The Americas Social Security Report 2005

Labor Markets and the Fragmentation of Social Insurance

Financing for HIV-AIDS by Social Security

Inter-American Conference on Social Security

The Americas Social Security Report 2005

Calle San Ramón s/n • Col. San Jerónimo Lídice
C.P. 10100 México, D.F.
Tel: (5255) 5595 0011
Fax: (5255) 5683 8524
ciss@ciss.org.mx
http://www.ciss.org.mx

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Rogelio Gomez

Social Security Administration, United States

Work Risks Prevention (CAPRT)

Víctor Hugo Borja Aburto (P.I.)

Instituto Mexicano del Seguro Social, Mexico

Subregional Coordinators

I. The Andes

Néstor Ricardo Rodríguez

Caja de Compensación Familiar COMPENSAR, Colombia

II. Central America

Richard Zablah

Instituto Hondureño del Seguro Social, Honduras

III. South

Miguel Ángel Fernández

Administración Nacional de la Seguridad Social, Argentina

IV. North America and the Engish Speaking Caribbean

Reginald Thomas

National Insurance Scheme, St. Vincent and the Grenadines

V. Mexico and the Latin Caribbean

Jesús Martín Rojas Sánchez

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Sephlin Lawrence

Social Security Board, St. Kitts and Nevis

Luis José Martínez Villalba

Director of the CIESS

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Acronyms and Abbreviation

AAI	Accelerating Access Initiative
ADAP	AIDS Drug Assistance Programs
AFJP	Administrators of Pension and Retirement Funds, Argentina
AFP	Pension Fund Managers, Chile
AFP	Pension Funds Managers, Dominican Republic
AGIRC	General Association of Institutions of Retirement of Executives, France
AIDS	Acquired Immuno-Deficiency Syndrome
ANSES	National Administration of Social Security, Argentina
ARRCO	Association of Schemes of Complementary Retirement, France
ARS	Health Risk Managers, Dominican Republic
ARV	Antiretroviral Drugs
AZT	Zidovudine
BASS	Bilateral Agreement on Social Security
CAPREDENA	Previsional Fund of the National Defense, Chile
CAREC	Caribbean Epidemological Center
CARICOM	Caribbean Community
CCAF	Funds for Family Allowance Compensation, Chile
CCSS	Costa Rican Social Security Fund
CDC	Centers for Disease Control
CENSIDA	Mexico's National Center for Prevention and Control of HIV/AIDS
CIC	Unemployment Individual Account, Chile
CIEDESS	Social Security Research, Study and Development Coorporation
CISS	Inter-American Conference on Social Security
CNSS	National Council of Social Security, Dominican Republic
COBRA	Consolidated Omnibus Budget Reconciliation Act (USA)
CONASIDA	Mexico's National Council for the Prevention and Control of AIDS
CSS	Social Security Fund, Panama
DIDA	Direction of Information and Protection of the Insured, Dominican Republic
DIPRECA	Previsional Fund for the Police (Chile)
DOT	Directly Observed Therapy
EAP	Economically Active Population
ECLAC	Economic Commission for Latin America and the Caribbean
FCS	Solidary Unemployment Fund, Chile
FONASA	National Health Fund, Chile
FONSIDA	National Support Fund for People Living with AIDS
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
HAART	Highly Active Anti-Retroviral Therapy
HCSUS	HIV Cost and Services Utilization Study
HIPAA	Health Insurance Portability and Accountability Act of 1996 (EUA)
HIV	Human Immuno-Deficiency Virus
IADB	Inter-American Development Bank
IDSS	Dominican Institute of Social Security
IDU	Injected Drug Users
IGSS	Guatemalan Institute of Social Security
IHSS	Honduran Institute of Social Security
ILO	International Labor Organization
IMF	Internacional Monetary Fund
IMSS	Mexican Institute of Social Security
INAVI	National Institute of Auxiliary and Life, Dominican Republic
INP	National Standarization Institute, Chile
INPEP	National Institute for Public Employees' Pensions, El Salvador
INSS	National Institute of Social Security, Brazil
IPS	Institute of Social Providence, Paraguay

ISAPRES	Previsional Organizations for Health, Chile
ISSFAM	Institute of Social Security for the Armed Forces of Mexico
ISSFFAA	Security of the Armed Forces Dominican Republic
ISSPOL	Security of the National Police, Dominican Republic
ISSS	Salvadoran Institute for Social Security
ISSSTE	Institute of Security and Social Services of the State Workers, Mexico
IVM	Disability, Old Age and Death Insurance, Costa Rica
IVS	Disability, Maternity and Survivorship, Paraguay
KFF	Kaiser Family Foundation
LAC	Latin America and the Carribean
MERCOSUR	South American Common Market
MTSS	Ministry of Work and Social Security, Argentina
MTSS	Ministry of Work and Social Security, Cuba
NAFTA	North American Free Trade Agreement
NGO	Non-Governmental Organization
NHA	National Health Accounts
OECD	Organisation of Economic Co-operation and Development
OS	Social Works, Argentina
PAHO	Pan American Health Organization
PAMI	Program for the Integral Health Care of the Elderly, Argentina
PANCAP	Pan Caribbean Partnership Against HIV/AIDS
PASIS	Welfare Pensions Program, Chile
PLHA	People Living with HIV/AIDS
PSS	Health Service Providers, Dominican Republic
RGPS	General Regime of Social Prevision, Brazil
RPPS	Public Particular Regimes of Social Security, Brazil
SAFJP	Superintendent for the Administrators of Pension and Retirement Funds, Argentina
SAP	System of Saving for Pensions, El Salvador
SWAP	Canada's Seasonal Agricultural Workers Program
SDSS	Dominican Social Security System
SIDALAC	Regional AIDS Initiative for Latin America and the Caribbean
SISP	Superintendent for Previsional Organizations for Health, Chile
SPP	Public System of Pensions, El Salvador
SSA	Secretary of Health of Mexico
SSI	Supplemental Security Income, USA
SSSP	Social Security of Paraguay
STI	Sexually Transmitted Infection
STUF	Family Subsidies, Chile
UNAIDS	United Nations Program on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AID
UNICEF	United Nations Children's Fund
USA	United States of America
USAID	United States Agency for International Development
VAT	Value-Added Tax
WB	World Bank
WHO	World Health Organisation
WHR	World Health Reports CCSS

THE REPORT TEAM

The Americas Social Security Report 2005, "Labor Markets and the Fragmentation of Social Insurance with a Survey on Financing for HIV-AIDS by Social Security" was directed by Gabriel Martinez, Secretary General of the CISS, and coordinated by Martha Miranda-Muñoz, researcher of the CIESS, and edited by both researchers. As the Report is published near the end of the year (November in this case) and distributed mainly the following year, the Permanent Committee of the CISS agreed to refer the title to 2005, skipping 2004 from the sequence of Reports.

Chapter I was drafted by Gabriel Martinez and Martha Miranda; Chapter II, by Maria Luisa Galicia Luna, Gabriel Martinez and Martha Miranda; Chapter III, by Nora Garro, Gabriel Martinez and Martha Miranda; Chapter 4 by Gabriel Martinez and Adriana Valle-Muciño. Some sections of these chapters refer to articles that were commissioned for this Report to Jose Pagan and Eduardo Gonzalez-Oreggia (Central America), Fabio Bertranou, Maria Gabriela Loyo and Mario Velasquez (South Cone) and Karl Theodore, Ewan Scott and Althea Lafourcade (Anglo Caribbean). Antonio Ruezga coordinated the text presented in Chapter V. This chapter has contributions by Carmelo Mesa-Lago (coexistence of systems and multiple institutions), Hugo Cifuentes-Lilo (Chile), Oscar Luis Santos-Basso (Costa Rica), Jorge Isaac D'Angelo and Alfredo Jorge Gamietea (Argentina), Arismendi Díaz-Santana from the Gerencia General del National Social Security Board (Dominican Republic), Fabio Bertranou, Maria Gabriela Loyo and Mario Velasquez (Paraguay), Juan Carlos Cortés (Colombia) and, Joao Donadon and Zanita De Marco (Brazil). Chapter VI contains material from articles written by Brigitte Madrian (United States), and Eduardo Gonzalez-Pier and Mariana Barraza (Latin America). Chapter VII was drafted from articles written by Kely Rely (Latin America, United States and Canada) and Karl Theodore, Ewan Scott and Althea Lafourcade (Anglo-Caribbean).

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Foreword

Social Security programs have become a major concern in national economic and social policy debates across the Americas. The amount and quality of research on the functioning and performance of Social Security from different perspectives has increased since the nineties. Today much more is known about the way Social Security is working but this knowledge is not always even across the different social insurance programs and it is not always as deep as is desirable for policy making purposes. The *2004 Beijing Declaration* by the members of the International Social Security Association states that "[P]ublic discussion is dominated by the cost of social security while the economic and social development benefits of social security in a globalized world have been largely ignored." Thus, it is useful to analyze social security with a holistic view, considering the different social events and public policies that interact with it, and keeping as main evaluation standard the original goals of the system.

The Americas Social Security Report is prepared by the Inter-American Conference on Social Security (CISS) to discuss issues of common interest to social security practitioners and the general citizenship in the Continent. The analysis in this report can be useful for governments, social security authorities and agencies (Superintendents, Regulatory Commissions, National and State Social Security Institutes managing pensions, health care, child care and other programs, Pension Funds and other public agencies), private agents and public-private partnerships operating or supporting part of social security programs (fund managers, health management organizations, family allowance funds, child care centers, insurers, local governments), and social researchers. For the general public this Report provides up-to-date information on what is perhaps the most highly-valued program of benefits demanded by citizens in modern societies.

The topics for this Report were approved by the Permanent Inter-American Committee on Social Security during its XLVII Meeting in Saint Michel, Barbados: the relationship between the labor market and social security, the problems that arise from the segmentation of social protection regimes and the financing of HIV/AIDS treatments by social security. For the preparation of this Report the CISS commissioned studies with experts across the continent and developed internal research by the staff of the CISS.

The last twenty years have seen important positive changes for Social Security in the continent but it is also true that the agenda of unsettled issues is still substantial. The lack of insurance for disability and old age pensions and health is a cardinal policy concern for the majority of the countries in the Americas. Social Insurance is closely related to the labor status of individuals and to the extent to many individuals do not have a job with health insurance, savings for retirement or

child care benefits attached there are problems of risk for families and of productivity for the economy in general.

On the issue of segmentation of social security systems, the reforms during the eighties and nineties have achieved a favorable degree of advance, with some countries reaching long term solutions, but in some others the reforms have been incomplete. For this reason, workers face a disadvantageous condition when they need to change jobs, due to lack of portability of benefits.

On the issue of the role of financing for AIDS/HIV by Social Security the last few years are also encouraging because there is an improved coverage and technology is beginning to allow more effective treatments for the disease. However it is also reported that in some countries there are large gaps in coverage and the improved effectiveness of drugs is paradoxically weakening the preventive behavior of the sick population and the population at risk. The better prospects for treatment will mean a growing pressure on the finances of social security funds.

A goal of the CISS with this Report it is to promote awareness on the issues among the Social Security community including governments, agencies, social groups, employers, users and anyone interested in the improvement of social protection in contemporary society.

Gabriel Martinez
General Secretary
Inter-American Conference on Social Security

CHAPTER I
A PERIOD OF ECONOMIC REFORM

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I.1 Introduction

The first part of the 2005 Report on Social Security in the Americas focuses on the relations among the labor market, social security coverage and segmented regimes for social protection. The analysis of these topics requires reviewing general economic policy issues—that impinge on the performance of labor markets and social insurance—and recent research developments in the understanding of labor markets and labor regulations in the Americas.

It is useful to point out at the outset that the problems of insuring rural populations and urban and rural groups in poverty are not discussed here. While these are issues of a first level of importance, they are not directly associated with the problems of fragmentation of social security systems or with the issues of labor market failure that occupy these pages. Insuring these groups is certainly a priority for the historical agenda of social security agencies and the Inter-American Conference for Social Security is committed to develop research on this topic. However, in this Report attention is given to the large, mainly urban, groups which are not generally in extreme poverty and can often be related to the middle-class, but remain at the margin of social insurance.

The last quarter of the century has been a time of economic reform in the Continent. The labor market is the largest market in any country, and social security is the largest institution in the labor market in most countries in the Americas. It is natural then to begin this Report with a brief summary of the main economic reforms that have taken place at a Continental level, and this is the subject of Chapter I. While there is a lot of discussion on the optimal structure of social security programs, it will always remain true that the benefits financed in a given year have to come from the value of national production. Actions for economic reform have a direct bearing on the ability of social security to perform its duties on two main tracks: first, through their impact on the general economic environment, productivity and wages; second, some reform actions relate directly to the way social security collects taxes, affiliates workers and pays or finances benefits.

The more basic definition of social security refers to a program (or a set of programs) financed with mandatory contributions (in proportions that vary across countries and programs but predominantly paid by workers and employers), that guarantees an income level to individuals or families in the events of retirement, disability or death, and provides insurance or subsidies for expenditures on health, child-care and other benefits (such as family subsidies or

unemployment insurance).[1] In recent decades, social security programs have required in many cases increasing government transfers to face their obligations and cover financial deficits both in the pension and health areas, a move that is reflected in the growth on non-contributory programs and substantial reforms to financing structures.[2] But social security has also become a factor for the transformation of societies. Nowadays, throughout the Continent, policy-makers and researchers do not see social security as a passive program, but think of it as a basic element to define the incentives for working and saving of families, for the development of the financial system, and definitely to provide families with a tool to achieve an outlook of stability against uncertain events out of their control. After two decades of economic reform, one of the common views across and within countries is that social security has to be strengthened if the liberalized economic environment is going to be sustainable.

To begin the outline of the labor markets in which social security programs operate, Chapter II summarizes the large trends in growth of the labor force in the Continent. A main message is that notwithstanding the decrease in fertility rates during the last quarter century, the Americas still will have at least a half century of considerable growth of the labor force. Countries will face the challenge of providing employment to these large waves of young people at improving wages, and to provide them with a safety net that, in all likelihood, will have social security as its largest foundation. The large growth experienced in the labor force since the eighties can by itself be part of an explanation on the inability of national economies to insure all or many more members of the new cohorts of workers.

This Chapter also describes the large migratory flows occurring in the Continent during the last two decades, and posits the possibility of the continuation of these flows due to the large differences in fertility and mortality across countries. On the first topic designated for this Report, an initial question is the following: what is the relationship between social security and informality in the labor market? Chapter III describes the arguments that surround this issue, as well as the known evidence. A main consideration is that when contributions to social security are not compulsory or not well enforced, social security coverage is low. As an empirical matter, workers not compulsorily covered are affiliated voluntarily at very low rates in most countries. This explains why it is a common practice to define the informal labor market as one not having access to social insurance. If workers perceive social security contributions as another payroll tax instead of as an insurance service, it is expected that labor supply and saving decisions will be affected by social security.

Low social security coverage is not only due to low overall compliance with tax obligations and other regulatory statutes, and can be a concern even in countries where tax evasion is not a major policy issue like in the United States.[3] Similarly, when uninsured households have competitive service options at a low cost (including other non-

[1] This approach agrees with the academic definitions given by Lucas (1987): "...with private information, competitively determined arrangements will fall short of complete pooling, this class of models also arises the issue of social insurance: pooling arrangements that are not actuarially sound, and hence require support from compulsory taxation..."; and Barr (2001): "The institutions of social insurance are modeled on private institutions. Benefits are conditioned on a contribution record and on the occurrence of a specified event, frequently related to employment status, in that one of their major purposes is to replace lost earnings."

[2] The term social security is customarily used to include a different set of programs in different countries. Whereas for some countries (like the United States) the term social security refers mainly to pension programs, for other countries (the majority in Europe and the Americas) pension programs are only one of the different programs included in social security. Therefore, not all countries identify health and child-care programs as part of social security. Nevertheless, for the purposes of this Report, it shall be necessary to abstract from national practice, and define social security as the wider set of programs. For example, the Medicare program to finance health care for the elderly in the United States is considered a social security program, though the program is managed by an agency different from the Social Security Administration (namely, the Health Care Finance Administration).

[3] See Madrian (1998) and Gruber and Madrian (1995).

contributory public programs), the advantages of participating in an insurance scheme are diminished. When workers and employers can get away with not contributing and still receiving the benefits of public programs, a difficult incentive problem results, and an informality problem tends to arise.

Low credibility on the social security institutions is also related to labor market informality. In some Latin American countries, for example, this can be the result of declining pension benefits as a consequence of macroeconomic instability, an event that was very common in the seventies and eighties but is still taking place in more recent years. If in the past, pensions have turned out to be significantly lower than expected, and health services have been delivered with uncertainty, non-insured workers may not be easily convinced of the convenience of contributing to a social security fund.

Taxation and regulatory structures are both, determinants of the behavior of the labor market, and constantly modified by governments to achieve improved results. Chapter IV shows that since the eighties, the Americas have had significant changes in their tax structures, reducing income taxes on individuals and corporations and widening the scope of other sources of revenue (especially the value added tax). This change was motivated by the pursuit of improved incentives for labor force participation and entrepreneurial activities. The Chapter also reports on the rich discussion that has developed around the impact of regulation of the economic activity on incentives for saving and working in the formal economy and on the need to improve the governance and management of social security agencies to make services and benefits more attractive for the self-employed and the micro-employers. It seems that increasing the coverage of social security towards the informal economy demands attention to a variety of policies, several of them outside the direct scope of the specialized agencies.

On the second large topic that motivates this Report, the coexistence of several schemes or social security institutions in a national social security system—each with its own rules of eligibility, contributions and benefits—though providing insurance against the same risks, often leads to lack of portability rights between different programs and families can lose benefits if they change jobs. Lack of portability is an institutional failure, which also affects labor market outcomes as workers care about health insurance for them and their families when choosing a job or when deciding whether to change jobs, and they also care about their pension rights and health insurance in old age when deciding whether to retire from the labor force. This issue is studied in Chapters V (pensions) and VI (health).

Unemployment and employment in activities with low earnings and high turnover have had repercussions in the provision of social security. The absence of stable labor contracts makes the cost of managing social security very expensive in many parts of the region. Administrative costs of insurance are particularly large to the self-employed, small firms and for individuals who live in rural areas. As most of the uninsured individuals tend to be poor, some countries have implemented non-contributory programs. For example, Brazil, Argentina and Uruguay have non-contributory pension programs, which means that the elderly receive an income flow even if they did not contribute to the system. This type of supplementary programs exists in the wealthier countries in the Continent, Canada and the United States, covering relatively small portions of the elderly. For the rest of the region the growth of non-contributory pension programs can mean that a much larger fraction of the elderly will be covered through these supplementary tracks. A policy question arising from the analysis in several chapters—and to be solved in each country—refers to what should be the best combination of contributory and non-contributory programs for the population in the future. For example, very large supplementary programs combined with low levels of benefits for workers who pay taxes can define an added incentive for growth of the informal economy.

In most of Latin America and the Caribbean (LAC), labor markets have not been capable of creating employment in the formal economy at a rate deemed satisfactory. It is necessary however to recognize that for much of the region, most of the nineties provided a favorable environment for job creation. The countries of the North American Free Trade Agreement (NAFTA) experienced, in general, high employment growth, and so did several countries in the rest of the Continent. The current decade has not been as positive yet, and with it came the so called "jobless recovery", because the economy has been growing after the recession of 2000 to 2001 but not creating jobs as fast as could be expected from historical experience. Even when the economic growth experience of the nineties was a general improvement over the eighties in most of the Continent (and in North America the second part of the decade is now known to have included an extraordinary large increase in productivity), there is still a feeling that national economies may not be truly in the right track to achieve the expectations of the population. It is quite likely that the low growth in the number of jobs with an adequate relation to the social insurance system has a main role to generate this perception. This means that societies are not only expecting to have the ability to create new jobs, but also that these jobs will be linked to health, disability, old age and unemployment insurance, child-care and other social services and benefits.

The informal labor market is often defined for policy purposes as the set of jobs without social protection. For social security systems, the growth of the informal economy is more than an important issue; it is truly a defining question. Social insurance has as a fundamental role: the provision of a general safety net, and to the extent that the long term prospects of guaranteeing benefits to all the population are not fulfilled, the basic achievements of social security agencies come into question.

I.2 The Economic Reform Movement and Social Insurance

Many countries in the Continent have experienced structural reforms since the eighties towards liberalization of domestic and international trade, deregulation and privatization of industries to facilitate new investment and achieve an environment of stronger competition, and have reformed tax codes lowering income tax rates and moving towards value added taxes. The latest tax is perceived as a more efficient form of collection, one that minimizes the disincentives for working and saving.

Lora (2001) constructs a measure of structural change, and finds that from 1985 to the late nineties, the LAC moved from an index of 0.34 to 0.58, and that the most active period of reform was from 1989 to 1994. While an exercise of this sort is subject to qualifications, it is useful to summarize an array of complex policy changes. According to the Lora index, reforms were deeper in Bolivia, Jamaica, Peru, Trinidad and Tobago and Argentina, while shorter advances took place in Uruguay, Mexico, Venezuela, Ecuador and Costa Rica. The ranking of countries may be controversial if qualitative arguments are introduced, but it is more important to realize that reforms were relevant throughout the area.

