (2007), "Cohesión, riesgo y arquitectura de protección social en América Latina", *Políticas sociales series*, No. 135 (LC/L.2752-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.07.II.G.89.

Filgueira, C., F. Filgueira and A. Fuentes (2001), "Critical choices at a critical age: youth emancipation paths and school attainment in Latin America", *Research Network Working Paper*, No. R-432, Washington, D.C., Inter-American Development Bank (IDB), June.

Filgueira, F., J. Papadópulos and Federico Tobar (2005), "Los ejes cartesianos de la política social regional: fallas originales y desmantelamiento perverso en América Latina", *Revista prisma*, No. 21, Montevideo, Catholic University of Uruguay.

Frankenberg, E., L.A. Lillard and R.J. Willis (2002), "Patterns of intergenerational transfers in Southeast Asia", *Journal of Marriage and the Family*, vol. 64, August.

Frey, B. and A. Stutzer (2002), *Happiness and Economics*, Princeton, Princeton University Press.

Gallart, María Antonia (2002), "Tendencias y desafíos en la interacción entre la educación y el trabajo", *Desarrollo local y formación: hacia una mirada integral de la formación de los jóvenes para el trabajo*, M. De Ibarrola (coord.), Montevideo, Inter-American Research and Documentation Centre on Vocational Training (CINTERFOR).

García-Huidobro, J.E. and C. Concha (2009), "Jornada escolar completa: la experiencia chilena", Santiago, Chile, unpublished.

Gertler, P., H. Patrinos and M. Rubio-Codina (2008), "Empowering parents to improve education: evidence from rural Mexico", *Policy Research Working Paper*, No. 3935, Washington, D.C., World Bank.

Gordon, David and others (2003), *Child Poverty in the Developing World*, Bristol, The Policy Press.

Helliwell, John F. (2003), "How's life? Combining individual and national variables to explain subjective well-being", *Economic Modelling*, vol. 20.

INE (National Institute of Statistics of Chile) (2006), "Fecundidad en Chile: situación reciente" [online] http://www.ine.cl/canales/chile_estadistico/demografia_y_vitales/demografia/pdf/fecundidad.pdf.

Inglehart, R. and others (2008), *Development, Freedom, and Rising Happiness*, Association for Psychological Science [online] http://www.worldvaluessurvey.org/wvs/articles/folder_published/article_base_122/files/RisingHappinessPPS.pdf.

Jacinto, Claudia (2010), "Formación profesional y cohesión social", *working document*, No. 41, Fundación Carolina.

Jiménez, Juan Pablo (2009), The Role of Tax Policy in the Context of the Global Crisis: Consequences and Prospects (LC/L.3037), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).

Johansen, Federico (2005), "La jornada escolar en el mundo", Buenos Aires [online] http://debate-educacion.educ.ar/ley/johansen.pdf.

Kahneman, D. and A. Deaton (2010), "High income improves evaluation of life but not emotional well-being" [online] http://www.princeton.edu/~deaton/downloads/deaton_kahneman_high_income_improves_evaluation_August2010.pdf.

Kahneman, D. and R. Sugden (2005), "Experienced utility as a standard of policy evaluation", *Environmental & Resource Economics*, vol. 32.

Kakwani, Nanak (1997), "On measuring growth and inequality components of changes in poverty with application to Thailand", *Discussion Paper*, University of New South Wales.

Kaztman, Rubén (2010), "Impacto social de la incorporación de las TIC en el sistema educativo", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), forthcoming.

___ (coord.) (1999), *Activos y estructuras de oportunidades. Estudio sobre las raíces de la vulnerabilidad social en Uruguay* (LC/MVD/R.180), Montevideo, Economic Commission for Latin America and the Caribbean (ECLAC)/ECLAC office in Montevideo.

Kaztman, Rubén and Pascual Gerstenfeld (1990), "Áreas duras y áreas blandas en el desarrollo social", *CEPAL Review*, No. 41 (LC/G.1631-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).

Kaztman, Rubén and Federico Rodríguez (2010), *La situación de la educación en Uruguay. Análisis de los datos de la Encuesta nacional de hogares ampliada de 2006*, Montevideo, United Nations Development Programme (UNDP)/National Institute of Statistics (INE).

Keyes, C., C. Ryff and D. Shmotkin (2002), "Optimizing well-being: the empirical encounter of two traditions", *Journal of Personality and Social Psychology,* vol. 82, No. 6.

Kling, Jeffrey R. (2000), *Interpreting Instrumental Variables Estimates of the Returns to Schooling*, Princeton, Department of Economics and Woodrow Wilson School, October.

Lazear, E. P. and R.T. Michael (1988), *Allocation of Income within the Household*, Chicago, University of Chicago Press.

Lee, R.D. (1994a), "The formal demography of population aging, transfers, and the economic life cycle", *Demography of Aging,* L.G. Martin and S.H. Preston, Washington, D.C., National Academy Press.

___ (1994b), "Population, age structure, intergenerational transfers, and wealth: a new approach, with applications to the US", *Journal of Human Resources*, No. 29.

Lee, Ronald and Andrew Mason (2009), "Fertility, human capital, and economic growth over the demographic transition", *European Journal of Population*, vol. 26, No. 2.

Lee, Sang-Hyop and Naohiro Ogawa (2011), "Labor income over the life cycle", *Population Aging and the Generational Economy: A Global Perspective*, Ronald Lee and Andrew Mason, Cheltenham, Edward Elgar.

Levy, D. and J. Ohls (2007), "Evaluation of Jamaica's PATH program: final report", Mathematica Policy Research Inc.

Lillard, L.A. and R.J. Willis (1997), "Motives for intergenerational transfers: evidence from Malaysia", *Demography*, vol. 34, No. 1.

Lindert, K., E. Skoufias and J. Shapiro (2006), *Redistributing Income to the Poor and the Rich: Public Transfers in Latin America and the Caribbean*, Washington, D.C., World Bank Institute (WBI).

López-Calva, Luis F. and Nora Lustig (eds.) (2010), *Declining Inequality in Latin America*, Brookings

Institution Press/United Nations Development Programme (UNDP).

Lyubomirsky, S. and L. Ross (1997), "Hedonic consequences of social comparison: a contrast of happy and unhappy people", *Journal of Personality and Social Psychology*, No. 73.

Malagón, Luis Alberto (2004), "Educación, trabajo y globalización: una perspectiva desde la universidad", *Revista iberoamericana de educación* [online] http://www.rieoei.org/deloslectores/626Malagon.PDF.

Mason, Andrew and Tim Miller (2000), "Dynasties, intergenerational transfers, and life-cycle income: a case study of Taiwan", *Sharing the Wealth: Demographic Change and Economic Transfers between Generations*, A. Mason and G. Tapinos, Oxford, Oxford University Press.

Mason, Andrew and others (2009), "Population aging and intergenerational transfers: introducing age into national accounts", *Developments in the Economics of Aging*, D. Wise (ed.), Chicago, National Bureau of Economic Research (NBER)/University of Chicago Press.

McGarry, K. and R. Schoeni (1997), "Transfer behavior within the family: results from the asset and health dynamics (AHEAD) study", *Journals of Gerontology Series B: Psychological and Social Sciences,* vol. 52B, special issue.

Mejía, I., F. Velez and J. García (2010), "El primer dividendo demográfico y los sistemas de protección social en México", *Notas de población*, No. 90 (LC/G.2469-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.10.II.G.56

MIDEPLAN (Ministry of Planning and Cooperation, Government of Chile) (2010), Encuesta de Caracterización Socioeconómica Nacional (CASEN), 13 July [online] http://www.mideplan.cl/casen2009/RESULTADOS_CASEN_2009.pdf.

Miller, Tim and Helena Cruz Castanheira (2010), "The fiscal impact of population aging in Brazil: 2005-2050", document presented at the Brazil country study on aging workshop, Brasilia and Washington, D.C., World Bank, 6-7 April.

Miller, Tim, Carl Mason and Mauricio Holz (2009), "The fiscal impact of demographic change in ten Latin American countries: projecting public expenditures in education, health, and pensions", document presented at the Workshop on demographic change and social policy in Latin America and the Caribbean, Washington, D.C., World Bank, 14-15 July.

Mincer, Jacob (1962), "On–the job training: costs, returns and some implications", *Journal of Political Economy*, No. 70.

___ (1958), "Investment in human capital and personal income distribution", *Journal of Political Economy*, No. 66.

Mincer, Jacob and Solomon Polachek (1974), "Family investments in human capital: earnings of women", *Journal of Political Economy*, No. 82.

Minujin, Alberto (2005), "Constructing a definition and measurements of children living in poverty", *GPS Contribution to IRC Meeting on Child Poverty in CEE/CIS*, Florence, January.

Moore, C. (2009), "Nicaragua's Red de Protección Social: an exemplary but short-lived conditional cash transfer programme", *Country Study*, No. 17, Brasilia, International Poverty Centre, United Nations Development Programme (UNDP), January.

___ (2008), "Assessing Honduras' CCT programme PRAF, Programa de Asignación Familiar: expected and unexpected realities", *Country Study*, No. 15, Brasilia, International Poverty Centre, United Nations Development Programme (UNDP), April.

OECD (Organization for Economic Cooperation and Development) (2010), *Learning for Jobs*, Paris.

___ (2009), "PISA 2006 Technical Report" [online] http://www.pisa.oecd.org/dataoecd/0/47/42025182.pdf.

OEI (Organization of Ibero-American States for Education, Science and Culture) (2008), *Metas Educativas 2021: la educación que queremos para la generación de los bicentenarios*, Madrid.

Pautassi, Laura (2007), "El cuidado como cuestión social desde un enfoque de derechos", *Mujer y desarrollo series,* No. 87 (LC/L.2800-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.07. II.G.133.

Paz, J. and others (2004), "América Latina: dinámica demográfica y políticas para aliviar la pobreza", *Población y desarrollo series*, No. 53 (LC/L.2148-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), June.

Perova, E. and R. Vakis (2009), "Welfare impacts of the "Juntos" Program in Peru: evidence from a non-experimental evaluation", Washington, D.C., World Bank.

Pires, Tiago and Sergio Urzúa (2010), "Longer school days. Better outcomes?", Northwestern University.

Psacharopoulus, George and Ng Ying Chu (1992), "Earnings and education in Latin America: assessing priorities for schooling investment", *Working Paper*, No. 1056, Washington, D.C., World Bank.

Raczynski, Dagmar (coord.) (2001), *Estudio de evaluación jornada escolar completa*, Santiago, Chile, Department of Sociological Studies, Catholic University of Chile (DESUC).

Reimers, F., C. DeShano da Silva and E. Trevino (2007), *Where is the "Education" in Conditional Cash*

Transfers in Education?, Montreal, UNESCO Institute for Statistics (UIS).

Rodríguez Vignoli, Jorge (2006), "Pobreza y población: enfoques, conceptos y vínculos con las políticas públicas con especial referencia a la experiencia y la situación de América Latina", document presented at the Meeting of experts on population and poverty in Latin America and the Caribbean, Santiago, Chile, Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC/United Nations Population Fund (UNFPA), 14-15 November.

Ros, Jaime (2009), "Poverty reduction in Latin America: the role of demographic, social and economic factors", *CEPAL Review*, No. 98 (LC/G.2404-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), August.

Rosero, L. and A. Robles (2008), "Los dividendos demográficos y la economía del ciclo vital en Costa Rica", *Papeles de población,* vol. 55.

Saad, P., T. Miller and C. Martínez (2009), "Impacto de los cambios demográficos en las demandas sectoriales en América Latina", *Revista brasileira de estudos de população*, vol. 26, No. 2, Rio de Janeiro, Brazilian Association for Population Studies (ABEP).

Saad, P. and others (2009), *Juventud y bono demográfico en Iberoamérica*, Madrid, Economic Commission for Latin America and the Caribbean (ECLAC)/Ibero-American Youth Organization (OIJ)/Publidisa Ed.

Samuelson, Paul (1958), "An exact consumption-loan model of interest with or without the social contrivance of money", *Journal of Political Economy*, vol. 66, No. 6.

Schady, N. and M. Araujo (2006), "Cash transfers, conditions, school enrollment and child work: evidence from a randomized experiment in Ecuador", *World Bank Policy Research Working Paper*, No. 3930, Washington, D.C.

Schapiro, Kristina A. (2009), "Migration and educational outcomes of children", *Development Research Paper*, No. 2009/57, United Nations Development Programme (UNDP).

Schmutte, P. and C. Ryff (1997), "Personality and well-being: reexamining methods and meanings", *Journal of Personality and Social Psychology*, vol. 73, No. 3.

Schultz, T.P. (2009), "The gender and intergenerational consequences of the demographic dividend: an assessment of the micro- and macrolinkages between the demographic transition and economic development", *The World Bank Economic Review,* vol. 23, No. 3.

___ (2000), "School subsidies for the poor: evaluating a Mexican strategy for reducing poverty", *FCND Discussion Paper*, No. 102, Washington, D.C., International Food Policy Research Institute (IFPRI).

Sen, Amartya (1985), "Well-being, agency and freedom: the Dewey Lectures 1984", *The Journal of Philosophy*, vol. 82, No. 4.

Serrano, C. (2005), "La política social en la globalización. Programas de protección en América Latina", *Mujer y desarrollo series*, No. 70 (LC/L.2364-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.05.II.G.103.

Shields, M. and W. Price (2005), "Exploring the economic and social determinants of psychological wellbeing and perceived social support in England", *Journal Royal Statistical Society*, section 3.

Stevenson, B. and J. Wolfers (2008), "Economic growth and subjective well-being: reassessing the Easterlin Paradox", *Brookings Papers on Economic Activity* [online] http://bpp.wharton.upenn.edu/jwolfers/Papers/EasterlinParadox.pdf.

Suh, E., E. Diener and J. Updegraff (2008), "From culture to priming conditions: self-construal influences on life satisfaction judgments", *Journal of Cross-Cultural Psychology,* vol. 39, No. 3.

Sunkel, Guillermo and Daniela Trucco (2010), "TIC para la educación en América Latina. Riesgos y oportunidades", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Sunkel, Guillermo, Daniela Trucco and Sebastián Möller (2010), "Aprender y enseñar con tecnologías de la información y las comunicaciones (TIC) en América Latina. Potenciales beneficios", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Tsui, Kai-yuen, (2002), "Multidimensional poverty indices", *Social Choice and Welfare*, No. 19, Springer-Verlag.

Tung, An-Chi (2011), "Consumption over the life cycle: an international comparison", *Population Aging and the Generational Economy: A Global Perspective*, Ronald Lee and Andrew Mason, Cheltenham, Edward Elgar.

Turra, Cassio and Bernardo Queiroz (2005), "Las transferencias intergeneracionales y la desigualdad socioeconómica en Brasil: una análisis inicial", *Notas de población*, No. 80 (LC/G.2276-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.05.II.G.142.

Turra, C.M and R. Rocha (2010), "Public transfers among dependent age groups in Brazil", document presented at the Brazil country study on aging workshop, Brasilia and Washington, D.C., World Bank, 6-7 April.

Turra, C.M., M. Holz and D. Cotlear (2009), "Who benefits from public transfers? Incidence across income groups and across generations", document presented at the Workshop on demographic change and social policy

in Latin America and the Caribbean, Washington, D.C., World Bank, 14-15 July.

Turra, C.M., I.G. Marri and S. Wajnman (2008), "Os argumentos de proteção social e equidade individual no debate sobre previdência e gênero no Brasil", *Mudança populacional: aspectos relevantes para a previdência*, vol. 27, Brasilia, Ministry of Social Welfare.

UNDP (United Nations Development Programme) (2010), *Regional Human Development Report for Latin America and the Caribbean, 2010*, New York.

UNESCO (United Nations Educational, Scientific and Cultural Organization) (2010a), *The World Conference on Early Childhood Care and Education (ECCE): Building the Wealth of Nations* (WCECCE/3), March.

___ (2010b), *Education for All Global Monitoring Report 2010. Regional Overview: Latin America and the Caribbean*, Paris.

___ (2007), "Education for All. Regional Overview: Latin America and the Caribbean" [online] http://unesdoc.unesco.org/images/0014/001489/148957E.pdf.

___ (2005), *La educación técnica y profesional de nivel medio en siete países de América Latina. Hacia un estado del arte*, Santiago, Chile, UNESCO Regional Office for Education in Latin America and the Caribbean.

___ (2000), *The Dakar Framework for Action. Education for All: Meeting our Collective Commitments*, Paris.

___ (1990), *Meeting Basic Learning Needs: A Vision for the 1990s*, Background Document, New York [online] http://unesdoc.unesco.org/images/0009/000975/097552e.pdf.

UNESCO/LLECE (United Nations Educational, Scientific and Cultural Organization/Latin American Laboratory for Assessment of the Quality of Education) (2010), *Factores asociados al logro cognitivo de los estudiantes de América Latina y el Caribe*, Santiago, Chile.

___ (2008), *Los aprendizajes de los estudiantes de América Latina y el Caribe. Primer reporte de los resultados del Segundo Estudio Regional Comparativo y Explicativo (SERCE)*, Santiago de Chile.

UNEVOC (UNESCO International Centre for Technical and Vocational Education and Training) (2006), *Participation in Formal Technical and Vocational Education and Training Programmes Worldwide. An initial statistical study,* Montreal.

UNICEF (United Nations Children's Fund) (2004), "PRSPs & children: child poverty, disparity and budgets", *Poverty Reduction Strategy Papers (PRSP) Resource Package*, New York.

United Nations (2005), *The Millennium Development Goals: a Latin American and Caribbean Perspective* (LC/G.2331-P), J.L. Machinea, A. Bárcena and A. León (coords.), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).

Veras Soares, F., R. Pérez and G. Issamu (2008), "Achievements and shortfalls of conditional cash transfers: impact evaluation of Paraguay's Tekoporã Programme", *IPC Evaluation Note*, No. 3, International Poverty Centre, United Nations Development Programme (UNDP).

Villatoro, Pablo (2007), "Las transferencias condicionadas en América Latina: luces y sombras", document presented at the International seminar on the evolution and challenges of conditional transfer programmes, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).

Wajnman, S. and C.M. Turra (2009), "The role of the demographic transition to changes in income inequality and poverty rates in Brazil", document presented at the Twenty-sixth International Population Conference, Marrakech, International Union for the Scientific Study of Population (IUSSP), 27 September-2 October.

Willis, Robert (1988), "Life cycles, institutions and population growth: a theory of the equilibrium interest rate in an overlapping generations model", *Economics of Changing Age Distributions in Developed Countries*, Ronald Lee, W. Brian Arthur and Gerry Rodgers (eds.), Oxford, Oxford University Press.

Winocur, Rosalía (2006), "Internet en la vida cotidiana de los jóvenes", *Revista mexicana de sociología*, vol. 68, No. 3, Mexico City, July-September.

Wood, J.V. (1996), "What is social comparison and how should we study it?", *Personality and Social Psychology Bulletin,* No. 22.

World Bank (2009), "Proyecto de apoyo para el Programa de Desarrollo Humano Oportunidades. Evaluación social y plan de acción para la definición del modelo alternativo de la operación y gestión del programa Oportunidades para población indígena", Washington, D.C.

Statistical appendix

Table A-1
LATIN AMERICA AND THE CARIBBEAN: TRENDS IN SELECTED ECONOMIC INDICATORS, 1990-2009

Country	Year	Per capita GDP (in 2000 dollars)	Per capita income (in 2000 dollars) [a]	Unemployment (percentage)	Annual variation in consumer price index [b]	Annual average variations in the period				
						Period	Per capita GDP	Per capita income [a]	Mean real remuneration	Real urban minimum wage
Argentina	1990	5 832.7	5 690.1	7.4	1 343.9					
	1999	7 852.3	7 598.8	14.3	-1.8	1990-1999	3.4	3.3	0.0	15.0
	2002	6 433.7	6 147.0	19.7	41.0	2002	-11.8	-13.3	-19.4	-19.5
	2008	9 884.9	9 926.2	7.9	7.2	2008	5.7	7.0	8.8	15.3
	2009	9 869.6	9 823.1	8.7	7.7	2009	-0.2	-1.0	11.7	15.3
Bahamas	1990	17 373.3	...	...	...					
	1999	17 694.8	...	7.8	...	1990-1999	0.2	...	...	...
	2002	17 790.8	...	9.1	...	2002	0.9	...	...	...
	2008	18 349.3	...	8.7	...	2008	-2.8	...	...	...
	2009	17 357.2	...	14.2	...	2009	-5.4	...	...	...
Barbados	1990	8 673.5	...	14.7	3.4					
	1999	9 928.2	...	10.4	2.9	1990-1999	1.5	...	...	...
	2002	9 790.9	...	10.3	0.9	2002	0.7	...	...	...
	2008	11 468.2	...	8.1	7.3	2008	0.5	...	...	...
	2009	11 012.2	...	10.0	4.4	2009	-4.0	...	...	...
Belize	1990	2 775.3	...	...	...					
	1999	3 024.1	...	12.8	...	1990-1999	1.0	...	...	...
	2002	3 476.7	...	10.0	...	2002	2.7	...	...	...
	2008	3 949.7	...	8.2	...	2008	1.7	...	...	...
	2009	3 872.1	...	13.1	...	2009	-2.0	...	...	...
Bolivia (Plurinational State of)	1990	869.8	901.0	7.3	18.0					
	1999	1 005.6	1 026.6	7.2	3.1	1990-1999	1.6	1.5	2.1	10.2
	2002	1 010.5	1 058.0	8.7	2.5	2002	0.4	3.6	3.3	4.7
	2008	1 173.3	1 502.5	6.7	11.8	2008	4.3	6.1	-7.4	-1.5
	2009	1 191.9	1 453.4	7.9	0.3	2009	1.6	-3.3	...	8.2
Brazil	1990	3 356.1	3 280.6	4.3	2 101.3					
	1999	3 600.2	3 491.3	7.6	8.9	1990-1999	0.8	0.7	0.2	3.1
	2002	3 743.8	3 635.4	11.7	12.5	2002	1.2	1.4	-2.1	4.2
	2008	4 465.9	4 463.0	7.9	5.9	2008	4.1	4.5	2.1	3.9
	2009	4 416.0	4 399.1	8.1	4.3	2009	-1.1	-1.4	1.3	7.4
Chile	1990	3 081.3	2 951.8	7.8	27.3					
	1999	4 747.1	4 576.1	10.1	2.3	1990-1999	4.9	5.0	4.0	5.5
	2002	5 055.1	4 834.7	9.8	2.8	2002	1.0	1.7	2.0	2.9
	2008	6 262.0	6 903.9	7.8	7.1	2008	2.6	0.2	-0.2	-0.1
	2009	6 106.1	6 712.8	9.7	-1.4	2009	-2.5	-2.8	4.8	5.4
Colombia	1990	2 167.6	2 077.2	10.5	32.4					
	1999	2 337.2	2 297.7	19.4	9.2	1990-1999	0.8	1.1	2.6	-0.1
	2002	2 396.9	2 364.6	18.1	7.0	2002	0.8	0.8	3.0	0.7
	2008	2 983.3	3 097.9	11.5	7.7	2008	0.9	2.3	-2.0	-1.6
	2009	2 951.4	2 971.3	13.0	2.0	2009	-1.1	-4.1	1.1	3.1
Costa Rica	1990	3 123.1	3 034.9	5.4	27.3					
	1999	4 078.2	3 734.3	6.2	10.1	1990-1999	3.0	2.3	2.2	1.1
	2002	4 049.3	3 961.9	6.8	9.7	2002	0.8	2.1	4.1	-0.6
	2008	5 206.4	4 857.5	4.8	13.9	2008	1.5	2.0	-2.0	-1.3
	2009	5 084.3	4 687.8	7.6	4.0	2009	-2.3	-3.5	7.7	4.0

Table A-1 (continued)