By sector, the more intensive changes, according to the Lora index, happened in trade, followed by financial, tax system, privatization and labor reforms.[4] Actually, in labor areas the average index of reform hovers around zero, and a natural question with relation to the topic of this Report is how important this has been for social security systems. On the other hand, the environment for labor relations can be transformed even if the laws have little changes, because trade liberalization imposes competition on firms that is quickly reflected in the way they demand labor services, on how fast they hire and fire, and change the structure of wages. Similarly, the tax reform

[4] Lora (2001) combines information on four aspects of the labor contract: legislation on hiring (temporary contracts allowed?), cost of layoffs, flexibility of work-day (cost of holidays, extra time), and cost of social insurance contributions. In the Lora index, Jamaica, Trinidad and Tobago, Nicaragua, Colombia, and Brazil have the more flexible labor markets, while the most rigid are in Honduras, El Salvador, Mexico, Uruguay, and Bolivia.

is a main determinant of incentives for working and saving. In this debate, it is useful to distinguish the effect of labor regulations on employment growth from the effect on the relative importance of the socially insured and the uninsured sectors. The evolution of the debate on the determinants of the informal economy suggests that the informal labor market may not be a handicapped place in terms of wage level and wage growth and other amenities of jobs, except for the lack of social insurance coverage.

Trade Liberalization

In some areas of the Continent, the seventies and early eighties saw the peak of protectionism in modern times, possibly as a combination of a long maturation of income substitution policies, short term responses to balance of payments crisis, and the world recession and banking meltdown in the early eighties. By the end of this decade the Continent had began to show a substantial policy shift. The Free Trade Agreement between Canada and the United States—later extended to Mexico to create the NAFTA—,the MERCOSUR in the Southern Cone, and the CARICOM in the Caribbean, are part of a wider movement that has not seen its end. Currently, Central America and the Andean region have negotiations with the United States in the trade area, and basically all countries in the Continent have some type of negotiation on trade, in order to improve existing instruments and to create new ones. Even when there is not a continental wide trade agreement, the bilateral and multilateral agreements mean that the flow of goods, services and investment is substantially more free now than two decades ago.

While trade liberalization is sometimes seen as a short term threat for employment and wages in protected industries[5], it provides a natural counterpart of promotion of sectors where a country is competitive, and a required element to achieve permanent and large gains in productivity. The evidence says that the investment provisions in trade agreements play a key role to allow a rapid transfer of technology. In the opinion of some observers, these effects are not only useful, but indispensable to achieve the competitiveness of a national economy (Lewis 2004).

Trade liberalization does not have to be a threat to social protection systems. In important cases these systems may have been actually benefited through the creation of better jobs. For example, the Mexican Social Security coverage had stagnated since the late eighties and until the mid-nineties. After NAFTA, it achieved high rates of growth of affiliation and wages concentrated in exporting states. Apparently, part of this effect comes from the higher relative growth of larger companies that is generated by free trade, including those with foreign investment. Nevertheless, the post-NAFTA jobs' boom in Mexico was not the rule, and the nineties were not a particularly gainful time in terms of coverage growth for social security across the Americas in general. According to Gill, Montenegro and Dömeland (2002) "while the gains from the macroeconomic reforms did translate into productivity increases in most countries, they did not appear to generate the sort of jobs people had in mind." Following the same authors, the share of the informal labor market in the total went from 52% in 1990 to 57% in 1996. Given the low rate of growth of affiliation to social security in the new decade, it is unlikely that many countries could be changing this trend.

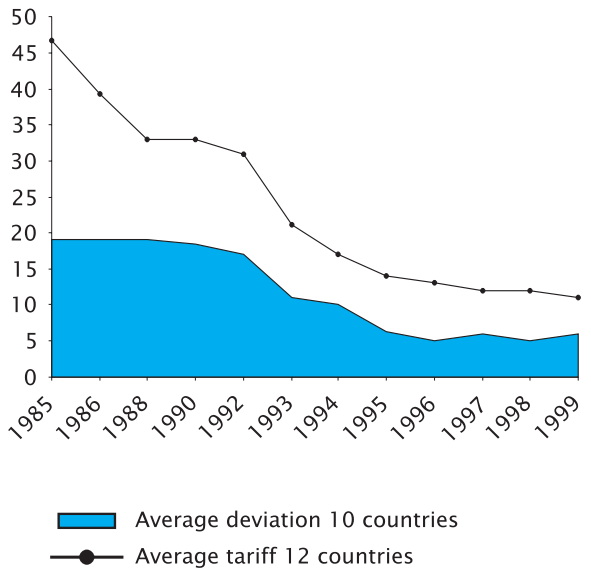
Rodrik (1997) argues that international economic integration reduces the ability of governments to finance social security by "rendering the tax base footloose". Rodrik claims that trade exposes populations to higher external risks, and that governments compensate these risks by increasing the level of expenditure in social protection. Thus, developed countries—that have a higher ratio of trade to GDP—have higher levels of social protection. He

[5] See Chapter III.

thinks that it is possible that the ability of governments to finance social protection networks is threatened by free trade, and that new frameworks have to be found to finance such tools if the global economy is to be sustainable.

To measure the differences in the degree of reform across countries, Lora (2001) summarizes the trade reforms in the following ones: between the early eighties and late nineties average deviation in tariffs were reduced at least 15 percent points, and the overall average fell from 48.9 to 10.7%; non-tariff restrictions affected 37% of goods before liberalization began, but by the mid-nineties only 6.3% of goods were subject to such restrictions (Figures I.1 and I.2).

Figure I.1
Tariff Liberalization in Latin America, 1985-2000



Source: Lora (2001).
Note: The average of twelve countries includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Peru, Uruguay and Venezuela. In calculating the deviation, Costa Rica and Guatemala are excluded for lack of data. The value of the tariff deviation for 1985 is assumed to be the same as that of the next year.

Given that more liberal trade regimes are observed across the Continent, it is natural to ask about the link between trade and informal labor markets. Goldberg and Pavcnik (2003) investigated the issue for Colombia and Brazil, two countries that liberalized trade during the 1980's and 1990's. In general, they find a weak link between trade liberalization and the growth of informal labor markets. For Colombia, they find that trade liberalization had some effect on informality, but trade reform took place after the labor laws' reform.

It is not clear theoretically whether trade reform should lead to an increase or to a decrease in formal labor market relations, but a hypothesis that carries some weight in international trade debates is that trade liberalization leads to competitive pressure on formal establishments, which in turn respond cutting costs, including costs associated with social protection. Following that argument, it is sometimes argued that employers may reduce health and safety conditions, contributions to social security and in some cases even shift their jobs to the informal labor market. This could be done directly, the argument goes, or through subcontracting parts of the productive process to home-workers and small firms in the informal sector. The term "social dumping" is sometimes used to refer to this hypothesis, and the policy implications are that trade from countries with informal labor markets (which are usually low wage countries) should be restricted to avoid a deterioration of social benefits in wealthier countries (a "race to the bottom").

From a theoretical point of view, the main argument against the social dumping hypothesis lies in that employers could have done these undesirable acts to reduce costs before trade liberalization, and there is no reason why governments may become laxer law-enforcers after trade liberalization. Actually, law enforcement can be improved as the pressure from trading partners and the international community. Another argument against the social dumping hypothesis is that trade liberalization is often accompanied by investment liberalization, and this allows a faster transfer of technology, which in turn means the adoption of cleaner, healthier and safer technologies in low-wage countries. A higher flow of investment can also mean the growth of larger firms,

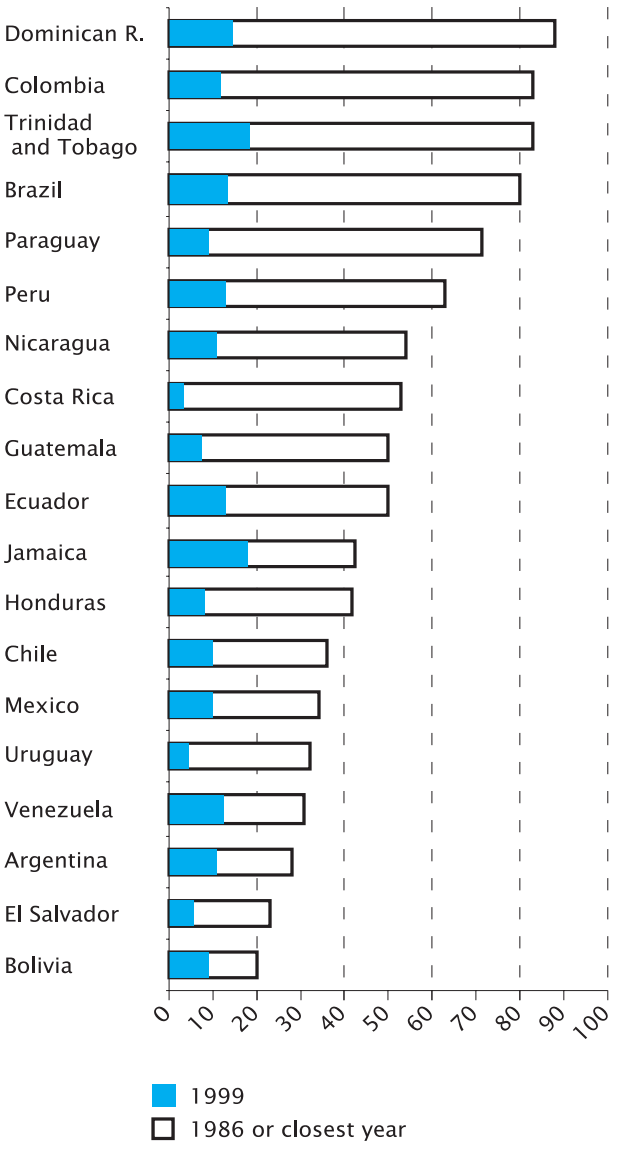
which operate more frequently in the formal sector. Large firms evade social security contributions at the lowest rates, and their subcontractors also operate more often in the formal sector.

The evaluation of these arguments is of great relevance for trade and social policies. The governments of countries entering agreements to liberalize trade do so to improve the well being of their national workers, and they expect to preserve at least the level of social protection available before an agreement comes into force.

It is convenient to distinguish the discussion around the social dumping hypothesis from the movements for the protection of basic human rights. The view of the international community on issues such as child labor and the rights of children to education, health and nutrition, the rights of women, the rights of migrants, and other issues considered inalienable should not be subject to any kind of negotiation or debate to promote any degradation of those rights.

Privatization and deregulation seem to have worked in similar ways as free trade; that is, by generating new opportunities, they have allowed growth of some industries. Nevertheless, while statements condemning these policies for having negative effects on coverage seem unwarranted by the evidence, it is also true that a process of sustained growth in coverage has not resulted from these reforms. Again, it is found that improved productivity does not necessarily leads to higher levels of coverage of social insurance, at least for several years.

Figure I.2
Tariff Reduction in Latin America, 1986 and 1999
(percentage)



Source: Lora (2001).

Decrease in Personal Marginal Tax Rates

The structure of taxes is another policy area of incidence on the cost of labor and social protection where significant reforms have been observed. Countries across the Americas decided to lower taxes on labor since the eighties, under the hypothesis that high marginal taxes were reducing labor demand in an acceptable degree, and sometimes could even lead to lower tax revenues—a prediction that became associated with the term "Laffer curve"—. The Laffer curve is named after the economist that proposed that at high rates of taxation there was a negative impact on total tax revenues. The United States has been a leader in lowering income taxes and has been followed by many LAC countries, in part possibly due to the heavy influence of the United States on the relative competitiveness of countries, and in part due to their own experiences on the difficulties faced to improve tax revenues through increasing taxes on a

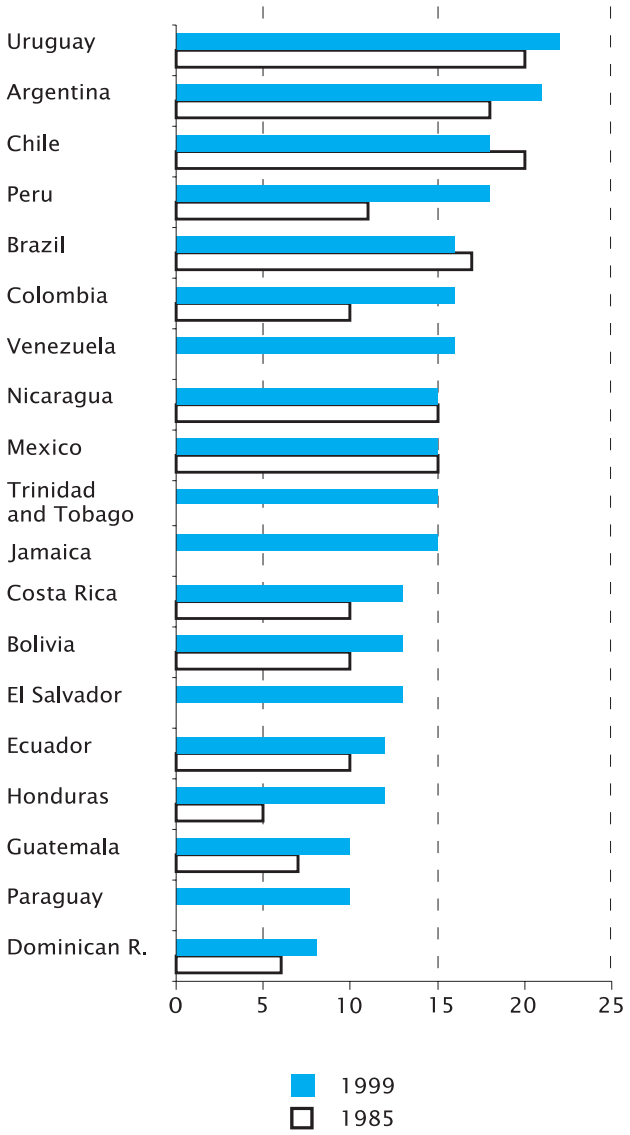
population that had been moving towards the informal labor market.

The move to significantly lower tax rates was initiated by the United States in the eighties, when marginal tax rates at the top bracket of earnings went from 50 to 28% between 1982 and 1988. While there has been a partial retrenchment in this approach, with the top bracket tax rate increasing to 31% in 1991 and 39.6% in 1994, by 2004 American tax rates on labor are significantly lower that in the early eighties (Moore 2003 evaluates the impact of these changes on self-employment). Canada and Mexico followed the trend, probably because the proximity and size of the United States made it difficult to keep high rates without losing revenue and competitiveness. This Report shows that the movement is generalized to most of the countries in the Continent. Europe, the main trading partner of the LAC region after North America, especially of the southern countries, followed a different path, with policies aimed to provide flexibility to labor markets that have suffered high unemployment since the seventies, but keeping high tax rates on individuals and transactions (mainly through value added taxes).

Another common shift taking place in LAC has been towards the use of Value Added Taxes (VAT), with at least 23 countries adopting this mechanism (Figure I.3). A significant absence is the United States that does not have a national sales tax or a national VAT. The VAT has proven to be a more resilient tax than the income taxes because collecting taxes on consumption is easier, and the VAT has to be paid by all persons in many transactions—even if they are not paying the income tax—. Thus, even after the growing weight of the informal economy, the VAT has become a steadier source of revenue. For social security programs this has been a main development as governments have been relying increasingly on the VAT to finance the expenditures in pensions and health.

Social security programs generate permanent expenditure commitments to governments, and high variability of revenues under the income tax. These, as well as the importance to the informal sector are part of the motivations for the movement towards a higher reliance on the VAT. Nevertheless, a shift from income and payroll taxes towards a VAT is not necessarily a guarantee of budgetary resources for social insurance programs. As any instrument, the VAT is subject to administrative problems and political pressure to generate exemptions and special treatments. As Lora (2001) shows in Figure I.4, the

Figure I.3
Value Added Tax Rate in Latin America and the Caribbean, 1985 and 1999

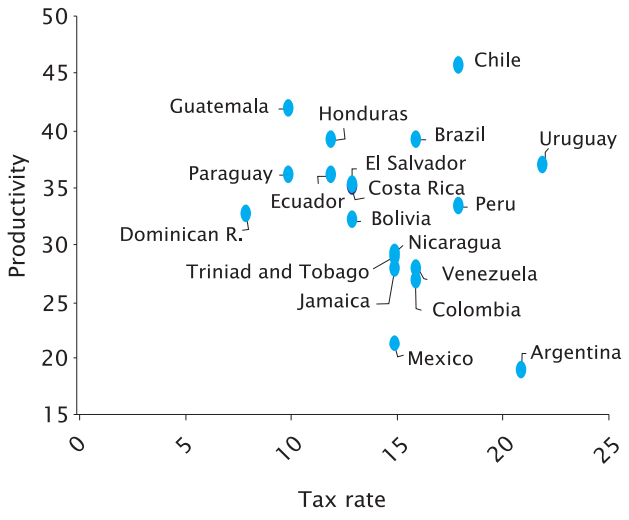


Source: Lora (2001).

productivity of the VAT system varies substantially. According to his calculations, the efficiency of the VAT—measured as the relation between revenues as a proportion of maximum taxable expenditure and the tax rates—is very low in Mexico and Argentina, and it is highest in Chile.

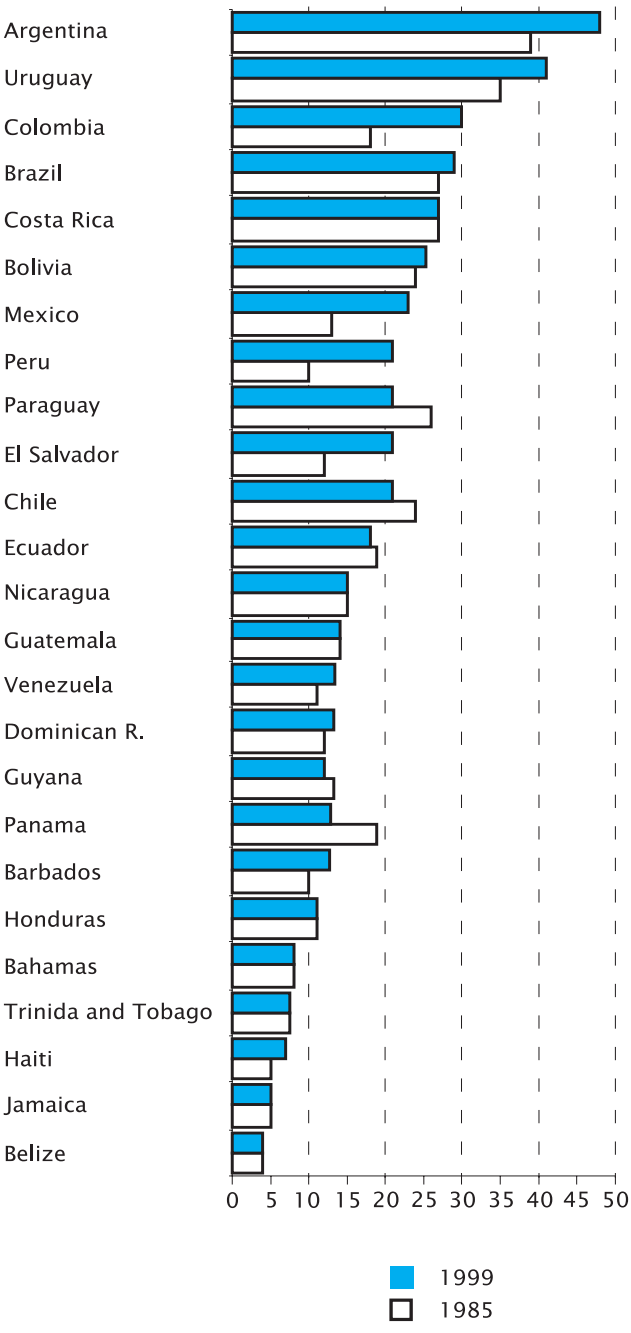
Contributions to social security do not show the clear trend of income taxes, and the ratio is three-to-one in the number of countries that show some increase between the eighties and the nineties and those that show some decrease. Ideally, social security taxes should have a closer link to the service received (this is more clearly seen in pension programs than in health programs) to produce less of the negative burden associated with taxation (Figure I.5). Thus, perhaps this means that as governments reduce income taxes, the population is more willing to vote in favor of higher social security contributions. According to the research of Heckman and Pages (2003), the Latin American and Caribbean region has a higher level of regulations inducing inflexible contracts than Europe, but Europe has higher payroll costs of social programs. It is difficult to predict what will happen in the next years: will LAC countries reduce regulations and increase payroll-based contributions? This, for example, is what may happen if the proposals of reducing the costs of severance pay regulation through the promotion of unemployment insurance are successful.

Figure I.4
Productivity of the VAT in LAC Countries, 1999
(percentage)



Source: Lora (2001).
**Notes*: Collection in Uruguay also includes selective consumption tax. Productivity is defined as (VAT revenue/GDP+imports – exports)/Tax rate

Figure I.5
Contributions to Social Security by Employers and Employees, 1985 and 1999



Source: Lora (2001).

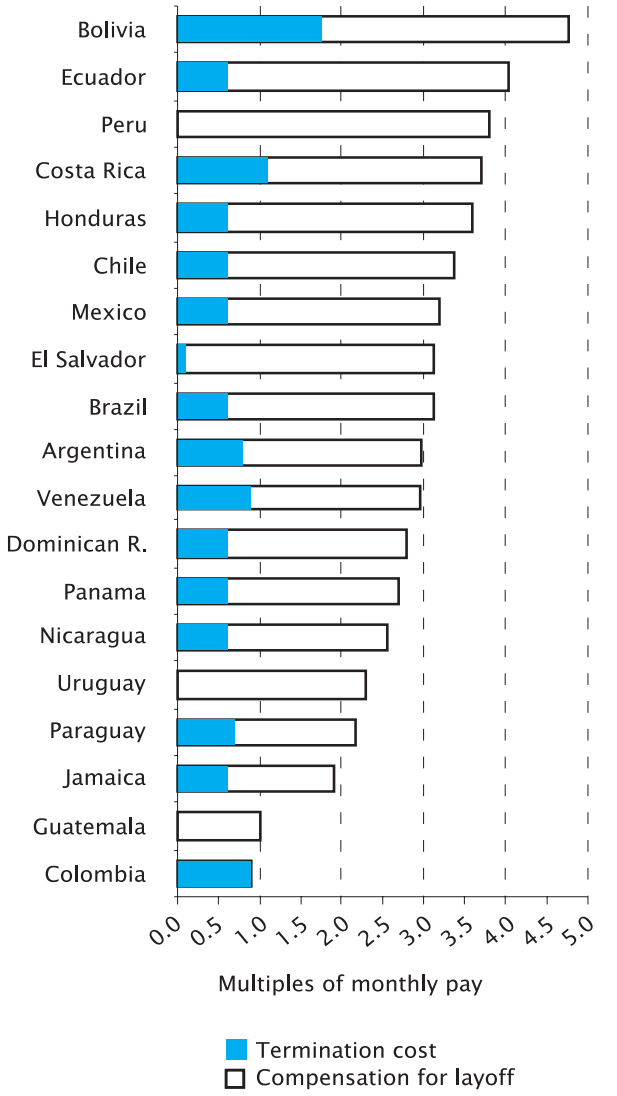
Without minimizing the importance on national debates and the differences in the timing of reforms, in the long run there may be convergence in the trends of taxation on labor across countries in the Continent. To investigate why Europe and the Americas followed these divergent paths in tax policy is beyond the scope of this Report. Given that social security is financed mainly from payroll taxes and government transfers that come from income taxes or sales taxes—mainly value added taxes—, it seems that social security agencies can gain something useful for their planning functions if they follow closely these trends in the future, and think about how their programs have to adjust to these constraints.

It seems that for the following decades the pressures of globalization will not show signs of contraction as the Far East and South Asia become more important players that compete with countries in the Americas for investment and trade. China, the largest of the new players in the global economy, has made the development of a social security system a hallmark of the national development strategy (ISSA 2004).

Labor Reform

The reform to labor laws is often pointed out as a needed progress in debates on the modernization of economic regulations. However, the evidence shows that this is a space where change has been substantially less common than in the trade, investment and taxation fields. In the labor area, six countries are considered to have had the more substantial reforms: Argentina (1991), Colombia (1991), Guatemala (1990), Panama (1995), Peru (1991) and Venezuela (1998). Chile reformed its system earlier. The two main issues in the discussion have been the legal constraints on labor contracts that affect the cost of separation of workers and the restrictions on temporary hires. Also important have been the discussions on the high cost of solving controversies due to the inefficiency of the administrative or judicial courts that deal with labor issues, and the uncertainty involved in the legislation on collective bargaining (Figure I.6).

Figure I.6
Expected Cost of Laying off a Worker, 1999



Source: Lora (2001).

The burden of regulations on the cost of separation are not only related to the amount that has to be paid to the worker—a variable that can be calculated by employers and included in wage costs—but also to the high risk that is usually faced by both employer and employee because enforcement of the

regulation is highly discretionary. Many workers end up not receiving the indemnity due after separation from their jobs because very few employers keep funds to face those liabilities and enforcement is lax (after all, many jobs are in the informal economy and are basically out of the radar of any labor authority). The regulations themselves generate a high level of litigiousness, partly due to the high cost of the court system, and partly due to an in-built error of the regulation. The error is that forcing high payments on employers that fire workers means that the cost of labor is increased precisely when the firm may be in a worst position to make the payments. In an extreme case, the regulation means that workers of a broken firm receive nothing when employment is terminated. The regulation imposes maximum costs on the economy during recessions, which means that the social protection goals are not served properly.

Conclusions

This Chapter has given a very brief account of the large changes in the economic environment in the Americas during the last 20 years. The general tone has been one of change, and while social insurance has not seen the decline that was predicted by some after the deep trade liberalization, deregulation and privatization—that took place in the eighties and the nineties—it is also true that the gains in productivity have not translated into higher rates of social protection. The informal economy actually increased, and Chapters II to IV will discuss the issue in more detail. Chapters V and VI deal with the problem of coexistence or segmentation of social security regimes, a problem that existed before the liberalization movement and on which important advances towards definite solutions are reported for some countries in the pension area. However, the main conclusion in these chapters is that the combination of national economies with high levels of informality, segmented pension systems and badly regulated health sectors is quite unfavorable for the development of the social protection network.

CHAPTER II
SOCIAL SECURITY, WORK AND POPULATION

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II.1 Introduction

The second half of the twentieth century was an extraordinary time for many regions of the world in terms of population growth. This growth was partly a reflection of the large improvements in public health, medical technology and in general of the ability of societies to generate a surplus. Fertility rates across continent began to increase after the World War II which, combined with high marriage rates, led to the phenomenon often called the "baby boom". Mortality, on other hand, shows a trend to lower rates and it is expected to continue running this course.

Most of the countries in the Americas experienced their highest levels of fertility between the fifties and the sixties. Most of them also experienced a decrease in fertility between the sixties and the seventies. For the continent as a whole, the fertility rate was still at a high level enough to sustain substantial population growth through the eighties and the nineties. By the beginning of the twenty-first century, only North America, a good part of the Caribbean and a few South American countries had birth rates at or below replacement levels. Most of the region (measured by the size of the population of the countries) maintained its growth inertia through the end of the nineties.

From the perspective of social insurance, there are at least two main implications of these trends in population growth. First, since the eighties, the growth of the labor force has been high, putting strong pressures on the national economies to absorb hefty numbers of workers. The growth of the population in working age will remain high, at least for the next 25 years. By itself, this trend may be partly responsible for the growth of the urban informal economy, because population growth produced an explosive expansion of cities and great difficulties for governments to sustain the provision of public services.

A second implication is that the relative growth of national populations has been uneven since the seventies and the eighties, when the differential in fertility rates between countries became larger. This trend has not caused an increase in the relative size of the national populations of the magnitude of the difference between fertility and mortality rates but has caused a resurgence of large international migratory flows across countries within the Americas. This movement of individual workers or their families across the continent represents an enormous challenge for social security systems that will persist into the foreseeable future. Even if migratory flows become smaller in the future, the tens of millions of current migrants already constitute a significant social event between the Pacific and the Atlantic.

II.2 Labor "Boom"

II.2.1 Population Growth

According to the U.S. Census Bureau, world population reached six billion in June of 1999. This number is 3.5 times the size of the world population at the beginning of the twentieth century and roughly double its size in 1960. It is expected that the growth rate will diminish in the next fifty years.

Population growth over the next fifty years is expected to be particularly low in the Americas, with the possible exception of the United States. This point is illustrated in Table II.1. In the year 2002, Brazil ranked 11th in population-growth rates while Mexico ranked 12th. The forecasts for the year 2050, however, are quite different. Mexico is expected to have the 26th highest growth rate in population while Brazil is expected to have a negative growth rate in population. As shown in Figure II.1, these trends in growth rates are expected to have a significant impact on the distribution of population levels across the world.

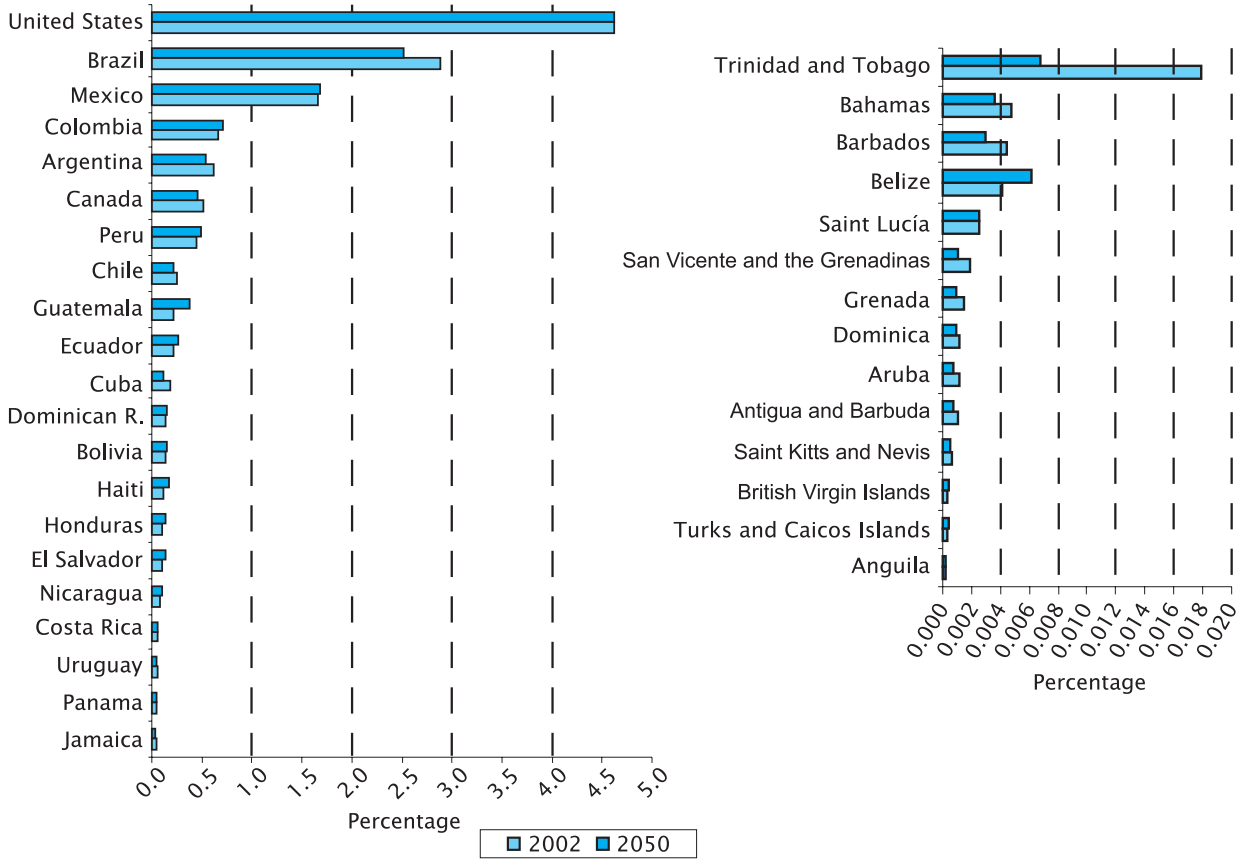
Although the population rate of growth is declining, it would be a mistake to conclude that population growth is no longer a problem. Current projections indicate that global population may peak before it reaches 10 billion (United Nations 2002). In the Americas, in the middle of the 1995, population was about 750 million. For the Continent, the last period of growth of 150 million people took just 14 years, just slightly less time than the 16 years necessary to raise population from 450 million to 600 million. By the middle of the century, it will still take only 23 years to add an additional 150 million to the population of the Continent.

Table II.1
Country Rank by Size of Annual Population Change

1950	2002	2050
1.-India	1.-India	1.-India
2.-China	2.-China	2.-Nigeria
3.-United States	3.-Indonesia	3.-Ethiopia
4.-Russia	4.-Nigeria	4.-Congo (Kinshasa)
5.-Brazil	5.-Pakistan	5.-United States
6.-Japan	6.-United States	6.-Saudi Arabia
7.-Indonesia	7.-Bangladesh	7.-Pakistan
8.-Pakistan	8.-Ethiopia	8.-Madagascar
9.-Mexico	9.-Philippines	9.-Uganda
10.-Ukraine	10.-Congo (Kinshasa)	10.-Yemen
	Rankings of Future or Past Top-ten Countries	
11.-Nigeria	11.-Brazil	12.-Philippines
12.-Philippines	12.-Mexico	16.-Bangladesh
16.-Bangladesh	19.-Saudi Arabia	20.-Indonesia
23.-Ethiopia	20.-Uganda	26.-Mexico
31.-Congo (Kinshasa)	23.-Yemen	215.-Brazil (negative)
48.-Uganda	29.-Madagascar	221.-Ukraine (negative)
62.-Yemen	55.-Japan	225.-Japan (negative)
69.-Saudi Arabia	226.-Ukraine (negative)	226.-Russia (negative)
70.-Madagascar	227.-Russia (negative)	227.-China (negative)

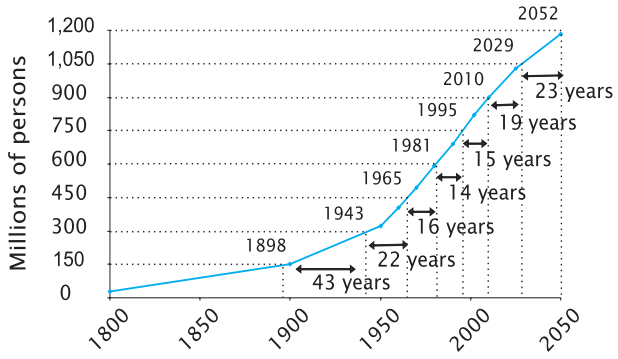
Source: U.S. Census Bureau (2004).

Figure II.1
Country Contributions to World Population Increase, 2002 and 2050



Source: Calculations using data from U.S. Census Bureau (2004).

Figure II.2
Time to Reach an Increase of 150 Million in the Population of the Americas, 1800-2050



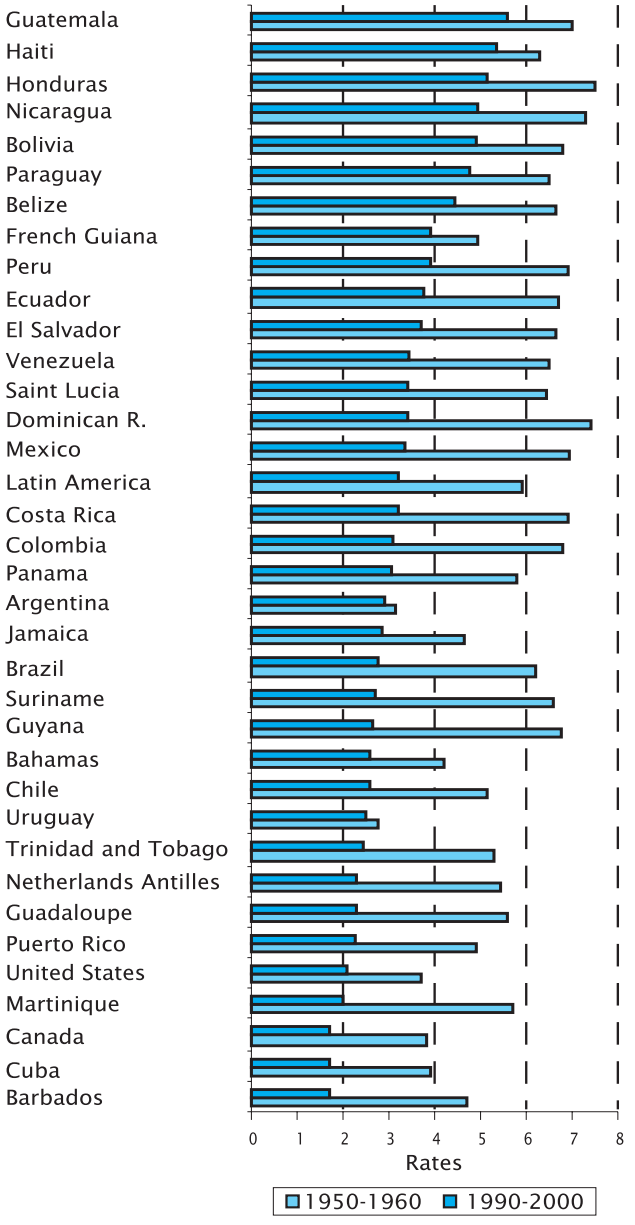
Source: Calculations using data from U.S. Census Bureau (2004), and Population Reference Bureau (2004).

Although fertility rates in some regions of the world are expected to remain above replacement level for quite some time (e.g., in Sub-Saharan Africa), U.S. Census Bureau projections suggest that the fertility rate for the world as a whole will drop below replacement level before 2050. It is important to note that this decline in fertility will not translate directly into equivalent declines in the growth of the population because the numbers of women in their childbearing years are increasing relative to the rest of the population. This increase was responsible for about three fourths of global population growth in 2002. The projections also suggest that by 2050 the global population increase will be due to this age-sex compositional effect.

In 2002 fertility rate was below the replacement level in the greater part of the more developed world and in some countries in the less developed world. Nevertheless, the majority of less developed countries

had fertility rates above replacement levels. For the next five decades, projections indicate that the replacement level of fertility for the globe will decline gradually to reach 2.1 children per woman by 2050. At a national level, many countries are expected to approach the replacement rate of just over 2 children per woman, while the maximum national average is projected to decline to approximately 2.5 children per woman. Nevertheless, if history is of any guide, these projections are subject to substantial long term error.

Figure II.3
Fertility Rates in the Americas

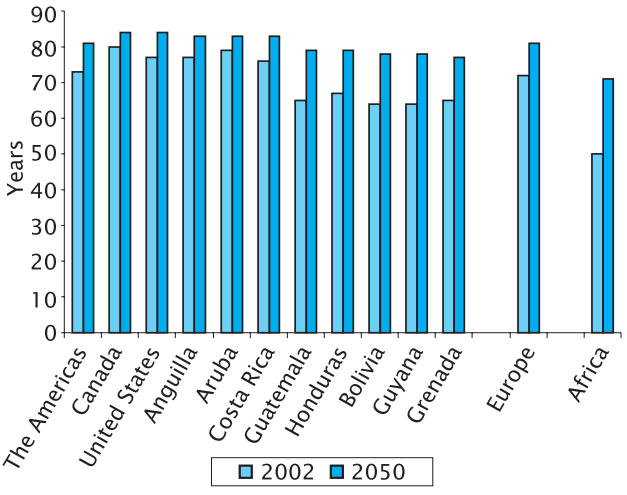


Source: ECLAC (2002) and U.S. Census Bureau (2004).

In the Americas, the rates of fertility diminished in significant proportions during the last decade (Figure II.3). In Argentina and Uruguay this decrease was lower because their levels of fertility were already low since the decades of the fifties and sixties. On the other hand, the fertility rates of United States, Canada, Cuba and Barbados dropped below the replacement rate.

Declining mortality influenced population growth most strongly at the end of the nineteenth century and the beginning of the twentieth century (Bongaarts and Bulatao 1999). Currently, the great majority of countries are experiencing only gradual declines in mortality. Life expectancy at birth was gradually trending upward in 2002, when overall life expectancy at birth in the world reached 63.8 years. Countries with the highest levels of life expectancy at birth in 2002 were predominantly those of Europe and North America (United States 77 years, and Canada 80 years). U.S. Census Bureau projections indicate that levels of life expectancy at birth in the Americas will increase slowly to 81 years in 2050, which is higher than the projected world level of 76.6 years. The five countries in the Americas with the highest levels of life expectancy at birth in 2050 will be Canada, the United States, Anguilla, Aruba and Costa Rica, and the countries with the lowest levels will be Guatemala, Bolivia, Honduras, Guyana and Grenada (Figure II.4).

Figure II.4
Life Expectancy at Birth by Country and Selected Regions, 2002 and 2005



Source: Calculations using data from U.S. Census Bureau (2004).

Figure II.5 shows the expected population growth of countries in the Continent, separated by region. With the purpose of showing the relative growth of countries, initial values are normalized to one in 1950. It can be seen that across country differences in population growth can be large for any region, which has at least two important implications for social insurance. First, the process of aging may be substantially different across countries. Second, migration may be a response to the large differences that will be generated in the age distribution of countries.

II.2.2 Population Aging

Although differences exist between regions in the number and proportion of older persons, the world population of 65 years and more is growing substantially in all the countries. This trend is a result of the transition from high to low levels of fertility and mortality. In the more developed regions, almost one fifth of the population was age 60 or older in the year 2000; by 2050, this proportion is expected to reach one third. In the less developed regions, only 8% of the population is currently over 60 years of age; however, by 2050 older persons will make up nearly 20% of the population.

The aging in the Americas is occurring at a greater speed than the historical experience in Europe. The older population will grow to a rate of 3.5% in the period 2000-2025, three times more quickly than the total population. The larger increments will occur in countries that do not currently exhibit high percentages of people over 65 years, like Honduras and Paraguay, where population will grow at rates over 4% between 2000 and 2025.

The majority of older persons are women, as female life expectancy is higher for women than for men. In 2000, there were 10.8 million more women than men aged 60 or older in the Americas, and at the oldest ages, there are two to five times as many women as men.

In addition to observing changes in the percent of people who are 65 years old or older, changes are expected at other points in the age distribution as well. As the pyramids of ages of the Figure II.6 show, there is a tendency to increase the proportion of persons 65 years of age or older while the proportion of children and adolescents diminishes. The pyramid of population for 2050 would be more rectangular in shape.

Health typically deteriorates with age, which produces greater demand for long-term care. The frailty associated with aging itself can be a factor in generating need for support services. In addition to this, many chronic diseases such as arthritis, diabetes, and pulmonary diseases also are associated with aging. Thus, disability and the need for long term care services are standard problems of the elderly population.

Older persons participate to a greater extent in labor markets in the less developed regions, largely due to the limited coverage of retirement schemes and the relatively small pension incomes. As more people live longer, retirement, pensions and other social benefits tend to extend over longer periods of time. Thus the demographic changes are exacerbating the problems of developing adequate national retirement programs. This implies that social security systems must make substantial changes in order to remain effective (Creedy 1998; Bravo 1999).

In most countries of the more developed regions, where social security coverage is nearly universal, declines in labor force participation at older ages are mainly consequences of changes in public policies on early retirement (Gruber and Wise 1999). In many countries of the less developed regions, on the other hand, there are large concentrations of older workers in agriculture and other sectors of the economy (notably the informal sector) who have little or no social security coverage (International Labor Office 2000).