Country	Year	Per capita GDP (in 2000 dollars)	Per capita income (in 2000 dollars) [a]	Unemployment (percentage)	Annual variation in consumer price index [b]	Annual average variations in the period				
						Period	Per capita GDP	Per capita income [a]	Mean real remuneration	Real urban minimum wage
Cuba [b]	1990	3 340.9	…	5.4	…					
	1999	2 613.0	2 695.0	6.3	…	1990-1999	-2.7	….	-9.4	…
	2002	2 873.8	2 889.2	3.3	…	2002	1.2	1.3	9.3	5.3
	2008	4 362.9	…	1.6	…	2008	4.1	…	0.1	-1.6
	2009	4 426.2	…	1.7	…	2009	1.4	…	4.1	1.2
Dominican	1990	1 828.4	1 794.8	...	79.9					
Republic	1999	2 657.1	2 801.7	13.8	5.1	1990-1999	4.2	5.1	…	2.6
	2002	2 885.0	3 031.6	16.1	10.5	2002	4.2	4.9	…	-0.5
	2008	3 688.1	3 663.0	14.1	4.5	2008	3.8	3.5	…	-6.5
	2009	3 764.0	3 802.8	14.9	5.7	2009	2.1	3.8	…	7.0
Ecuador	1990	1 311.3	1 155.6	6.1	49.5					
	1999	1 288.1	1 223.5	14.4	60.7	1990-1999	-0.2	0.6	3.7	2.1
	2002	1 397.9	1 371.7	9.2	9.4	2002	2.2	3.5	10.9	0.9
	2008	1 782.2	2 039.0	6.9	8.8	2008	6.1	10.4	…	8.5
	2009	1 770.0	1 905.4	8.5	4.3	2009	-0.7	-6.6	…	3.6
El Salvador	1990	1 572.1	1 614.2	10.0	19.3					
	1999	2 176.3	2 391.9	6.9	-1.0	1990-1999	3.7	4.5	…	0.1
	2002	2 280.4	2 587.2	6.2	2.8	2002	1.9	-0.7	…	-1.8
	2008	2 672.9	3 044.2	5.5	5.5	2008	2.0	0.4	…	0.2
	2009	2 566.1	2 936.8	7.1	-0.2	2009	-4.0	-3.5	…	9.5
Guatemala	1990	1 289.6	1 265.6	…	59.6					
	1999	1 513.5	1 571.7	…	4.9	1990-1999	1.8	2.4	5.4	-7.4
	2002	1 549.7	1 701.2	…	6.3	2002	1.3	4.7	-0.9	0.3
	2008	1 687.3	1 838.7	…	9.4	2008	0.8	-1.3	-2.6	-10.2
	2009	1 655.8	1 824.2	…	-0.3	2009	-1.9	-0.8	0.1	5.1
Haiti	1990	515.7	556.8	…	26.1					
	1999	430.9	517.1	…	9.7	1990-1999	-2.0	-0.8	…	-7.3
	2002	408.1	490.4	…	14.8	2002	-1.8	-2.1	…	-8.9
	2008	389.1	482.6	…	17.0	2008	-0.8	-6.0	…	-12.9
	2009	393.8	504.4	…	2.1	2009	1.2	4.5	…	28.0
Honduras	1990	1 061.4	1 022.5	7.8	36.4					
	1999	1 113.5	1 246.6	5.3	10.9	1990-1999	0.5	2.2	…	-1.1
	2002	1 179.2	1 216.4	6.1	8.1	2002	1.7	0.8	…	2.1
	2008	1 450.6	1 512.1	4.1	10.8	2008	1.9	-1.6	…	0.2
	2009	1 394.9	1 522.1	4.9	3.0	2009	-3.8	0.7	…	70.4
Jamaica	1990	3 516.5	…	15.3	29.8					
	1999	3 489.4	…	15.7	6.8	1990-1999	-0.1	…	…	…
	2002	3 508.6	…	14.2	7.3	2002	0.2	…	…	…
	2008	3 703.2	…	10.6	16.9	2008	-1.4	…	…	…
	2009	3 588.9	…	11.4	10.2	2009	-3.1	…	…	…
Mexico	1990	5 393.6	5 235.6	2.7	29.9					
	1999	6 121.8	6 043.8	3.7	12.3	1990-1999	1.4	1.6	0.7	-4.1
	2002	6 320.4	6 265.3	3.9	5.7	2002	-0.5	0.1	1.9	0.7
	2008	7 094.6	7 269.3	4.9	6.5	2008	0.5	0.6	2.2	-2.1
	2009	6 563.1	6 657.3	6.7	3.6	2009	-7.5	-8.4	0.6	-1.5
Nicaragua	1990	682.1	577.4	7.6	13 490.2					
	1999	753.7	799.8	10.7	7.2	1990-1999	1.1	3.7	3.1	0.8
	2002	778.4	812.8	11.6	4.0	2002	-0.6	0.7	3.5	3.7
	2008	894.2	899.1	8.0	12.7	2008	1.4	-2.1	-3.8	7.6
	2009	869.8	908.9	10.5	1.8	2009	-2.7	1.1	6.5	16.8

Table A-1 (concluded)

Country	Year	Per capita GDP (in 2000 dollars)	Per capita income (in 2000 dollars) [a]	Unemployment (percentage)	Annual variation in consumer price index [b]	Annual average variations in the period				
						Period	Per capita GDP	Per capita income [a]	Mean real remuneration	Real urban minimum wage
Panama	1990	2 941.5	3 017.0	20.0	0.8					
	1999	3 910.6	3 814.7	13.6	1.5	1990-1999	3.2	2.6	0.7	1.7
	2002	3 902.0	3 939.5	16.5	1.9	2002	0.4	2.8	-3.0	-1.2
	2008	5 687.8	5 019.2	6.5	6.8	2008	8.9	6.1	-0.6	2.7
	2009	5 732.4	5 203.9	7.9	1.9	2009	0.8	3.7	-0.4	-2.4
Paraguay	1990	1 400.1	1 396.7	6.6	44.0					
	1999	1 401.2	1 453.4	9.4	5.4	1990-1999	0.0	0.4	1.3	-1.3
	2002	1 299.3	1 293.2	14.7	14.6	2002	-2.0	-4.8	-5.0	-0.7
	2008	1 521.4	1 614.3	7.4	7.5	2008	3.9	8.6	-0.7	-2.5
	2009	1 437.5	1 495.4	8.2	1.9	2009	-5.5	-7.4	4.3	0.7
Peru	1990	1 649.1	1 594.5	8.3	7 646.8					
	1999	2 023.8	2 019.4	9.2	3.7	1990-1999	2.3	2.7	0.6	2.3
	2002	2 098.0	2 075.9	9.4	1.5	2002	3.6	3.4	4.6	-0.2
	2008	2 923.9	2 987.9	8.4	6.6	2008	8.5	6.2	2.2	2.5
	2009	2 915.7	2 962.0	8.4	0.2	2009	-0.3	-0.9	0.3	-2.9
Suriname	1990	1 848.8	…	15.8						
	1999	1 648.6	…	14.0	…	1990-1999	-1.3	…	…	…
	2002	1 748.8	…	10.0	…	2002	1.2	…	…	…
	2008	2 142.0	…	…	…	2008	3.3	…	…	…
	2009	2 167.3	…	…	…	2009	1.2	…	…	…
Trinidad and Tobago	1990	4 337.9	…	20.1	9.5					
	1999	5 913.2	…	13.2	3.4	1990-1999	3.5	…	…	…
	2002	7 025.6	…	10.4	4.3	2002	7.5	…	…	…
	2008	10 963.9	…	4.6	14.5	2008	1.9	…	…	…
	2009	10 820.2	…	5.3	1.3	2009	-1.3	…	…	…
Uruguay	1990	4 925.4	4 975.1	8.5	128.9					
	1999	6 326.0	6 270.1	11.3	4.2	1990-1999	2.8	2.6	1.4	-5.3
	2002	5 325.4	5 371.8	17.0	25.9	2002	-11.0	-10.4	-10.7	-10.1
	2008	8 035.7	7 727.7	7.9	9.2	2008	8.2	8.6	3.6	10.8
	2009	8 238.3	7 974.1	7.7	5.9	2009	2.5	3.2	…	…
Venezuela (Bolivarian Republic of)	1990	4 737.6	4 431.4	10.4	36.5					
	1999	4 631.5	4 112.9	15.0	20.0	1990-1999	-0.3	-0.8	-3.9	-0.8
	2002	4 276.5	3 999.0	15.8	31.2	2002	-10.5	-10.3	-11.0	-5.4
	2008	5 773.5	7 298.5	7.3	31.9	2008	3.0	9.0	-4.5	-6.4
	2009	5 493.2	6 149.5	7.8	26.9	2009	-4.9	-15.7	…	…
Latin America [c]	1990	3 535.8	3 428.8	…	1 376.8					
	1999	4 004.0	3 899.2	11.0	9.7	1990-1999	1.4	1.4	2.0	2.5
	2002	3 992.1	3 900.5	11.1	12.2	2002	-1.7	-1.6	-1.3	0.6
	2008	4 923.8	5 067.7	7.3	8.4	2008	3.0	3.7	-0.5	0.1
	2009	4 777.5	4 841.9	8.2	4.7	2009	-3.0	-4.5	3.1	9.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official information from the countries.
[a] Real per capita gross national income.
[b] Simple average of December-to-December variations for each year.
[c] The aggregate figure for Latin America was calculated by weighting the figures for all the countries for which information was available for each indicator.

Table A-2
LATIN AMERICA AND THE CARIBBEAN: TOTAL POPULATION BY COUNTRY OR TERRITORY, 1980-2020
(Thousands at mid-year)

Country	1980	1985	1990	1995	2000	2005	2010	2015	2020
Latin America									
Argentina	28 094	30 305	32 581	34 835	36 896	38 747	40 738	42 676	44 486
Bolivia (Plurinational State of)	5 355	5 964	6 669	7 482	8 317	9 182	10 031	10 854	11 638
Brazil	121 618	136 124	149 527	161 620	174 167	186 110	195 498	202 954	209 090
Chile	11 174	12 102	13 179	14 395	15 412	16 294	17 133	17 914	18 606
Colombia	26 881	29 984	33 186	36 436	39 763	43 046	46 299	49 385	52 278
Costa Rica	2 347	2 697	3 076	3 475	3 929	4 327	4 639	4 962	5 255
Cuba	9 823	10 064	10 564	10 885	11 075	11 189	11 203	11 213	11 193
Dominican Republic	5 808	6 487	7 179	7 888	8 560	9 237	9 899	10 515	11 077
Ecuador	7 961	9 099	10 272	11 397	12 305	13 060	13 773	14 550	15 349
El Salvador	4 660	4 996	5 326	5 724	5 942	6 057	6 192	6 381	6 616
Guatemala	7 014	7 935	8 908	10 004	11 229	12 709	14 376	16 195	18 076
Haiti	5 691	6 388	7 109	7 837	8 578	9 295	10 089	10 918	11 752
Honduras	3 634	4 236	4 901	5 589	6 234	6 898	7 621	8 392	9 141
Mexico	69 321	76 808	83 906	91 621	98 957	105 001	110 675	115 735	120 099
Nicaragua	3 250	3 709	4 137	4 658	5 100	5 455	5 822	6 189	6 529
Panama	1 949	2 176	2 411	2 670	2 950	3 231	3 508	3 773	4 027
Paraguay	3 198	3 702	4 248	4 799	5 349	5 904	6 460	7 007	7 533
Peru	17 324	19 519	21 765	23 927	25 997	27 833	29 495	31 197	32 881
Uruguay	2 914	3 009	3 106	3 218	3 318	3 324	3 372	3 430	3 493
Venezuela (Bolivarian Republic of)	15 091	17 317	19 731	22 078	24 402	26 724	29 043	31 291	33 412
Latin America	353 109	392 620	431 779	470 537	508 479	543 622	575 867	605 531	632 530
The Caribbean									
Anguilla	7	7	8	10	11	14	15	17	18
Antigua and Barbuda	72	68	62	68	77	84	89	93	97
Aruba	61	64	63	80	91	101	107	109	111
Bahamas	210	234	256	281	305	325	346	366	384
Barbados	249	254	260	258	252	253	257	260	262
Belize	144	165	190	220	252	282	313	344	375
Cayman Islands	17	21	26	33	40	53	57	59	61
Dominica	73	72	69	69	68	67	67	67	67
Grenada	89	100	96	100	101	103	104	107	108
Guyana	776	771	749	759	756	764	761	754	745
Jamaica	2 133	2 296	2 364	2 466	2 568	2 668	2 730	2 786	2 834
Montserrat	12	11	11	10	5	6	6	6	6
Netherlands Antilles	174	182	191	191	181	186	201	207	210
Puerto Rico	3 197	3 378	3 528	3 701	3 819	3 913	3 998	4 074	4 135
Saint Kitts and Nevis	43	42	41	43	46	49	52	56	59
Saint Lucia	118	127	138	147	157	165	174	182	190
Saint Vincent and the Grenadines	100	104	107	108	108	109	109	110	110
Suriname	366	376	407	436	467	500	524	547	568
Trinidad and Tobago	1 082	1 176	1 219	1 265	1 295	1 318	1 344	1 368	1 384
Turks and Caicos Islands	8	9	12	15	19	31	33	35	36
United States Virgin Islands	98	105	103	107	109	110	109	108	106
The Caribbean [a]	29 860	32 063	34 384	36 640	38 650	40 566	42 312	43 958	45 470
Latin America and the Caribbean [b]	362 655	402 103	442 310	482 265	521 228	556 512	588 649	618 486	645 543

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Database on Social Statistics and Indicators (BADEINSO) [online]. Information from the Latin American and Caribbean Demographic Centre - Population Division of ECLAC, 2008 revision. Population Database and United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, 2008 revision; Population database, published on CD-ROM.

[a] Includes 24 economies: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Netherlands Antilles, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Islands and United States Virgin Islands.

[b] Includes 46 economies: Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivarian Republic of Venezuela, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands (Malvinas), French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, United States Virgin Islands and Uruguay.

Table A-3
LATIN AMERICA AND THE CARIBBEAN: GLOBAL FERTILITY RATES BY COUNTRY AND FIVE-YEAR PERIOD, 1980-2020
(Children per woman)

Country	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020
Latin America								
Argentina	3.15	3.05	2.90	2.63	2.35	2.25	2.16	2.08
Bolivia (Plurinational State of)	5.30	5.00	4.80	4.32	3.96	3.50	3.09	2.75
Brazil	3.80	3.10	2.60	2.45	2.25	1.90	1.70	1.60
Chile	2.67	2.65	2.55	2.21	2.00	1.94	1.89	1.85
Colombia	3.68	3.24	3.00	2.75	2.55	2.45	2.30	2.19
Costa Rica	3.53	3.37	2.95	2.58	2.28	1.96	1.97	1.85
Cuba	1.85	1.85	1.65	1.61	1.63	1.50	1.54	1.57
Dominican Republic	4.15	3.65	3.31	2.98	2.83	2.67	2.48	2.32
Ecuador	4.70	4.00	3.40	3.10	2.82	2.58	2.38	2.22
El Salvador	4.80	4.20	3.73	3.30	2.60	2.35	2.22	2.13
Guatemala	6.10	5.70	5.45	5.00	4.60	4.15	3.71	3.29
Haiti	6.21	5.70	5.15	4.62	4.00	3.54	3.19	2.91
Honduras	6.00	5.37	4.92	4.30	3.72	3.31	2.95	2.66
Mexico	4.25	3.63	3.19	2.67	2.40	2.21	2.04	1.89
Nicaragua	5.85	5.00	4.50	3.60	3.00	2.76	2.55	2.37
Panama	3.52	3.20	2.87	2.79	2.70	2.56	2.41	2.29
Paraguay	5.20	4.77	4.31	3.88	3.48	3.08	2.76	2.51
Peru	4.65	4.10	3.57	3.10	2.80	2.60	2.38	2.22
Uruguay	2.57	2.53	2.49	2.30	2.20	2.12	2.03	1.96
Venezuela (Bolivarian Republic of)	3.96	3.65	3.25	2.94	2.72	2.55	2.39	2.26
Latin America	3.95	3.44	3.04	2.74	2.50	2.27	2.09	1.98
The Caribbean								
Aruba	2.36	2.30	2.17	2.00	1.82	1.74	1.75	1.80
Bahamas	3.16	2.62	2.60	2.40	2.11	2.02	1.95	1.88
Barbados	1.92	1.75	1.60	1.50	1.50	1.53	1.58	1.63
Belize	5.40	4.70	4.35	3.85	3.35	2.94	2.65	2.41
Grenada	4.23	4.14	3.46	2.81	2.43	2.30	2.20	2.10
Guyana	3.26	2.70	2.55	2.50	2.43	2.33	2.22	2.13
Jamaica	3.55	3.10	2.84	2.67	2.53	2.40	2.28	2.17
Netherlands Antilles	2.36	2.30	2.28	2.12	2.09	1.98	1.91	1.86
Puerto Rico	2.46	2.26	2.18	2.02	1.84	1.83	1.85	1.85
Saint Lucia	4.20	3.65	3.15	2.60	2.10	2.05	1.90	1.85
Saint Vincent and the Grenadines	3.64	3.10	2.85	2.55	2.24	2.13	2.05	1.97
Suriname	3.70	3.00	2.60	2.80	2.60	2.42	2.29	2.19
Trinidad and Tobago	3.22	2.80	2.10	1.73	1.61	1.64	1.69	1.74
United States Virgin Islands	3.70	3.09	3.09	2.50	2.23	2.15	2.06	1.98
The Caribbean [a]	3.40	3.12	2.83	2.63	2.51	2.37	2.30	2.22
Latin America and the Caribbean [b]	3.93	3.42	3.02	2.73	2.50	2.26	2.09	1.98

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Database on Social Statistics and Indicators (BADEINSO) [online]. Information from the Latin American and Caribbean Demographic Centre - Population Division of ECLAC, 2008 revision. Population Database and United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, 2008 revision; Population database, published on CD-ROM.

[a] Includes 24 economies: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Netherlands Antilles, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Islands and United States Virgin Islands.

[b] Includes 46 economies: Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivarian Republic of Venezuela, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands (Malvinas), French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, United States Virgin Islands and Uruguay.

Table A-4
LATIN AMERICA: POVERTY AND INDIGENCE LEVELS, 1990-2009
(Percentages)

Country	Year	Population below the poverty line [a]					Population below the indigence line				
		National total	Urban areas			Rural areas	National total	Urban areas			Rural areas
			Total	Metropolitan area	Other urban			Total	Metropolitan area	Other urban	
Argentina	1990	...	...	21.2	...	...	...	...	5.2	...	...
	1999	...	23.7	19.7	28.5	...	...	6.7	4.8	8.8	...
	2002	...	45.4	41.5	49.6	...	...	20.9	18.6	23.3	...
	2006	...	21.0	19.3	22.8	...	...	7.2	6.7	7.9	...
	2009	...	11.3	9.6	13.3	...	...	3.8	3.1	4.5	...
Bolivia (Plurinational State of)	1989	...	52.6	...	...	...	...	23.0	...	...	...
	1999	60.6	48.7	45.0	63.9	80.7	36.4	19.8	17.5	29.0	64.7
	2002	62.4	52.0	48.0	58.2	79.2	37.1	21.3	18.8	25.0	62.9
	2007	54.0	42.4	40.6	44.9	75.8	31.2	16.2	15.4	17.4	59.0
Brazil	1990	48.0	41.2	...	...	70.6	23.4	16.7	...	...	46.1
	1999	37.5	32.9	...	...	55.3	12.9	9.3	...	...	27.1
	2002	37.8	34.4			55.7	12.6	10.0			26.4
	2008	25.8	22.8	...	...	41.2	7.3	5.5	...	...	16.5
	2009	24.9	22.1	...	...	39.3	7.0	5.5	...	...	15.2
Chile	1990	38.6	38.5	32.1	43.5	38.8	13.0	12.5	9.3	14.9	15.6
	1998	21.7	20.7	14.6	25.0	27.5	5.6	5.1	3.3	6.4	8.6
	2003	18.7	18.5	12.4	22.7	20.0	4.7	4.4	2.8	5.6	6.2
	2006	13.7	13.9	10.4	16.0	12.3	3.2	3.2	2.3	3.7	3.5
	2009	11.5	11.7	8.3	13.8	10.4	3.6	3.5	2.7	3.9	4.4
Colombia	1991	56.1	52.7	...	...	60.7	26.1	20.0	...	...	34.3
	1999	54.9	50.6	43.1	53.1	61.8	26.8	21.9	19.6	22.7	34.6
	2002 [b]	54.2	48.7	36.0	52.3	69.6	19.9	15.4	8.6	17.3	32.8
	2008 [b]	46.1	40.0	22.6	44.8	65.3	17.9	13.1	3.9	15.7	32.7
	2009 [b]	45.7	39.7	22.1	44.7	64.5	16.5	12.4	4.1	14.7	29.2
Costa Rica	1990	26.3	24.9	22.8	27.7	27.3	9.9	6.4	4.9	8.4	12.5
	1999	20.3	18.1	17.5	18.7	22.3	7.8	5.4	4.3	6.5	9.8
	2002	20.3	17.5	16.8	18.0	24.3	8.2	5.5	5.5	5.6	12.0
	2008	16.4	15.6	13.9	22.3	17.5	5.5	4.3	3.7	6.4	7.3
	2009	18.9	18.5	16.7	25.4	19.5	6.9	5.4	4.9	7.3	9.1
Dominican Republic	2002	47.1	42.4	...	...	55.9	20.7	16.5	...	...	28.6
	2008	44.3	42.0	...	...	49.1	22.6	19.5	...	...	29.0
	2009	41.1	39.3	...	...	44.7	21.0	19.4	...	...	24.3
Ecuador	1990	...	62.1	...	...	...	...	26.2	...	...	...
	1999	...	63.5	...	...	...	...	31.3	...	...	...
	2002	...	49.0	...	...	...	...	19.4	...	...	...
	2008	42.7	39.0	...	...	50.2	18.0	14.2	...	...	25.6
	2009	42.2	40.2	...	...	46.3	18.1	15.5	...	...	23.3
El Salvador	1995	54.2	45.8	34.7	55.1	64.4	21.7	14.9	8.8	20.1	29.9
	1999	49.8	38.7	29.8	48.7	65.1	21.9	13.0	7.7	19.0	34.3
	2001	48.9	39.4	32.1	47.7	62.4	22.1	14.3	9.9	19.2	33.3
	2004	47.5	41.2	33.2	48.6	56.8	19.0	13.8	8.4	18.8	26.6
	2009	47.9	42.3	32.6	49.5	57.6	17.3	12.8	7.3	16.8	25.2
Guatemala	1989	69.4	53.6	...	...	77.7	42.0	26.4	...	...	50.2
	1998	61.1	49.1	...	...	69.0	31.6	16.0	...	...	41.8
	2002	60.2	45.3	...	...	68.0	30.9	18.1	...	...	37.6
	2006	54.8	42.0	...	...	66.5	29.1	14.8	...	...	42.2
Honduras	1990	80.8	70.4	59.9	79.5	88.1	60.9	43.6	31.0	54.5	72.9
	1999	79.7	71.7	64.4	78.8	86.3	56.8	42.9	33.7	51.9	68.0
	2002	77.3	66.7	56.9	74.4	86.1	54.4	36.5	25.1	45.3	69.5
	2007	68.9	56.9	47.8	64.0	78.8	45.6	26.2	18.0	32.5	61.7
Mexico	1989	47.7	42.1	...	...	56.7	18.7	13.1	...	...	27.9
	1998	46.9	38.9	...	...	58.5	18.5	9.7	...	...	31.1
	2002	39.4	32.2	...	...	51.2	12.6	6.9	...	...	21.9
	2008	34.8	29.2	...	...	44.6	11.2	6.4	6.4	19.8	19.8

Table A-4 (concluded)

Country	Year	Population below the poverty line [a]					Population below the indigence line				
		National total	Urban areas			Rural areas	National total	Urban areas			Rural areas
			Total	Metropolitan area	Other urban			Total	Metropolitan area	Other urban	
Nicaragua	1993	73.6	66.3	58.3	73.0	82.7	48.4	36.8	29.5	43.0	62.8
	1998	69.9	64.0	57.0	68.9	77.0	44.6	33.9	25.8	39.5	57.5
	2001	69.3	63.8	50.8	72.1	77.0	42.4	33.4	24.5	39.1	55.1
	2005	61.9	54.4	48.7	58.1	71.5	31.9	20.8	16.4	23.7	46.1
Panama	1991	...	32.7	...	...	...	...	11.5	...	...	...
	1999	...	20.8	...	...	...	...	5.9	...	...	...
	2002	36.9	26.2	...	...	54.6	18.6	9.0	...	...	34.6
	2008	27.7	17.0	...	...	46.3	13.5	4.7	...	...	28.8
	2009	26.4	16.3	...	...	43.9	11.1	4.6	...	...	22.3
Paraguay	1990	...	...	43.2	...	...	...	...	13.1	...	...
	1999	60.6	49.0	39.5	61.3	73.9	33.9	17.4	9.2	28.0	52.8
	2001	61.0	50.1	42.7	59.1	73.6	33.2	18.4	10.4	28.1	50.3
	2008	58.2	52.5	48.8	58.2	66.1	30.8	22.1	18.9	27.2	43.1
	2009	56.0	48.2	43.9	54.9	67.1	30.4	19.0	15.8	23.9	46.6
Peru	1997	47.6	33.7	...	...	72.7	25.1	9.9	...	...	52.7
	1999	48.6	36.1	...	...	72.5	22.4	9.3	...	...	47.3
	2001 [c]	54.8	42.0	...	...	78.4	24.4	9.9	...	...	51.3
	2008 [c]	36.2	23.5	...	...	59.8	12.6	3.4	...	...	29.7
	2009 [c]	34.8	21.1	...	...	60.3	11.5	2.8	...	...	27.8
Uruguay	1990	...	17.9	11.3	24.3	...	...	3.4	1.8	5.0	...
	1999	...	9.4	9.8	9.0	...	...	1.8	1.9	1.6	...
	2002	...	15.4	15.1	15.8	...	...	2.5	2.7	2.2	...
	2008	13.7	14.0	15.2	13.1	9.4	3.4	3.5	4.6	2.7	2.4
	2009	10.4	10.7	12.8	9.1	5.9	1.9	2.0	3.1	1.1	1.3
Venezuela (Bolivarian Republic of) [d]	1990	39.8	38.6	29.2	41.2	46.0	14.4	13.1	8.0	14.5	21.3
	1999	49.4	...	...	...	...	21.7	...	...	...	...
	2002	48.6	...	...	...	...	22.2	...	...	...	...
	2008	27.6	...	...	...	...	9.9	...	...	...	...
Latin America [e]	1980	40.5	29.5	...	...	59.8	18.6	10.6	...	...	32.7
	1990	48.3	41.4	...	...	65.4	22.5	15.3	...	...	40.4
	1999	43.9	37.2	...	...	63.7	18.7	12.1	...	...	38.2
	2002	44.0	38.4	...	...	61.8	19.4	13.5	...	...	37.8
	2007	34.1	28.9	...	...	52.1	12.6	8.1	...	...	28.2
	2008	33.0	27.6	...	...	52.3	12.9	8.3	...	...	29.5
	2009	33.1	27.8	...	...	52.8	13.3	8.8	...	...	30.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household survey data from the respective countries.