Although lower levels of labor force participation at older ages are generally associated with higher levels of social security coverage, the decline in the

Figure II.5
Population by Region and Country, 1950-2050
(initial value normalized to one)

Figure II.5.1 Andean

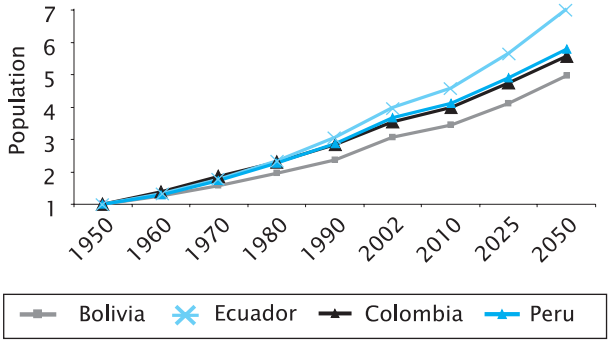
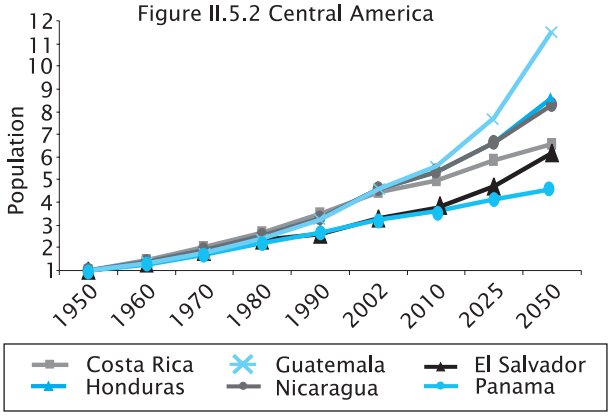


Figure II.5.2 Central America



Gráfica II.5.3 Southern Cone

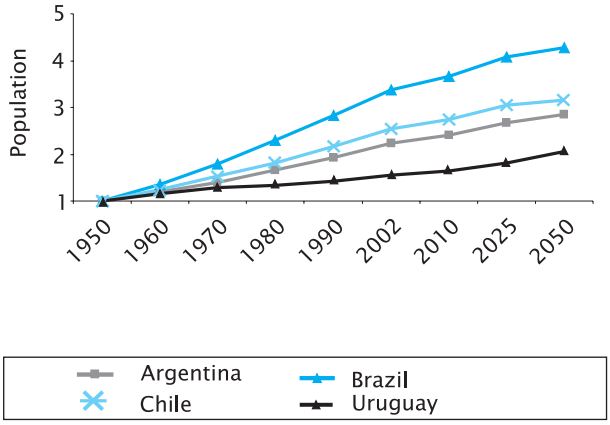


Figure II.5.4 British Caribbean

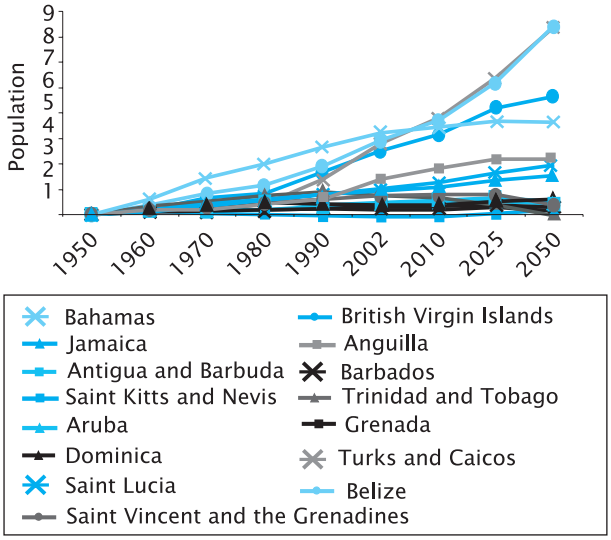


Figure II.5.5 Canada and United States

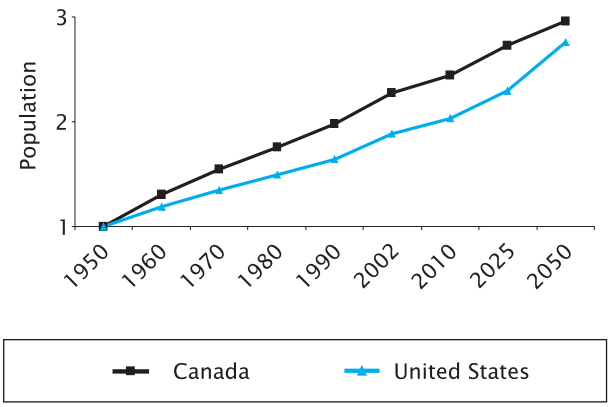


Figure II.5.6 Mexico and Latin Caribbean

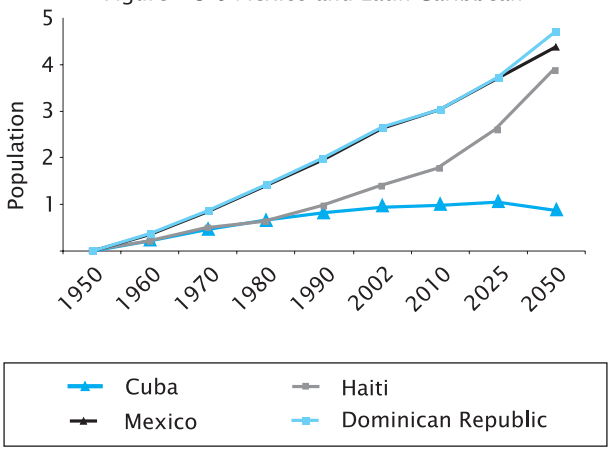
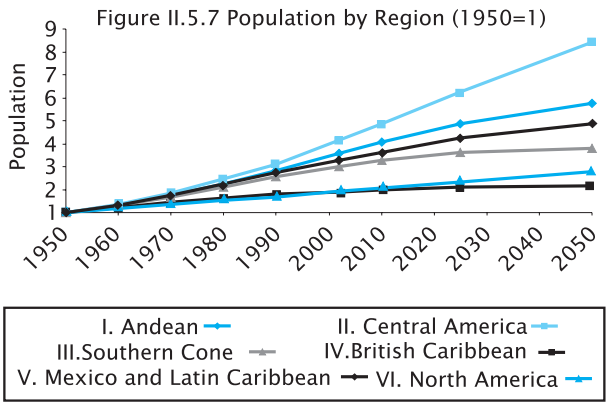
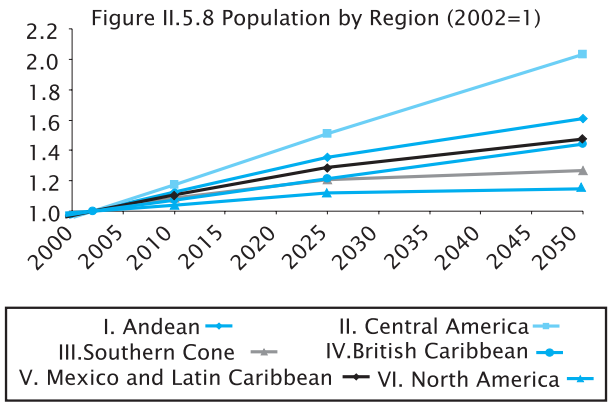


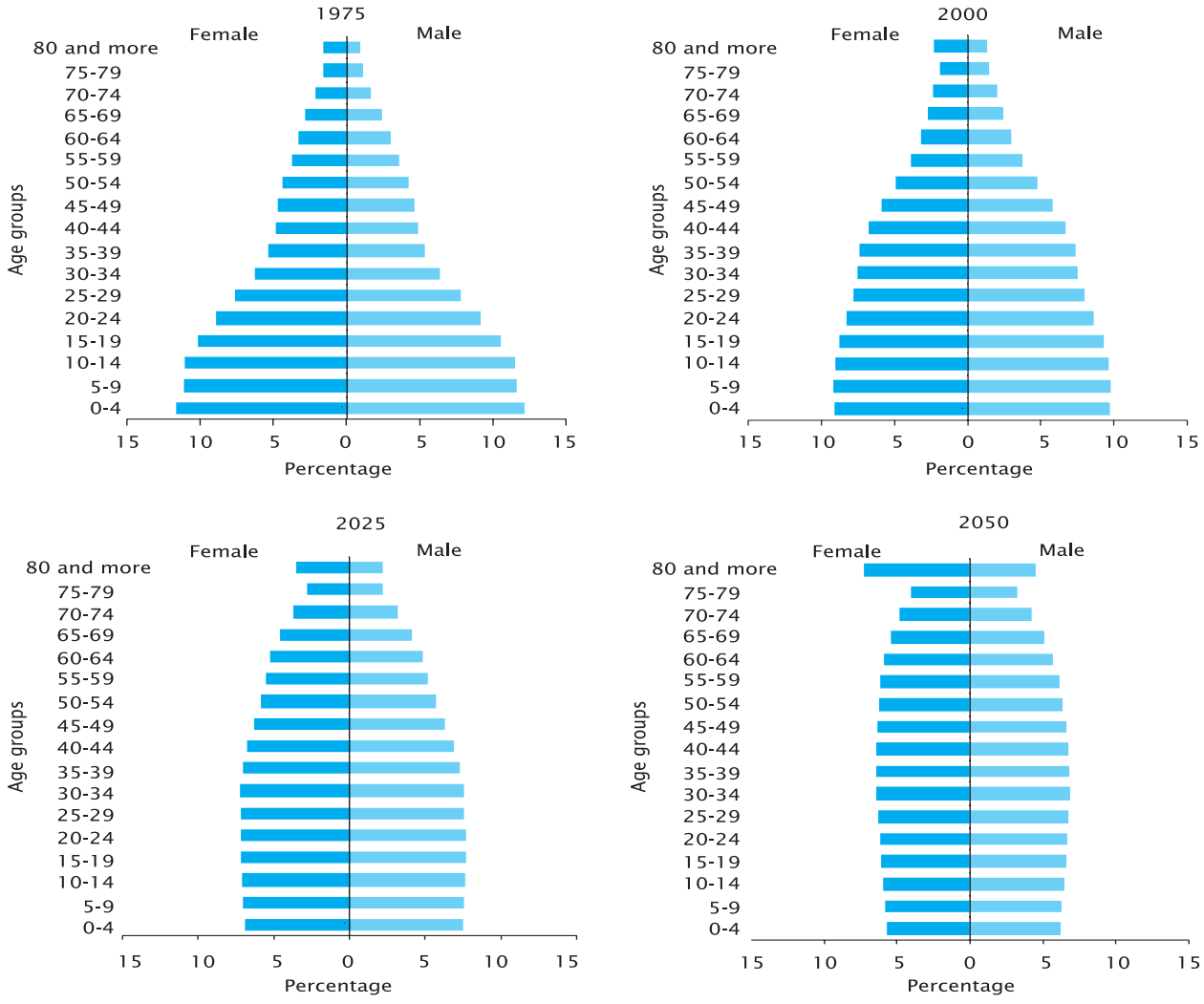
Figure II.5 (continued)
Population by Region and Country, 1950-2050
(Initial value normalized to one)





Source: Calculations using data from U.S. Census Bureau (2004).

Figure II.6
The Americas: Population Structure by Age, 1975, 2000, 2025 and 2050



Source: Calculations using data from United Nations (2004).

labor force participation of the older population in the more and the less developed regions may also be related, at least in part, to other factors such as a shortage of employment opportunities and to the obsolescence of skills and knowledge (Drury 1994; Taylor and Walker 1996).

A main thrust in this Chapter is that the labor boom in the Americas will continue for the next few decades. A notable difference from the "first half" of the boom, which took place in the twentieth century, is that the working population will be older. It is probably correct to state that governments have little ability to affect, at least in the short or medium term, the evolution of life expectancy. Changes in life expectancy would be the result of long term technological progress and advances in public health.

On the other hand, social security may provide governments in the Americas with a unique set of choices to influence the age at which retirement will take place. An important current discussion in developed countries is the extent to which social security has affected earlier retirement patterns in Europe in comparison with North America. The debate is relevant for all the countries in the continent because public policies on taxation, savings and social security in general contain tools that can be used with substantial results.

What are the effects of social security on the age at which workers retire? Gruber and Wise (1999) examine the social security systems in the G7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) plus four other European countries (Belgium, the Netherlands, Spain, and Sweden). The key hypothesis in this strand of the economic literature is that workers tend to retire too young under social security systems of the defined benefit type. The reason is that after a certain age (defined by law and not by worker

Table II.2
Ranking of Countries with Older Population
(% of the total population)

2002		2025		2050	
Uruguay	13.0	Bermuda	22.5	Cuba	29.4
Canada	12.9	Aruba	21.3	Barbados	29.3
United States	12.4	Canada	20.7	Puerto Rico	27.4
Puerto Rico	11.6	Puerto Rico	20.4	Canada	25.7
Bermuda	10.9	Trinidad and Tobago	19.4	Trinidad and Tobago	25.0
Argentina	10.4	United States	18.2	Saint Vincent and the Grenadines	22.0
Cuba	10.0	Cuba	17.1	Uruguay	20.5
Aruba	10.0	Barbados	17.0	Mexico	20.0
Barbados	8.7	Uruguay	14.7	United States	19.9
Anguilla	8.3	Chile	14.3	Brazil	19.8
Netherland Antilles	7.9	Argentina	13.8	Costa Rica	19.8
Saint Kitts and Nevis	7.7	British Virgin Islands	12.9	Bahamas	19.0
Trinidad and Tobago	7.6	Anguilla	12.5	Chile	18.9
Chile	7.5	Bahamas	12.2	Saint Lucia	18.9
Dominica	7.1	Antigua and Barbuda	12.0	Jamaica	18.8
Saint Vincent and the Grenadines	6.9	Brazil	11.0	Argentina	18.7
Jamaica	6.8	Saint Vincent and the Grenadinas	11.0	Ecuador	17.3
Panama	6.0	Saint Kitts and Nevis	10.9	Colombia	17.3
Antigua and Barbuda	6.0	Costa Rica	10.7	Panama	17.3
Bahamas	5.7	Panama	10.5	Peru	16.7

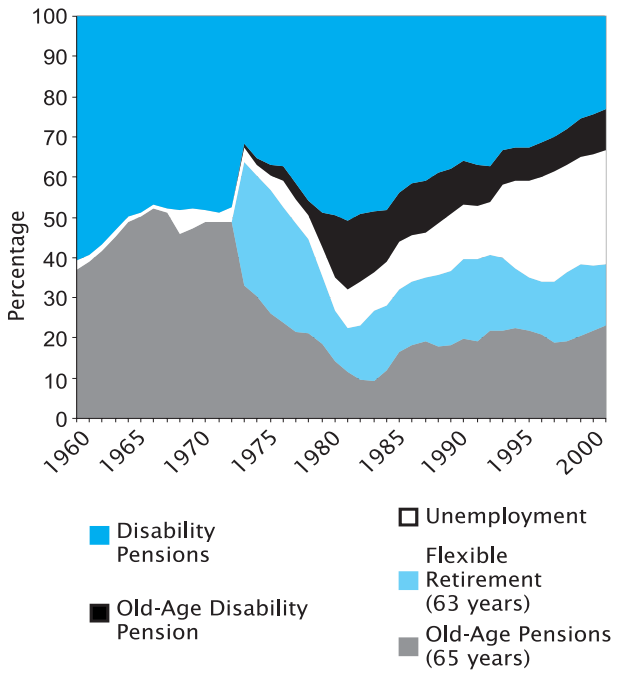
Source: Calculations using data from U.S. Census Bureau 2004 and United Nations (2004).

preferences), defined benefit programs often provide increases in pension wealth that are too small with respect to the contributions paid. That is, a person who decides to remain working after a certain age gains too little in terms of the value of her pension. This critical age tends to be defined in European legislations at a level that is below the usual retirement ages in the Americas.

In the countries studied by Gruber and Wise (1999), labor force participation rates of the group 60 to 64 years of age were above 70% until the early sixties. By the end of the century, some countries had levels that were below 20%. Even for countries with smaller changes the evolution is noticeable (in the United States the rate went from 82 to 53%; Japan had the smallest decline, from 83% to 75%).

Germany provides a good example of how policy can affect the retirement age. Figure II.7 shows that around the mid-seventies, a large change in the path to retirement took place in Germany. Between the sixties and the seventies, the proportion of persons retiring through the normal old age path was increasing and the disability portion was falling. However, the trend was interrupted by the growth of the options for disability and unemployment after age 60, as well as the option to retire at age 63 if the worker has been employed 35 years. These options were opened by reforms enacted in 1972. As Figure II.7 shows there was a big effect of German pension reform, not only did the average age of retirement change but unemployment option also increased.

Figure II.7
Pathways to Men Retirement in Germany, 1960-2000



Source: Calculations using data from Verband Deutscher Rentenversicherungsträger (2004).

The main argument against the hypothesis that states that defined benefit systems have promoted distortions in the labor market says that the rules of the social security system are defined purposefully (or endogenously, as an economist might say). This means that societies can choose between a menu of retirement ages, contribution rates, fiscal cost, and pension levels without distorting the functioning of the labor market. This argument represents a major debate.

This Report cannot enter into a deeper analysis of this issue; but it must be said that all countries have to face it. Any change in social security policy may affect the life styles of their populations, especially, between the ages of 50 and 65 (around which the policy decisions have the largest impact). In making a decision, countries should take into account research on the extent to which early retirement is a decision unduly affected by the social security system, and to what extent individuals choose to retire early.

The decision on whether or not to promote early retirement will affect the size of the labor force. The manner in which the lax statutes that govern disability are interpreted will also affect the size of the labor force. An argument that is sometimes offered in favor of early retirement is that it opens jobs for younger workers. The European experience, however, is not supportive of this hypothesis since unemployment has grown while retirement ages have declined. For LAC countries, the issue arises with a new approach. Many people will reach the age of 60 without an entitlement to a pension because of the low coverage

of social security systems. Governments will have to decide not only issues on retirement ages for the insured, but also on the kind of support that will be given to the uninsured.

II.2.3 Change in Labor Force

Demography affects employment directly through population growth. There is also an impact through fertility, age composition and education (United Nations 2003). Apart from the size and age composition of the potential entrants into the labor market, most of the debate on employment, unemployment and inequality has centered on the demand side of the problem—particularly, on determining the extent to which these changes are associated with stabilization policies and economic reforms. There has also been growing interest in the role of labor market institutions. Addressing these issues is certainly necessary for understanding the changes in labor market outcomes in the region, but there are other major transformations taking place in the Americas that have not been part of the discussion. Specifically, not much has been said about the role played by changes in the determinants of labor supply. These determinants have also caused the reductions in employment growth.

The decrease in population growth since the mid 1960s has triggered sharp changes in the age composition of the population in subsequent decades. One important consequence is that new generations are successively smaller and thus the growth rate of the working age population is falling. Another consequence is that the share of relatively older age groups is increasing.

Table II.3
Labor Force Participation Rates by Decade in the Americas, 1980-2025

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
Argentina	53.02	55.54	57.97	58.20	59.20	60.12	60.87	61.49	61.97	62.39
Bolivia	56.70	56.27	57.91	59.48	60.43	61.41	62.36	64.10	65.71	67.28
Brazil	65.10	65.48	65.78	65.65	65.23	65.22	65.20	64.54	63.48	62.39
Chile	47.83	49.20	50.41	52.52	53.52	54.12	54.91	56.40	57.82	58.89
Canada	64.90	65.90	67.30	64.90	65.90	63.12	62.12	60.30	58.25	56.42
Colombia	55.47	55.23	57.08	58.36	59.64	60.87	61.67	62.49	63.06	63.34
Costa Rica	53.17	53.60	56.29	59.53	60.25	60.53	61.01	61.73	62.59	63.48
Cuba	51.89	53.33	55.60	58.57	59.42	59.10	59.22	58.94	58.19	56.73
Ecuador	52.55	54.81	57.04	58.79	62.30	65.26	67.23	68.40	69.03	69.39
El Salvador	59.70	58.13	56.90	57.56	59.61	61.37	62.58	63.67	64.70	65.59
United States	63.80	64.80	66.50	66.60	67.20	67.00	67.50	65.10	63.40	62.30
Guatemala	50.06	51.60	53.31	55.83	58.91	61.78	63.95	65.75	67.00	67.88
Haiti	75.54	70.23	70.78	70.76	70.47	69.97	71.07	71.49	71.62	71.65
Honduras	57.84	59.72	61.89	62.84	63.68	64.68	65.53	66.56	67.59	68.48
Mexico	59.33	59.38	58.99	60.08	61.43	62.49	63.32	63.96	64.35	64.36
Nicaragua	58.31	61.83	62.91	64.29	66.15	68.12	70.07	72.42	74.56	75.90
Panama	53.40	54.22	55.10	56.31	57.17	57.70	58.15	57.96	57.23	56.13
Paraguay	57.96	58.18	58.99	59.81	60.03	60.44	60.86	60.80	60.43	59.82
Peru	59.01	60.00	60.41	61.32	63.38	65.21	66.27	66.85	67.21	67.31
Dominican Republic	62.52	63.14	66.15	67.86	67.69	67.82	68.42	68.80	68.48	67.66
Uruguay	54.77	58.46	59.04	60.14	61.06	61.73	62.38	63.01	63.49	63.81
Venezuela	53.65	54.48	56.35	57.71	59.05	60.24	61.62	62.76	63.44	63.73

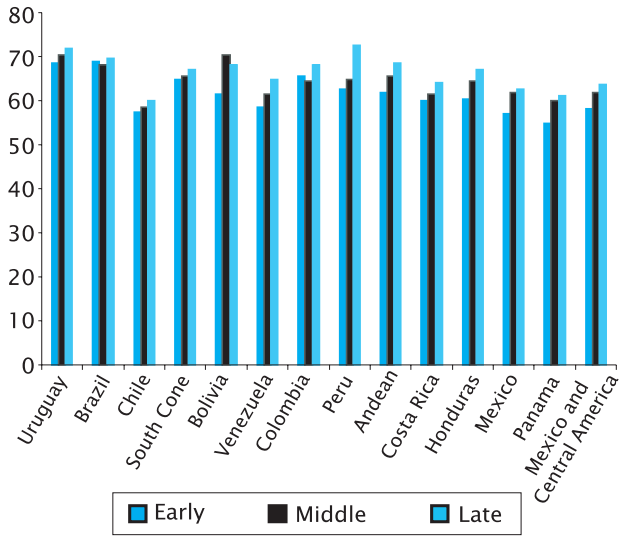
Source: Calculations using data from CELADE-ECLAC (2004), Denton, Feaver and Spencer (2000) and U.S. Department of Labor (2004).