[a] Includes persons below the indigence line or living in extreme poverty.

[b] Figures from the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE) of Colombia. The values shown for 2002 on are not strictly comparable with those for earlier years owing to methodological changes made by DNP and DANE.

[c] Figures from the Institute of Statistics and Informatics (INEI) of Peru.

[d] From 1997, the sample design for the survey does not permit urban-rural breakdown. Figures therefore correspond to the national total.

[e] Estimate for 18 countries of the region plus Haiti.

Table A-5
LATIN AMERICA: POVERTY AND INDIGENCE LINES (PL AND IL)
(Per capita monthly values)

Countries	Year	Income reference period	Currency [a]	Urban		Rural		Variation [b]	Urban		Rural	
				IL	PL	IL	PL		IL	PL	IL	PL
				Currency in use					Dollars			
Argentina	1990 [c]	September	A	255 928	511 856	…	…	5 791.0	44.2	88.4	…	…
	1999	September	$	72	143	…	…	1.0	71.6	143.3	…	…
	2002	October	$	99	198	…	…	3.6	27.5	55.0	…	…
	2006	2nd semester	$	138	276	…	…	3.1	45.1	90.2	…	…
	2009	Year	$	165	342			3.7	44.6	92.1		
Bolivia (Plurinational State of)	1989	October	Bs	68	137	…	…	2.9	23.8	47.5	…	…
	1999	Oct.-Nov.	Bs	167	333	130	228	5.9	28.0	56.1	21.9	38.3
	2002	Oct.-Nov.	Bs	167	334	133	234	7.4	22.6	45.2	18.1	31.6
	2007	Year	Bs	232	449	180	307	7.9	29.6	57.2	22.9	39.1
Brazil	1990	September	Cr$	3 109	6 572	2 634	4 967	75.5	41.2	87.0	34.9	65.8
	1999	September	R$	51	126	43	91	1.9	26.7	66.2	22.7	48.1
	2002	September	R$	63	155	54	114	3.35	18.9	46.3	16.3	34.0
	2008	September	R$	96	225	84	177	1.80	53.2	125.3	46.7	98.6
	2009	September	R$	100	238	88	188	1.82	54.8	130.7	48.2	103.4
Chile	1990	November	Ch$	9 297	18 594	7 164	12 538	327.4	28.4	56.8	21.9	38.3
	1998	November	Ch$	18 944	37 889	14 598	25 546	463.3	40.9	81.8	31.5	55.1
	2003	November	Ch$	21 856	43 712	16 842	29 473	625.5	34.9	69.9	26.9	47.1
	2006	November	Ch$	23 549	47 099	18 146	31 756	527.4	44.7	89.3	34.4	60.2
	2009	November	Ch$	31 422	56 383	24 213	38 638	507.8	61.9	111.0	47.7	76.1
Colombia	1991	August	Col$	18 093	36 186	14 915	26 102	645.6	28.0	56.1	23.1	40.4
	1999	August	Col$	69 838	139 716	57 629	100 851	1 873.7	37.3	74.6	30.8	53.8
	2002	Year	Col$	79 941	204 086	58 820	134 958	2 504.2	31.9	81.5	23.5	53.9
	2008	Year	Col$	124 310	292 973	92 449	195 775	1 967.7	63.2	148.9	47.0	99.5
	2009	Year	Col$	128 600	305 781	95 319	204 448	2 166.8	59.4	141.1	44.0	94.4
Costa Rica	1990	June	¢	2 639	5 278	2 081	3 642	89.7	29.4	58.9	23.2	40.6
	1999	June	¢	10 708	21 415	8 463	14 811	285.3	37.5	75.1	29.7	51.9
	2002	June	¢	14 045	28 089	11 132	19 481	358.1	39.2	78.5	31.1	54.4
	2008	June	¢	31 325	58 245	24 423	40 165	519.7	60.3	112.1	47.0	77.3
	2009	June	¢	34 514	63 099	26 910	43 626	576.7	59.9	109.4	46.7	75.7
Dominican Republic	2002	September	RD$	793	1 569	714	1 285	18.8	42.2	83.5	38.0	68.4
	2008	September	RD$	2 091	4 010	1 882	3 263	35.0	59.7	114.5	53.8	93.2
	2009	September	RD$	2 080	3 933	1 872	3 206	36.2	57.5	108.6	51.7	88.6
Ecuador	1990	November	S/.	18 465	36 930	…	…	854.8	21.6	43.2	…	…
	1999	October	S/.	301 716	603 432	…	…	15 656.8	19.3	38.5	…	…
	2002	November	US$	35	69	…	…	1.0	34.6	69.1	…	…
	2008	November	US$	49	91	34	57	1.0	48.7	90.6	34.3	56.5
	2009	November	US$	50	94	36	59	1.0	50.4	94.2	35.6	58.7
El Salvador	1995	Jan.-Dec.	¢	254	508	158	315	8.8	29.0	58.1	18.0	35.9
	1999	Jan.-Dec.	¢	293	586	189	378	8.8	33.5	66.9	21.6	43.2
	2001	Jan.-Dec.	¢	305	610	197	394	8.8	34.9	69.7	22.5	45.0
	2009	Year	¢	417	829	270	536	8.8	47.7	94.8	30.8	61.2
Guatemala	1989	April	Q	64	127	50	88	2.7	23.6	47.1	18.7	32.7
	1998	Dec.97-Dec.98	Q	260	520	197	344	6.4	40.7	81.5	30.8	54.0
	2002	Oct.-Nov.	Q	334	669	255	446	7.7	43.6	87.2	33.3	58.2
	2006	Mar.-Sep.	Q	467	935	362	633	7.6	61.5	123.0	47.6	83.3

Table A-5 (concluded)

Countries	Year	Income reference period	Currency [a]	Urban		Rural		Variation [b]	Urban		Rural	
				IL	PL	IL	PL		IL	PL	IL	PL
				Currency in use					Dollars			
Honduras	1990	August	L	115	229	81	141	4.3	26.5	52.9	18.6	32.6
	1999	August	L	561	1 122	395	691	14.3	39.3	78.6	27.7	48.4
	2002	August	L	689	1 378	485	849	16.6	41.6	83.3	29.3	51.3
	2007	August	L	945	1 872	665	1 155	18.9	50.0	99.1	35.2	61.1
Mexico	1989	3rd quarter	$	86 400	172 800	68 810	120 418	2 510.0	34.4	68.8	27.4	48.0
	1998	3rd quarter	MN$	537	1 074	385	674	9.5	56.8	113.6	40.7	71.3
	2002	3rd quarter	MN$	742	1 484	530	928	9.9	75.0	150.1	53.6	93.8
	2008	Aug.-Nov. 08	MN$	1 006	1 955	719	1 227	11.6	87.1	169.3	62.2	106.3
Nicaragua	1993	21 Feb.-12 Jun.	C$	167	334	129	225	4.6	36.6	73.3	28.2	49.4
	1998	15 Apr.-31 Aug.	C$	275	550	212	370	10.4	26.4	52.7	20.3	35.5
	2001	30 Apr.-31 Jul.	C$	369	739	284	498	13.4	27.6	55.2	21.3	37.2
	2005	Jul.-Oct.	C$	491	981	378	661	16.9	29.1	58.2	22.4	39.2
Panama	1991	August	B	35.0	70.1	…	…	1.0	35.0	70.1	…	…
	1999	July	B	40.7	81.4	…	…	1.0	40.7	81.4	…	…
	2002	July	B	40.7	81.4	31.5	55.0	1.0	40.7	81.4	31.5	55.0
	2008	July	B	54.8	103.1	42.4	70.5	1.0	54.8	103.1	42.4	70.5
	2009	July	B	57.4	105.8	44.5	72.6	1.0	57.4	105.8	44.5	72.6
Paraguay	1990 [d]	Jun., Jul., Aug.	G	43 242	86 484	…	…	1 207.8	35.8	71.6	…	…
	1999	Jul.-Dec.	G	138 915	277 831	106 608	186 565	3 311.4	42.0	83.9	32.2	56.3
	2001	Sep.00-Aug. 01	G	155 461	310 922	119 404	208 956	3 718.3	41.8	83.6	32.1	56.2
	2008	Oct.-Dec.	G	295 998	562 817	226 691	379 950	4 712.7	62.8	119.4	48.1	80.6
	2009	Oct.-Dec.	G	312 371	580 796	239 191	393 347	4 786.9	65.3	121.3	50.0	82.2
Peru	1997	4th quarter	N$	103	192	83	128	2.7	42.2	84.3	31.6	55.3
	1999	4th quarter	N$	109	213	89	141	3.5	31.2	61.2	25.5	40.5
	2001	4th quarter	N$	117	230	102	159	3.5	34.0	66.8	29.5	46.0
Uruguay	1990	2nd semester	NUr$	41 972	83 944	…	…	1 358.0	30.9	61.8	…	…
	1999	Year	$	640	1 280	…	…	11.3	56.5	112.9	…	…
	2002	Year	$	793	1 586	…	…	21.3	37.3	74.6	…	…
	2008	Year	$	1 588	2 957	1 223	2 013	21.0	75.8	141.1	58.4	96.1
	2009	Year	$	1 652	3 095	1 298	2 148	22.6	73.2	137.1	57.5	95.2
Venezuela (Bolivarian Republic of)	1990	2nd semester	Bs	1 924	3 848	1 503	2 630	49.4	39.0	77.9	30.4	53.2
	1999 [e]	2nd semester	Bs	48 737	95 876	…	…	626.3	77.8	153.1	…	…
	2002 [e]	2nd semester	Bs	80 276	154 813	…	…	1 161.0	69.2	133.4	…	…
	2008 [e]	2nd semester	Bs	301 540	525 958	…	…	2 147.0	140.5	245.0	…	…

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

[a] National currencies:
Argentina: (A) Austral; ($) Peso
Bolivia (Plurinational State of): (Bs) Boliviano
Brazil: (Cr$) Cruzeiro; (R$) Real
Chile: (Ch$) Peso
Colombia: (Col$) Peso
Costa Rica: (¢) Colón
Dominican Republic: (RD$) Peso
Ecuador: (S/.) Sucre, 1990-2001. Since 2002, United States dollar (US$).
El Salvador: (¢) Colón
Guatemala: (Q) Quetzal
Honduras: (L) Lempira
Mexico: ($) Peso; (MN$) New Peso
Nicaragua: (C$) Córdoba
Panama: (B/.) Balboa
Paraguay: (G/.) Guaraní
Peru: (N$) Peso
Uruguay: (Nur$) New Peso; ($) Peso
Venezuela (Bolivarian Republic of): (Bs) Bolívar

[b] International Monetary Fund (IMF) "rf" series.

[c] Greater Buenos Aires.

[d] Asunción.

[e] National total.

Table A-6

LATIN AMERICA: MALE AND FEMALE ECONOMIC PARTICIPATION RATES, BY AGE GROUP, 1990-2009

Country	Year	Age group									
		Males					Females				
		Total	15 to 24 years	25 to 34 years	35 to 49 years	50 and over	Total	15 to 24 years	25 to 34 years	35 to 49 years	50 and over
Argentina [a]	1990 [b]	76	62	97	97	55	38	41	52	52	19
	1999	74	53	94	97	59	44	36	62	61	27
	2002	72	48	93	96	60	46	35	64	67	27
	2006	75	54	94	96	64	50	38	67	69	34
	2009	74	51	93	96	61	49	34	68	70	33
Bolivia (Plurinational State of)	1997	82	60	94	99	83	60	46	66	73	56
	1999	81	59	94	98	82	62	48	67	75	61
	2002	83	64	94	98	85	62	46	72	75	58
	2007	82	61	94	99	82	62	44	69	77	62
Brazil	1990	84	81	96	95	63	44	47	54	52	22
	1999	82	75	95	94	64	54	52	67	66	33
	2002	81	73	94	94	63	56	53	69	68	33
	2008	80	72	95	94	63	58	54	73	71	36
	2009	80	71	95	94	62	58	54	74	72	36
Chile	1990	74	51	94	95	58	33	27	44	42	18
	1998	75	46	93	96	64	39	30	54	50	23
	2003	73	42	92	96	64	42	30	58	56	27
	2006	73	43	92	95	65	43	30	61	59	29
	2009	71	43	91	94	62	42	30	64	59	28
Colombia	1991	85	71	97	98	76	44	40	57	52	25
	1999	81	64	97	97	71	50	44	66	63	26
	2002	82	67	97	97	70	54	49	68	67	31
	2008	79	58	95	96	68	51	39	67	66	32
	2009	81	61	96	97	71	54	43	70	70	36
Costa Rica	1990	83	74	96	96	64	33	35	41	39	12
	1999	82	68	96	96	64	39	37	48	49	18
	2002	79	63	97	96	63	41	35	54	53	22
	2008	78	60	96	97	66	45	38	62	57	25
	2009	77	58	96	96	64	45	36	62	58	27
Cuba [c]	2002	65	40	82	86	47	35	19	46	54	18
	2008	68	43	89	94	48	41	31	59	62	20
Dominican Republic	2002	75	54	91	94	68	39	29	54	54	22
	2008	75	56	90	93	66	40	29	52	57	24
	2009	73	50	90	93	66	39	26	53	56	24
Ecuador	1990 [a]	80	56	95	98	78	43	33	54	56	31
	1999 [a]	82	64	97	98	76	54	45	65	67	36
	2002 [a]	81	60	96	98	74	53	40	65	67	41
	2008	82	62	96	98	78	52	40	63	65	42
	2009	80	60	95	98	77	51	39	63	65	43
El Salvador	1995	82	70	95	96	75	42	32	55	57	29
	1999	78	65	93	94	70	44	34	58	59	31
	2001	79	67	93	95	70	44	33	59	61	32
	2009	79	63	95	96	71	46	32	61	63	34
Guatemala	1989	90	82	98	98	84	28	28	32	32	22
	1998	88	79	97	98	84	46	41	49	55	38
	2002	91	85	96	98	86	49	45	54	59	39
	2006	88	80	97	98	84	47	41	54	57	39
Honduras	1990	87	78	96	97	81	32	26	39	42	25
	1999	87	78	98	97	81	44	36	52	57	34
	2002	85	75	96	97	80	38	30	46	49	29
	2007	83	70	95	97	80	40	28	51	52	33
Mexico	1989	79	64	94	94	73	30	26	38	35	21
	1998	82	68	94	94	73	41	37	48	48	31
	2002	81	65	94	95	75	43	34	51	54	32
	2008	81	65	96	97	71	45	36	55	58	32

Table A-6 (concluded)

Country	Year	Age group									
		Males					Females				
		Total	15 to 24 years	25 to 34 years	35 to 49 years	50 and over	Total	15 to 24 years	25 to 34 years	35 to 49 years	50 and over
Nicaragua	1993	77	62	89	91	70	36	24	47	51	26
	1998	85	77	95	94	77	43	31	56	56	31
	2001	86	79	97	96	77	46	36	55	61	36
	2005	84	74	95	95	79	44	32	53	59	34
Panama	1991 [a]	72	52	95	96	48	48	39	66	65	20
	1999 [a]	77	61	97	96	58	50	42	67	68	26
	2002	80	63	97	97	67	45	34	61	61	24
	2008	82	67	98	98	69	47	34	62	65	31
	2009	81	65	97	97	69	48	34	63	65	34
Paraguay	1990 [d]	84	69	97	99	75	50	51	63	58	27
	1999	85	73	96	96	80	48	39	59	60	38
	2001	85	76	96	97	77	53	46	64	64	42
	2008	85	73	97	97	78	54	46	64	67	45
	2009	85	77	96	96	76	56	50	67	67	45
Peru	1997	85	70	97	98	83	64	54	73	76	53
	1999	78	61	91	94	76	58	48	67	69	49
	2001	79	61	92	95	75	58	45	69	72	48
	2008	84	68	94	97	80	65	55	74	78	57
	2009	84	68	94	97	81	66	54	75	80	58
Uruguay	1990 [a]	75	68	98	97	54	44	47	69	64	21
	1999 [a]	73	67	96	97	50	50	50	74	74	26
	2002 [a]	72	63	96	96	51	50	47	76	76	28
	2008	75	61	95	96	59	54	45	78	78	36
	2009	75	61	96	97	60	55	45	79	78	36
Venezuela (Bolivarian Republic of)	1990	79	59	93	96	74	35	23	48	49	20
	1999	83	66	97	97	74	47	35	60	63	30
	2002	84	67	97	97	74	55	42	69	71	37
	2008	79	56	95	97	72	50	31	65	69	37

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Urban total.
[b] Greater Buenos Aires.
[c] National Statistical Office (ONE) of Cuba, on the basis of tabulations of the National Occupation Survey.
[d] Asunción metropolitan area.

Table A-7
LATIN AMERICA: BREAKDOWN OF THE EMPLOYED ECONOMICALLY ACTIVE POPULATION BY OCCUPATIONAL CATEGORY, 1990-2009
(Population aged 15 and over, in percentages)

Country	Year	Employers	Wage or salary earners						Own-account and unpaid family workers	
			Total	Public sector	Private sector				Total [b]	Non-professional, non-technical
					Total [a]	Professional and technical	Non-professional, non-technical	Domestic employment		
Argentina [c]	1990 [d]	5.4	69.0	…	69.0	6.9	56.4	5.7	25.6	23.0
	1999	4.4	72.6	15.5	57.1	9.1	42.2	5.8	23.0	18.6
	2002	4.0	73.1	21.7	51.3	10.3	35.1	6.0	22.9	18.4
	2006	4.1	75.8	16.2	59.5	9.4	42.8	7.4	20.1	16.2
	2009	4.4	75.9	15.9	60.0	10.3	42.8	6.9	19.6	15.3
Bolivia (Plurinational State of)	1989 [e]	2.2	54.0	17.9	36.1	4.3	26.0	5.8	43.8	41.0
	1999	2.8	29.8	6.6	23.2	4.1	17.2	1.9	67.3	66.1
	2002	4.3	30.4	6.7	23.7	2.6	18.8	2.3	65.3	63.9
	2007	5.2	36.2	8.3	27.9	2.5	22.1	3.3	58.5	57.9
Brazil	1990	4.7	65.5	…	65.5	11.8	48.0	5.6	29.9	28.8
	1999	4.1	58.8	11.1	47.7	8.8	31.5	7.4	37.1	35.5
	2002	4.2	61.9	11.0	50.9	3.9	39.3	7.7	33.8	32.4
	2008	4.5	65.8	11.3	54.5	6.1	41.2	7.2	29.7	27.1
	2009	4.3	66.4	11.6	54.8	6.4	40.5	7.8	29.3	26.7
Chile	1990	2.6	73.0	…	73.0	11.4	55.3	6.3	24.5	22.9
	1998	4.0	74.6	…	74.6	15.3	53.8	5.5	21.4	17.1
	2003	3.9	74.6	9.3	65.3	11.0	48.0	6.2	21.4	16.3
	2006	3.1	75.7	9.8	65.9	10.3	50.0	5.6	21.3	17.0
	2009	3.1	76.3	11.6	64.7	12.6	47.2	4.8	20.6	17.7
Colombia	1991	5.1	58.6	6.6	52.0	3.9	43.9	4.2	36.3	34.9
	1999	4.0	53.6	6.8	46.7	4.3	38.1	4.4	42.4	40.6
	2002	4.9	49.8	6.4	43.4	3.2	35.2	5.0	45.3	43.1
	2008	4.8	44.5	5.2	39.2	3.6	32.0	3.6	45.8	42.9
	2009	5.0	42.8	4.6	38.3	3.2	31.4	3.7	47.7	44.9
Costa Rica	1990	5.3	70.0	17.0	53.0	3.6	45.1	4.3	24.7	23.4
	1999	8.1	71.0	13.0	58.0	5.8	46.7	5.4	20.9	19.7
	2002	7.9	68.3	14.0	54.3	9.2	40.7	4.3	23.8	21.6
	2008	7.5	72.9	14.1	58.8	11.8	42.3	4.7	19.6	17.2
	2009	7.2	72.7	15.6	57.1	11.1	41.1	4.9	20.1	17.7
Dominican Republic	2002	3.2	53.1	12.0	41.1	5.9	30.9	4.3	43.8	42.2
	2008	4.0	51.9	11.2	40.7	6.8	28.0	5.9	44.1	42.1
	2009	4.8	50.8	12.2	38.6	6.0	27.0	5.6	44.3	41.9
Ecuador	1990 [c]	5.0	58.9	17.5	41.4	4.5	32.4	4.5	36.1	34.5
	1999 [c]	8.8	59.1	10.7	48.4	7.0	36.0	5.4	32.1	31.5
	2002 [c]	6.9	58.4	11.5	46.9	6.4	36.0	4.5	34.7	32.9
	2008	5.2	54.9	8.0	46.8	5.6	37.8	3.4	40.0	38.6
	2009	4.1	53.4	8.1	45.3	5.3	36.7	3.4	42.5	41.1
El Salvador	1995	6.1	56.8	8.7	48.1	4.6	39.5	3.9	37.0	36.4
	1999	4.4	59.8	9.1	50.7	6.1	39.7	4.9	35.8	35.1
	2001	4.6	56.4	8.5	48.0	5.1	38.2	4.7	39.0	38.1
	2009	4.1	55.4	7.6	47.8	5.1	38.2	4.6	40.5	39.2
Guatemala	1989	1.5	48.6	7.3	41.3	2.8	34.6	3.8	49.9	48.7
	1998	3.2	49.8	4.5	45.4	3.7	39.3	2.4	47.0	45.9
	2002	6.5	43.5	3.6	39.9	3.6	33.8	2.5	50.0	49.2
	2006	3.5	48.5	5.0	43.5	4.5	35.8	3.2	48.1	47.0
Honduras	1990	1.0	48.2	8.5	39.7	2.4	33.3	4.0	50.8	50.0
	1999	4.6	46.1	6.6	39.6	3.8	32.2	3.6	49.3	48.9
	2002	2.8	46.5	5.6	40.9	4.0	34.3	2.6	50.7	49.5
	2007	2.3	47.5	6.5	41.0	6.6	31.6	2.8	50.2	41.2