Nevertheless, this slower growth rate will not imply reduced pressure on labor markets for several decades, since in absolute terms growth is still very large.

Also, between 2002 and 2025, the segment of the population of labor force age is projected to grow more rapidly than the population as a whole in all regions except in the developed world, Eastern Europe, the New Independent States (NIS), and China. As a result, the age group 15-64 as a percentage of the total population is expected to increase slightly in all regions except those three (U.S. Census Bureau 2004). The working age population is expected to increase faster than the total population in the majority of countries of the Latin America and the Caribbean. Table II.3 shows for several decades the labor force participation rate, which is defined as the proportion of the population aged 15-64 that is economically active. The total labor force includes both the employed and the unemployed.

As Figure II.8 shows, the increase in the labor force participation rate has taken LAC countries to similar levels to those prevalent in Southern Europe: Italy, Spain, and Greece (Duryea, Jaramillo and Pages 2003). United States has a higher level of participation than Western Europe in general. A question policy relevant for social insurance policy is whether the rest of the Americas will evolve towards the higher levels of participation of North America, or whether it will remain at the currently observed levels. The answer to this question will determine to a large extent the evolution of revenues and the expenditures of social security systems. Higher levels of participation can do a lot to reduce the pressure of an aging population on pension systems and on systems to finance health care for the retired. For the next half century, projections show important increases in labor force participation rates (Table II.3), due to the growth in female participation. The rates for males have been declining and are not expected to grow.

Figure II.8
Evolution of Participation During the Nineties, Women and Men 15 to 64 Years Old



Source: Duryea, Jaramillo and Pages (2003).

The major change in labor force participation during the last 40 years has been a permanent increase in female participation across regions, as shown in Figure II.9 and II.10. The increase has been more pronounced in the North-American and Anglo-Caribbean region, which moved from 29% in 1960 to around 40% by 2002. Mexico and the Latin Caribbean have followed a similar pattern, but with participation levels around 6 to 7 percentage points less than in North America during this period. The South Cone and the Andean region have shown about the same pattern in levels of participation. Central America is the region with the lowest female participation. There has, however, been a sharp increase in female participation in this region (from 19% in 1960 to 34% in 2002).

In the Andean region, Bolivia, Ecuador and Peru have presented steady increases throughout the decades. On the other hand, Colombia shows a dramatic increase of about 10 percentage points between 1981 and 1992. All countries in Central America started in 1960 with female participation levels between 16% and 21%. The whole region has current participation levels of about 32 to 35%. In Costa Rica the largest increases occurred during the 1980s. In the region of the Southern Cone, female participation fluctuated between 18 and 25% in the

sixties. Participation converged to around 27% for these countries in 1982 (except for Uruguay which registered a rate of 32% approximately) and ended up around 33 per cent in 2002 (Uruguay reached 42% in 2002). In the region comprised by Mexico and the Latin Caribbean, it is interesting to notice the female labor supply behavior in Haiti because it is the only case in which we observe a decrease in female labor supply. All other countries in this region show permanent increases. These participation rates range from 15-25% in 1965, to 31-40% in 2002. In particular, during the 1970s, female participation in Cuba grew by around 10%. The highest rates of female labor market participation were achieved in North America and the Anglo Caribbean, especially in the United States and Canada.

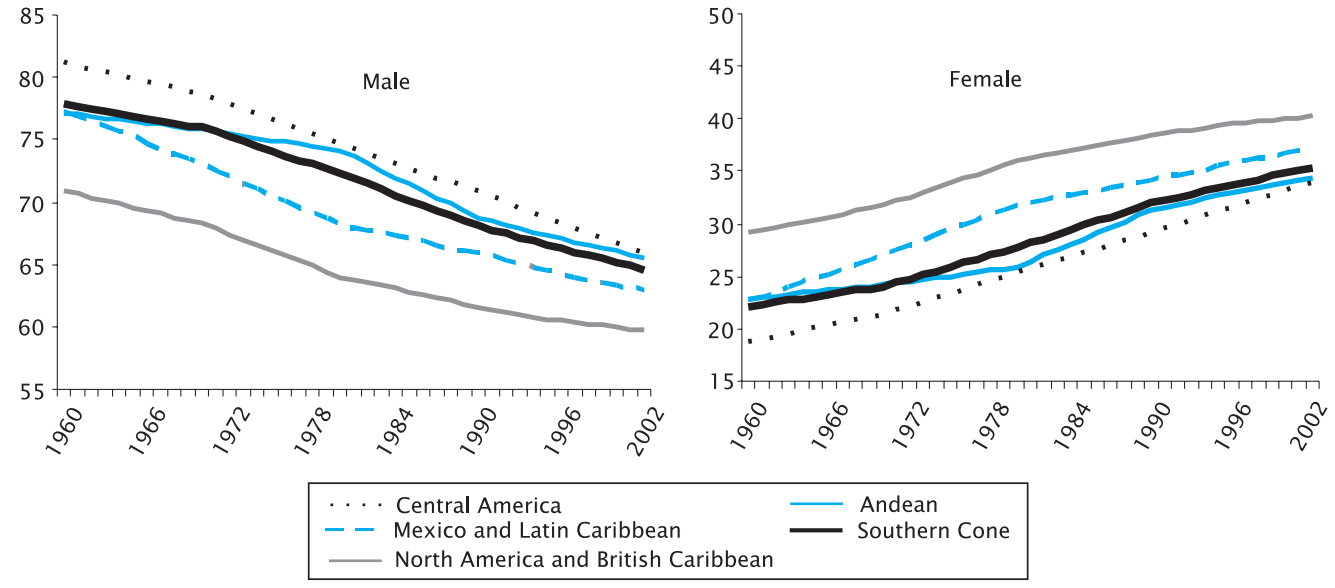
II.3 Migration: Domestic and International

II.3.1 Migration Trends

Social security legislations and administrations can operate more easily in an environment of a stable labor force than in an environment where workers are continuously changing jobs, especially when the changes are accompanied by geographical movement. This is obvious for practitioners of social security since administrative costs rise when the number of transactions increases and the population is dispersed. It is also the case that in past decades, most social security laws took a territorial view to provide benefits, which could not be paid to persons who had migrated abroad. There had been substantial advances in recent decades to support the rights of domestic and international migrants with regards to social insurance, but the reality says that important administrative difficulties to manage programs for migrants remains in many countries, and that there is an important loss of rights to pension benefits or health care due to migration of the worker or part of the family.

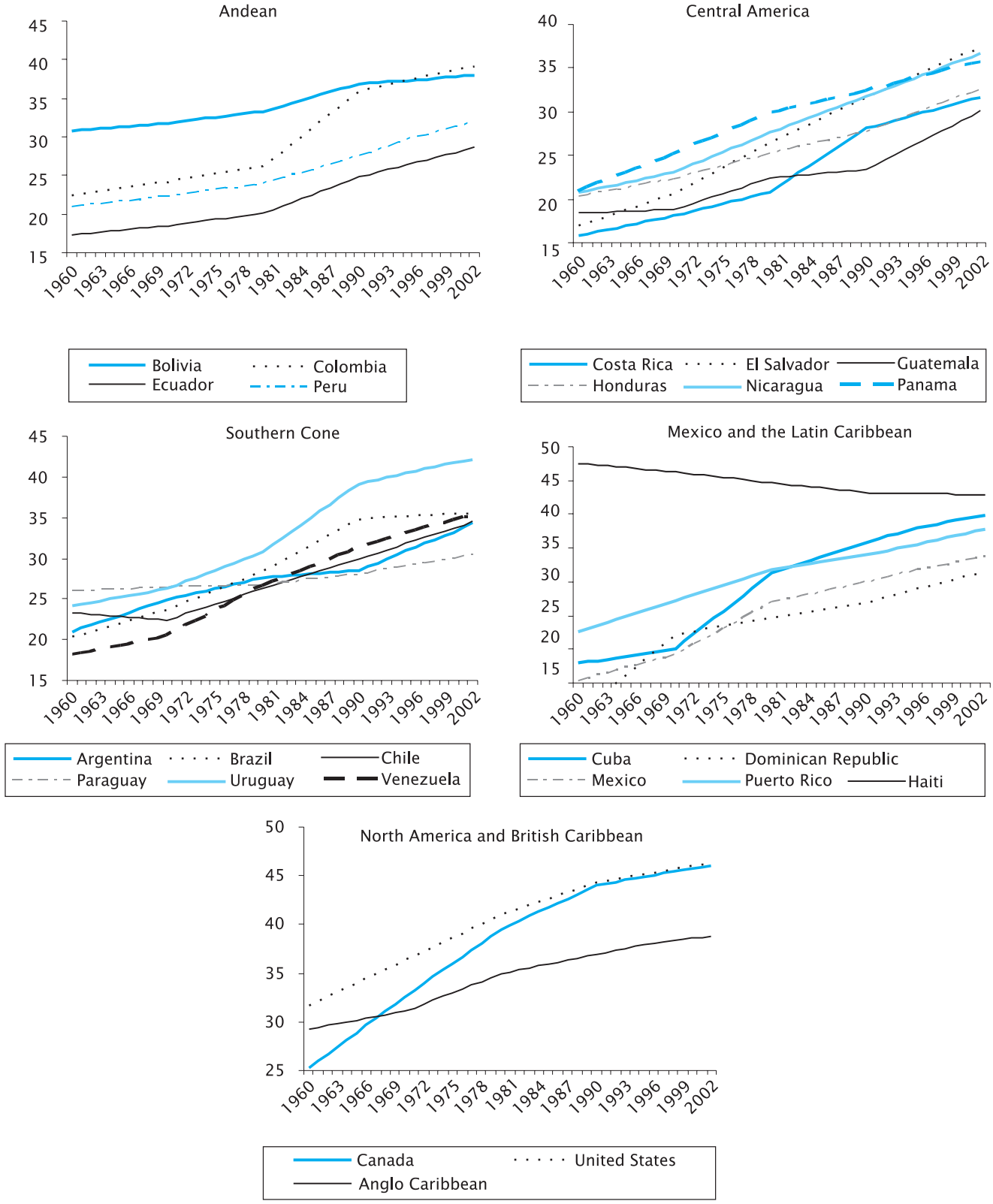
The large differences in fertility rates across countries, in the absence of migration, will cause different long term growth rates. It is likely, however, that people will migrate across countries to even out part of the differences in the age distributions. The U.S. Census Bureau (2004) estimates that there are three large countries in the Continent that will remain as net receivers of migration for the next half century: Canada, United States and Argentina. Under that

Figure II.9
Labor Force Participation Rate by Gender Across Regions, 1960-2002
(% of total labor force)



Source: Calculations using data from World Bank (2004).

Figure II.10
Female Labor Force Participation Rates by Region
(% total labor force)



Source: Calculations using data from World Bank (2004).

scenario the issue of migration affects most countries for two reasons. First, most of the migration to the three receiving countries will be from other American countries, and second, some countries, besides those three, will be net releasers of population through migration, but nevertheless will receive important inflows of persons. Additionally, several decades of population projections suggest that social behavior can change substantially and that migration flows can differ from current expectations. For example, while countries such as Brazil and Uruguay are currently predicted to have negative population growth by mid-century, they possess rich territories and a sophisticated labor force that could well attract large numbers of immigrants (as they did in the past).

It is sometimes said that migration flows are not large enough to affect substantially the population projections of large countries. Given the large population size in the world, and taking into account fertility rates that imply that population growth will decelerate, the largest relative impacts of migration will be seen in relatively small countries (usually islands) or in nations experiencing some kind of crisis. On the other hand, migration has proven to be an important social and economic phenomenon for many small and large countries of the region. The Caribbean, Central America, and Mexico all derive large capital inflows from migrants to North America. These remittances come mainly from labor earnings, and they are often generating long term benefits, be them a public or private pensions, or other type of asset.

The major host nations for Caribbean migrants are the United States and Canada. The European countries also received a significant number of Caribbean migrants. In contrast to migration flows to the United States and Canada, European migration was largely determined by colonial ties.

Evidence compiled by the United Nations suggests that the number of people around the world who were living in a country other than the one in which they were born rose from 75 million in 1965 to 120 million in 1990. Although absolute numbers have certainly increased, migrants represented just 2.3 % of world population at both dates. The more relevant point is that migrant stocks in the developed world increased from 3.1 to 4.5 per-cent from 1965 to 1990. For North America, Western Europe and Australasia combined, the increase has been even more pronounced, rising from 4.9% to 7.6% over the same twenty-five years (Williamson and Hatton 2003). Also temporary and return migration has become much more common, causing a larger increase in gross flows that in net flows. In most of the countries, foreign seasonal workers are employed primarily in the sectors of agriculture, hotels, catering and construction, i.e., highly seasonal activities. The length of stay for seasonal work contracts is generally limited to between three and six months.

Table II.4
The Top Net Senders and Receivers of Migration, 2002

Top ten net senders			Top ten net receivers		
Rank	Country	Net migration	Rank	Country	Net migration
1	Mexico	-280,000	1	United States	1,040,000
2	China	-230,000	2	Afghanistan	300,000
3	Tanzania	-180,000	3	Canada	190,000
4	Congo (Kinshasa)	-150,000	4	Germany	180,000
5	Phillippines	-130,000	5	Russia	140,000
6	Pakistan	-120,000	6	United Kingdom	130,000
7	Kazakhstan	-100,000	7	Italy	120,000
8	Bangladesh	-100,000	8	Singapore	120,000
9	India	-80,000	9	Australia	80,000
10	Burma	-80,000	10	East Timor	50,000

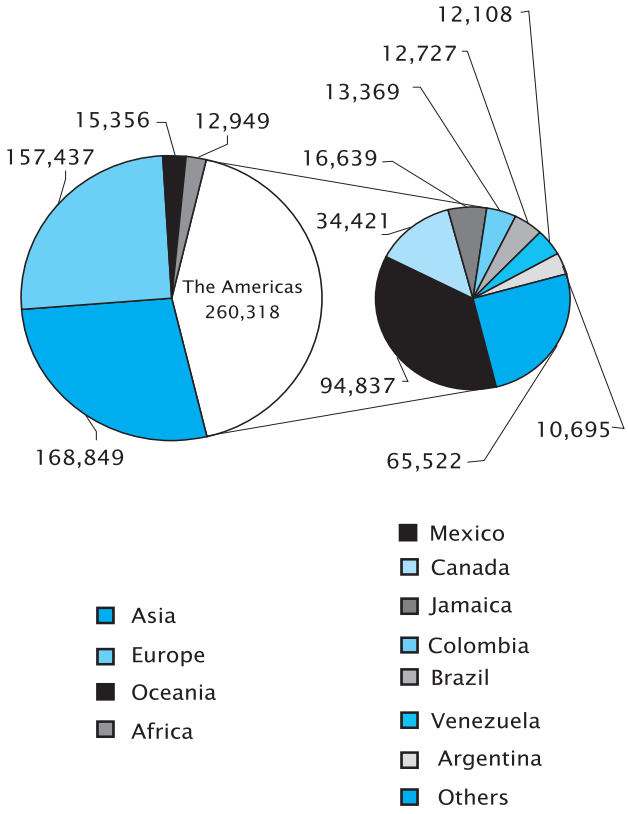
Source: U.S. Census Bureau (2004).

According to Citizenship and Immigration Canada, the number of registered foreign workers was directly affected by the implementation of the Immigration and Refugee Protection Act (IRPA) in the second half of 2002, which affected mainly the United States. This Act exempted a number of categories of foreign workers from requiring a work permit for stays of a short duration. As shown in Table II.5, during the second quarter of 2003, around 26,384 foreign workers arrived in Canada. This brought the mid-year total to 44,087 foreign workers, representing a recorded quarterly decline of 13% compared to the same period of 2002. During the second quarter of 2003, the largest number of foreign workers came from Mexico. Looking back at the quarterly figures for the last five years, this is the first time that in a second quarter more foreign workers from Mexico were recorded than from the United States. The United States ranked second, sending 4,185 workers, which represents a drop of 40% over 2002's second quarter.

The second quarter is an important period for the entry of seasonal agricultural workers in the Canada's Seasonal Agricultural Worker Program (SAWP), which allows for the entry of workers from Mexico and the Caribbean. The two largest countries participating in the program are Mexico and Jamaica. In the second quarter of 2003, 98% of foreign workers from Mexico and 97% from Jamaica were seasonal agricultural workers.

In the United States, as Figure II.11 shows, the principal sources of temporary workers are the

Figure II.11
Temporary Workers in the United States, 2002



Source: Calculations using data from U.S. Citizenship and Immigration Services (2002).

Table II.5
Temporary Workers in Canada, 2002-2003

		2002				2003	
Country	Total	Q1	Q2	Q3	Q4	Q1	Q2
United States	20,302	4,991	7,025	5,014	3,272	3,589	4,185
Mexico	11,393	2,305	5,295	372	73	2,448	5,427
United Kingdom	6,316	1,468	1,863	1,565	1,420	1,208	1,426
Australia	5,661	1,244	1,194	1,098	2,125	1,592	1,293
Jamaica	5,519	760	1,996	2,710	53	808	2,085
Japan	5,383	1,218	1,991	1,287	887	1,145	2,027
France	4,648	1,065	1,918	1,104	561	1,171	1,956
Philippines	4,615	1,263	1,270	1,134	948	1,135	1,358
India	1,865	486	591	497	291	383	606
Ireland	994	70	751	112	61	52	671
Other countries	21,214	5,191	6,618	8,527	2,878	4,172	5,350
Total	87,910	20,061	30,512	24,768	12,569	17,703	26,384

Source: Citizenship and Immigration Canada (2003).

Americas with 42.3% in 2002, of which, Mexico was the most important with more than one-third of the total, followed by Canada. This fact is partially due to the closer proximity to the countries of the Americas and its long land border with Mexico and Canada. The data in Table II.6 show that temporary workers in the United States increased dramatically from 163,262 in 1992 to 543,950 workers in 2000, mainly in the categories of specialty occupations and services unavailable in the United States.

II.3.2 Effects of Migration on Labor Market

Countries of Origin

Countries of origin benefit from workers´ remittances and from the rise in real wages (especially for unskilled and unemployed workers) that often occurs as emigration equilibrates the labor market of these countries. On the negative side, the migration of highly skilled workers has been linked to skill shortages, reductions in output, and tax shortfalls in many countries. This situation can be a serious obstacle to the consolidation of modern sectors in systems and technology and, more generally, in the areas where the capacity for innovation is crucial to close the gap between developing countries and the developed world.

Assumptions about future migration are generally much more speculative than assumptions about fertility and mortality and thus migration forecast are subject to large errors. International migration may occur as a result of changing economic conditions, political unrest, persecutions, famines, and other extreme conditions in the countries of origin, for which the individuals may be attracted by economic opportunities perceived to be available in more industrialized societies.

There is an important link between remittances and capital flows. As private capital flows have declined, worker's remittances have become an increasingly prominent source of external funding for many developing countries. Remittances were one of the less volatile sources of foreign exchange earnings for developing countries in the 1990s. While capital flows tend to rise during favorable economic cycles and tend to fall in bad times, remittances show remarkable stability over time.

Table II.6
Temporary Workers by Category in the United States, 1992-2000

Class of Admission	1992	1994	1996	1998	2000
Temporary workers and trainees	**163,262**	**185,988**	**227,440**	**371,653**	**543,950**
Registered Nurses	7,176	6,106	2,046	551	565
Specialty occupations	110,223	105,899	144,458	240,947	355,605
Performing services unavailable in the United States	34,442	28,872	23,980	52,203	84,754
Agricultural workers	16,390	13,185	9,635	27,308	33,292
Nonagricultural workers	18,052	15,687	14,345	24,895	51,462
Industrial trainees	3,352	3,075	2,986	3,157	3,208
Workers with extraordinary ability/achievement	456	5,029	7,177	12,221	21,746
Workers accompanying and assisting in performance of workers	258	1,455	2,112	2,802	3,627
Internationally recognized athletes or entertainers	3,548	22,500	25,968	34,447	40,920
Artists or entertainers in reciprocal exchange programs	90	613	1,727	3,089	4,227
Artists or entertainers in culturally unique programs	1,131	4,942	5,938	9,452	11,230
Workers in international cultural exchange programs	9	1,546	2,056	1,921	2,447
Workers in Irish Peace Process Cultural and Training programs	…	…	…	…	279
Workers in religious occupations	2,577	5,951	8,992	10,863	15,342

Source: US Citizenship and Immigration Services (2001).

Some studies show that remittances have been increasingly used for investment purposes in some countries, especially in low-income countries. For example, Woodruff and Zenteno (2001) estimate that remittances from the Unites States are responsible for almost one-fifth of the capital invested in micro enterprises in Mexico.

Countries of Destiny

The increase in labor supply due to immigration sometimes affects negatively the wages or the employment rates of natives. Empirical evidence, however, has remained inconclusive due to the difficulty in isolating the effects of immigration from other factors, such as differences (between local workers and migrants) in skills, sex, age, and professional education and experience obtained abroad (Coppel, Dumont, and Visco 2001). The dynamic nature of this problem has made even more difficult to assess the effects of migration on labor supply. However, the effects of immigration on wages have been found to be negative. According to Borjas, Freeman and Katz (1997), the 21% increase in the number of unskilled migrant workers in the United States from 1975 to 1995 reduced the wage earnings of unskilled local workers by up to 5%.