Table A-7 (concluded)

Country	Year	Employers	Wage or salary earners						Own-account and unpaid family workers	
			Total	Public sector	Private sector				Total [b]	Non-professional, non-technical
					Total [a]	Professional and technical	Non-professional, non-technical	Domestic employment		
Mexico	1989	3.0	67.0	…	67.0	6.2	58.1	2.7	30.0	28.9
	1998	4.7	62.0	10.9	51.1	4.3	43.3	3.5	33.4	32.0
	2002	3.9	65.7	11.2	54.5	4.5	45.5	4.5	30.3	29.1
	2008	5.0	72.1	11.3	60.8	6.5	49.8	4.5	23.0	21.8
Nicaragua	1993	0.5	50.9	14.2	36.7	4.2	26.9	5.5	48.6	41.6
	1998	3.6	52.5	…	52.5	9.3	37.5	5.7	43.9	43.0
	2001	5.0	49.8	9.0	40.8	2.7	34.1	4.0	45.2	44.2
	2005	4.5	48.5	7.8	40.7	3.6	33.5	3.6	47.0	46.3
Panama	1991 [c]	3.0	78.6	30.1	48.5	9.0	32.1	7.4	18.4	17.2
	1999 [c]	3.2	76.7	21.1	55.6	12.1	37.4	6.1	20.1	18.9
	2002	2.9	62.0	16.1	45.9	4.6	35.7	5.6	35.1	34.0
	2008	3.1	65.2	14.6	50.7	5.4	39.9	5.4	31.6	30.5
	2009	3.1	63.9	14.6	49.2	5.6	38.7	4.9	33.1	31.8
Paraguay	1990 [f]	8.9	68.4	11.9	56.5	4.3	41.7	10.5	22.7	21.2
	1999	5.2	46.4	8.0	38.4	3.2	28.4	6.8	48.4	47.2
	2001	5.8	44.9	7.1	37.8	3.4	26.8	7.6	49.3	47.8
	2008	5.0	50.4	8.8	41.6	4.1	30.1	7.5	44.6	43.0
	2009	5.5	48.1	8.4	39.7	3.4	29.6	6.7	46.3	44.5
Peru	1997	5.7	40.9	9.4	31.5	2.4	27.3	1.8	53.3	52.7
	1999	5.9	40.0	8.6	31.4	2.1	26.7	2.6	54.1	53.2
	2001	5.1	40.2	8.9	31.2	4.2	24.7	2.3	54.7	53.0
	2008	5.6	42.2	9.1	33.1	5.2	25.3	2.6	52.2	50.8
	2009	5.5	42.3	9.4	32.9	5.3	25.2	2.4	52.2	50.5
Uruguay	1990 [c]	5.8	74.2	21.8	52.4	9.7	35.8	6.9	20.1	19.3
	1999 [c]	4.0	72.4	16.2	56.1	6.5	42.1	7.5	23.6	20.6
	2002 [c]	3.7	70.5	17.3	53.2	5.9	37.4	9.9	25.8	21.8
	2008	4.8	71.1	14.3	56.8	5.9	42.1	8.7	24.1	20.3
	2009	4.8	71.4	13.9	57.5	6.2	42.4	8.9	23.7	20.0
Venezuela (Bolivarian Republic of)	1990	7.5	66.6	19.3	47.2	5.0	36.4	5.8	25.9	25.0
	1999	5.1	57.9	14.9	43.0	4.9	36.1	2.0	36.9	35.3
	2002	5.4	54.7	13.8	40.8	3.9	34.3	2.6	39.9	38.2
	2008	4.0	58.1	17.9	40.2	5.2	33.2	1.7	37.9	35.8

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] The figures for Brazil (1990), Chile (1990, 1998), Mexico (1989) and Nicaragua (1998) include public sector wage-earners.
[b] Includes professional and technical workers.
[c] Urban total.
[d] Greater Buenos Aires.
[e] Eight departmental capitals plus El Alto.
[f] Asunción metropolitan area.

Table A-8

LATIN AMERICA: URBAN POPULATION EMPLOYED IN LOW-PRODUCTIVITY SECTORS OF THE LABOUR MARKET, 1990-2009

(Percentages of the total urban employed population)

Country	Year	Total	Microenterprises [a]				Domestic employment	Unskilled self-employed workers [b]		
			Employers	Wage or salary earners						
				Total	Professional and technical	Non-professional, non-technical		Total [c]	Manufacturing and construction	Commerce and services
Argentina [d]	1990	44.1	3.8	11.7	0.4	11.4	5.7	23.0	6.9	16.1
	1999	40.7	3.2	15.0	1.0	13.9	5.3	17.3	5.0	12.2
	2002	42.1	2.9	16.1	1.1	15.0	5.6	17.5	6.8	10.7
	2006	39.7	2.7	14.3	1.0	13.3	7.5	15.2	5.0	10.1
	2009	39.0	3.0	14.5	1.4	13.2	6.6	14.8	5.0	9.3
Bolivia (Plurinational State of)	1989 [e]	62.1	2.2	13.7	1.6	12.1	5.4	40.8	9.7	29.8
	1999	62.9	2.6	12.7	1.0	11.7	2.7	44.9	12.1	30.2
	2002	65.3	3.4	13.9	0.7	13.2	3.7	44.3	12.5	28.3
	2004	70.0	4.2	18.2	1.4	16.8	4.6	43.0	10.9	28.2
	2007	62.7	5.4	15.2	0.5	14.7	5.3	36.8	8.5	25.2
Brazil [f]	1990	48.0	...	20.9	4.4	16.5	5.8	21.3	3.5	15.8
	1999	46.7	2.3	10.1	1.7	8.3	8.5	25.8	5.1	16.1
	2002	46.0	2.3	10.6	0.6	10.0	8.6	24.6	6.7	13.7
	2008	40.2	2.4	10.1	0.8	9.3	7.8	20.0	5.9	10.7
	2009	41.1	2.4	10.3	0.9	9.4	8.4	19.9	6.1	10.7
Chile	1990	38.9	0.8	10.3	0.9	9.4	7.0	20.9	5.7	14.0
	1998	34.2	2.6	10.7	1.0	9.7	5.8	15.1	4.1	10.1
	2003	32.9	2.4	9.0	0.8	8.2	6.5	14.9	4.8	9.3
	2006	30.6	1.7	7.2	0.7	6.5	5.8	15.9	4.8	10.1
	2009	30.0	1.1	7.1	0.8	6.3	5.0	16.8	4.1	11.9
Colombia	1991	...	...	...	...	...	5.3	27.1	6.4	19.9
	1999	...	...	...	...	...	5.2	35.5	7.5	26.6
	2002	...	...	...	...	...	5.5	39.1	8.1	28.0
	2008	59.3	3.9	11.5	0.3	11.1	4.0	39.8	8.4	29.4
	2009	60.5	4.1	11.2	0.3	10.9	4.2	40.9	8.2	30.2
Costa Rica	1990	36.6	4.4	10.4	0.8	9.6	4.3	17.5	6.4	10.1
	1999	41.2	6.0	13.1	1.4	11.7	5.1	17.1	4.4	11.8
	2002	40.2	6.3	12.2	1.4	10.8	4.0	17.7	4.7	12.2
	2008	36.9	5.7	11.6	1.6	10.0	4.4	15.2	3.4	11.2
	2009	36.1	5.5	11.2	1.7	9.5	4.5	14.9	3.6	10.6
Dominican Republic	2002	54.1	3.2	14.0	1.7	12.3	4.3	32.6	7.4	21.9
	2008	49.9	3.4	5.7	0.6	5.1	5.6	35.2	8.2	22.9
	2009	50.0	3.5	5.9	0.4	5.6	5.8	34.8	7.6	23.0
Ecuador	1990	53.7	3.7	11.7	0.6	11.1	4.3	34.0	7.8	23.9
	1999	58.3	7.2	14.9	1.6	13.2	5.4	30.9	5.6	23.3
	2002	55.8	4.9	14.1	0.9	13.3	4.4	32.3	6.9	23.2
	2008	56.9	4.9	16.0	1.1	14.9	4.2	31.8	5.2	24.6
	2009	56.5	3.6	15.9	1.0	14.9	4.1	32.8	5.6	24.6
El Salvador	1995	50.6	5.0	10.5	0.2	10.3	4.3	30.9	8.1	20.2
	1999	51.7	4.2	14.5	0.8	13.7	4.2	28.8	6.5	19.8
	2001	53.7	4.5	14.3	0.8	13.5	4.2	30.7	6.4	22.3
	2009	56.4	4.0	14.7	0.8	13.9	4.6	33.1	6.1	23.7
Guatemala	1989	53.3	2.1	14.5	0.8	13.7	6.6	30.0	7.2	14.8
	1998	63.4	3.7	22.3	2.4	19.9	3.8	33.6	8.1	20.5
	2002	55.2	5.6	13.7	0.8	12.9	3.8	32.2	8.2	18.8
	2006	56.1	4.5	15.2	1.2	14.1	3.9	32.5	7.5	19.4
Honduras	1990	52.5	1.1	13.6	0.7	12.9	6.5	31.3	8.7	18.5
	1999	54.1	5.3	12.0	1.0	11.0	4.6	32.2	7.1	21.4
	2002	55.7	3.7	14.0	1.2	12.9	4.0	34.0	9.5	19.7
	2007	42.9	3.0	10.3	1.1	9.2	3.8	25.8	9.1	12.7

Table A-8 (concluded)

Country	Year	Total	Microenterprises [a]				Domestic employment	Unskilled self-employed workers [b]		
			Employers	Wage or salary earners				Total [c]	Manufacturing and construction	Commerce and services
				Total	Professional and technical	Non-professional, non-technical				
Mexico [g]	1989	…	…	…	…	…	2.7	18.6	2.9	12.5
	1998	43.6	3.6	15.8	1.0	14.8	4.1	20.0	3.1	16.2
	2002	46.8	3.3	18.3	1.3	16.9	4.7	20.6	4.1	15.9
	2008	43.3	3.5	20.2	1.8	18.4	4.6	15.0	2.7	12.0
Nicaragua	1993	48.9	0.6	13.5	1.7	11.8	6.3	28.5	7.7	17.0
	1998	59.4	3.1	16.3	1.8	14.5	6.5	33.5	4.4	25.2
	2001	58.3	3.8	16.7	0.7	16.0	4.5	33.3	5.5	24.1
	2005	57.6	4.7	14.7	0.6	14.0	4.1	34.1	7.8	22.5
Panama	1991	32.3	1.8	5.9	0.8	5.1	7.4	17.2	3.9	11.5
	1999	33.9	2.2	7.0	0.8	6.2	6.0	18.8	4.3	13.7
	2002	38.2	2.3	8.8	0.7	8.1	6.7	20.4	4.4	15.0
	2008	35.6	2.7	7.9	0.7	7.2	6.3	18.7	3.8	14.1
	2009	35.4	2.5	7.7	0.6	7.1	5.5	19.6	4.3	14.4
Paraguay	1990 [h]	54.7	6.9	16.4	1.1	15.3	10.0	21.4	5.3	15.5
	1999	58.5	5.1	15.8	1.0	14.9	9.0	28.6	5.3	20.7
	2001	60.9	6.6	14.6	1.4	13.1	10.2	29.5	5.3	21.2
	2008	55.7	5.3	14.2	1.2	13.0	9.1	27.1	4.9	19.4
	2009	58.5	5.1	17.4	1.5	16.0	8.4	27.6	5.5	18.6
Peru	1997	60.8	5.0	13.1	0.5	12.7	2.3	40.3	5.6	30.4
	1999	63.8	4.7	14.7	0.5	14.2	3.5	40.9	5.4	31.5
	2001	62.2	4.2	14.6	1.0	13.6	3.2	40.2	5.2	29.3
	2008	59.0	4.7	12.9	1.0	11.9	3.3	38.1	5.1	28.3
	2009	57.6	4.9	12.2	1.0	11.2	3.1	37.4	5.0	28.0
Uruguay	1990	40.8	3.9	10.6	1.1	9.4	6.9	19.4	5.6	13.5
	1999	41.4	2.4	10.9	0.6	10.4	7.5	20.6	7.0	12.6
	2002	45.7	2.4	11.6	0.6	11.0	9.9	21.8	8.1	12.5
	2008	42.7	2.9	11.9	0.6	11.3	9.0	19.0	6.1	11.3
	2009	42.6	3.0	11.6	0.6	11.1	9.1	18.8	6.0	11.2
Venezuela (Bolivarian Republic of) [i]	1990	39.1	4.9	6.6	0.2	6.4	6.3	21.4	4.1	15.3
	1999	53.8	3.9	12.5	0.5	12.1	2.0	35.3	6.7	23.7
	2002	56.5	4.2	11.5	0.4	11.1	2.6	38.2	6.5	26.4
	2008	49.8	3.1	9.3	0.5	8.8	1.7	35.8	7.0	24.1

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Refers to establishments employing up to five persons. In the case of the Bolivarian Republic of Venezuela, the Dominican Republic, El Salvador, Panama (up to 2002), the Plurinational State of Bolivia (1999 and 2002) and Uruguay (1990) establishments with up to four employees were counted.

[b] Refers to own-account and unpaid family workers without professional or technical skills.

[c] Includes persons employed in agriculture, forestry, hunting and fishing.

[d] Greater Buenos Aires.

[e] Eight departmental capitals plus El Alto.

[f] Up to 1990, the category of "microenterprises" referred to wage-earners with no employment contract. Since 1993, however, this category refers to wage-earners in establishments employing up to five persons.

[g] The 1994 survey does not contain information on the size of the establishments employing wage-earners.

[h] Asunción metropolitan area.

[i] From 1997 on, the sample design for the survey does not permit urban-rural breakdown. Figures therefore correspond to the national total.

Table A-9
LATIN AMERICA: OPEN UNEMPLOYMENT RATES BY SEX AND AGE IN URBAN AREAS, AROUND 1990, 1999, 2002, 2008 AND 2009 [a]

Country	Sex	Age groups																								
		Total					15 to 24 years					25 to 34 years					35 to 44 years					45 and over				
		1990	1999	2002	2008	2009	1990	1999	2002	2008	2009	1990	1999	2002	2008	2009	1990	1999	2002	2008	2009	1990	1999	2002	2008	2009
Argentina (Greater Buenos Aires)	Total	5.9	14.7	19.0	...	9.1	13.0	24.3	33.8	...	21.8	4.9	12.0	15.4	...	8.3	4.1	11.6	18.1	...	5.7	3.8	12.9	14.1	...	6.0
	Males	5.7	13.4	18.5	...	8.1	11.5	22.8	31.7	...	19.5	5.0	11.3	15.3	...	7.5	3.9	8.0	14.8	...	4.4	4.2	12.7	16.7	...	5.6
	Females	6.4	16.5	19.5	...	10.4	15.6	26.3	36.3	...	25.1	4.9	13.0	15.7	...	9.3	4.3	16.1	22.1	...	7.5	3.0	13.2	10.3	...	6.6
Bolivia (Plurinational State of)	Total	9.4	4.5	4.4	...	...	17.4	9.5	7.1	...	...	8.5	4.7	5.6	...	...	5.1	2.5	3.1	...	...	6.6	1.9	1.9	...	...
	Males	9.5	3.8	3.2	...	...	18.2	7.9	5.3	...	...	7.5	3.3	3.4	...	...	5.5	1.5	2.1	...	...	8.5	2.6	2.2	...	...
	Females	9.1	5.3	5.8	...	...	16.5	11.6	9.5	...	...	9.9	6.4	8.4	...	...	4.6	3.6	4.2	...	...	3.8	0.9	1.5	...	...
Brazil	Total	3.8	9.6	9.3	7.1	8.3	6.9	18.3	17.9	15.5	17.8	3.8	9.2	9.0	7.3	8.6	2.1	6.1	6.0	4.4	5.3	1.2	4.3	4.2	2.8	3.5
	Males	3.9	7.8	7.5	5.2	6.1	6.9	15.1	14.6	11.9	13.9	4.0	6.9	6.4	4.6	5.8	2.4	4.7	4.6	2.8	3.6	1.5	4.1	4.1	2.3	2.8
	Females	3.5	12.1	11.9	9.6	11.0	6.8	23.0	22.4	20.5	23.1	3.4	12.3	12.3	10.5	12.0	1.5	7.8	7.8	6.2	7.2	0.5	4.5	4.5	3.5	4.5
Chile	Total	8.3	9.9	10.4	...	10.2	16.5	21.3	22.0	...	24.9	7.9	9.6	10.7	...	11.3	5.1	7.1	7.8	...	7.2	5.2	6.1	7.2	...	5.6
	Males	7.7	9.0	9.6	...	8.9	15.0	19.5	21.0	...	22.4	7.2	8.7	9.4	...	10.4	4.8	6.3	7.1	...	5.9	5.4	6.3	7.3	...	4.8
	Females	9.6	11.3	11.7	...	12.2	19.0	24.0	23.6	...	28.3	9.4	11.1	12.6	...	12.7	5.7	8.6	9.1	...	9.0	4.5	5.6	6.9	...	7.0
Colombia	Total	7.2	16.3	15.6	11.3	12.1	14.9	30.6	28.2	22.8	23.4	6.9	16.0	15.5	11.9	12.2	3.3	11.4	10.9	7.7	8.7	2.4	7.9	8.9	6.2	7.1
	Males	4.8	12.5	12.6	8.9	9.4	10.2	23.9	23.0	18.1	18.3	4.2	11.6	11.5	8.9	8.7	2.2	8.3	8.5	5.4	5.8	2.2	7.6	8.7	5.9	6.7
	Females	11.4	22.0	19.8	14.8	15.8	22.4	39.8	35.2	29.6	30.8	11.0	22.0	20.7	16.0	16.8	5.2	15.5	14.1	10.8	12.2	2.8	8.6	9.4	6.9	7.8
Costa Rica	Total	4.5	5.9	6.4	4.9	7.8	8.3	12.7	14.1	11.0	17.9	3.7	5.3	5.2	4.8	7.4	2.4	3.1	3.7	2.8	5.0	2.4	2.3	2.9	2.2	3.3
	Males	4.0	4.8	5.6	4.1	6.6	7.6	10.9	12.4	9.6	15.5	3.0	4.1	4.5	3.5	5.8	2.0	2.4	2.9	2.3	3.7	2.5	2.1	2.8	2.1	3.1
	Females	5.8	8.0	7.9	6.3	9.9	10.0	16.0	17.3	13.4	22.1	5.3	7.5	6.4	6.6	9.8	3.0	4.5	5.0	3.7	6.9	2.1	2.7	3.2	2.4	3.7
Cuba [b]	Total	5.4	6.3	2.3	1.6	...	...	...	6.4	3.8	...	...	...	3.4	2.2	...	...	...	1.7	1.5	...	...	...	0.8	0.7	...
	Males	3.6	4.3	1.9	1.5	...	...	...	6.1	3.5	...	...	...	2.8	1.9	...	...	...	1.3	1.4	...	...	...	0.6	0.7	...
	Females	8.5	9.6	2.9	1.8	...	...	...	6.8	4.1	...	...	...	4.2	2.6	...	...	...	2.3	1.6	...	...	...	1.1	0.6	...
Dominican Republic	Total	...	...	6.4	4.7	5.7	...	...	12.5	9.4	13.3	...	...	8.3	5.6	5.9	...	...	3.7	3.6	3.2	...	...	2.3	1.3	2.6
	Males	...	...	4.5	3.3	4.1	...	...	9.0	6.2	8.4	...	...	5.4	4.6	4.7	...	...	2.3	1.6	2.0	...	...	2.0	1.4	2.4
	Females	...	...	10.1	7.3	8.6	...	...	19.5	15.4	23.1	...	...	12.7	7.3	7.9	...	...	6.1	6.7	5.1	...	...	2.9	1.1	2.9
Ecuador	Total	6.1	14.2	9.1	6	6.5	13.5	25.9	17.4	13.8	14.1	6.4	13.6	9.2	5.9	8.3	2.7	9	5.9	3.4	3.7	1.3	8.3	5.2	2.8	2.7
	Males	4.2	10.5	5.8	4.3	5.2	11.2	20.0	12.0	11.0	11.7	3.2	8	4.7	3.8	6	1.7	5.5	3.1	1.4	2.3	1.3	8.6	4.3	2.3	2.5
	Females	9.2	19.5	13.9	8.3	8.4	17.2	33.9	25.5	18.2	18.1	11.3	21.3	15.3	8.6	11.6	4.5	13.6	9.8	6	5.4	1.4	7.7	6.7	3.7	3
El Salvador	Total	...	6.8	7.0	...	7.4	...	12.5	11.2	...	13.8	...	6.1	6.3	...	6.7		4.7	5.2	...	5.0	...	3.5	5.2	...	4.9
	Males	...	8.3	8.2	...	9.1	...	14.0	12.2	...	14.4	...	6.9	7.3	...	8.1		6.3	5.9	...	6.4	...	5.0	6.5	...	7.3
	Females	...	4.6	5.3	...	4.9	...	9.9	9.4	...	12.5	...	5.1	4.9	...	5.0		2.7	4.3	...	3.3	...	0.9	3.3	...	1.2
Guatemala	Total	2.1	1.9	3.4	...	...	3.8	3.3	5.3	...	...	2.1	2.3	2.6	...	...	0.9	1.4	2.0	...	...	0.8	0.5	2.5	...	...
	Males	1.7	2.2	2.9	...	...	3.0	3.7	3.9	...	...	1.7	2.4	2.4	...	...	0.7	1.8	1.1	...	...	0.8	0.7	3.2	...	...
	Females	3.3	1.4	4.2	...	...	6.0	2.5	7.7	...	...	3.1	2.1	3.0	...	...	1.5	0.8	3.1	...	...	1.0	0.2	1.1	...	...
Honduras	Total	4.2	3.4	3.9	...	...	7.0	5.7	6.0	...	...	4.4	3.2	4.2	...	...	2.7	2.3	2.8	...	...	2.0	1.6	2.1	...	...
	Males	3.8	3.4	3.6	...	...	5.7	5.2	4.9	...	...	3.5	3.0	3.5	...	...	2.9	2.5	2.8	...	...	2.5	2.1	2.3	...	...
	Females	5.3	3.4	4.7	...	...	10.7	6.6	8.4	...	...	6.2	3.4	5.4	...	...	2.1	2.1	2.8	...	...	0.6	0.7	1.4	...	...
Mexico	Total	2.6	2.5	2.9	4.5	...	6.5	5.6	6.7	9.8	...	1.9	2.1	3.0	4.2	...	0.7	1.2	1.2	2.3	...	0.5	0.8	1.3	2.5	...
	Males	2.6	2.7	3.4	5.3	...	6.2	5.8	7.6	11.1	...	1.9	2.3	3.4	4.7	...	0.9	1.4	1.3	2.7	...	0.6	1.0	1.7	3.5	...
	Females	2.7	2.1	2.1	3.1	...	7.4	5.2	4.9	7.7	...	1.8	1.7	2.3	3.5	...	0.2	0.7	1.0	1.7	...	0.0	0.2	0.7	0.5	...

Table A-9 (concluded)

Country	Sex	Age groups																								
		Total					15 to 24 years					25 to 34 years					35 to 44 years					45 and over				
		1990	1999	2002	2008	2009	1990	1999	2002	2008	2009	1990	1999	2002	2008	2009	1990	1999	2002	2008	2009	1990	1999	2002	2008	2009
Nicaragua	Total	...	11.4	11.0	...	...	...	16.9	17.4	...	...	...	8.5	8.9	...	...	...	10.7	9.0	...	...	...	8.0	6.3	...	...
	Males	...	10.5	10.0	...	...	...	13.9	15.0	...	...	...	7.4	8.2	...	...	...	11.5	8.4	...	...	...	8.1	5.9	...	...
	Females	...	13.1	12.7	...	...	...	24.1	22.5	...	...	...	10.2	9.9	...	...	...	9.5	9.8	...	...	...	7.8	7.1	...	...
Panama	Total	20.0	13.6	13.5	5.6	6.6	38.8	28.3	27.5	13.6	15.2	21.7	13.5	14.3	6.2	7.2	10.4	8.4	8.8	3.2	4.6	8.1	5.9	5.5	1.8	2.7
	Males	17.9	11.4	10.6	4.4	5.1	37.0	24.3	22.9	10.9	11.9	17.8	9.7	10.2	4.2	5.0	8.4	6.5	5.9	2.2	3.2	9.1	6.8	5.2	1.7	2.5
	Females	22.8	16.7	18.5	7.5	8.9	41.0	33.6	36.6	19.3	21.6	26.5	19.0	20.4	9.1	10.3	12.7	10.5	13.3	4.6	6.5	6.4	4.5	6.2	2.1	3.0
Paraguay [c]	Total	6.3	6.6	7.6	5.6	6.5	15.5	11.9	13.8	11.8	13.4	4.8	5.3	7.3	4.5	5.4	2.3	4.4	4.4	2.6	3.2	1.4	4.4	3.9	3.2	3.4
	Males	6.2	6.1	6.7	4.4	5.6	14.7	10.8	11.7	8.7	10.7	5.0	4.0	6.1	2.5	3.6	3.2	4.5	3.0	2.1	3.6	2.0	4.5	4.5	3.6	3.6
	Females	6.5	7.5	8.9	7.5	7.9	16.5	13.9	17.3	16.8	17.9	4.7	7.3	9.0	7.4	7.9	1.1	4.3	6.3	3.4	2.5	0.0	4.1	2.9	2.5	3.1
Peru	Total	...	5.3	5.0	4.2	3.9	...	11.3	8.9	9.5	8.6	...	4.3	4.9	4.2	4.1	...	2.9	3.4	2.2	2.2	...	2.8	3.4	2.0	2.1
	Males	...	5.0	4.7	3.7	3.8	...	10.4	8.5	8.6	8.6	...	3.8	4.0	3.2	3.6	...	2.5	2.7	1.6	1.4	...	3.2	3.7	1.9	2.2
	Females	...	5.6	5.4	4.9	4.1	...	12.6	9.4	10.7	8.6	...	4.9	6.0	5.5	4.8	...	3.4	4.2	2.8	3.1	...	2.2	2.9	2.1	1.9
Uruguay	Total	8.9	11.2	16.9	7.5	7.3	24.4	25.8	37.9	20.9	20.2	8.2	10.0	16.4	7.3	7.5	4.3	7.2	12.1	4.6	4.4	3.5	6.1	9.6	3.7	3.5
	Males	7.3	8.6	13.4	5.3	5.2	22.2	21.4	32.0	16.7	16.1	6.0	7.2	12.7	4.1	4.5	2.5	3.7	7.8	2.4	2.1	3.0	4.9	7.7	2.6	2.5
	Females	11.1	14.5	21.1	10.1	9.8	27.5	32.0	46.1	26.7	25.8	11.0	13.5	20.8	11.0	10.7	6.4	11.2	16.8	7.2	6.9	4.4	7.7	12.1	5.1	4.8
Venezuela (Bolivarian Republic of) [d]	Total	10.2	14.5	16.2	6.9	...	19.3	25.7	28.2	13.6	...	11.3	14.7	16.3	7.4	...	5.9	10.2	11.1	4.6	...	4.5	7.8	9.9	3.9	...
	Males	11.2	13.6	14.4	6.5	...	19.9	22.2	24.4	12.3	...	12.3	12.8	13.5	6.5	...	6.9	10.1	9.9	4.3	...	5.5	9.4	10.4	4.3	...
	Females	8.4	16.1	18.8	7.4	...	18.0	32.6	34.5	15.9	...	9.6	17.7	20.4	8.7	...	4.0	10.4	12.9	5.0	...	1.7	4.7	9.0	3.2	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] For the exact years of the surveys in each country, see table A-5.

[b] Based on special tabulations of data from the National Occupation Survey supplied by the National Statistical Office of Cuba. The figures for 1990-1999 relate to total unemployment (urban and rural); those for 2003-2008 relate to urban unemployment.

[c] Total for urban areas, except that the figure for 1990 relates to the Asunción metropolitan area.

[d] The sample design in the surveys conducted since 1997 does not distinguish between urban and rural areas. The figures therefore refer to the nationwide total.

Table A-10
LATIN AMERICA: AVERAGE INCOME OF THE EMPLOYED ECONOMICALLY ACTIVE POPULATION BY OCCUPATIONAL CATEGORY, URBAN AREAS, 1990-2009
(Multiples of the relevant per capita poverty line)

Country	Year	Total	Employers	Wage or salary earners							Own-account and unpaid family workers	
						Private sector						
								Non-professional, non-technical				
				Total	Public sector	Total [a]	Professional and technical	Establishments employing more than 5 persons	Establishments employing up to 5 persons	Domestic employment	Total [b]	Non-professional, non-technical
Argentina [c]	1990	6.5	20.6	4.7	…	4.7	9.4	4.5	3.6	2.5	8.4	7.6
	1999	7.0	23.8	5.6	6.9	5.3	9.3	5.2	3.6	2.4	8.5	7.0
	2002	4.7	20.9	3.5	3.3	3.5	6.7	3.1	2.1	1.7	5.9	4.3
	2006	6.0	21.0	4.8	5.7	4.6	7.4	4.9	3.4	1.7	7.8	6.6
	2009	9.5	28.6	7.8	11.1	7.2	11.9	7.2	5.0	2.7	12.2	10.2
Bolivia (Plurinational State of)	1989 [d]	4.5	16.3	3.7	4.1	3.5	7.7	3.6	2.8	1.5	4.8	4.5
	1999	3.8	8.2	4.2	4.7	4.0	7.4	3.9	2.5	2.0	2.8	2.7
	2002	3.6	7.3	4.1	5.2	3.8	7.7	4.1	2.5	2.1	2.6	2.4
	2007	3.8	7.7	4.1	5.4	3.7	8.8	3.9	2.5	1.9	2.4	2.4
Brazil	1990 [e]	4.9	16.1	4.2	…	4.2	8.2	3.8	2.7	1.0	4.3	3.9
	1999	4.7	14.8	4.1	6.6	3.5	6.9	3.2 [f]	2.1	1.4	4.2	3.7
	2002	4.5	14.3	4.0	6.6	3.4	11.1	3.3 [f]	2.2	1.4	3.8	3.3
	2008	5.0	15.0	4.6	7.7	3.9	8.0	3.9	2.6	1.7	4.2	3.4
	2009	5.1	15.0	4.7	7.9	4.0	7.9	4.1	2.7	1.8	4.1	3.3
Chile	1990	4.7	24.8	3.8	…	3.8	7.4	3.5	2.4	1.4	5.4	5.0
	1998	7.4	34.0	5.6	…	5.6	11.7	4.3	3.0	2.2	8.7	6.5
	2003	7.4	36.7	5.7	7.6	5.3	12.4	4.0	2.9	2.4	7.8	5.9
	2006	6.8	28.0	5.6	7.8	5.3	11.8	4.2	3.1	2.4	8.3	6.3
	2009	7.7	34.4	6.4	9.0	5.9	11.9	4.6	3.4	2.7	8.9	6.6
Colombia	1991	2.9	7.4	2.8	3.9	2.5	5.3	2.4	…	1.2	2.7	2.4
	1999	3.4	9.5	3.7	6.3	3.2	6.8	2.8	…	2.1	2.3	2.0
	2002	3.9	11.8	3.7	6.5	3.2	7.2	2.9	…	1.8	3.2	2.7
	2008	4.4	12.0	4.4	8.1	3.8	7.9	4.1	2.2	1.9	3.6	3.1
	2009	4.2	10.9	4.2	8.1	3.8	7.9	4.1	2.1	1.8	3.3	2.8
Costa Rica	1990	5.3	6.8	5.4	7.3	4.5	9.0	4.4	3.2	1.5	4.2	3.9
	1999	6.1	10.5	6.0	8.8	5.1	9.7	4.8	3.7	1.8	4.8	4.4
	2002	6.6	10.2	6.9	9.5	6.0	9.7	5.9	3.7	2.0	4.0	3.4
	2008	6.0	12.2	5.9	8.9	5.0	8.0	4.6	3.3	1.7	4.0	3.1
	2009	6.3	10.7	6.3	9.4	5.3	8.8	5.0	3.1	1.7	4.1	3.2
Dominican Republic	2002	4.3	15.6	4.0	4.7	3.7	7.0	3.7	2.6	1.3	3.6	3.4
	2008	4.9	17.9	3.0	3.8	2.8	4.4	2.8	1.6	1.1	6.3	5.6
	2009	5.4	21.1	3.2	4.2	2.8	4.8	2.8	1.9	1.2	6.9	6.1
Ecuador	1990	3.1	4.8	3.3	4.1	2.9	6.1	2.9	2.3	0.8	2.3	2.3
	1999	3.1	7.6	2.8	3.8	2.6	4.5	2.9	1.7	0.9	2.2	2.2
	2002	3.7	8.7	3.4	4.7	3.1	5.0	3.4	2.2	1.5	3.0	2.8
	2008	4.1	11.6	3.8	6.4	3.3	5.3	3.4	2.3	1.9	3.1	2.9
	2009	4.0	11.4	3.9	6.6	3.3	5.7	3.4	2.3	2.2	2.9	2.7
El Salvador	1995	3.7	9.2	3.6	5.3	3.1	6.9	2.9	2.1	1.0	2.7	2.5
	1999	4.4	9.6	4.5	6.9	4.0	8.3	3.7	2.4	2.1	3.0	2.8
	2001	4.4	10.5	4.4	6.7	3.9	8.2	3.8	2.4	2.0	3.2	3.0
	2009	3.6	8.3	3.8	6.5	3.3	6.1	3.3	2.1	2.0	2.4	2.2
Guatemala	1989	3.8	17.7	3.1	4.8	2.6	5.2	2.7	1.8	1.4	4.0	3.7
	1998	3.8	16.0	3.3	4.5	3.1	5.3	3.5	2.1	1.3	2.9	2.7
	2002	4.0	11.0	3.5	5.6	3.2	5.5	3.3	1.7	1.7	3.1	2.8
	2006	3.9	17.0	2.8	4.7	2.5	4.3	2.7	1.5	1.3	3.7	3.4

Table A-10 (concluded)

Country	Year	Total	Employers	Wage or salary earners							Own-account and unpaid family workers	
						Private sector						
								Non-professional, non-technical				
				Total	Public sector	Total [a]	Professional and technical	Establishments employing more than 5 persons	Establishments employing up to 5 persons	Domestic employment	Total [b]	Non-professional, non-technical
Honduras	1990	3.0	16.4	3.1	4.9	2.6	6.5	2.8	1.6	0.8	2.0	1.8
	1999	2.1	5.1	2.1	2.9	1.9	3.1	2.1	1.2	0.5	1.6	1.5
	2002	2.5	5.1	2.7	4.3	2.4	5.3	2.3	1.4	0.8	1.6	1.5
	2007	2.8	5.8	3.2	5.2	2.7	5.0	2.4	1.5	1.3	1.8	1.4
Mexico	1989	4.5	21.7	3.4	…	3.4	6.8	3.1	…	1.4	5.8	5.4
	1998	4.2	18.0	3.5	5.1	3.1	6.7	3.1	1.9	1.2	3.7	3.3
	2002	4.3	15.8	3.6	5.3	3.2	6.9	3.3	2.1	1.4	4.5	4.1
	2008	4.0	17.0	3.3	5.2	2.9	5.8	3.0	1.9	1.3	3.9	3.4
Nicaragua	1993	3.8	8.6	3.3	3.4	3.3	6.2	3.1	2.4	2.1	4.5	3.8
	1998	3.5	11.3	3.2	…	3.2	6.3	2.7	2.0	1.7	2.9	2.7
	2001	3.6	14.4	3.1	4.5	2.7	5.4	3.0	1.9	1.5	2.7	2.6
	2005	3.1	9.9	3.0	4.3	2.7	4.6	2.9	1.7	1.6	2.2	2.1
Panama	1991	5.7	14.9	5.8	7.8	4.6	9.8	4.2	2.7	1.3	3.4	3.0
	1999	6.3	11.9	6.7	9.0	5.8	11.3	4.9	2.8	2.1	3.8	3.4
	2002	6.3	17.8	6.3	8.9	5.3	9.1	5.8	3.1	1.6	4.6	4.3
	2008	6.0	19.2	5.4	7.5	4.8	7.3	5.0	3.1	1.9	5.7	5.3
	2009	6.3	19.3	5.8	7.8	5.1	8.2	5.3	3.4	2.0	5.9	5.1
Paraguay	1990 [g]	3.5	10.3	2.5	3.4	2.3	4.1	2.8	1.9	0.8	3.9	3.7
	1999	3.5	8.9	3.3	4.8	2.9	6.7	3.1	2.1	1.6	2.5	2.3
	2001	3.3	8.6	3.2	5.2	2.7	4.5	3.3	2.0	1.5	2.2	1.8
	2008	2.8	6.4	2.7	3.9	2.5	4.1	2.7	1.9	1.3	2.0	1.8
	2009	2.8	6.1	2.7	3.9	2.5	4.4	2.7	2.1	1.4	2.0	1.8
Peru	1997	3.5	7.9	3.9	4.1	3.9	7.3	4.2	2.4	2.1	2.3	2.2
	1999	3.5	7.3	4.0	4.6	4.0	9.5	4.5	2.0	2.9	2.1	2.0
	2001	3.2	6.9	3.5	4.0	3.5	6.4	3.6	2.0	1.8	2.2	2.1
	2003	3.0	7.8	3.2	3.9	3.2	5.7	3.2	1.8	1.8	2.0	1.9
	2008	3.6	7.8	4.0	4.7	3.9	6.2	4.1	2.1	1.8	2.3	2.2
	2009	3.9	7.6	4.4	5.0	4.3	6.6	4.6	2.2	2.0	2.4	2.2
Uruguay	1990	4.5	17.9	3.7	4.0	3.5	5.0	3.8	2.5	1.5	3.4	3.4
	1999	5.5	14.1	5.3	6.7	4.9	11.2	4.9	3.2	2.1	4.4	3.9
	2002	4.3	10.6	4.4	5.8	3.9	7.9	4.3	2.6	2.0	3.3	2.5
	2008	4.3	11.8	4.2	5.8	3.7	7.0	4.1	2.2	1.8	3.1	2.3
	2009	4.6	11.5	4.5	6.4	4.0	7.4	4.5	2.4	1.9	3.2	2.5
Venezuela (Bolivarian Republic of) [h]	1990	4.5	11.9	3.7	4.0	3.6	6.6	3.6	2.5	2.1	4.5	4.3
	1999	3.5	9.2	3.1	3.7	3.0	6.4	2.9	2.0	1.4	3.4	3.2
	2002	3.4	9.9	3.0	4.5	2.4	4.8	2.5	1.7	1.2	3.2	3.1
	2008	3.9	7.5	4.0	5.2	3.5	5.1	3.6	2.6	1.8	3.4	3.2

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household survey conducted in the respective countries.

[a] Figures for Argentina (1990-1997), Brazil (1990), Chile (1990, 1994 and 1998), Mexico (1989, 2004-2006) and Nicaragua (1998) include public-sector wage-earners. In addition, in the case of non-professional, non-technical workers, the figures for the following countries include establishments with up to four employees: Bolivarian Republic of Venezuela, Chile (1996), the Dominican Republic, El Salvador, Panama (up to 2002), the Plurinational State of Bolivia (1999 and 2002) and Uruguay (1990). Where no information is available on the size of establishments, no figures are given for the total number of employed in low-productivity sectors.

[b] Includes professional, technical and own-account workers.

[c] Greater Buenos Aires.

[d] Eight departmental capitals plus El Alto.

[e] No information is available on the size of establishments for 1990. Therefore the figure given for Brazil in the column for establishments employing more than five persons refers to wage-earners who have an employment contract ("carteira"), while the column for establishments employing up to five persons refers to workers who do not have such contracts.

[f] Includes non-technical and non-professional private sector workers employed in establishments of undeclared size.

[g] Asunción metropolitan area.

[h] From 1997 on, the sample design for the survey does not permit urban-rural breakdown. Figures therefore correspond to the national total.

Table A-11
LATIN AMERICA: RATIO OF AVERAGE FEMALE INCOME TO AVERAGE MALE INCOME, BY YEARS OF SCHOOLING, URBAN AREAS, 1990-2009
(Percentages)

Country	Year	Disparity in labour income by years of schooling [a]						Wage disparity by years of schooling [b]					
		Total	0 to 3 years	4 to 6 years	7 to 9 years	10 to 12 years	13 years or more	Total	0 to 3 years	4 to 6 years	7 to 9 years	10 to 12 years	13 years or more
Argentina [c]	1990	65	66	…	66	63	51	84	80	…	83	68	63
	1999	65	64	82	58	63	51	86	71	-.-	63	79	67
	2002	59	62	81	55	61	46	76	-.-	-.-	56	70	61
	2006	65	63	49	48	57	63	80	56	69	59	73	70
	2009	72	55	55	57	64	67	90	71	73	68	75	78
Bolivia (Plurinational State of)	1989 [d]	59	62	68	76	78	46	69	44	59	63	93	49
	1999	63	64	65	66	71	66	77	-.-	67	36	80	65
	2002	61	62	67	75	66	60	77	39	83	95	74	60
	2007	63	62	53	59	74	65	83	56	67	73	71	71
Brazil	1990	56	46	46	50	49	49	76	65	60	61	54	52
	1999	65	59	51	55	56	56	85	76	67	67	62	57
	2002	67	59	53	56	57	57	86	78	69	68	65	58
	2008	68	62	55	58	59	59	85	80	71	70	67	62
	2009	68	60	57	59	61	58	85	79	73	72	69	61
Chile	1990	62	60	60	71	63	49	79	82	62	83	77	55
	1998	66	70	63	65	70	54	83	79	65	74	80	63
	2003	64	68	68	64	69	53	81	69	71	67	79	63
	2006	70	71	73	65	67	62	86	76	75	75	76	71
	2009	65	70	66	67	68	55	82	81	75	72	74	67
Colombia	1991	69	57	60	70	72	64	85	84	79	82	80	68
	1999	75	66	71	75	73	70	90	82	85	85	82	74
	2002	72	66	70	67	69	63	98	90	93	88	83	73
	2008	73	68	61	65	65	67	94	94	84	79	80	74
	2009	75	61	59	63	66	71	95	86	83	80	77	76
Costa Rica	1990	72	53	62	65	73	66	83	73	79	75	79	66
	1999	70	49	62	57	65	68	88	87	84	74	75	71
	2002	75	63	56	60	72	72	85	74	71	74	79	69
	2008	70	68	57	63	62	65	88	70	74	78	72	75
	2009	76	48	55	60	66	71	95	72	68	76	80	78
Dominican Republic	2002	72	56	56	62	69	66	89	79	64	73	82	78
	2008	61	48	58	45	53	58	83	72	68	72	82	67
	2009	62	73	51	51	47	57	84	82	71	68	67	70
Ecuador	1990	66	49	57	68	79	57	78	67	64	87	78	56
	1999	67	63	62	62	71	60	98	75	73	78	93	72
	2002	67	73	69	66	70	57	87	96	90	78	80	64
	2008	69	67	63	66	70	62	95	84	76	84	81	74
	2009	71	65	65	75	70	64	93	77	78	87	81	72
El Salvador	1995	62	62	55	63	68	63	89	76	67	74	84	72
	1999	76	81	76	78	81	70	96	78	86	86	91	74
	2001	73	80	69	69	82	69	99	83	79	82	91	79
	2009	81	87	84	77	76	79	105	88	90	89	85	84

Table A-11 (concluded)

Country	Year	Disparity in labour income by years of schooling [a]						Wage disparity by years of schooling [b]					
		Total	0 to 3 years	4 to 6 years	7 to 9 years	10 to 12 years	13 years or more	Total	0 to 3 years	4 to 6 years	7 to 9 years	10 to 12 years	13 years or more
Guatemala	1989	68	59	78	71	80	57	97	66	83	89	88	68
	1998	55	62	53	58	56	53	72	54	60	67	69	62
	2002	56	56	63	68	58	56	79	82	71	81	71	67
	2006	58	80	53	72	63	44	82	87	67	77	77	57
Honduras	1990	59	47	50	58	69	54	98	71	73	74	83	63
	1999	65	60	62	59	66	66	88	83	83	65	77	74
	2002	76	66	69	67	77	65	95	87	84	81	83	64
	2007	81	65	66	71	80	76	103	91	83	85	87	77
Mexico	1989	55	62	52	70	62	46	76	83	73	83	79	62
	1998	58	67	66	68	65	47	76	72	83	80	82	55
	2002	62	57	60	59	61	61	80	69	76	71	76	69
	2008	62	65	64	65	66	53	83	76	71	71	80	71
Nicaragua	1993	77	95	73	71	91	58	83	85	81	74	78	65
	1998	65	67	80	67	52	54	88	70	81	71	59	68
	2001	69	84	76	60	80	52	90	87	88	69	78	62
	2005	71	73	68	68	71	60	96	89	91	79	81	66
Panama	1991	78	47	55	69	82	69	89	60	72	82	86	73
	1999	78	61	56	63	75	71	89	-.-	75	75	81	71
	2002	76	57	51	53	78	64	93	97	72	74	85	70
	2008	74	62	52	58	69	65	97	-.-	77	78	89	75
	2009	78	74	52	58	77	69	96	85	73	85	88	73
Paraguay	1990 [e]	55	69	55	60	65	42	83	-.-	72	80	77	58
	1999	72	62	77	62	73	63	96	91	90	69	92	70
	2001	68	63	63	73	64	63	102	75	83	99	97	65
	2008	71	54	65	66	57	75	92	70	95	87	68	75
	2009	75	56	61	69	68	79	97	80	88	76	84	81
Peru	1997	59	70	64	60	72	52	77	59	62	57	81	63
	1999	64	65	60	102	67	61	81	58	58	66	71	73
	2001	67	80	82	67	70	62	80	51	78	75	77	67
	2008	61	67	61	60	60	63	71	53	63	63	68	63
	2009	63	65	63	63	60	64	77	53	59	60	69	69
Uruguay	1990	44	50	41	40	42	37	73	67	67	71	61	57
	1999	68	63	60	62	62	55	78	63	66	72	69	58
	2002	73	82	67	63	66	59	82	69	70	71	73	61
	2008	68	54	56	56	60	58	80	51	61	63	68	63
	2009	69	61	55	55	59	61	81	58	60	61	68	64
Venezuela (Bolivarian Republic of)	1990	66	63	58	68	61	62	87	89	81	84	78	71
	1994	70	63	61	70	63	66	87	92	79	95	70	74

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household survey conducted in the respective countries.
[a] Refers to the income differential in the total employed population. This differential is calculated as the quotient of average female income and average male income, multiplied by 100.
[b] Refers to the income differential in total income among wage-earners. This differential is calculated as the quotient of average female income and average male income multiplied by 100.
[c] Greater Buenos Aires.
[d] Eight departmental capitals plus El Alto.
[e] Asunción metropolitan area.
··· No data.
-.- Insufficient observations.