Although the potential adverse effect of immigration on unemployment and wage rates has received a lot of attention, immigration also generates many positives effects. First, migrant workers may relieve the labor shortage in many areas in which native workers do not want to work, and where capital can not be substituted for labor. Migration may therefore increase productivity and control inflation, as was the case in the United States in the 1990s. Second, immigrant workers tend to be more responsive to labor market conditions than local workers. Migration may therefore help alleviate, labor market rigidities and improve productivity (Coppel, Dumont and Visco 2001). Third, the multiplier effects generated by immigrants´ spending in the host countries should not be underestimated. Finally, the competition faced by local less skilled workers in developed countries from immigrant workers is neither more nor less than the challenge posed to such workers by imports of labor intensive goods from developing countries.

The acceptance of highly skilled immigrants is a policy of many countries. In the United States, Canada and Australia, for example, immigration policies have become progressively more selective with regard to the educational and professional profiles of the individuals granted residence. In developed countries, the demand for trained individuals in specialized sectors sometimes surpasses the supply from local training systems. This problem is exacerbated by the aging of the population and the consequent decline in the number of youths entering the labor market every year.

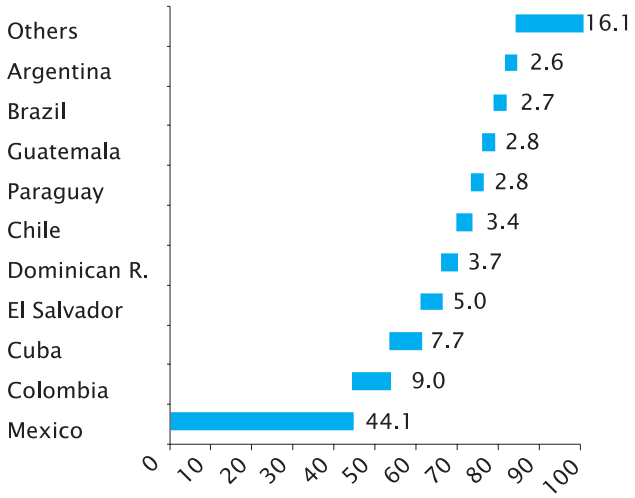
One of the policy questions that arise around the migratory issues relates to whether an inflow of young workers can help countries with older populations to solve the financial problems of social insurance systems. According to simulations for the United States, the European Union and Japan (Fehr 2003), the increased immigration does very little to mitigate the fiscal stress facing these countries. Increased immigration raises the size of the labor force and an inflow of young workers will certainly raise the payroll tax base. But Fehr (2003) concludes that since immigrants are disproportionately low wage earners (particularly low skilled immigrants), they typically receive more benefits per dollar of tax payments than do native workers. Also, more immigrants mean more government pension and health care spending since immigrants also accrue rights to such benefits. On balance, such an expansion of immigration makes essentially no difference to the demographic transition path. The only policy that could help these countries face its demographic dilemma is a massive expansion of high skilled immigration.

It is possible to distinguish two relatively recent periods in which immigration policies were markedly different. Immigration policy was fairly unrestrictive before the World War I, but after the World War II

there has been an increasingly more restrictive immigration policy in many countries. Restrictions have become more explicit from a statutory point of view, and large investments have been made to improve enforcement, supported by the development in information technologies. These trends have been observed since the sixties, and with the events of September 11, 2001, security concerns have reinforced and accelerated the adoption of administrative controls on entries and exits.

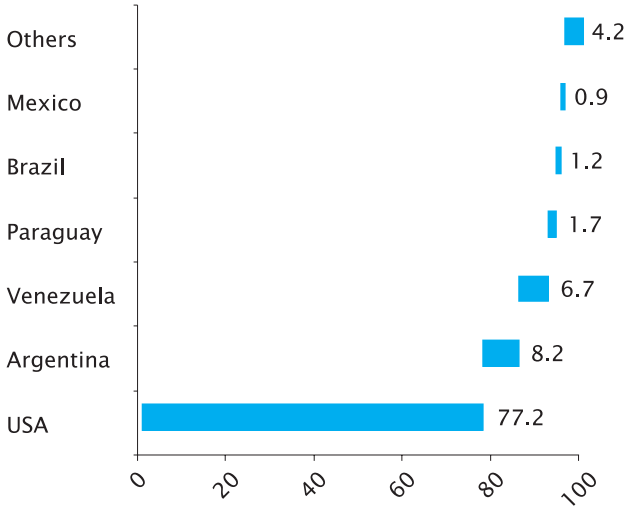
Figure II.12 shows that in the Americas, Mexico was the largest sender of people in 1990, having 44.1% of the total emigrants into other countries, including the United States. More than 70% of all immigrants in the Americas are in the United States (Figure II.13).

Figure II.12
Countries of the Americas with More Emigrants, 1990
(% of the total emigrants)



Source: Calculations using data from ELAC-CELADE (2000).

Figure II.13
Countries of the Americas with More Immigrants, 1990
(% of the total immigrants)



Source: Calculations using data from ECLAC-CELADE (2000).

Box II.1 Migration Policies

Over the past tree decades, policies in the area of labor migration have developed along four mayor paths: (i) growing restrictiveness and selectiveness in the admission of immigrants in developed countries; (ii) a significant increase in the number of countries, particularly developing countries, that have become host to foreign workers; (iii) the rising recognition that the rights of immigrant workers and their families need to be protected; and (iv) the adoption of regional agreements on the free movement of persons (United Nations 2002).

In a climate of growing policy restrictiveness, policies reflect an evolution towards greater selectiveness, favoring the admission of individuals and groups of people who meet specific labor needs, such as those in science and technology, those with skills considered in short supply in the labor market, and those who are able to bring in capital.

Either by means of preferential categories as in the case of the United States or points systems as in Canada, by the early 1990s most of the traditional immigration resettlement countries had enacted legislation placing greater emphasis on immigrant skills. The recruitment of foreign labor on the basis of skills has had a significant influence on the origin and nature of overall migration flows. Under the current preference system, newly arriving immigrants in the United States are more likely to come from Asia and

Box II.1 Migration Policies (continued)

Europe, while in Canada, the numerical weight attached to factors such as education, training, occupation, and language skills has reduced the proportion of immigrants dependent on family relationships.

Migration provisions for skilled workers differ significantly from provisions for other types of migration. This difference exists both in countries of permanent settlement and in labor-importing developed countries. In settlement countries, skilled workers are only granted temporary residence and are therefore not put on a permanent immigration track. In contrast, in labor importing developed countries, skilled workers are often contracted for a period that may significantly exceed the length of time granted for other types of work.

Labor migration is still largely viewed as a matter of national or bilateral concern. The General Agreement on Trade in Services (GATS), adopted during the latest rounds of the General Agreement on Tariffs and Trade (1993), provides a general framework for trade-related temporary movements of people based on government-to-government agreements. So far, no concrete agreement has been worked out as GATS contains no clear or specific rules regarding the movement of labor. However, a number of developed countries, including the United States, have taken steps towards the formulation of such agreements. Concerns have also been raised that these agreements might have the effect of robbing less developed countries of their high-skilled labor (the so called "brain drain"), particularly in the health and education sectors.

Regional and sub-regional bodies also include the management of international migratory flows as a main issue in their agendas and have developed a wide range of measures at different levels concerning the conditions of admission, stay, and treatment of foreign workers. Regional standards include standards related with the protection of migrant workers as well as standards that relate to the management of migration.

The Andean Community adopted in 2003 a revised Andean Instrument for Labor Migration. In order to strengthen the integration process, MERCOSUR countries approved an agreement on residence for their nationals in November 2002.

Bilateral agreements have been a longstanding means of resolving and managing migration flows between two countries. Since the 1990s, there has been a global increase in bilateral agreements, although the practice varies across regions. These bilateral agreements may have a wide range of objectives including the prevention of illegal migration, or are seeking to address broader economic and social issues (this is the case of the agreements that Argentina concluded with Bolivia in 1999, Peru and Uruguay in 1999, not yet in force). Others address issues related to seasonal work in agriculture. These include successful experience like the Commonwealth Caribbean and Mexican Agricultural Seasonal Workers Programme in Canada. This is often considered a model program for admitting and protecting immigrants. It is based on a Memorandum of Understanding (MOU) that calls for the Mexican Government to select workers and monitor their conditions in Canada, and a Canadian farm employers' association to transport them to the farms where they work. Farm employers provide written evaluations of each worker at the end of the season. The evaluations are placed in sealed envelopes and delivered by returning workers to the Mexican authorities.

II.4 Conclusions

Long term projections indicate that the Americas population growth will continue to be high for the next few decades, although at a smaller rate than in the past. Nevertheless, the Americas will still be an area of high population growth. The growth rate of the labor force will remain high for many years to come due to the large birth cohorts of the eighties and nineties, which will enter to the market and in addition will consist of many more working women.

Two main questions arise. First, will labor force participation of adults below 55 years of age will keep increasing to North American levels or remain around Southern European standards? Second, will the behavior of people approaching retirement age follow European patterns of lower activity, North American

patterns of reduced but still high participation rates in labor markets, or Japanese levels of participation above 70% after age 60? Both questions have strategic implications for social insurance. A valuable service can be provided through investment in research to develop improved decision-making capabilities. Evidence shows that decisions on tax rates and social security benefits can shape the future of a country in relation to these issues.

This Chapter also shows that the Americas will continue to be an important place for migration, particularly for within-continent and within-country movements (and perhaps less so for intercontinental movements, at least for the next couple of decades). For social insurance, this creates challenges that can be properly faced only through communication and cooperation of national governments and social security administrations. For domestic migratory workers, national social security administrations also have a pending challenge to improve their ability to register and provide protection to migratory workers, who often lack it, even when they have spent considerable time in the formal sector.

CHAPTER III
INFORMALITY IN THE LABOR MARKET AND SOCIAL SECURITY

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III.1 The Changing View of the Informal Economy

Social security systems in the Americas had favorable growth for several decades until around the seventies and the eighties when countries in the LAC region began to face difficulties to comply with the aim of increasing their coverage. To this date, the International Social Security Association (ISSA) refers to the increase of coverage as the preeminent challenge for social insurance in developing countries. In the United States, lack of coverage has been an issue, particularly as in relation to health care. This topic will be examined in Chapter VI of this Report. The discussion in this Chapter is focused mainly on Latin America and the Caribbean.

Since the last quarter of the 20th century, the growth of the "informal", "black-market", or "uncovered" population has been a concern. Several decades ago there was a belief (or perhaps a hope) that a long-term plateau could eventually be reached where all but a small minority of families would be covered by social insurance.

Today, there are more complex views on what this informal economy represents and what its repercussions for social security are. First, it is not expected that a gradual process will lead employers to affiliate workers and families, therefore solving the problem of coverage without any change in policy. While lack of coverage is sometimes attributed to economic crises (which have been more common than expected in the last 30 years), informal labor relations cannot be understood only as the result of unfavorable business cycle behavior. A substantial part of the informal economy thrives during periods of economic expansion and recessions have also been seen to induce a relative growth of the informal economy in many countries. For the next decades, even if national economies grow at a more stable rate than in the past increased coverage may not occur. Fraga (2004) estimates that for seven Latin American countries, the number of banking and balance of payment crises during the nineties was less than half than in the eighties (9 versus 26). Although some of these episodes can have effects in the long run, and the increased stability of national economies will gradually benefit the labor market in different dimensions, there is no clear reason to expect lower levels of informality just because countries become more stable in their macro-economies.

Second, when current views on informality are compared to those that were common in the sixties and the seventies, it can be concluded that there is a stronger emphasis on the relevance of governance, taxation, and regulation as drivers of the degree of informality in the labor market and the economy at large. It is also believed that the behavior of workers and employers can be affected to a large extent by the structure of the tax systems and the burden they

impose on society and labor contracts; and by the efficiency and costs of the regulatory processes for firms and individuals, including whether the Executive agencies and the Judiciary are effective in enforcing tax laws and other regulations. The new concepts have not been translated into simple policy plans. Economic reform has proven to be a powerful driver for productivity, but it has not led to an increase in the coverage of social security agencies.

In this new view, individuals in the informal economy develop activities related to high costs of compliance with the regulatory environment, as well as low probability of detection by regulatory agencies, and may have wages and gains in productivity that are competitive with the formal sector for certain individuals and employers. This means that the earnings of some individuals in the informal economy can be as high as, or even higher than the earnings in the formal economy, and that productivity gains for some small firms in the informal sector can be, at least temporarily, as high as in the formal sector. This does not mean, however, that the informal sector is as productive as the formal sector in general, or that its growth is good for long-term social development.

The informal sector is dominated by the self-employed and small firms (mostly with five workers or less) that cannot be fully monitored by the regulatory and fiscal agencies. Informal firms cannot grow to reach optimal production and distribution sizes and they generate social costs that affect the global welfare. These costs to social welfare are generated because the lack of social protection often causes the need for supplementary social programs, and the lack of compliance with the regulatory framework, in general, induces ecological risks, defective environments for health and safety, lower tax revenues, and an unfair competitive environment, among other negative outcomes. The self-employed as well as the employees of the micro-firms are at higher risk of falling into poverty since they work under defective environments and lack social insurance.

When informal firms are successful they eventually face the discrete choice of staying informal and small, or moving into the formal economy to gain possibilities of increasing their size and access to a regulated business environment. This means that even if the social cost of a new informal firm is low in the short run, in the mid-term this cost increases substantially. Thus, when it is said that an informal job is as productive as one in the fully regulated, tax-compliant sector, the statement is conditioned on at least two factors. First, it is applied to certain firms and individuals for a limited length of time; second, it does not take into account the costs of non-compliance with the law for the society at large.

Most social insurance systems in the Americas were based on European models. They were designed using a prototype that generates financial flows from payroll taxes and social security funds, and reallocates money to health service providers, child care centers, and pension funds; which, in turn, pay benefits and finance services. Over the course of several decades, labor markets in many countries in the LAC region have deviated from the designed model. Some of the reasons for this situation are: many countries in the Americas have kept large rural non-salaried populations; work has taken non-salaried contractual forms even in large cities; and the enforcement of laws and regulations has been ineffective. Additionally, some countries have been unwilling to legislate the mandatory contributions for non-salaried workers and for the salaried, contributions were sometimes set at levels too low to make the programs sustainable under any scenario (a condition that still holds in some countries).

It has been argued that labor markets in Latin America are flexible in the sense that in spite of the low economic growth rates observed since the eighties, unemployment has remained at relatively low (but increasing) levels (see Box III.1). Another reason why labor markets in Latin America might be considered flexible is that real wages have responded quickly to changes in aggregate economic conditions, although they have not exhibited consistent growth

since the eighties (see Box III.2). However, "flexibility for macro-economic purposes" is not the sole or even the main criteria for an evaluation of the labor market. The growth of informal labor markets indicates that there is a large fraction of low productivity jobs and underemployed workers with low-paid jobs without basic social insurance.

The definition of informality in the literature has been controversial and differs among studies, mainly as a consequence of data availability. Mazumdar (1976) and Weeks (1985) suggest that formal workers are protected by regulations and institutions while informal workers are not. Sethuraman (1981) suggests that informal activities are those generated in response to the need to create one's own employment where the formal sector is unable to provide jobs. Tokman (1989) views the informal sector as one of heterogeneous subordination that is characterized by activities with little capital, simple technologies, and low wages. This lack of human, financial, and physical capital allows for easy entry into the sector, so individuals decide to participate in it as a mechanism for survival or for complementing family income rather than for maximization of firm profits. Thomas (1992) proposes that informal economic activities are comprised of four sectors–household, informal, irregular, and criminal– with the defining criteria focusing on the legality of the goods and services produced and distributed by these activities. However, OECD (2002) points out that the vast majority of informal activities provides goods and services whose production and distribution are legal, and that such activities are not necessarily performed with the deliberate intention of evading the payment of taxes or social security contributions, or infringing labor legislation or other regulations.

As the following discussion will highlight, for purposes of social analysis and to develop policy initiatives, the more adequate definition of informality is based on the differences in behavior of wages and employment between participants in the labor market. When similar workers have similar access to similar job packages, defined as the set of monetary and non-monetary benefits (including social security), the labor market is not segmented. More specifically, a "segmented labor market" means, first, that different parts of the market have "different rules for wage determination and employment policies", and second, that "access to jobs in at least some sectors at some times is limited in the sense that more people want more jobs than there are jobs offered. Thus, there may be queuing for these jobs either in the form of unemployment, or job queues among employed workers or both" (Dickens and Lang 1992).

Whether a job is capital intensive or not, "modern" or "traditional", occurs in a small or a large firm, is not important by itself. Perhaps the most common definitions of an informal job are based on the size of the employer and on self-employment status, and on coverage of social security. These definitions play a useful role to develop statistics, but they may suffer a problem of circularity and may be inaccurate. The policy question is why some jobs are not covered by social security, making it useless to define informality in terms of not having social security.

III.2 Main Economic Views on the Causes of Informality

III.2.1 The Dual Labor Markets View

Until the seventies, the dual labor markets hypothesis was the prevailing view of labor markets in developing countries. These theories associate the informal sector with models of rural-urban migration (Harris and Todaro 1970, Sethuraman 1981, Fields 1975, Telles 1991), and with a slow process of assimilation by the modern sector of workers coming from traditional jobs. In this approach, labor markets are seen as dual or segmented with the formal sector offering better jobs than the informal. These sectors are not connected: the formal sector has a limited number of regulated jobs, while the informal sector is composed of disadvantaged workers queuing for "good" jobs in the formal sector with higher salaries and social security. Segmentation implies that an informal worker cannot choose in what sector to

work. Thus, the informal sector is seen as a residual of the formal. It is characterized by low-productivity jobs, low salaries, low educational levels, and is mainly represented by the self-employed that work alone or with non-remunerated relatives.

A more recent version of the dual labor market theory states that the labor market segmentation may also arise due to excessive government regulations, or when employers adjust production to the changing economic conditions and try to keep high wages to retain "good" workers—this is also called the efficiency wage effect (Saint-Paul 1997).

This more recent version of dual labor markets considers the informal sector as a "counter-cyclical shelter" in periods of recessions, which diminishes the impact of such recessions on unemployment. This leads to an opposite relationship between the growth of the informal sector and the growth of unemployment: the larger the size of the informal sector, the lower the level of unemployment. It is important to note that the growth of the informal sector in Latin America has also been affected by the increasing supply of workers (see Chapter II) and by the fact that formal firms have demanded more skilled labor.

The view of "good-formal" and "bad-informal" jobs has been traditionally supported by the ILO. Labor policy recommendations to reduce informality have included the increase of the levels of employment and formal sector GDP. Among the reasons cited for low social protection in the informal economy is the fact that some workers and employers are informal in a deliberate attempt to evade social security contributions. It is recognized however, that most of those in the informal economy are not able or willing to contribute a high percentage of their incomes to the financing of social security benefits that do not meet their priority needs. In addition, they may be unfamiliar with the way the formal social insurance schemes are managed. As a result, various groups of informal workers have set up schemes that better meet their priority needs and ability to pay (Van Ginneken 1999, Garro 2003).

Several other factors restrict access of informal workers to formal social insurance schemes (Van Ginneken 1999). Most workers in the formal economy who have stable and relatively adequate incomes are in a better position to contribute regularly to social security, including providing for their retirement. Informal workers, on the other hand, may not wish to save for retirement. In general, they give priority to more immediate needs, such as food, housing, education, and health care for themselves and for their families and usually spend a considerable part of their budget on these needs. It is also said that, psychologically, informal workers are normally so concerned with meeting their immediate survival needs that they are unable to be concerned or motivated by a distant eventuality. Living from one day to the next, they can be faced with catastrophic risks that can throw them into a state of permanent indebtedness. On the other hand, these workers may save in real assets that are productive in their economic occupations and that can be sold in case of need (possibly at a high cost, making this form of risk management inefficient).

In addition to having different social protection priorities, informal workers also have a lower contributory capacity. The formal sector contribution rate for social insurance is usually about 20 per cent or more of the total payroll (ILO 2002). Self-employed workers and micro-firms are often not prepared to pay the full contribution by themselves and, in fact, are often unable to do so. The irregularity of informal employment makes it unreliable as a source of income for social insurance contributions.

Legal restrictions on social protection for informal workers are also a factor of exclusion. In most developing countries, social insurance schemes are restricted by size of the employer (limited to larger employers, on the understanding that they have the financial capacity and better administrative support structures to comply with the obligations of the scheme); by geographical area; or by occupational group (often excluding the self-employed temporary and domestic workers and casual workers). Even when

these restrictions based on legislation are recognized and removed, there may be institutional obstacles preventing the implementation of reforms.

Many developing countries do not have the institutional frameworks within which participation in the social security scheme can be organized, contingencies and entitlements defined, benefits established, and contributions levied. Many developing countries find it very hard, if not beyond their capacity, to cope with the volume of administrative tasks associated with the operation of a social insurance scheme. Governments may be unwilling or unable to assume new and potentially costly commitments. Informal workers themselves may view the scheme as inefficient or not built in their best interests and they may therefore be unwilling to comply. Both informal employers and workers may also be concerned about registration under the formal social security scheme having other negative implications, such as greater pressure to comply with other types of legislation.

The ILO Report on the informal sector at its 2002 Conference describes the generalized concern about a growing informal sector, noting that the dimensions of the social protection gap can be judged from the fact that only some 20% of the world's workers have truly adequate social protection and more than half of the world's workers and their dependants are excluded from any type of formal social security protection. There is an issue of fairness, in that workers and their employers in the formal economy are obliged to bear the burden of financing the social security system, either through social insurance or through taxes, while informal economy workers typically neither contribute to social insurance nor pay taxes –especially if they are informal in a deliberate attempt to avoid doing so.