Table A-12
LATIN AMERICA AND THE CARIBBEAN (SELECTED COUNTRIES): INDICATORS OF PUBLIC SOCIAL SPENDING, 1990-1991 AND 2007-2008 [a]

Country	Coverage [c]	Public social spending [b]											
		Per capita (in dollars at 2000 prices)				Percentage of GDP				Percentage of total public spending [d]			
		1990-1991	1997-1998	2000-2001	2007-2008	1990-1991	1997-1998	2000-2001	2007-2008	1990-1991	1997-1998	2000-2001	2007-2008
Argentina [e]	CG	687	861	821	1 133	11.3	10.6	11.0	11.8	60.3	66.5	61.3	59.8
	GG	1 090	1 500	1 512	2 108	17.9	18.5	20.2	21.9	62.7	65.9	63.2	63.6
	NFPS	1 166	1 620	1 635	2 276	19.1	20.0	21.8	23.6	62.2	65.1	62.8	63.3
Bolivia (Plurinational State of) [f]	CG	47	104	122	…	5.2	10.3	12.0	…	34.4	33.5	35.4	…
	NFPS	…	156	165	178	…	15.5	16.3	16.2	…	46.9	42.8	49.1
Brazil [g]	FG consolidated	309	434	453	598	9.2	11.8	12.2	13.7	52.3	64.4	60.6	80.5
		554	753	785	1 083	16.6	20.5	21.2	24.7	48.9	50.5	62.1	73.5
Chile	CG	381	635	747	818	12.0	13.2	15.1	13.2	61.2	65.7	68.4	66.3
Colombia [h]	CG	129	320	264	376	5.9	12.8	11.1	12.6	28.8	…	68.6	70.9
Costa Rica	SP	486	636	727	951	15.6	16.9	18.0	18.4	38.9	41.9	40.5	36.2
Cuba	CG	864	532	661	1 656	27.6	21.6	23.7	37.4	35.6	42.9	47.0	54.6
Dominican Republic [i]	CG	69	134	188	288	3.8	5.4	6.8	8.1	43.1	43.2	49.9	46.9
Ecuador [j]	CG	99	71	66	106	7.4	5.1	4.9	6.4	42.8	25.0	20.9	27.9
El Salvador [k]	GG	…	153	222	290	…	7.3	10.0	11.1	…	30.7	38.6	46.8
Guatemala	CG	49	86	105	120	3.7	5.8	6.8	7.1	29.9	44.8	47.3	51.0
Honduras	CG	67	63	97	150	6.3	5.4	8.4	10.4	40.7	38.3	45.4	51.3
Jamaica [l]	CG	294	…	331	309	8.4	…	9.5	8.6	26.8	…	17.1	16.3
Mexico	BCG	358	521	621	856	6.5	8.8	9.7	12.1	41.3	54.9	61.3	64.1
Nicaragua	BCG	45	44	63	107	6.6	6.2	8.1	12.0	34.0	35.0	38.4	52.7
Panama	CG	229	365	371	506	7.5	9.7	9.5	9.3	38.1	42.4	42.5	41.5
	NFPS	496	645	680	…	16.2	17.2	17.4	…	40.0	41.6	44.3	…
Paraguay	BCG	45	126	107	165	3.2	8.6	8.0	11.1	39.9	46.4	38.3	59.5
Peru	BCG	64	151	158	…	3.9	7.3	7.7	…	33.0	40.8	45.0	…
	GG	…	…	179	224	…	…	8.8	8.0	…	…	52.2	52.5
Trinidad and Tobago [m]	CG	303	…	588	1 135	6.9	…	9.1	10.5	40.6	…	43.5	33.4
Uruguay [n]	CG-consolidated	841	1 316	1 314	1 686	16.8	20.5	21.6	21.8	62.3	68.7	68.1	73.4
	GG	…	…	1 272	…	…	…	20.9	…	…	…	62.8	…
	NFPS	…	…	1 364	…	…	…	22.4	…	…	…	64.4	…
Venezuela (Bolivarian Republic of) [o]	BCG-approved	433	457	549	708	8.8	9.0	11.6	13.4	32.8	36.6	37.8	44.0
	BCG-executed	…	…	483	614	…	…	10.2	10.8	…	…	43.5	41.8

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the Commission's social expenditure database.
[a] Includes public spending on education, health and nutrition, social security, employment and social welfare, housing, water and sewerage systems.
[b] The figures are simple averages for the relevant bienniums.
[c] CG: central government; GG: general government; NFPS: non-financial public sector; FG: federal government; PS: public sector/total public sector; BCG: budgetary central government.
[d] For most countries, the figure shown for total public spending is the official statistic provided by the country; no consideration is given to whether debt servicing is included or excluded.
[e] Includes the spending of the national government, provincial governments and the central government of Buenos Aires, as well as municipal governments.
[f] In the Plurinational State of Bolivia, in the case of the NFPS, the figure listed for 2006-2007 is the 2006 figure from the new 2002-2006 series published by the country. As such, it is not comparable to those of previous years.
[g] The data up to 1999 are an estimate of consolidated social spending, which includes federal, state and municipal spending.
[h] The figures for the 2006-2007 biennium correspond to the new series published since 2002 and are not comparable to those of previous years.
[i] The figures listed for 2007-2008 are the 2007 figures.
[j] The figures of the series remain unchanged. Social security spending is under review. The figure listed for 2006-2007 is the 2006 figure.
[k] The figures listed for 2007-2008 are those for 2007.
[l] Old series with no data for 1997 and 1998. The data shown for 2007-2008 are those for 2004. New series under review.
[m] In Trinidad and Tobago, the Classification of the Functions of Government (COFOG) series begins in 2000 and is not comparable with earlier series; the figures for 2007-2008 are preliminary.
[n] In Uruguay, the figures from 2000-2001 correspond to the series published by the Ministry of Social Development (MIDES) and are not comparable with those of previous years.
[o] Corresponds to the budget law, which it includes the amendments introduced yearly on 31 December. The figures shown for approved central government budget for 2007-2008 are those for 2006.

Table A-13
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 1 Eradicate extreme poverty and hunger					
	Target 1.A Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day					
	Indicator 1.1 Proportion of population below $1 (PPP) per day [b]		Indicator 1.2 Poverty gap ratio		Indicator 1.3 Share of poorest quintile in national consumption	
	Level 1990	Level 2008	Level 1990	Level 2008	Level 1990	Level 2008
Latin America and the Caribbean [c]	22.5	12.9	8.6	4.4	3.2	3.5
Latin America [c]	22.5	12.9	8.6	4.4	3.2	3.5
Argentina [d]	8.2	5.8	1.6	2.6	4.2	3.7
Bolivia (Plurinational State of)	39.5	32.4	9.7	4.5	3.2	4.3
Brazil	23.4	7.3	9.7	3.3	2.1	2.6
Chile	13.0	3.7	4.4	1.1	3.5	4.1
Colombia	26.1	22.9	13.8	8.3	2.0	2.9
Costa Rica	10.1	5.5	4.8	2.2	4.3	4.4
Cuba	...	...	...	...	...	...
Dominican Republic	...	22.6	8.8	8.8	3.2	2.9
Ecuador [d]	26.2	14.2	9.2	4.7	4.8	4.4
El Salvador	27.7	18.2	9.1	8.1	3.4	3.4
Guatemala	41.8	29.3	18.5	11.3	2.7	2.8
Haiti						
Honduras	60.9	47.1	31.5	23.9	2.3	1.9
Mexico	18.7	11.2	5.9	3.2	3.9	4.0
Nicaragua	51.4	33.8	24.3	12.3	2.1	3.5
Panama	16.2	13.5	5.2	1.6	3.2	4.6
Paraguay	35.0	30.8	3.6	5.7	5.2	5.0
Peru	25.0	12.6	10.1	4.0	3.0	4.0
Uruguay [d]	3.4	3.5	0.9	0.9	4.8	4.9
Venezuela (Bolivarian Republic of)	14.4	9.9	5.0	3.5	4.3	5.2
The Caribbean [c]	...	...	...	...	...	...
Anguilla	...	...	...	...	...	...
Antigua and Barbuda	...	...	...	...	...	...
Aruba	...	...	...	...	...	...
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Belize [e]	13.4	...	...	...	...	...
British Virgin Islands	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...
Dominica	...	...	...	...	...	...
French Guiana	...	...	...	...	...	...
Grenada	...	...	...	...	...	...
Guadaloupe	...	...	...	...	...	...
Guyana [e]	5.8	7.7	...	...	...	...
Jamaica [e]	2	2	...	...	...	...
Martinica	...	...	...	...	...	...
Montserrat	...	...	...	...	...	...
Netherlands Antilles	...	...	...	...	...	...
Puerto Rico	...	...	...	...	...	...
Saint Kitts and Nevis	...	...	...	...	...	...
Saint Lucia [e]	20.9	...	...	...	...	...
Saint Vincent and the Grenadines	...	...	...	...	...	...
Suriname [e]	15.5	...	...	...	...	...
Trinidad and Tobago [e]	4.2	...	...	...	...	...
Turks and Caicos Islands	...	...	...	...	...	...
United States Virgin Islands	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.

[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Does not include the Dominican Republic. Figures for 1990 are not comparable with those for 2000 on.
[c] Weighted averages.
[d] The figures refer to urban areas.
[e] Corresponds to the proportion of the population with income below one purchasing power parity (PPP) dollar per day. Data available on the official United Nations site for Millennium Development Goals Indicators [online] http://mdgs.un.org/unsd/mdg/Default.aspx.

Table A-14
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 1 Eradicate extreme poverty and hunger							
	Target 1B Achieve full and productive employment and decent work for all, including women and young people							
	Indicator 1.4 Growth rate of GDP per person employed		Indicator 1.5 Employment-to-population ratio		Indicator 1.6 Proportion of employed people living below $ 1 (PPP) per day		Indicator 1.7 Proportion of own-account and contributing family workers in total employment [b]	
	Level 1992-1997	Level 2003-2008	Level 1990	Level 2008	Level 1990	Level 2008	Level 1990	Level 2008
Latin America and the Caribbean [b]	0.3	2.2	54.3	59.5	17.8	3.5	32.0	31.1
Latin America [b]	0.3	2.2	54.5	59.6	3.2	3.5	32.0	31.2
Argentina [c]	3.5	6.0	52.5	57.0	4.2	3.7	25.6	19.3
Bolivia (Plurinational State of)	0.1	1.1	53.5	58.7	3.2	4.3	43.7	36.0
Brazil	-0.5	1.8	61.1	63.7	2.1	2.6	28.9	29.1
Chile	5.8	2.7	47.7	53.1	3.5	4.1	24.5	21.3
Colombia	0.9	1.7	58.6	56.9	2.0	2.9	44.6	45.6
Costa Rica	1.8	3.0	54.7	57.9	4.3	4.4	24.3	19.5
Cuba	...	...	53.0	56.0	...	...	...	...
Dominican Republic	1.4	4.1	52.9	54.5	3.2	2.9	41.7	43.8
Ecuador [c]	-1.4	2.3	57.1	61.1	4.8	4.4	35.6	36.2
El Salvador	3.5	1.0	55.8	55.5	3.4	3.4	36.2	35.3
Guatemala	3.9	-1.1	56.5	64.9	2.7	2.8	48.0	44.5
Haiti	-6.1	-1.7	56.0	55.9			...	...
Honduras	-0.4	4.0	56.1	58.0	2.3	1.9	49.6	48.9
Mexico	-0.6	1.5	52.1	59.4	3.9	4.0	29.4	22.6
Nicaragua	0.8	-0.2	49.6	60.4	2.1	3.5	46.5	44.9
Panama	0.6	4.2	48.1	60.3	3.2	4.6	33.8	30.7
Paraguay	-1.2	0.3	61.4	63.8	5.2	5.0	22.9	26.4
Peru	2.4	4.0	67.9	71.3	3.0	4.0	52.4	51.4
Uruguay [c]	3.0	6.9	52.6	58.8	4.8	4.9	20.1	24.9
Venezuela (Bolivarian Republic of)	-1.2	2.5	51.6	60.8	4.3	5.2	25.7	37.5
The Caribbean [b]	0.9	2.0	47.3	51.2	...	...	32.2	27.1
Anguilla	...	...	...	...	...	...	...	...
Antigua and Barbuda	...	...	...	...	...	...	14.6	
Aruba	...	...	...	...	...	...	3.9	...
Bahamas	-0.6	0.0	63.0	66.6	...	...	...	...
Barbados	-0.9	1.9	56.9	66.9	...	...	11.7	...
Belize [d]	-1.2	0.9	47.6	56.8	...	...	...	23.5
British Virgin Islands	...	...	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...	...	...
Dominica	...	...	...	...	...	...	29.1	...
French Guiana	...	...	...	...	...	...	...	...
Grenada	...	...	...	...	...	...	...	...
Guadaloupe	...	...	44.5	43.1	...	...	...	...
Guyana [d]	5.1	1.6	51.7	58.9	...	...	...	...
Jamaica [d]	1.7	0.1	61.5	58.2	...	...	42.3	35.4
Martinica	...	...	46.2	42.5	...	...	...	...
Montserrat	...	...	...	...	...	...	12.6	...
Netherlands Antilles	...	...	49.0	53.5	...	...	8.1	11.2
Puerto Rico	...	...	38.1	42.4	...	...	...	...
Saint Kitts and Nevis	...	...	...	...	...	...	12.1	...
Saint Lucia [d]	...	...	...	...	...	...	23.5	...
Saint Vincent and the Grenadines	...	...	...	...	...	...	20.2	...
Suriname	-0.3	4.3	44.6	44.7	...	...	15.6	...
Trinidad and Tobago	-2.4	5.7	45.0	61.5	...	...	21.7	15.6
Turks and Caicos Islands	...	...	...	...	...	...	...	...
United States Virgin Islands	...	...	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.
[c] The figures refer to urban areas.
[d] Simple averages.

Table A-15
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 1 Eradicate extreme poverty and hunger			
	Target 1.C Halve, between 1990 and 2015, the proportion of people who suffer from hunger			
	Target 1.8 Prevalence of underweight children under five years of age		Target 1.9 Proportion of population below minimum level of dietary energy consumption	
	Level 1989-1999	Level 1996-2008	Level 1990-1992	Level 2004-2006
Latin America and the Caribbean [b]	8.6	6.3	10.7	7.3
Latin America [b]	8.6	6.3	10.7	7.3
Argentina [c]	1.9	3.8	<=5	<=5
Bolivia (Plurinational State of)	11.2	5.9	24	23
Brazil	7.0	4.6	10	6
Chile	0.9	0.6	7	<=5
Colombia	10.1	6.9	15	10
Costa Rica	2.8	4.0	<=5	<=5
Cuba	…	…	5	<=5
Dominican Republic	10.3	4.3	27	21
Ecuador [c]	14.6	8.6	24	13
El Salvador	11.2	8.6	9	10
Guatemala	26.6	22.7	14	16
Haiti	26.8	22.2	63	58
Honduras	18.0	11.4	19	12
Mexico	7.5	5.0	<=5	<=5
Nicaragua	11.0	6.9	52	21
Panama	6.1	6.8	18	17
Paraguay	3.7	4.2	16	12
Peru	10.8	7.6	28	13
Uruguay [c]	4.4	6.0	5	<=5
Venezuela (Bolivarian Republic of)	7.7	4.6	10	12
The Caribbean [b]	7.6	5.9	11.9	7.2
Anguilla	…	…	…	…
Antigua and Barbuda	…	1.6	…	27
Aruba	…	…	…	…
Bahamas	…	…	9	6
Barbados	…	…	…	…
Belize	6.2	6.1	7	…
British Virgin Islands	…	…	…	…
Cayman Islands	…	…	…	…
Dominica	…	…	4	…
French Guiana	…	…	…	…
Grenada	…	…	9	23
Guadaloupe	…	…	…	…
Guyana	18.3	12.4	21	6
Jamaica	4.6	4.0	11	5
Martinica	…	…	…	…
Montserrat	…	…	…	…
Netherlands Antilles	…	…	14	5
Puerto Rico	…	…	…	…
Saint Kitts and Nevis	…	…	13	15
Saint Lucia	…	…	8	8
Saint Vincent and the Grenadines	…	…	22	6
Suriname	…	…	13	7
Trinidad and Tobago	…	5.9	11	10
Turks and Caicos Islands	…	…	…	…
United States Virgin Islands	…	…	…	…

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.
[c] The figures refer to urban areas.

Table A-16
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 2 Achieve universal primary education					
	Target 2.A Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling					
	Indicator 2.1 Net enrolment ratio in primary education		Indicator 2.2 Proportion of pupils starting grade 1 who reach last grade of primary		Indicator 2.3 Literacy rate of 15-24 year-olds, women and men	
	Level 1991	Level 2007	Level 1992	Level 2004-2008	Level 1991	Level 2007
Latin America and the Caribbean [b]	88.2	95.0	83.9	93.1	92.0	97.1
Latin America [b]	88.2	95.0	83.9	93.1	90.9	95.9
Argentina	...	99.1	97.1	97.8	98.3	99.1
Bolivia (Plurinational State of)	...	95.0	67.1	96.4	93.9	99.4
Brazil	85.4	93.5	82.2	94.7	91.8	97.8
Chile	89.4	94.5	95.5	98.7	98.4	99.1
Colombia	69.5	93.5	85.6	93.6	90.5	98.0
Costa Rica	87.6	...	84.6	94.1	97.4	98.0
Cuba	97.6	99.5	...	...	96.2	100.0
Dominican Republic	54.6	82.4	76.3	88.3	87.5	96.0
Ecuador	99.2	92.6	89.8	96.2	96.2	95.4
El Salvador	...	95.6	69.0	76.1	84.9	93.6
Guatemala	...	96.8	52.2	62.6	76.0	85.5
Haiti	22.0	...	...	...	54.8	81.7
Honduras	87.6	97.2	61.7	79.2	79.7	93.9
Mexico	98.6	99.4	86.7	95.7	95.4	98.2
Nicaragua	69.0	93.4	60.2	70.8	68.2	87.0
Panama	...	98.9	89.3	94.6	95.1	96.3
Paraguay	92.8	93.1	78.3	95.0	95.6	98.8
Peru	...	99.7	85.4	93.9	95.4	97.4
Uruguay	92.4	97.8	96.2	96.7	98.6	98.8
Venezuela (Bolivarian Republic of)	88.9	92.1	88.3	93.5	95.4	98.4
The Caribbean [b]	94.1	90.8	...	...	94.0	97.2
Anguilla	...	95.3	...	...	...	...
Antigua and Barbuda	...	74.0	...	...	...	...
Aruba	...	99.2	...	...	...	99.3
Bahamas	90.3	90.8	...	...	...	...
Barbados	84.3	...	...	...	99.8	99.8
Belize	94.4	99.7	...	...	76.4	84.2
British Virgin Islands	...	97.1	...	...	...	...
Cayman Islands	...	95.6	...	...	...	98.9
Dominica	...	73.3	...	...	...	...
French Guiana	...	...	...	...	...	...
Grenada	...	96.0	...	...	...	...
Guadaloupe	...	...	...	...	...	99.8
Guyana	95.4	98.5	...	...	...	...
Jamaica	97.1	85.5	...	...	91.2	94.3
Martinica	...	...	...	...	...	99.7
Montserrat	...	96.2	...	...	...	...
Netherlands Antilles	...	...	...	...	97.0	98.2
Puerto Rico	...	...	...	...	96.1	97.7
Saint Kitts and Nevis	...	90.4	...	...	...	...
Saint Lucia	96.4	93.5	...	...	...	...
Saint Vincent and the Grenadines	...	97.5	...	...	...	...
Suriname	82.1	90.1	...	...	...	95.2
Trinidad and Tobago	91.1	96.9	...	...	99.3	99.5
Turks and Caicos Islands	...	80.7	...	...	...	...
United States Virgin Islands	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.

Table A-17
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 3 Promote gender equality and empower women									
	Target 3.A Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015									
	Indicator 3.1 Ratio of girls to boys in primary education		Indicator 3.1 Ratio of girls to boys, secondary education		Indicator 3.1 Ratio of girls to boys, tertiary education		Indicator 3.2 Share of women in wage employment in the non-agricultural sector		Indicator 3.3 Proportion of seats held by women in national parliament	
	Level 1991	Level 2007	Level 1991	Level 2007	Level 1991	Level 2007	Level 1990-2002	Level 1991-2007	Level 1990-1992	Level 2007
Latin America and the Caribbean [b]	0.98	1.00	1.05	1.05	1.08	1.27	36.2	41.8	11.9	22.2
Latin America [b]	0.98	1.00	1.05	1.05	1.08	1.27	36.3	41.7	12.0	22.8
Argentina	...	...	...	...	...	...	37.1	45.0	6.3	40.0
Bolivia (Plurinational State of)	0.92	1.01	...	0.99	...	0.84	35.2	38.6	9.2	16.9
Brazil	...	1.00	...	1.10	1.11	1.29	35.1	41.6	5.3	9.0
Chile	0.98	0.99	1.07	1.03	...	1.01	34.7	37.4	7.5	15.0
Colombia	1.02	1.00	1.19	1.11	1.07	1.09	41.8	48.5	4.5	8.4
Costa Rica	0.99	...	1.06	...	...	...	37.2	41.1	10.5	36.8
Cuba	0.97	1.00	1.15	1.02	1.40	1.85	41.7	43.7	33.9	43.2
Dominican Republic	1.00	1.01	...	1.22	...	...	31.0	38.8	7.5	19.7
Ecuador	0.99	1.01	...	1.02	...	1.22	34.1	36.6	4.5	27.6
El Salvador	1.01	1.02	1.22	1.03	...	1.09	45.6	48.6	11.7	19.0
Guatemala	0.87	0.96	...	...	...	1.00	36.8	43.0	7.0	12.0
Haiti	0.95	...	0.94	...	...	...	44.2	...	3.6	4.1
Honduras	1.04	1.02	1.23	...	0.79	...	33.3	33.4	10.2	23.4
Mexico	0.97	1.00	0.99	1.03	0.74	0.98	36.5	39.4	12.0	23.2
Nicaragua	1.06	1.01	1.20	1.15	0.96	...	...	38.6	14.8	18.5
Panama	...	0.99	...	...	...	1.59	45.4	43.1	7.5	16.7
Paraguay	0.97	...	1.05	...	...	...	41.0	40.2	5.6	12.5
Peru	0.97	1.00	0.94	1.01	...	...	37.2	42.9	5.6	29.2
Uruguay	0.99	1.00	...	1.11	...	1.75	42.3	45.5	6.1	12.1
Venezuela (Bolivarian Republic of)	1.03	1.00	1.38	1.14			35.2	41.4	10.0	18.6
The Caribbean [b]	0.99	0.99	1.07	1.06	1.35	2.34	44.4	43.6	9.3	15.1
Anguilla	...	...	...	...	...	...	42.8	48.8	...	...
Antigua and Barbuda	...	0.98	...	...	...	...	...	50.6	0.0	10.5
Aruba	...	0.99	...	1.04	...	1.41	43.9	45.9	...	...
Bahamas	1.03	1.03	...	1.06	...	...	49.6	48.8	4.1	12.2
Barbados	1.00	...	...	...	1.24	...	46.8	48.7	3.7	10.0
Belize	0.98	1.01	1.15	1.09	...	...	33.9	37.6	0.0	0.0
British Virgin Islands	...	1.01	...	1.12	...	...	49.9	49.1	...	...
Cayman Islands	...	1.05	...	1.26	...	...	50.0	49.3	...	...
Dominica	...	1.06		1.02	...	...	39.7	43.8	10.0	18.8
French Guiana	...	...	...	...	...	...	36.1	38.2	...	...
Grenada	0.85	1.00	1.16	1.00	...	...	40.4	42.6	20.0	13.3
Guadaloupe	...	...	...	...	...	...	46.6	45.7	...	...
Guyana	0.99	...	1.06	...	...	2.12	38.5	34.7	36.9	30.0
Jamaica	0.99	0.98	1.06	1.05	0.74	...	46.2	45.8	5.0	13.3
Martinica	...	...	...	...	...	...	45.4	48.1	...	...
Montserrat	...	1.08	...	1.01	...	...	43.4	...	...	...
Netherlands Antilles	...	...	1.19		...	...	42.7	49.9	...	...
Puerto Rico	...	...	...	...	...	...	46.5	41.5	...	...
Saint Kitts and Nevis	1.02	1.02	1.11	0.91	...	...	...	...	6.7	6.7
Saint Lucia	0.94	0.95	1.45	1.15	1.35	2.34	51.8	47.5	0.0	11.1
Saint Vincent and the Grenadines	0.98	0.97	1.24	...	...	...	...	...	9.5	18.2
Suriname	1.03	0.98	1.16	...	...	...	39.5	38.1	7.8	25.5
Trinidad and Tobago	1.00	0.99	1.04	1.07	0.78	...	35.6	43.9	16.7	26.8
Turks and Caicos Islands	...	...	...	...	...	...	43.1	40.7	...	...
United States Virgin Islands	...	...	...	...	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.

Table A-18
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 4 Reduce child mortality					
	Target 4.A Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate					
	Indicator 4.1 Under-five mortality rate (per 1 000 live births)		Indicator 4.2 Infant mortality rate (per 1 000 live births)		Indicator 4.3 Proportion of 1 year-old children immunized against measles	
	Level 1991	Level 2009	Level 1990	Level 2009	Level 1990	Level 2007
Latin America and the Caribbean [b]	55.5	26.2	42.7	20.4	76.3	93.0
Latin America [b]	55.9	26.3	43.0	20.4	76.4	93.4
Argentina	30.1	14.9	25.8	12.9	93.0	99.0
Bolivia (Plurinational State of)	114.6	57.1	82.6	42.6	53.0	81.0
Brazil	60.1	27.6	47.5	22.5	78.0	99.0
Chile	19.1	8.5	16.3	7.0	97.0	91.0
Colombia	42.5	25.3	31.5	18.7	82.0	95.0
Costa Rica	18.4	11.2	16.0	9.7	90.0	90.0
Cuba	18.9	7.7	15.6	4.8	94.0	99.0
Ecuador	65.5	24.4	49.9	20.0	60.0	99.0
El Salvador	64.8	24.6	47.1	20.0	98.0	98.0
Dominican Republic	64.2	31.3	55.3	28.0	96.0	96.0
Guatemala	85.5	36.5	61.0	27.6	68.0	93.0
Haiti	137.3	68.2	92.7	46.6	31.0	58.0
Honduras	70.8	40.2	48.0	27.2	90.0	89.0
Mexico	44.2	18.9	36.3	15.6	75.0	96.0
Nicaragua	75.9	23.8	56.5	20.0	82.0	99.0
Panama	35.9	22.9	28.3	17.5	73.0	89.0
Paraguay	57.8	37.0	44.8	31.0	69.0	80.0
Peru	85.1	30.7	57.8	18.5	64.0	99.0
Uruguay	24.3	15.8	21.4	12.7	97.0	96.0
Venezuela (Bolivarian Republic of)	31.6	21.1	25.0	16.4	61.0	55.0
The Caribbean [b]	32.9	21.5	25.7	17.1	74.7	85.0
Anguilla	...	...	...	...	...	...
Antigua and Barbuda	...	...	...	...	89.0	99.0
Aruba	21.2	17.4	18.3	14.9	...	...
Bahamas	24.7	11.2	16.6	8.0	86.0	96.0
Barbados	17.8	10.1	15.1	9.5	87.0	75.0
Belize	38.5	19.8	30.6	15.9	86.0	96.0
British Virgin Islands	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...
Dominica	...	...	...	...	88.0	96.0
French Guiana	26.3	14.4	22.5	13.0	...	...
Grenada	40.5	14.1	33.0	12.8	85.0	98.0
Guadaloupe	20.4	8.7	15.6	6.7	...	...
Guyana	90.2	52.4	64.9	40.3	73.0	96.0
Jamaica	33.9	27.1	27.8	22.5	74.0	76.0
Martinica	12.4	7.7	9.8	6.5	...	...
Montserrat	...	...	...	...	...	...
Netherlands Antilles	...	13.4	16.1	12.4	...	...
Puerto Rico	14.9	8.7	12.7	6.9	…	…
Saint Kitts and Nevis	...	...	...	...	99.0	99.0
Saint Lucia	24.4	15.1	18.5	12.0	82.0	94.0
Saint Vincent and the Grenadines	39.3	26.8	32.3	22.3	96.0	99.0
Suriname	49.4	30.4	36.5	21.7	65.0	85.0
Trinidad and Tobago	35.2	32.1	28.7	25.1	70.0	91.0
Turks and Caicos Islands	...	...	...	...	...	...
United States Virgin Islands	18.3	9.7	15.8	8.8	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.

Table A-19

LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]

(Percentages)

Country or territory	Goal 5 Improve maternal health													
	Target 5.A Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio				Target 5.B Achieve, by 2015, universal access to reproductive health									
	Indicator 5.1 Maternal mortality ratio		Indicator 5.2 Proportion of births attended by skilled health personnel		Indicator 5.3 Contraceptive prevalence rate		Indicator 5.4 Adolescent birth rate		Indicator 5.5 Antenatal care coverage (at least one visit)		Indicator 5.5 Antenatal care coverage (at least four visits)		Indicator 5.6 Unmet need for family planning	
	Level 2000-2001	Level 2002-2008	Level 1984-2005	Level 1999-2008	Level 1990-2001	Level 1990-2008	Level 1990-1995	Level 1994-2006	Level 1990-2006	Level 1993-2008	Level 1996-2004	Level 1991-2008	Level 1995-1999	Level 1995-2005
Latin America and the Caribbean [b]	71.2	66.9	78.3	88.9	59.5	69.6	77.5	70.4	83.6	95.0	77.6	87.2	12.9	10.4
Latin America [b]	71.2	66.9	78.1	88.8	59.4	69.7	77.5	70.7	83.4	95.0	77.6	87.2	12.9	10.4
Argentina	35.0	43.7	95.8	99.4	...	65.3	68.3	62.6	95.0	99.2	...	89.3	...	...
Bolivia (Plurinational State of)	...	...	37.8	65.8	45.3	60.6	96.0	88.0	52.5	77.0	...	72.1	26.1	22.7
Brazil	73.3	77.2	81.0	97.0	...	76.7	53.2	56.0	85.7	97.4	75.9	87.0	...	7.3
Chile	18.7	18.2	99.4	99.8	60.7	64.2	64.8	48.8	...	95.0	...	...	...	...
Colombia	104.9	75.6	93.7	96.4	66.1	78.2	92.0	96.2	82.7	93.5	...	83.1	7.7	5.8
Costa Rica	35.8	19.1	97.0	98.5	75.0	80.0	91.1	62.7	95.0	91.7	...	86.0	...	...
Cuba	40.4	46.5	99.8	99.9	73.3	72.6	79.7	41.7	100.0	100.0	...	...	...	...
Dominican Republic	69.0	86.3	92.4	97.8	56.4	72.9	115.0	98.0	96.9	99.0	93.5	94.5	12.5	10.9
Ecuador	...	...	66.3	99.1	56.8	72.7	101.0	100.0	74.7	84.2	...	66.5	10.0	7.4
El Salvador	...	...	52.0	92.4	53.3	72.5	102.0	67.0	68.7	94.0	71.2	78.6	14.2	8.9
Guatemala	...	...	35.0	41.4	31.4	43.3	119.6	92.1	52.5	84.3	...	65.9	24.3	27.6
Haiti	...	...	23.0	26.1	18.0	32.0	79.0	68.6	67.7	84.5	...	53.8	...	39.8
Honduras	...	...	40.5	66.9	46.7	65.2	136.0	107.9	87.8	91.7	...	80.8	18.0	11.2
Mexico	72.6	57.2	83.8	93.4	63.1	70.9	97.8	82.1	...	86.1	...	...	...	14.2
Nicaragua	87.0	76.5	61.0	73.7	54.5	72.4	158.0	108.5	71.5	90.2	71.6	77.8	14.7	14.6
Panama	...	...	85.8	91.0	...	...	88.0	84.8	...	72.2	...	...	...	...
Paraguay	164.0	127.3	66.0	77.1	48.4	79.4	107.0	65.0	83.9	96.0	78.8	78.7	19.2	6.6
Peru	...	...	52.5	71.0	59.0	71.3	68.0	59.0	63.9	91.0	87.0	91.6	12.1	8.8
Uruguay	...	...	99.6	99.6	...	77.0	64.7	61.0	94.0	97.1	...	...	...	...
Venezuela (Bolivarian Republic of)	60.1	56.8	95.3	95.0	58.0	70.3	104.6	91.3	...	94.1	...	...	...	...
The Caribbean [b]	...	...	88.3	95.2	62.8	67.1	79.2	57.1	94.6	92.1	...	...	...	...
Anguilla	...	...	100.0	100.0	...	43.0	43.4	40.1	...	...	...	...	...	...
Antigua and Barbuda	...	0.0	100.0	99.9	...	...	82.5	66.8	82.0	100.0	...	...	...	...
Aruba	...	...	...	...	...	...	57.0	43.0	...	...	...	...	...	...
Bahamas	...	...	99.0	99.0	...	...	67.6	44.2	98.0	98.0	...	...	...	...
Barbados	...	0.0	100.0	100.0	...	...	55.1	47.7	100.0	100.0	...	...	...	...
Belize	...	...	83.8	95.8	46.7	34.3	135.2	94.1	95.9	94.0	...	76.4	...	...
British Virgin Islands	...	...	100.0	100.0	...	...	28.3	43.2	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...	88.7	58.7	...	...	...	...	...	...
Dominica	...	...	99.9	99.0	...	...	105.5	51.0	90.0	100.0	...	...	...	...
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grenada	...	0.0	99.0	100.0	54.3	54.3	99.4	52.9	100.0	100.0	...	...	...	...
Guadaloupe	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guyana	...	112.5	95.0	83.3	38.2	34.2	94.8	90.0	80.9	81.4	...	...	...	...
Jamaica	...	95.0	79.0	96.7	62.0	69.0	93.6	58.2	99.0	90.5	...	87.2	...	12.7
Martinica	...	12.8	...	...	...	...	...	...	...	...	...	...	...	...
Montserrat	...	...	100.0	100.0	...	...	53.6	33.7	...	...	...	...	...	...
Netherlands Antilles	...	...	...	...	...	...	55.5	40.0	...	...	...	...	...	...
Puerto Rico	...	...	...	...	77.7	84.1	75.4	60.0	...	...	...	...	...	...
Saint Kitts and Nevis	...	...	99.4	100.0	...	...	82.1	68.1	100.0	100.0	...	...	...	...
Saint Lucia	...	...	99.7	100.0	...	...	99.9	52.7	100.0	99.2	...	...	...	...
Saint Vincent and the Grenadines	...	...	99.3	100.0	...	...	96.7	57.4	91.8	95.0	...	...	...	...
Suriname	...	184.3	91.0	89.8	48.0	42.1	74.8	63.4	91.0	89.9	...	...	...	...
Trinidad and Tobago	...	...	97.9	97.8	38.2	42.5	58.3	32.0	92.4	95.7	...	...	...	...
Turks and Caicos Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United States Virgin Islands	...	0.0	...	...	...	78.4	73.6	53.9	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.

[a] The indicators are presented in numerical order; those for which there is no information have not been included.

[b] Weighted averages.

Table A-20

LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]

(Percentages)

Country or territory	Goal 6 Combat HIV/AIDS, malaria and other diseases											
	Target 6.A Have halted by 2015 and begun to reverse the spread of HIV/AIDS											
	Indicator 6.1 HIV prevalence among population aged 15-24 years (series available for persons aged 15 to 49)		Indicator 6.2 Condom use at last high-risk sex (women)		Indicator 6.2 Condom use at last high-risk sex (men)		Indicator 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (women)		Indicator 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (men)		Indicator 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	
	Level 1990-2006	Level 2007	Level 1996-2000	Level 2001-2007	Level 1996-2000	Level 2003-2007	Level 2000-2006	Level 2000-2007	Level 1996-2000	Level 2003-2007	Level 1994-1998	Level 1996-2006
Latin America and the Caribbean [b]	0.3	0.5	18.6	29.2	19.9	22.2	27.4	38.1	25.3	36.8	0.9	0.8
Latin America [b]	0.3	0.5	18.6	29.2	19.9	22.6	25.9	37.6	25.3	36.8	0.9	0.8
Argentina	0.2	0.5	...	44	...	48	...	...	...	...	...	...
Bolivia (Plurinational State of)	0.1	0.2	...	...	...	...	...	15	...	18	0.82	0.74
Brazil	0.4	0.6	...	...	...	...	...	...	...	...	...	0.96
Chile	0.1	0.3	...	18	...	30	...	...	...	...	...	...
Colombia	0.1	0.6	...	...	22	31	...	...	...	...	...	0.85
Costa Rica	0.1	0.4	...	11	...	15	...	...	...	...	...	...
Cuba	0.1	0.1	...	33	...	41	...	52	...	...	...	...
Dominican Republic	0.6	1.1	19	33	9	42	36	41	23	34	0.96	0.77
Ecuador	0.1	0.3	...	...	...	...	...	...	...	...	...	...
El Salvador	0.1	0.8	...	...	...	...	...	...	...	...	...	...
Guatemala	0.1	0.8	...	...	...	...	...	...	...	...	...	...
Haiti	1.2	2.2	30	21	21	34	15	34	28	40	0.76	0.86
Honduras	1.3	0.7	...	32	...	38	...	30	...	...	...	1.08
Mexico	0.2	0.3	...	...	...	20	...	...	...	...	...	...
Nicaragua	0.1	0.2	...	19	...	...	...	22	...	...	0.81	1.06
Panama	0.4	1.0	...	...	...	...	...	...	...	...	...	...
Paraguay	0.1	0.6	...	...	...	...	...	...	...	...	...	...
Peru	0.1	0.5	15	31	...	...	...	19	...	...	...	0.85
Uruguay	0.1	0.6	...	65	...	69	...	...	...	...	...	...
Venezuela (Bolivarian Republic of)	...	...	...	...	...	...	...	...	...	...	...	...
The Caribbean [b]	0.6	1.8	...	...	...	...	53.0	50.0	...	...	...	...
Anguilla	...	...	...	...	...	...	...	...	...	...	...	...
Antigua and Barbuda	...	...	...	...	...	...	...	...	...	...	...	...
Aruba	...	...	...	...	...	...	...	...	...	...	...	...
Bahamas	3.8	3	...	...	...	...	...	...	...	...	...	...
Barbados	0.5	1.2	...	...	...	...	...	...	...	...	...	...
Belize	0.1	2.1	...	...	...	...	...	40	...	...	...	...
British Virgin Islands	...	...	...	...	...	...	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...	...	...	...	...	...	...
Dominica	...	...	...	...	...	...	...	...	...	...	...	...
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...
Grenada	...	...	...	52	...	68	...	...	...	...	...	...
Guadaloupe	...	...	...	...	...	...	...	...	...	...	...	...
Guyana	1.3	2.5	...	56	...	53	53	50	...	47	...	...
Jamaica	0.3	1.6	...	53	...	67	...	60	...	...	...	...
Martinica	...	...	...	...	...	...	...	...	...	...	...	...
Montserrat	...	...	...	...	...	...	...	...	...	...	...	...
Netherlands Antilles	...	...	...	...	...	...	...	...	...	...	...	...
Puerto Rico	...	...	...	...	...	...	...	...	...	...	...	...
Saint Kitts and Nevis	...	...	...	...	...	...	...	...	...	...	...	...
Saint Lucia	...	...	...	39	...	48	...	...	...	...	...	...
Saint Vincent and the Grenadines	...	...	...	52	...	62	...	...	...	...	...	...
Suriname	0.1	2.4	...	...	...	...	...	41	...	...	...	...
Trinidad and Tobago	0.2	1.5	...	...	...	...	...	54	...	...	...	...
Turks and Caicos Islands	...	...	...	...	...	...	...	...	...	...	...	...
United States Virgin Islands	...	...	...	...	...	...	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.

[a] The indicators are presented in numerical order; those for which there is no information have not been included.

[b] Weighted averages.

Table A-21

LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]

(Percentages)

Country or territory	Goal 6 Combat HIV/AIDS, malaria and other diseases													
	Target 6.B Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it		Target 6.C Have halted by 2015 and begun to reverse the spread of malaria and other diseases											
	Indicator 6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs		Indicator 6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs		Indicator 6.9 Incidence associated with tuberculosis		Indicator 6.9 Prevalence associated with tuberculosis		Indicator 6.9 Death rates associated with tuberculosis		Indicator 6.10 Proportion of tuberculosis cases detected under directly observed treatment short course		Indicator 6.10 Proportion of tuberculosis cases cured under directly observed treatment short course	
	Level 2006	Level 2007	Level 2000-2001	Level 2006	Level 1990	Level 2007	Level 1990	Level 2008	Level 1990	Level 2008	Level 1994-2001	Level 1996-2007	Level 1994-2003	Level 1995-2006
Latin America and the Caribbean [b]	46.5	52.9	...	...	87.8	49.1	122.8	37.1	14.7	4.8	32.1	72.7	78.8	76.1
Latin America [b]	47.1	53.2	...	...	89.5	49.6	124.3	37.2	14.8	4.9	32.0	72.8	78.8	76.1
Argentina	71	73	...	...	60	31	74	22	9.1	3.1	4	76	55	63
Bolivia (Plurinational State of)	18	22	...	...	255	155	290	170	37	22	39	71	66	83
Brazil	78	80	...	...	84	48	98	29	12	3.8	4	69	91	72
Chile	68	82	...	...	38	12	11	3.6	3	0.5	73	105	83	85
Colombia	34	38	...	...	53	35	59	37	7.5	4.6	30	81	74	71
Costa Rica	95	95	...	...	18	11	35	2.9	4	0.5	31	120	81	88
Cuba	95	95	...	...	25	6	62	1.8	7.1	0.5	82	109	86	90
Dominican Republic	24	38	...	...	114	69	350	95	39	12	9	66	81	78
Ecuador	24	42	...	...	167	101	310	110	36	13	5	46	82	74
El Salvador	46	51	...	...	82	40	70	18	8.8	2.7	46	65	77	91
Guatemala	31	37	...	...	74	63	120	110	14	12	43	40	62	47
Haiti	26	41	11.7	5.1	306	306	280	290	28	32	2	49	73	82
Honduras	41	47	...	...	98	59	140	79	17	9.5	2	87	93	86
Mexico	54	57	...	...	61	20	130	8.4	15	1.4	13	99	75	80
Nicaragua	26	30	1.8	...	108	49	130	26	17	4.1	72	97	81	89
Panama	42	56	...	...	47	47	44	14	5.7	2.8	12	98	51	79
Paraguay	25	22	...	...	60	58	13	40	3.7	5.4	14	58	46	83
Peru	42	48	...	...	317	126	450	46	53	8.7	102	93	81	78
Uruguay	55	56	...	...	28	22	9.8	12	1.8	1.7	76	95	83	87
Venezuela (Bolivarian Republic of)	...	...	...	...	35	34	32	34	4.3	4.3	73	68	68	82
The Caribbean [b]	44.5	52.2	...	...	15.2	21.6	74.5	86.5	8.8	10.0	62.5	55.7	82.2	68.4
Anguilla	...	...	...	...	24	22	...	...	...	...	...	...	...	...
Antigua and Barbuda	...	...	...	...	10	5	...	...	...	...	44	284	50	100
Aruba	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bahamas	...	...	...	...	44	44	...	...	...	...	67	52	72	75
Barbados	67	73	...	...	7	4	...	...	...	...	118	173	100	100
Belize	42	49	...	...	40	40	16	43	3.1	5.1	98	89	88	75
British Virgin Islands	...	...	...	...	19	10	...	...	...	...	...	0	...	...
Cayman Islands	...	...	...	...	7	4	...	...	...	...	130	129	100	0
Dominica	...	...	...	...	15	13	...	...	...	...	94	61	100	50
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grenada	...	...	...	...	5	4	...	...	...	...	...	...	...	...
Guadaloupe	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guyana	37	45	...	...	27	122	200	110	22	15	11	39	91	68
Jamaica	33	43	...	...	7	7	5.2	7.9	1	0.5	92	83	67	41
Martinica	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Montserrat	...	...	...	...	9	8	...	...	...	...	0	393	0	0
Netherlands Antilles	...	...	...	...	14	7	...	...	...	...	...	...	...	...
Puerto Rico	...	...	...	...	11	4	1.4	1.4	1	0.5	72	77	68	80
Saint Kitts and Nevis	...	...	...	...	10	9	...	...	...	...	165	155	25	100
Saint Lucia	...	...	...	...	16	14	...	...	...	...	113	139	67	80
Saint Vincent and the Grenadines	...	...	...	...	27	25	...	...	...	...	18	49	86	86
Suriname	35	45	...	...	66	116	150	270	17	29	...	...	...	...
Trinidad and Tobago	53	58	...	...	11	11	...	...	...	...	...	...	...	...
Turks and Caicos Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United States Virgin Islands	...	...	...	...	19	10	...	...	...	...	...	73	...	50

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.

[a] The indicators are presented in numerical order; those for which there is no information have not been included.

[b] Weighted averages.

Table A-22

LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]

(Percentages)

Country or territory	Goal 7 Ensure environmental sustainability															
	Target 7.A Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources												Target 7.B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss			
	Indicator 7.1 Proportion of land area covered by forest		Indicator 7.2 CO_2 emissions (total, in thousands of metric tons of CO_2)		Indicator 7.2 CO_2 emissions (in metric tons of CO_2, per capita)		Indicator 7.2 CO_2 emissions (in kg of CO_2 for each dollar of GDP, 2000-constant dollars)		Indicator 7.3 Consumption of ozone-depleting substances (in metric tons)		Indicator 7.5 Proportion of total water resources used		Indicator 7.6 Proportion of terrestrial and marine areas protected (disaggregated)		Indicator 7.7 Proportion of species threatened with extinction (animals)	Indicator 7.7 Proportion of species threatened with extinction (plants)
	Level 1990	Level 2005	Level 1990	Level 2006	Level 1990	Level 2006	Level 1990	Level 2006	Level 1990	Level 2007	Level 1990-1995	Level 2000	Level 1990	Level 2008	Level 2008	Level 2008
Latin America and the Caribbean [b]	49.1	45.6	1 078 371	1 513 117	2.5	3.3	0.4	0.3	77 140	7 446	3.1	5.2	9.5	21.1	0.93	0.7
Latin America [b]	48.4	44.9	1 033 802	1 445 381	2.4	2.6	0.4	0.3	75 884	7 378	2.9	5.1	9.7	21.6	0.93	0.7
Argentina	12.89	12.07	112 607	173 536	3.46	4.43	0.46	0.38	1 515	1 200	3.5	3.6	5.0	6.2	0.93	0.74
Bolivia (Plurinational State of)	57.91	54.17	5 504	11 403	0.83	1.22	0.27	0.32	77	7	...	0.2	8.9	21.2	0.97	0.68
Brazil	61.47	56.47	208 875	352 524	1.40	1.86	0.19	0.21	39 337	1 915	0.7	0.7	9.0	28.9	0.93	0.64
Chile	20.38	21.53	35 486	60 100	2.69	3.65	0.41	0.29	1 016	270	...	1.4	13.6	14.0	0.92	0.55
Colombia	59.15	58.47	57 336	63 422	1.64	1.39	0.29	0.19	2 153	470	0.4	0.5	24.5	30.3	0.92	0.61
Costa Rica	50.22	46.83	2 955	7 854	0.96	1.79	0.15	0.19	549	282	5.1	2.4	16.3	22.9	0.94	0.66
Cuba	18.74	24.70	33 337	29 627	3.14	2.63	...	...	978	104	13.6	21.5	12.9	15.5	0.85	0.50
Dominican Republic	28.44	28.44	9 570	20 357	1.31	2.12	0.39	0.36	288	74	39.7	16.0	...	...	0.86	0.58
Ecuador	49.91	39.20	16 834	31 328	1.64	2.37	0.30	0.34	649	151	4.0	4.0	4.4	15.1	0.91	0.60
El Salvador	18.10	14.38	2 618	6 461	0.51	0.96	0.13	0.18	426	51	2.9	5.1	1.0	1.0	0.96	0.71
Guatemala	43.79	36.32	5 086	11 766	0.57	0.90	0.17	0.22	361	303	...	1.8	26.1	31.0	0.92	0.65
Haiti	4.21	3.81	994	1 811	0.14	0.19	0.09	0.18	171	9	7.0	7.1	0.1	0.1	0.84	0.53
Honduras	66.00	41.54	2 592	7 194	0.53	1.03	0.20	0.30	115	305	...	0.9	10.8	16.1	0.93	0.46
Mexico	36.16	33.66	384 659	436 150	4.58	4.14	0.46	0.32	21 489	1 918	...	17.0	2.6	8.8	0.86	0.65
Nicaragua	53.86	42.74	2 644	4 334	0.64	0.78	0.34	0.33	87	4	...	0.7	3.7	15.3	0.96	0.65
Panama	58.79	57.69	3 135	6 428	1.30	1.96	0.21	0.20	270	44	...	0.6	12.9	18.5	0.95	0.65
Paraguay	53.25	46.50	2 262	3 986	0.53	0.66	0.13	0.17	240	27	...	0.1	3.1	6.0	0.97	0.83
Peru	54.81	53.71	21 164	38 643	0.97	1.40	0.22	0.20	893	43	1.0	1.1	4.7	13.2	0.94	0.66
Uruguay	5.17	8.60	3 993	6 864	1.29	2.06	0.18	0.21	465	56	...	2.3	0.3	0.3	0.93	0.89
Venezuela (Bolivarian Republic of)	58.98	54.09	122 151	171 593	6.19	6.31	0.65	0.59	4 809	146	...	0.7	41.6	65.7	0.95	0.77
The Caribbean [b]	80.8	80.8	44 569	67 736	6.2	8.8	0.8	0.9	1 256	68	9.1	11.2	2.7	5.9	0.95	0.7
Anguilla	71.40	71.40	...	51	...	4.12	...	...	...	...	...	...	...	...	...	...
Antigua and Barbuda	20.46	20.46	301	425	4.86	5.06	0.38	0.28	426	1	3.3	0.0	0.7	1.2	0.94	0.45
Aruba	2.20	2.20	1 841	2 310	28.91	22.26	...	...	...	...	...	...	...	...	...	...
Bahamas	51.45	51.45	1 951	2 138	7.64	6.53	...	...	66	6	...	...	0.4	1.0	0.93	0.73
Barbados	4.65	4.65	1 074	1 338	3.96	4.57	...	...	26	5	...	112.5	0.1	0.1	0.94	0.50
Belize	72.50	72.50	312	818	1.68	2.90	0.39	0.43	23	3	0.6	0.8	14.8	30.2	0.96	0.59
British Virgin Islands	24.70	24.40	48	99	2.89	4.44	...	...	...	...	...	...	...	...	...	...
Cayman Islands	48.40	48.40	253	517	9.62	11.13	...	...	...	...	...	...	...	...	...	...
Dominica	66.67	61.33	59	117	0.85	1.74	0.14	0.22	2	0	...	...	3.7	4.4	0.94	0.57
French Guiana	91.80	91.80	814	876	6.99	4.44	...	...	...	...	...	...	...	...	...	...
Grenada	11.77	11.77	121	242	1.26	2.29	0.25	0.34	4	0	...	...	0.1	0.1	0.92	0.47
Guadaloupe	49.40	47.20	1 294	2 141	3.31	4.85	...	...	...	...	...	...	...	...	...	...
Guyana	76.73	76.73	1 140	1 507	1.56	2.04	1.04	0.85	19	1	0.6	0.7	0.0	2.2	0.98	0.80
Jamaica	31.86	31.30	7 964	12 151	3.36	4.50	0.65	0.73	431	3	9.6	4.4	1.7	7.1	0.87	0.56
Martinica	43.90	43.90	2 068	1 870	5.74	4.71	...	...	...	...	...	...	...	...	...	...
Montserrat	35.00	35.00	33	70	3.07	12.03	...	...	...	...	...	...	...	...	...	...
Netherlands Antilles	1.50	1.50	6 215	4 312	32.60	22.83	...	...	...	...	...	...	...	...	...	...
Puerto Rico	45.50	46.00	...	...	...	...	...	...	...	...	11.2	12.1	...	...	...	...
Saint Kitts and Nevis	13.89	13.89	66	136	1.62	2.73	0.19	0.21	7	1	...	...	0.8	0.8	0.94	0.75
Saint Lucia	27.87	27.87	165	381	1.20	2.34	0.18	0.25	12	0	...	...	2.2	2.4	0.93	0.65
Saint Vincent and the Grenadines	23.08	28.21	81	198	0.74	1.65	0.17	0.24	3	0	...	...	0.3	0.3	0.94	0.60
Suriname	94.72	94.72	1 811	2 438	4.50	5.36	0.85	0.76	43	3	...	0.5	3.9	13.2	0.98	0.75
Trinidad and Tobago	45.81	44.06	16 958	33 601	13.86	25.29	1.36	1.20	197	46	7.7	8.1	8.4	8.5	0.96	0.86
Turks and Caicos Islands	80.00	80.00	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United States Virgin Islands	35.00	27.90	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.