With these concerns, there has been growing recognition of the need to broaden the concept of social security to take account of the problems faced by developing countries and the realities of the informal economy. With flexible and unstable employment and many more workers in the informal economy, ILO (2002) posits that a broader concept of "social protection" which covers not only social security but also non-statutory schemes is needed. One that includes various types of new contributory schemes, mutual benefit societies, and grass-roots and community schemes for workers in the informal economy. This broader concept comes much closer to the goal of protecting everyone against the various risks and contingencies that arise in work, irrespective of where the work is performed. The potential for micro-insurance and area-based schemes should also be explored as a useful first step in responding to people's urgent need, particularly for improved access to health care.

ILO (2002) suggests the following measures for extending social insurance: removing any incentive for employers to report artificially low numbers of workers; revising the statutory schemes to facilitate partial membership by the self-employed, domestic workers, agricultural workers, and those with a regular income from informal activities; strengthening the administrative capacity of the social security schemes, particularly in compliance, record-keeping and financial management; undertaking education and public awareness programs to improve the image of the social security system; extending coverage within a prescribed timetable to all persons working as employees except in special groups such as domestic servants and family workers; opening up new "windows" and offering benefits that suit the needs and contributory capacity of currently non-covered groups.

III.2.2 New Developments

Chapter I of this Report shows that reforming labor market regulations has not been an active strategy for most of the region. It is known that labor laws are often seen as sources of high costs for employment and wage growth. However, an opinion that has grown after a wave of extensive research since the mid-nineties, is that rigidities in the labor market do not seem to be an important problem for many countries from the point of view of the adjustment of wages

and employment.[1] Minimum wages have often not been binding and real wages have been quite flexible in the face of adverse macroeconomic shocks. This does not mean that there are not regulatory problems, as the informal economy is a major cause of concern. The existence of an informal sector implies that a substantial part of the regulatory framework is not complied —to the detriment of the general welfare and the competitive environment—and that workers in the informal sector are at risk of poverty, generating the need of costly remedial policies. These and other related issues form the core of the current view of the informal economy.

In this view of the structure and functioning of the informal sector, the indirect relationship between unemployment and the informal sector becomes less important and may disappear. There is evidence showing that the informal sector grows not only in periods of recession but also in periods of growth in production and wages, when formal employment also grows.

Using micro-level data, Maloney (2003) argues that the informal sector in the LAC region should be seen as an "unregulated, developing country analogue of the voluntary entrepreneurial small firm sector found in advanced countries, rather than a residual comprised of disadvantaged workers rationed out of good jobs"(p. 2). Other parts of the literature see the informal sector as the result of an ongoing effort by modern firms to evade mandated protection through subcontracting unprotected workers, a process accelerated by global competition. The establishment of common labor standards and law enforcement are important for the behavior of the informal sector as firms in developing countries can employ an essentially unprotected workforce to compete with firms in developed countries. Maloney (1999, 2002) does not find evidence to support this claim since in Mexico only 20% of the self-employment has links to large firms.

The informal sector has been found to be very heterogeneous. It is not a sector with homogenous activities and outputs; it is more a varied set of activities that have connections with many other formal and informal activities. The largest groups of informal workers in most countries are: (i) men who are self-employed or owners of unregistered micro enterprises with less than five employees (the latter being often family members of the self-employed), (ii) informal-salaried workers who work in micro enterprises without social insurance, and (iii) women, who appear in various types of informal work, often in domestic service. Figure III.1 shows the changes in the employment composition of the informal sector (defined as those without social security) during the eighties and the nineties in LA. The largest group in all countries is the self-employed. However, its relative size has changed across countries. While the proportion of self-employed has increased in Bolivia, Brazil, Chile, Colombia, Honduras, Paraguay, and Venezuela, it has decreased in Argentina, Costa Rica, El Salvador, Mexico, Panama, and Uruguay. By the end of the nineties, the reduction of self-employment with a concurrent increase in the size of wage earners (of similar magnitudes) is readily seen in Mexico, Panama, and the Dominican Republic. The relative size of the domestic-service workers has not changed dramatically during the period.

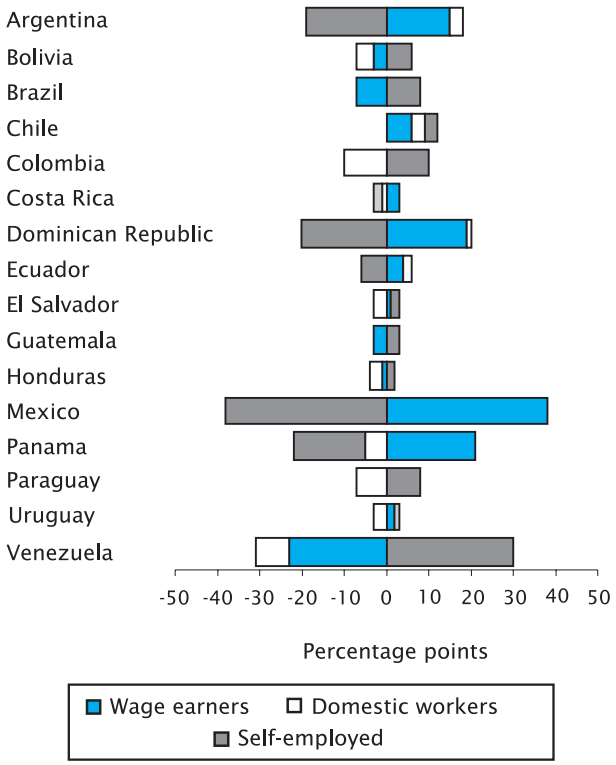
The Self-employed

Evidence from Argentina, Brazil, and Mexico has shown that some workers that previously held jobs and accumulated human capital in the formal sector voluntarily opened new businesses in the informal sector. There is also evidence from less-developed countries that suggests that middle-aged workers are more likely to enter self-employment than younger workers. This may be due to credit constraints: middle aged and older workers are more likely to have some savings to start their own business. Another causal factor can be that the large

[1] The volume edited by Heckman and Pages (2004) is a useful reference of this literature.

improvement in educational attainment in the LAC region means that young workers are much more educated than their parents, and thus it is more difficult for the latter to obtain formal jobs (due to lower levels of human capital).

Figure III.1
Latin America: Changes in the Composition of Informal Workers by Employment Position, 1980-1998



Source: Freije (2001).
Note: the data used to calculate the differences in the period correspond to 1980 and 1998 or the closest available years to these.Data for Mexico, Panama, and Dominican Republic have changes in coverage of small firms.Data for Argentina has changes in coverage of non-professional self-employed.

Blanchflower (2004) contains one of the most complete studies on self-employment around the world, and his conclusions are a useful reference for social security policy. It seems that in urban areas, the challenge of coverage is mainly an issue of extending coverage to small firms, which are dominated by the self employed, sometimes working alone and sometimes as "job-makers" for a few more persons.

The self-employed are not necessarily poor or disadvantaged, and the evidence shows that more persons would be self-employed if adequate financing were available. The issue of access to credit as determinant of self-employment has been researched by Blanchflower, Levine, and Zimmerman (2004) who find that in the United States there is evidence of discrimination against minority-owned firms. They find that minority-owned firms apply less often to obtain credit; when they apply, they are rejected more often, even after controlling for different characteristics of the firm, including credit history, and end up paying higher interest rates. Possibly, as a result of this discrimination in the credit market, self-employment is lower for minorities in the United States (Blacks and Hispanics).

Evans and Leighton (1989), and Evans and Jovanovic (1989) find that, in the United States, persons with more assets are more likely to go into self-employment; Blanchflower and Oswald (1998) find for the United Kingdom that self-employment is more likely for those who have ever received a gift or inheritance. Similar results are found in Finland, Canada, Australia, and others. Taxes are another important determinant of self-employment. For Canada, Shuetze (1998) estimates that a 30% increase in taxes leads to an increase in the male self-employment rate of between 0.9 and 2 percentage points, and for the United States his estimates range between 0.8 and 1.4 percentage points.

A common question is whether bad economic times lead to self-employment. The evidence seems to support the opposite conclusion, which is consistent with the view that workers are often liquidity constrained and therefore cannot enter self-employment. Blanchflower and Oswald (1990) find for the United Kindom that a strong negative relation holds between regional unemployment and self-employment: high unemployment is associated with low self-employment. This result is consistent with the view that a tight labor market (a low unemployment state) is associated with better opportunities for earnings as self-employed, and motivates workers to

leave their salaried positions to undertake a venture as small entrepreneurs.

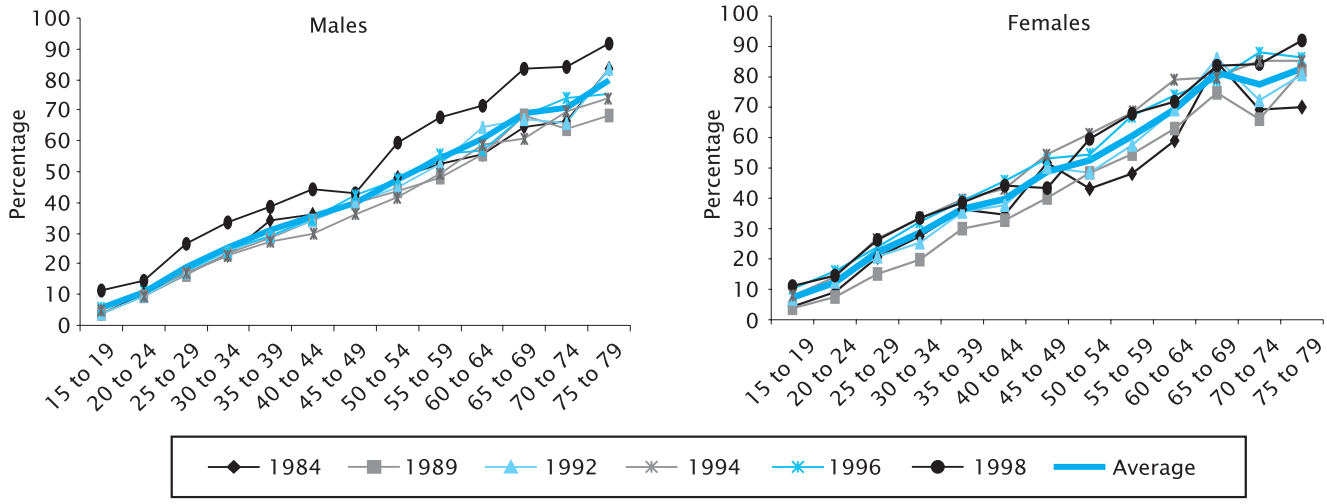
Institutional issues may affect the patterns of self-employment. The more educated are more likely to be self-employed in the United States, while in Europe the opposite relationship is observed. A more general result relates to the general wealth level of the country: with respect to this key variable, poorer countries have more self-employed (Greece, Turkey, Mexico, Korea, and Portugal in the Blanchflower study). Consistent with the relation to wealth levels, there is a global trend towards lower self-employment, but this result is largely due to increased urbanization and to decreasing employment shares in agriculture. On the other hand, several countries have seen a trend of higher non-agricultural self-employment rates (among them, Australia, Belgium, the Czech Republic, Iceland, Ireland, Mexico, New Zealand, Poland, Portugal, the Slovak Republic, Sweden, and the United Kindom).

In the United States and the European Union self-employment rises with age until around-retirement ages, and then declines. In the LAC area, there seems to be an even stronger relation between self-employment and age. Mexican data provide evidence on how self-employment grows with age (Figure III.2), a result that also holds in developed countries. In Mexico, most young workers are salaried but by age 50, half have become self-employed. This is a result of a combination of two effects. On one hand, as workers gain human and physical or financial capital, they move to self-employment; on the other, older workers separated from their jobs may be forced into self-employment if they are unable to obtain a job in the formal sector.

Small firms are sometimes seen as the engines of employment growth, but the evidence is not supportive of this conclusion. Davis, Haltiwanger and Schuh (1996) find that small businesses create many jobs, but also destroy many, and there is no evidence of net higher employment growth by small employers.

Black, Holtz-Eakin, and Rosenthal (2001) find that in the United States, self-employment by minorities depends strongly on the size of the minority population in the metropolitan area. This also seems to be consistent with the view that in the absence of liquidity constraints, more persons would move into self employment. On the other hand, self-employment is not more common in areas with more immigrants. However, it is not easy to generalize results across countries. For example, Clark and Drinkwater (2000) find that in England and Wales, self-employment is less likely

Figure III.2
Mexico: Self-employment by Gender, and Age, 1984-1998



Source: Data from ENIGHs (Encuesta Nacional de Ingresos y Gastos de los Hogares), for several years.

for minorities living in areas with a higher proportion of persons with the same ethnicity (this is the opposite of what is observed for the United States), and that Caribbean people have lower self-employment rates than Chinese or Indian people. For Australia, Kidd (1993) finds that immigrants from English speaking countries have lower self-employment rates than those that came from non-English speaking countries.

Another feature of self-employment that should be considered for policy design is that self-employment patterns are affected by abilities and entrepreneurial drive. Blanchflower, Oswald, and Stutzer (2002) find, in internationally comparable surveys, that a large number of persons express a desire to be self-employed. The self-employed often report high levels of job satisfaction, apparently due to the higher level of autonomy and flexibility, even when they also report higher stress levels. Williams (2003) finds similar results for Canada.

Informal Salaried Workers

The informal salaried workers have grown in importance over time in many countries. This group is mainly composed of young individuals with low education, non-remunerated workers, and women. It is a highly unprotected sector with high poverty levels. After finishing school, the young decide to participate in the labor market in order to get training and accept low-wages or non-remunerated informal jobs. The subcontracted professionals are another group of young informal-workers, though they may be ready (and willing) to work in the formal sector. In the informal economy, there seems to be a distinction between the self-employed and the salaried. The view that ascribes a relatively high productivity and an entrepreneurial bent to informal jobs seems more consistent with the actual tasks of the self employed in the informal sector, while the salaried workers in micro-firms are more often disadvantaged workers, with low education and abilities and little or no history of work in the formal sector.

The proportion of working women is larger in the informal sector than in the formal. They may prefer to work in the informal sector (as those who are married and have children), because they are able to find more flexible jobs. However, among those who are single and more educated there is a queue to enter into the formal sector. In fact, the group of women who are single and without children are over-represented in the formal labor market. Once again, to make informal salaried workers affiliate voluntarily into the formal sector new initiatives should be promoted, like special regimes for professionals and married women.

Choice of Participation in Informal Activities

Maloney (2003), based on micro-enterprise data, employment surveys, and econometric evidence finds that most informal workers in LAC voluntarily work in the informal sector . He defines the informal sector in developing countries as an unregulated micro-entrepreneurial sector. The fact that workers are voluntarily informal does not mean that they are free from poverty or hazardous environmental or social conditions, but only that they would not be better off in formal sector jobs given their qualifications and other characteristics. This fact is inconsistent with the view of the informal sector as a disadvantaged residual of segmented labor markets. The informal sector enterprises in LA (which employ between 30 and 70% of the urban work force) are those that are small-scale, semi-legal, low-productivity, and family-based businesses.

If informal sector workers prefer their present jobs to ones in the formal sector, their jobs must be at least of equal quality, measured along a broader set of characteristics. Being in the informal sector is often the appropriate decision given their preferences, the constraints they face in terms of their human capital, and the level of formal sector labor productivity in the country. Thus, informal sector workers may prefer to substitute formal sector-social protection for informal safety nets such as unregulated credit providers, health service networks

with informal arrangements for access and payment of services, and community groups for child care or for care of the disabled.

Other findings also contradict the view of the informal sector as being formed by disadvantaged workers. Often, workers voluntarily abandon jobs in the formal economy to reach some degree of independence and even higher earnings in the informal economy. According to Maloney (2003), more than 62% of self-employed men in Brazil do not want to join the formal sector, and in Buenos Aires, only 26% of the self-employed are looking for a formal job. As it was stated before, apparently, the behavior of these persons is similar to that found in the United States, where after a few years as salaried workers, many have saved enough and decide to become their own bosses. Under this light, the question posed to social security policy is why these persons decide to abandon the protection offered by social insurance programs.

The explanation seems to be some combination of: (i) the cost of contributions and the existence of alternative options to receive protection (including competing public programs for health and supplementary income); (ii) a design of social insurance programs that favor the extension of protection to all family members, regardless of their working status, or that favor entitlement to economic benefits with broken careers or diminished contributions due to redistributive goals; and, (iii) administrative models for collection of taxes and service provision that favor the treatment of large employers and permanent jobs, and face high costs and are ineffective to manage cases of small employers, self-employed, high turnover jobs, and migrants.

On the first issue, it should be clear that when the social security agencies offer low quality services, the interest of the self-employed to contribute is diminished. A related factor is that the workers in the informal economy have options, very often in the form of alternative public programs created to protect the uninsured. It is also common that the non-contributory programs compete with social security for the limited public budgets, further reducing the incentives of individuals to contribute.

On the second issue, social insurance rules contain discontinuities that reduce the incentives for contributions during the entire working life and that promote the under-declaration of taxable wages. Social security programs for health usually protect spouses and young children, and often also parents, older children and other dependents. For families with two or more earners, the contribution by one earner can be sufficient to provide coverage to all. Additionally, as some public programs state universality goals, they do not include restrictions for pre-existing diseases or accidents, and it is often easy for a family suffering an unexpected health shock to become affiliated after learning about the health problem. Similarly, in pension programs, higher implicit rates of return are provided to low wage earners and to workers with interrupted careers. However, a low reported wage and a broken string of contributions could be a consequence of the rules, as self-employed workers and micro-entrepreneurs pay the minimum number of periods necessary to optimize their personal welfare.

Finally, the fixed costs of enforcing the law are easier to cover in the case of mid-sized and large firms, and social security agencies can face big problems collecting from many micro-sized companies and the self-employed, which often do not have a permanent address and are highly mobile. New technologies allow a huge decrease in cost in the management of customer service and financial processes (including collection), but it is not clear that these will be enough. While this Report cannot discuss this administrative topic in great detail, it can be said that among the several changes that are in course are the adoption of customer service software applications that allow much cheaper and secure communications with small users in a decentralized setup. Social security agencies should

be accountable for achieving rapid change in their adoption.[2]

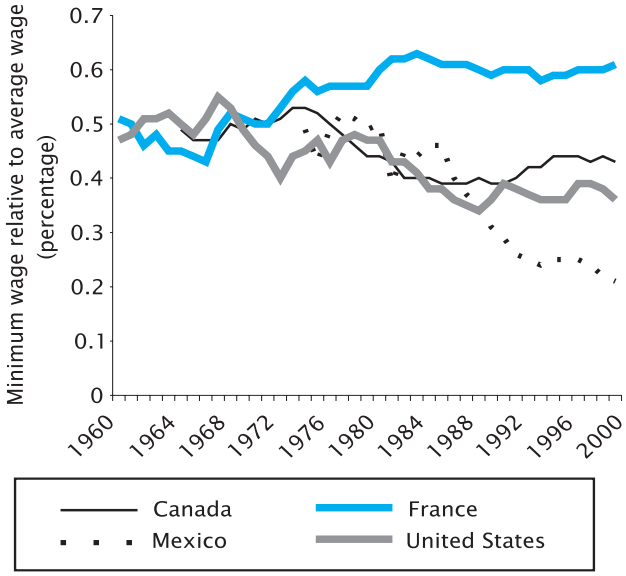
Income of Labor in Informal Activities

Do informal workers earn less? How can it be known what is the correct explanation of informality in a country? Several arguments say that a complete explanation for informality and lack of social protection can be a mix of factors. Some individuals decide to become self-employed once they accumulate human, financial and physical capital, and improve their earnings and wellbeing as they become micro-businessmen (usually, these workers are males). Others are in the informal sector because their skill level is too low or because their personal conditions and histories do not enable them to commit themselves to a full time job away from home. Among the latter group are more often youths, displaced older workers, and low-income women. A strategy to widen the social security net to the informal sector has to distinguish between these cases, searching for strategies suitable to each type of worker.

Policy-makers would gain from research that identifies the relative importance of each type of worker in order to be able to develop specific solutions to each case. For those that see in the informal sector a better opportunity place for improvement compared to the formal sector, the constraint to become affiliated to social security is not a lack of resources, but perhaps this group can be attracted by an improved administrative system for affiliation and collection that takes into account the interests of micro-firms, and a more flexible model to provide economic and health benefits. For those that see in the informal sector a last-instance option for survival, with low wages and defective work environments, it may have to be recognized that supplementary support programs are needed if they are to be included in the social protection network.

Wage differentials between sectors provide evidence on the factors that stimulate informality in a given labor market. If there is no segmentation, there should not be differences across sectors in the earnings of an individual, and wages (or the relevant contractual form of earnings) should be the same for the same skills and occupations. Thus, to develop a policy strategy, it is useful to look at surveys, census data and other evidence showing the behavior of wages across sectors. It is also relevant to consider that the characteristics of the labor market can change as a result of policy decisions. For example, Figure III.3 shows the evolution of minimum wages relative to average wages in France, Canada and the United States since the sixties. While France has followed a policy of high minimum wages, this parameter has fallen in the other two countries. Even though a detailed discussion on this piece of evidence is not a goal of this Report, it is clear that a decision to enforce a high minimum wage can affect employment decisions in the long run, as well as the behavior of unemployment and self-employment.[3]

Figure III.3
Ratio of Minimum Wage to Average Wage



Source: OECD, Labour Market Statistics - Indicators, several years. Available at: http://www1.oecd.org/scripts/cde/members/lfsindicatorsauthenticate.asp

[2] A recent compilation of success histories in the application of information technologies to social security processes is the report by the International Social Security Association (2004).
[3] Card, Kramarz and Lemieux (1996) contains an analysis of this issue.