[a] The indicators are presented in numerical order; those for which there is no information have not been included.

[b] Weighted averages.

Table A-23
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]
(Percentages)

Country or territory	Goal 7 Ensure environmental sustainability					
	Target 7.C Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation				Target 7.D By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	
	Indicator 7.8 Proportion of population using an improved drinking water source (national)		Indicator 7.9 Proportion of population using an improved sanitation facility (national)		Indicator 7.10 Proportion of urban population living in slums	
	Level 1990-1995	Level 2000-2006	Level 1990-1995	Level 2000-2006	Level 1990	Level 2001-2005
Latin America and the Caribbean [b]	84.2	91.0	68.0	77.8	37.1	25.5
Latin America [b]	84.1	91.0	67.8	77.7	37.2	25.4
Argentina	94.0	96.0	81.0	91.0	30.5	26.2
Bolivia (Plurinational State of)	72.0	86.0	33.0	43.0	70.0	50.4
Brazil	83.0	91.0	71.0	77.0	45.0	29.0
Chile	91.0	95.0	84.0	94.0	4.0	9.0
Colombia	89.0	93.0	68.0	78.0	26.0	17.9
Costa Rica	96.0	98.0	94.0	96.0	11.9	10.9
Cuba	91.0	91.0	98.0	98.0	...	...
Dominican Republic	84.0	95.0	68.0	79.0	56.4	17.6
Ecuador	73.0	95.0	71.0	84.0	28.1	21.5
El Salvador	69.0	84.0	73.0	86.0	44.7	28.9
Guatemala	79.0	96.0	70.0	84.0	65.8	42.9
Haiti	52.0	58.0	29.0	19.0	84.9	70.1
Honduras	72.0	84.0	45.0	66.0	24.0	34.9
Mexico	88.0	95.0	56.0	81.0	23.1	14.4
Nicaragua	70.0	79.0	42.0	48.0	80.7	45.5
Panama	90.0	92.0	72.0	74.0	30.8	23.0
Paraguay	52.0	77.0	60.0	70.0	36.8	17.6
Peru	75.0	84.0	55.0	72.0	60.4	36.1
Uruguay	100.0	100.0	100.0	100.0	...	...
Venezuela (Bolivarian Republic of)	89.0	83.0	83.0	68.0	40.7	32.0
The Caribbean [b]	90.2	93.8	83.5	85.2	23.7	43.3
Anguilla	60.0	60.0	99.0	99.0	40.6	36.7
Antigua and Barbuda	91.0	91.0	96.0	95.0	6.9	4.8
Aruba	100.0	100.0	...	...	...	...
Bahamas	96.0	97.0	100.0	100.0	...	...
Barbados	100.0	100.0	100.0	99.0	...	...
Belize	91.0	91.0	47.0	47.0	54.2	47.3
British Virgin Islands	98.0	98.0	100.0	100.0	...	...
Cayman Islands	...	...	...	...	...	...
Dominica	97.0	97.0	83.0	84.0	16.6	14.0
French Guiana	84.0	84.0	78.0	78.0	12.9	10.5
Grenada	95.0	95.0	97.0	97.0	6.9	6.0
Guadaloupe	98.0	98.0	64.0	64.0	6.9	5.4
Guyana	83.0	93.0	69.0	81.0	4.9	33.7
Jamaica	92.0	93.0	83.0	83.0	29.2	60.5
Martinica	...	...	...	...	2.0	1.6
Montserrat	100.0	100.0	96.0	96.0	...	...
Netherlands Antilles	...	...	...	...	...	...
Puerto Rico	...	...	...	...	...	...
Saint Kitts and Nevis	99.0	99.0	96.0	96.0	...	...
Saint Lucia	98.0	98.0	89.0	89.0	11.9	11.9
Saint Vincent and the Grenadines	...	...	...	...	...	...
Suriname	91.0	92.0	92.0	82.0	6.9	3.9
Trinidad and Tobago	88.0	94.0	93.0	92.0	34.7	24.7
Turks and Caicos Islands	100.0	100.0	96.0	96.0	...	...
United States Virgin Islands	...	...	...	...	...	...

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.

Table A-24
LATIN AMERICA AND THE CARIBBEAN: PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS [a]

Country or territory	Goal 8 Develop a global partnership for development					
	Target 8.F In cooperation with the private sector, make available the benefits of new technologies, especially information and communications technologies					
	Indicator 8.14 Telephone lines per 100 population		Indicator 8.15 Cellular subscribers per 100 population		Indicator 8.16 Internet users per 100 population	
	Level 1990-1992	Level 2001-2007	Level 2000	Level 2002-2007	Level 2000	Level 2002-2007
Latin America and the Caribbean [b]	6.2	17.8	12.1	66.7	3.9	25.8
Latin America [b]	6.0	17.7	12.1	66.3	3.8	25.6
Argentina	9.3	24.0	17.6	102.2	7.1	25.9
Bolivia (Plurinational State of)	2.7	7.1	7.0	34.2	1.4	10.5
Brazil	6.3	20.5	13.3	63.1	2.9	35.2
Chile	6.6	20.7	22.1	83.7	16.5	31.0
Colombia	6.9	17.2	5.4	73.5	2.1	26.2
Costa Rica	9.2	32.2	5.4	33.8	5.8	33.6
Cuba	3.2	9.3	0.1	1.8	0.5	11.6
Dominican Republic	4.8	9.3	8.5	56.5	4.0	17.2
Ecuador	4.8	13.5	3.9	75.6	1.5	13.2
El Salvador	2.5	15.8	11.8	89.5	1.1	11.1
Guatemala	2.1	10.5	7.7	76.0	0.7	10.2
Haiti	0.7	1.1	0.7	26.1	0.3	10.4
Honduras	1.8	11.6	2.4	58.9	1.2	6.0
Mexico	6.4	18.5	14.1	62.5	5.1	20.8
Nicaragua	1.2	4.4	1.8	37.9	1.0	2.8
Panama	9.0	14.8	13.9	90.1	6.6	22.3
Paraguay	2.7	6.4	15.0	76.6	0.7	8.7
Peru	2.6	9.6	4.9	55.3	3.1	27.4
Uruguay	13.4	28.9	12.3	90.0	10.5	29.0
Venezuela (Bolivarian Republic of)	7.5	18.4	22.3	86.1	3.4	20.7
The Caribbean [b]	17.0	23.8	15.9	87.5	7.2	32.9
Anguilla	30.5	47.0	19.3	107.0	22.3	34.0
Antigua and Barbuda	25.2	45.7	28.8	135.4	6.5	72.3
Aruba	28.2	37.2	16.3	140.4	15.2	23.1
Bahamas	27.4	40.1	10.5	112.9	4.4	36.2
Barbados	28.1	50.0	10.7	87.8	3.8	59.4
Belize	9.3	11.8	6.9	41.1	6.2	11.1
British Virgin Islands	39.3	55.3	...	37.8	...	18.9
Cayman Islands	46.9	92.9	27.0	76.6	44.4	46.6
Dominica	16.2	26.7	1.5	53.3	7.7	37.2
French Guiana	...	...	...	...	...	...
Grenada	15.8	26.7	4.2	44.6	4.1	21.8
Guadaloupe	...	...	...	...	...	...
Guyana	2.2	14.7	5.4	37.5	6.7	25.8
Jamaica	4.4	13.6	14.2	98.9	3.1	55.3
Martinica	...	...	...	...	...	...
Montserrat	34.5	71.7	12.5	89.0	...	30.0
Netherlands Antilles	24.7	46.1	…	110.6	1.1	...
Puerto Rico	27.8	26.2	24.2	84.8	10.4	25.1
Saint Kitts and Nevis	23.9	59.3	3.0	23.7	6.7	34.7
Saint Lucia	12.4	32.6	1.6	65.7	5.2	66.7
Saint Vincent and the Grenadines	12.0	19.0	2.0	91.8	3.0	47.3
Suriname	9.1	18.0	9.5	70.8	2.7	9.6
Trinidad and Tobago	13.6	23.1	12.6	113.2	7.8	16.0
Turks and Caicos Islands	24.8	14.8	...	99.6	...	...
United States Virgin Islands	45.6	64.1	31.6	71.8	13.5	26.9

Source: United Nations, *Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean: Progress and Challenges* (LC/G.2460), Santiago, Chile, Economic Commission for Latin America and the Caribbean, August 2010.
[a] The indicators are presented in numerical order; those for which there is no information have not been included.
[b] Weighted averages.

NACIONES UNIDAS
UNITED NATIONS

CEPAL
ECLAC

Publicaciones de la CEPAL / *ECLAC publications*

Comisión Económica para América Latina y el Caribe / *Economic Commission for Latin America and the Caribbean*
Casilla 179-D, Santiago de Chile. E-mail: publications@cepal.org
Véalas en: www.cepal.org/publicaciones
Publications may be accessed at: www.eclac.org

Revista CEPAL / *CEPAL Review*

La Revista se inició en 1976 como parte del Programa de Publicaciones de la Comisión Económica para América Latina y el Caribe, con el propósito de contribuir al examen de los problemas del desarrollo socioeconómico de la región. Las opiniones expresadas en los artículos firmados, incluidas las colaboraciones de los funcionarios de la Secretaría, son las de los autores y, por lo tanto, no reflejan necesariamente los puntos de vista de la Organización.

La *Revista CEPAL* se publica en español e inglés tres veces por año.

Los precios de suscripción anual vigentes para 2010 son de US$ 30 para ambas versiones. El precio por ejemplar suelto es de US$ 15 para ambas versiones. Los precios de suscripción por dos años son de US$ 50 para ambas versiones.

CEPAL Review first appeared in 1976 as part of the Publications Programme of the Economic Commission for Latin America and the Caribbean, its aim being to make a contribution to the study of the economic and social development problems of the region. The views expressed in signed articles, including those by Secretariat staff members, are those of the authors and therefore do not necessarily reflect the point of view of the Organization.

CEPAL Review is published in Spanish and English versions three times a year.

Annual subscription costs for 2010 are US$ 30 for both versions. The price of single issues is US$ 15 in both cases. The cost of a two-year subscription is US$ 50 for both versions.

Informes periódicos institucionales / *Annual reports*

Todos disponibles para años anteriores / *Issues for previous years also available*

- *Balance preliminar de las economías de América Latina y el Caribe, 2009,* 184 p.
  Preliminary Overview of the Economies of Latin America and the Caribbean, 2009*,* 166 p.
- *Estudio económico de América Latina y el Caribe 2009-2010,* 136 p.
  Economic Survey of Latin America and the Caribbean 2009-2010*,* 130 p.
- *Panorama de la inserción internacional de América Latina y el Caribe*, *2009-2010,* 176 p.
  Latin America and the Caribbean in the World Economy, 2009-2010, 168 p.
- *Panorama social de América Latina, 2009*, 218 p.
  Social Panorama of Latin America*,* ***2009***, 208 p.
- *La inversión extranjera directa en América Latina y el Caribe*, 2009, 162 p.
  Foreign Direct Investment of Latin America and the Caribbean, 2009*,* 158 p.
- *Anuario estadístico de América Latina y el Caribe* / ***Statistical Yearbook for Latin America and the Caribbean*** (bilingüe/*bilingual*), 2010, 314 p.

Libros de la CEPAL

110 Envejecimiento en América Latina. Sistema de pensiones y protección social integral, Antonio Prado y Ana Sojo (eds.), 304 p.

109 *Modeling Public Policies in Latin America and the Caribbean*, Carlos de Miguel, José Durán Lima, Paolo Giordiano, Julio Guzmán, Andrés Schuschny and Masazaku Watanuki (eds.), 322 p.

108 *Alianzas público-privadas. Para una nueva visión estratégica del desarrollo*, Robert Devlin y Graciela Moguillansky, 2010, 196 p.

107 *Políticas de apoyo a las pymes en América Latina. Entre avances innovadores y desafíos institucionales*, Carlos Ferraro y Giovanni Stumpo, 392 p.

106 *Temas controversiales en negociaciones comerciales Norte-Sur*, Osvaldo Rosales V. y Sebastián Sáez C. (compiladores), 322 p.

105 *Regulation, Worker Protection and Active Labour-Market Policies in Latin America*, Jürgen Weller (ed.), 2009, 236 p.
104 *La República Dominicana en 2030: hacia una sociedad cohesionada*, Víctor Godínez y Jorge Máttar (coords.), 2009, 582 p.
103 *L'Amérique latine et les Caraïbes au seuil du troisième millénaire*, 2009, 138 p.
102 *Migración interna y desarrollo en América Latina entre 1980 y 2005*, Jorge Rodríguez y Gustavo Busso, 2009, 272 p.
101 *Claves de la innovación social en América Latina y el Caribe*, Adolfo Rodríguez Herrera y Hernán Alvarado Ugarte, 2009, 236 p.
100 *Envejecimiento, derechos humanos y políticas públicas*, Sandra Huenchuan (ed.), 2009, 232 p.
99 *Economía y territorio en América Latina y el Caribe. Desigualdades y políticas*, 2009, 212 p.
98 *La sociedad de la información en América Latina y el Caribe: desarrollo de las tecnologías y tecnologías para el desarrollo*, Wilson Peres y Martin Hilbert (eds.), 2009, 388 p.
97 *América Latina y el Caribe: migración internacional, derechos humanos y desarrollo*, Jorge Martínez Pizarro (ed.), 2008, 375 p.
96 *Familias y políticas públicas en América Latina: una historia de desencuentros*, Irma Arriagada (coord.), 2007, 424 p.
95 *Centroamérica y México: políticas de competencia a principios del siglo XXI*, Eugenio Rivera y Claudia Schatan (coords.), 2008, 304 p.
94 *América Latina y el Caribe: La propiedad intelectual después de los tratados de libre comercio*, Álvaro Díaz, 2008, 248 p.

Copublicaciones recientes / *Recent co-publications*

Las clases medias en América Latina. Retrospectiva y nuevas tendencias, Rolando Franco, Martín Hopenhayn y Arturo León (eds.)
Sesenta años de la CEPAL. Textos seleccionados del decenio 1998-2008, Ricardo Bielschowsky (comp.), CEPAL/Siglo Veintiuno, Argentina, 2010.
El nuevo escenario laboral latinoamericano. Regulación, protección y políticas activas en los mercados de trabajo, Jürgen Weller (ed.), CEPAL/Siglo Veintiuno, Argentina, 2010.
Internacionalización y expansión de las empresas eléctricas españolas en América Latina, Patricio Rozas, CEPAL/Lom, Chile, 2009.
Gobernanza corporativa y desarrollo de mercados de capitales en América Latina, Georgina Núñez, Andrés Oneto y Germano M. de Paula (coords.), CEPAL/Mayol, Colombia, 2009.
EnREDos. Regulación y estrategias corporativas frente a la convergencia tecnológica, Marcio Wohlers y Martha García-Murillo (eds.), CEPAL/Mayol, Colombia, 2009.
Desafíos y oportunidades de la industria del software en América Latina, Paulo Tigre y Felipe Silveira Marques (eds.), CEPAL/Mayol, Colombia, 2009.
¿Quo vadis*, tecnología de la información y de las comunicaciones?,* Martin Hilbert y Osvaldo Cairó (eds.), CEPAL/Mayol, Colombia, 2009.
***O Estruturalismo latino-americano,* Octavio Rodríguez, CEPAL/Civilização Brasileira, 2009.**
***L'avenir de la protection sociale en Amérique latine. Accessibilité, financement et solidarité, CEPALC/*Eska, France, 2009.**
Fortalecer los sistemas de pensiones latinoamericanos. Cuentas individuales por reparto, Robert Holzmann, Edward Palmer y Andras Uthoff (eds.), CEPAL/Mayol, Colombia, 2008.
***Competition Policies in Emerging Economies. Lessons and Challenges from Central America and Mexico**,* Claudia Schatan and Eugenio Rivera Urrutia (eds.), ECLAC/Springer, USA, 2008.

Coediciones recientes / *Recent co-editions*

Clases medias y desarrollo en América Latina, Alicia Bárcena y Narcís Serra (eds.), CEPAL/SEGIB/CIDOB, Chile, 2010.
Innovar para crecer. Desafíos y oportunidades para el desarrollo sostenible e inclusivo en Iberoamérica, CEPAL/SEGIB, Chile, 2010.
Espacios iberoamericanos. Iberoamérica frente a la crisis, CEPAL/SEGIB, Chile, 2009.
***Espaços Ibero-Americanos. A Ibero-América em face da crise*,** CEPAL/SEGIB, Chile, 2009.
***The United Nations Regional Commissions and the Climate Change Challenges*,** ECLAC/ECA/ECE/ESCAP/ESCWA, 2009.
Hacia un desarrollo inclusivo. El caso de Chile, Osvaldo Sunkel y Ricardo Infante (eds.), CEPAL/OIT/Fundación Chile 21, Chile, 2008.
Reformas para la cohesión social en América Latina. Panorama antes de la crisis, Alicia Bárcena y Narcís Serra (eds.), CEPAL/SEGIB/CIDOB, Chile, 2008.
El envejecimiento y las personas de edad. Indicadores sociodemográficos para América Latina y el Caribe, CEPAL/UNFPA, 2009.
Espacios iberoamericanos: la economía del conocimiento, CEPAL/SEGIB, Chile, 2008.
Hacia la revisión de los paradigmas del desarrollo en América Latina, Oscar Altimir, Enrique V. Iglesias, José Luis Machinea (eds.), CEPAL/SEGIB, Chile, 2008.
Por uma revisão dos paradigmas do desenvolvimento na América Latina, Oscar Altimir, Enrique V. Iglesias, José Luis Machinea (eds.), CEPAL/SEGIB, Chile, 2008.
Hacia un nuevo pacto social. Políticas económicas para un desarrollo integral en América Latina, José Luis Machinea y Narcís Serra (eds.) CEPAL/CIDOB, España, 2008.

Cuadernos de la CEPAL

94 *El cuidado en acción. Entre el derecho y el trabajo*, Sonia Montaño Virreira y Coral Calderón Magaña (coords.), 2010, 236 p.
93 *Privilegiadas y discriminadas. Las trabajadoras del sector financiero*, Flavia Marco Navarro y María Nieves Rico Ibáñez (eds.), 2009, 300 p.
92 *Estadísticas para la equidad de género: magnitudes y tendencias en América Latina*, Vivian Milosavljevic, 2007, 186 pp.

Cuadernos estadísticos de la CEPAL

38 *Indicadores ambientales de América Latina y el Caribe, 2009*. Solo disponible en CD, 2010.
37 *América Latina y el Caribe: Series históricas de estadísticas económicas 1950-2008*. Solo disponible en CD, 2009.
36 *Clasificaciones estadísticas internacionales incorporadas en el Banco de Datos de Comercio Exterior de América Latina y el Caribe de la CEPAL (Revisión 3).* Solo disponible en CD, 2008.
35 *Resultados del Programa de Comparación Internacional para América del Sur.* Solo disponible en CD, 2007.

Observatorio demográfico *ex Boletín demográfico* / *Demographic Observatory formerly Demographic Bulletin* (bilingüe/*bilingual*)

Edición bilingüe (español e inglés) que proporciona información estadística actualizada, referente a estimaciones y proyecciones de población de los países de América Latina y el Caribe. Incluye también indicadores demográficos de interés, tales como tasas de natalidad, mortalidad, esperanza de vida al nacer, distribución de la población, etc.

El Observatorio aparece dos veces al año, en los meses de enero y julio. Suscripción anual: US$ 20.00. Valor por cada ejemplar: US$ 15.00.

Bilingual publication (Spanish and English) proving up-to-date estimates and projections of the populations of the Latin American and Caribbean countries. Also includes various demographic indicators of interest such as fertility and mortality rates, life expectancy, measures of population distribution, etc.

The Observatory appears twice a year in January and July. Annual subscription: US$ 20.00. Per issue: US$ 15.00.

Notas de población

Revista especializada que publica artículos e informes acerca de las investigaciones más recientes sobre la dinámica demográfica en la región, en español, con resúmenes en español e inglés. También incluye información sobre actividades científicas y profesionales en el campo de población.

La revista se publica desde 1973 y aparece dos veces al año, en junio y diciembre.

Suscripción anual: US$ 20.00. Valor por cada ejemplar: US$ 12.00.

Specialized journal which publishes articles and reports on recent studies of demographic dynamics in the region, in Spanish with abstracts in Spanish and English. Also includes information on scientific and professional activities in the field of population.

Published since 1973, the journal appears twice a year in June and December.

Annual subscription: US$ 20.00. Per issue: US$ 12.00.

Series de la CEPAL

Comercio internacional / *Desarrollo productivo* / *Desarrollo territorial* / *Estudios estadísticos y prospectivos* / *Estudios y perspectivas* (Bogotá, Brasilia, Buenos Aires, México, Montevideo) / ***Studies and Perspectives*** (The Caribbean, Washington) / *Financiamiento del desarrollo* / *Gestión pública* / *Informes y estudios especiales* / *Macroeconomía del desarrollo* / *Manuales* / *Medio ambiente y desarrollo* / *Mujer y desarrollo* / *Población y desarrollo* / *Políticas sociales* / *Recursos naturales e infraestructura* / *Seminarios y conferencias*.

Véase el listado completo en: www.cepal.org/publicaciones / *A complete listing is available at*: www.cepal.org/publicaciones