Wage comparisons between sectors show mixed evidence. Pisani and Pagan (2003) argue that there is evidence of queues to enter the formal sector in Nicaragua, and that the queue has become more pronounced in recent years. However, their interpretation is that the informal sector is one of opportunities rather than a refuge for workers who will never be able to secure formal sector employment.

It is important to consider that wage differentials should account not only for monetary earnings but also for any other benefits associated with the job. In principle, if the formal sector includes monetary and other benefits, then monetary earnings of the informal workers would be expected to be above those of the formal workers in order to compensate them for the lack of benefits. Also, since self-employment is mostly composed of self-employed workers who start risky businesses one may expect higher incomes to compensate the risk. On the other hand, if the labor market is segmented these equilibrium outcomes may not hold, and informal workers will face disadvantaged regulations and unwritten rules for wages and employment that do not allow them to access jobs fairly. The net result of these forces, as well as the empirical importance of each, will typically vary across countries, all of which provide an additional argument to invest in data and research to find the better solutions in each market.

On average, wages are higher in the formal sector than in the informal sector. This can result from differences in the jobs and in the worker's characteristics between the two sectors, with a prevalence of lower average skills and lower productivity in informal jobs—mainly in the services' sector, and not necessarily because of segmentation into "good" and "bad" jobs.

When subgroups of formal and informal workers with the same skills and job position are compared in Mexico, there is no evidence of segmentation for the group of educated males with stable jobs in medium or large firms (regardless of whether they are salaried or self-employed); these informal workers are compensated for not having social security with more pocket income (Garro and Melendez 2004).[4]

The duality hypothesis was challenged by research that shows empirically that informal workers are not all disadvantaged in terms of monetary income, and that not all workers in the informal sector wait for opportunities to participate in the formal sector. Maloney (1999) analyzes these differences between sectors and rejects the existence of segmentation in urban labor markets using Mexican panel data. Workers in the informal economy do not earn in general less than comparable salaried workers. Furthermore, workers moving from a salaried position to self-employment sometimes experience substantial gains (25% in Mexico). When this has been observed, the movement in an opposite direction has similar effects, and those moving from self-employment to salaried jobs also may have increases in earnings. This result is consistent with a hypothesis of a labor market where workers move to the more productive placements.

For social security systems this result sends an important message: even if the national economy achieves a long term growth path, and the issues of inflexible labor market are solved, many workers will keep deciding to stay out of the social insurance network. This, of course, should not be interpreted as an argument against the modernization of labor codes, a policy that has goals that are not limited to improving social protection.

Another feature of national economies that supports the view of the informal economy as productive and not as a rationed and disadvantaged sector comes from the previously mentioned behavior of relative incomes and sizes of each sector in relation to the business cycle. In several countries, when the economy has moved from a recession to an expansion, the self-employment share has

[4] These workers represent, however, less than 10% of the informal workers in Mexico. In the rest of the groups under study wage differentials against the informal workers were found.

increased and the salaried share has contracted. This is the opposite of what would be expected if the informal sector were formed by rationed workers in disadvantaged positions. Similarly, the relative income of the workers in the informal sector increases when the real exchange rate appreciates (that is, when the prices of services, real estate, and other non-tradable goods grow relative to those in other countries). The informal sector is concentrated in the non-tradable sector, and the growth of its employment and wages during exchange rate appreciations, points to a rapid and strong response of workers who move to the more profitable sector. This behavior has been documented for Mexico by Maloney (2001), and is also described by Pessino (1997) for Argentina during the period of stronger liberalization and appreciation of the exchange rate –during the first part of the nineties.

Box III.I
Unemployment Trends across Regions in the American Continent

Population growth has been associated with generalized increases in participation rates in the Americas. Thus, not only are many more persons reaching working age, but also a higher proportion of them are working. How have labor markets dealt with this increasing labor force? There has been an increase in unemployment in the LAC region which cannot be explained only by demographics. As can be seen in the following Table, during 2001-2003 LAC has become one of the regions in the world with the highest unemployment levels. In 2001 total unemployment in LAC (which has been higher for women) was almost 50% higher than the average in the world. These figures improved in 2003 as LA was the only region where total unemployment decreased. On the other hand, during the nineties labor supply and labor demand in Latin America grew at average rates of 2.6 and 2.2%, respectively (ILO 2001). The explanation to these labor market unbalances relates to how many jobs have been created, the development of labor market institutions and macroeconomic performance in the region.

Changes in GDP growth rates and urban unemployment rates in LAC for the period 1980-2000 are shown below. Two epochs of high unemployment seem to be revealed, each with a different relation to the business cycle. At the beginning of the eighties urban unemployment grew in LAC, probably as a consequence of the debt crisis; this first period occurred under generalized stress and low growth. There was a recovery between 1984-1989 and from then on there has been an increasing trend in urban unemployment; this second period coincides with high growth rates of the national economies in the early nineties, and the trend does not seem to be particularly affected by the monetary crisis of 1994-95 in Mexico or 2001 in Argentina, although higher rates of GDP growth correspond to somewhat lower unemployment rates. However, there is no strong correlation between economic growth and unemployment.

Unemployment Rates by Region and Sex, 2001-2003
(percentages)

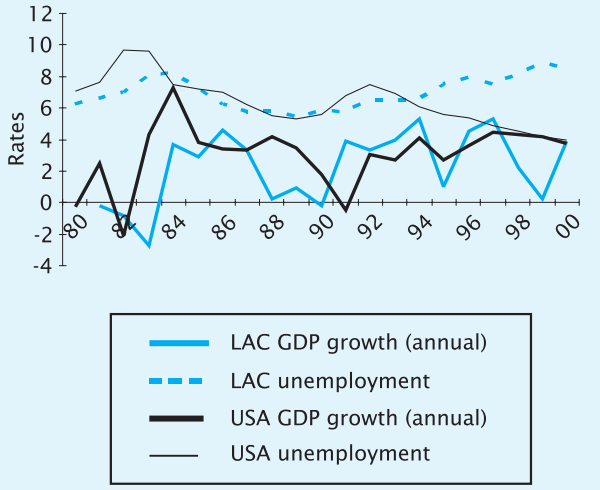
	2003		
	Total	Female	Male
World	6.2	6.4	6.1
Industrialized economies	6.8	7	6.7
Transition economies	9.2	9.2	9.2
East Asia	3.3	2.7	3.7
South East Asia	6.3	6.9	5.9
South Asia	4.8	6.2	4.3
Latin America and the Caribbean	8	10.1	6.7
Middle East and North Africa	12.2	16.5	10.6
Sub-Saharan Africa	10.9	9.6	11.8

Source: ILO (2004).

Box III.I (continued)

Unemployment Trends across Regions in the American Continent

Latin America: Trends in Economic Growth and Open Urban Unemployment in the 1980's and 1990's



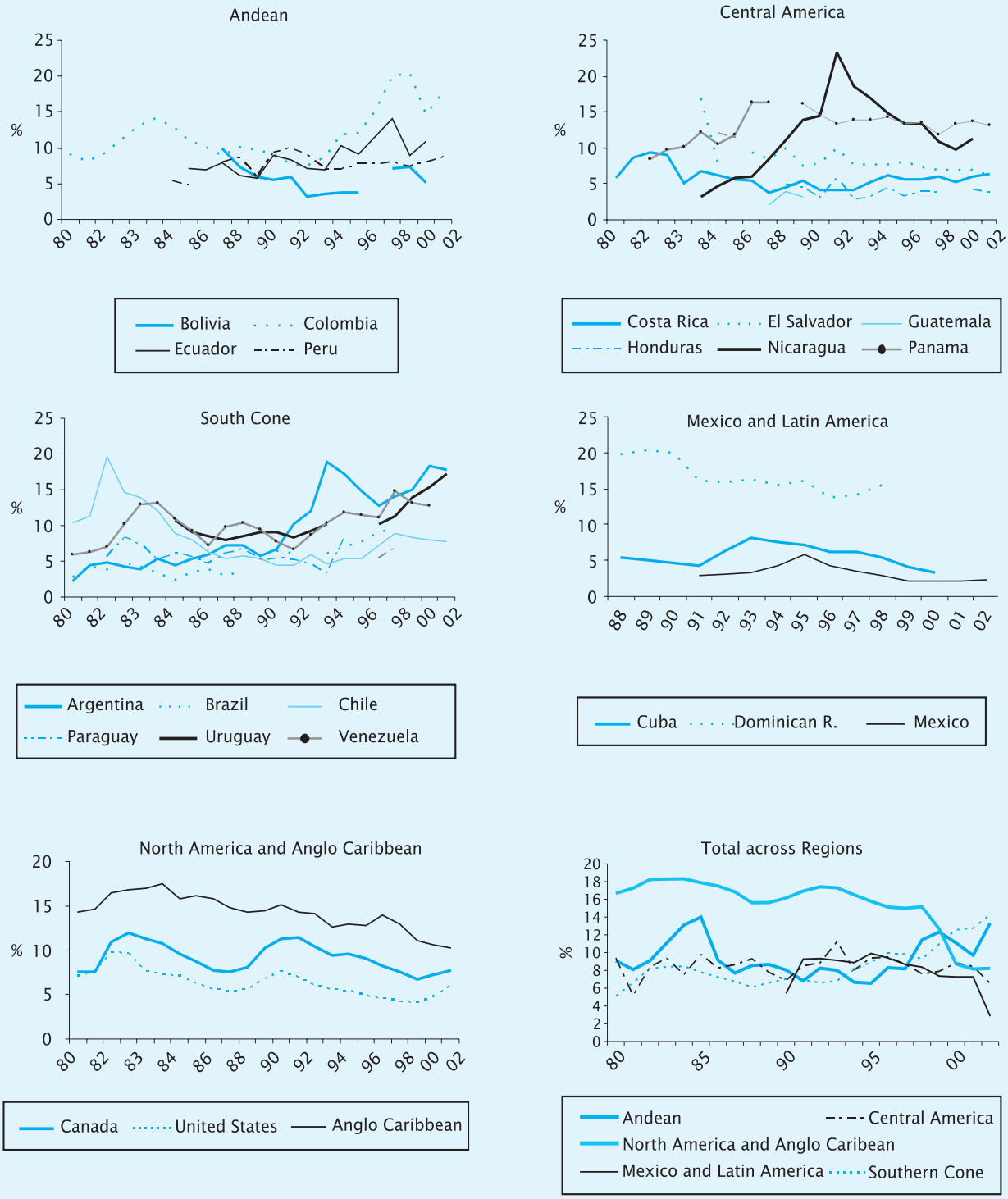
Source: ECLAC 2000-2001 (2001) and World Bank (2004).

The understanding of this new high levels of unemployment, the evaluation of its social implications, and the finding of the best policy responses are one of the major economic challenges for the LAC region. Is this a trend towards a "European-model"of unemployment? Interestingly, there has been a declining trend in both, male and female unemployment over time in the region formed by Mexico and the Latin-Caribbean. Panels in Figure describe total unemployment rates over time and across regions. North-America and Anglo-Caribbean region have experienced higher total unemployment rates (around 4 to 7% points higher) compared with the rest of the continent until 1999 when the Andean and the South-Cone regions reached levels of about 14%. The region formed by Mexico and the Latin Caribbean is a low unemployment area, at around 2% (except for Dominican Republic).

The relation between growth and the need for labor adjustment cannot be better illustrated than by the current debate on the "jobless" recovery, which has ocurred between 2000 to 2004. After a recession that began around the summer of 2000, national product began growing in 2001 at an important rate in the United States, but employment had not recovered by 2004. A very similar result was observed in Mexico (although there, the economy began recovering at a later date). Groshen and Potter (2003) have argued that the result is due to a large concentration of structural changes, defined as permanent changes in the distribution of workers across economic sectors. They find that during the previous recessions, layoffs determined most of the variation in employment, but in 2001 the loss of permanent jobs was larger. Another difference in the 2001 recession is that industries that lost employment kept losing it after the recovery began, which suggests that the structural adjustment continued after the economy was recovering. It is becoming generally accepted that the huge growth in productivity of the United States is linked to the "jobless recovery". Between 2001 and 2003 the growth in productivity reached 4%, after being 2.6% during 1996-2000, and less than 1.5% in the previous quarter century. This means that firms were capable of increasing their production in 10% without hiring new workers or increasing hours worked per week (Feldstein 2003). In the long run, expenditures by households will increase to reflect the higher level of wealth generated by productivity, but in the interim, many households are affected.

Box III.I (continued)
Unemployment Trends across Regions in the American Continent

Total Unemployment by Region (% of total labor force)



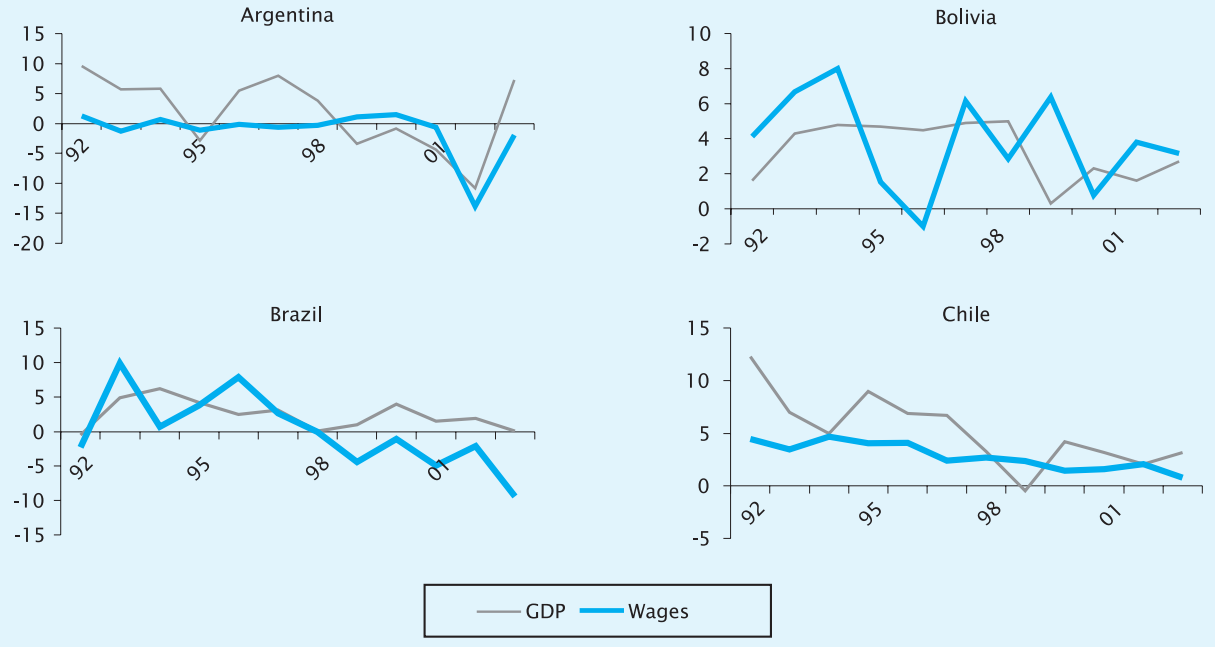
Source: World Bank (2004).

Box III.2
Wage Trends in Latin America and the Caribbean

Wages are probably one of the best indicators of individual welfare. In Latin America, there have been recurrent monetary crises since the seventies, which often come together with temporary loss of employment and falls in real wages. These wage contractions have also had consequences for the functioning of social security. Individual social security contributions and benefits are clearly related to wages as they are usually defined as a proportion of the salary. Regarding benefits, pensions depend on the wages earned during the work life (or part of it, regardless of whether it is a defined benefit or a defined contribution scheme). Moreover, wage contractions might generate a number of problems for social security institutions due to the loss of revenues, increasing pressure to pay benefits, and to the lack of adequate indexation against inflation. As income and benefit rules are often not fully indexed, distortions between the value of pensions and loss of benefits may be created. These increase social pressure and defeat the goals of social security systems. Thus, social security, workers and beneficiaries have as a long term interest a stable monetary environment.of.

Changes over time in wages are presented for thirteen LA countries. These graphs show changes in the growth of real annual wages (the bold line) and GDP. Large wage variability remains an important issue for the residents in these countries. While monetary crisis have become less common, it is still a very valid recommendation to design rules for the calculation of initial pensions that duly protect workers whose retirement is timed with period of negative wage growth, and indexation rules that preclude a sudden fall in the purchasing power of retirees. For example, there were falls in wages in Argentina (2001-2002), Colombia (1993-1994, 1997-1998), Costa Rica (1993-1995, 1998-2000), Mexico (1993-1995), Nicaragua (1992-1993, 1994-1996), Paraguay (1995-1999, 2001-2002), Peru (1994-1995), Uruguay (1993-1995, 2001-2002) and Venezuela (1995-1996, 1997-1999). Some of these countries were particularly hit by the crisis of 1994-1995 (Mexico, Bolivia, Costa Rica, Nicaragua, Paraguay, Peru, Uruguay and Venezuela). In a number of cases wage growth contractions have been of the order of 20% in just a couple of years (Mexico, Nicaragua, Peru and Venezuela)

Latin America: GDP and Average Real Wages (annual growth rates)



Box III.2 (continued)
Wage Trends in Latin America and the Caribbean

Latin America and the Caribbean: GDP and Average Real Wages (annual growth rates)

Source: ECLAC (2000 and 2003).

III.3 The Effect of Institutions and Liberalization on Labor Market Outcomes

This Section analyzes the effects of payroll taxes, employment regulations, unionization, unemployment insurance, minimum wages and trade liberalization, and privatization policies on labor market outcomes such as employment, wages and informality. The first part considers labor market institutions and the second, trade liberalization and privatization policies.

III.3.1 Labor Market Institutions and Informality

The role of state intervention has been modified with the economic reforms analyzed in Chapter I of this Report. It was seen there that labor market interventions in LAC have been less common than reforms in other areas. In spite of the strong debates about the optimal degree of contractual restrictions that should be legislated in the labor markets, there is a consensus that labor markets do not function well without appropriate labor market institutions.[5] These restrictions typically include standard rules such as safety provisions, child labor prohibitions (see Box III.3**),** freedom to organize, as well as general regulations like taxes and subsidies on labor, established days and hours of work, minimum wages, and social security programs. Pessino (1997), Amadeo and Camargo (1997), Cortázar (1997), Lora and Henao (1997), and Dávila (1997) provide a description of labor markets and institutions in Argentina, Brazil, Chile, Colombia, and Mexico, respectively.

Payroll Taxes

While changes in labor codes tend to be infrequent events, changes in the level of contributions to social protection programs—such as pensions, health, unemployment subsidies, family allowances, occupational health and safety, maternity and sick leave, overtime, and vacations—occur quite often. Important processes of reform have been underway in LAC since the early 1990s, which have transformed pay-as-you-go systems into full or partial capitalization systems in an effort to increase the link between contributions and benefits. The level of the social security contributions as a function of per capita income in LA countries have an inverted U shape. It is low for the poor countries, reaches a peak for the middle countries and falls for high income per capita countries (Heckman and Pages 2004).

Daniel Hammermesh (2004), an economist who has studied extensively the determinants of employment by firms, believes that there is a lot of uncertainty regarding the estimates of the response of employers to changes in wages and labor taxes. Nevertheless, the evidence in LA countries as a whole suggests that at least part of the cost of non-wage benefits is passed on to workers in the form of lower wages, therefore mitigating their negative effects on employment. Heckman and Pages (2004) find that to the extent that minimum-wage regulations bind and if it is easier for a worker to move to informal jobs, it is more difficult to pass the cost of social security programs in the form of lower wages and the negative effect on formal employment would be larger unless workers perceive a link between the costs and the benefits of such programs. At the aggregate levels, these authors find that the intended increase in the link between contributions and benefits by the reforms shows mixed results.

Employment Regulations

Studies have shown that in Latin America employment regulations have a substantial impact on wages, employment, turnover rates, and informality. The most adverse impacts of regulations are on young workers, marginal workers, and unskilled workers. Also, insiders and entrenched workers tend to benefit from regulations. Outsiders, however, do not have access to the system and are therefore adversely affected by these regulations. The differential effects of regulations on insiders and outsiders may lead to increased inequality (Heckman and Pages 2000, 2004).

[5] See Blanchard (2002).

Box III.3

Labor Market Regulations: the Prohibition of Child Labor?

Children laboring in hazardous work and sacrifying education are issues of large concern to contemporary societies. Basu (1999) suggests that changes in technology, improvement in the conditions of the adult labor market, and the availability of decent schooling can all lead to children being voluntarily withdrawn from the labor force. If such actions are not feasible, then governments could intervene through legal actions. The evaluation of the determinants of child labor should consider both economic and cultural factors.

According to estimates released in April 2002 in *Every child counts: New global estimates on child labor* (ILO 2002), there were some 352 million children aged 5 to 17 working in 2000, with 211 million children between the ages of five and fourteen years, 48 million in Latin America and 17.4 million in the Caribbean. Estimations of the ILO suggest that if those who do part-time work are included, the numbers more than double. Many Latin American children work in poor rural areas, especially in labor-intensive activities such as coffee growing or picking fruits and vegetables. An important policy question is whether a legislative intervention to prohibit or restrict this work promotes welfare. Any kind of child labor intervention can have an effect on the well being of children and also a spillover result on others. Sometimes their economic contribution plays an important role in the family's income. For example, Latin American surveys suggest children may sometimes earn from 15 to 25% of family income. Working children may ameliorate poverty in the short-term by raising family income, but can bring about poverty in the long term if children sacrifice education for work. However, many have access to low quality schools. Issues closely related to poverty contribute to inefficient low levels of schooling (Brown 2001).

In order to increase the children's incentives to attend school instead of working, several public programs have been implemented in different countries. For example, the "Oportunidades" (before PROGRESA) program in Mexico started in 1997 to subsidize poor families (mainly in rural areas). Families must send their children to school and visit health care providers to receive cash and in-kind transfers. In 2000, some 2.5 million rural families received benefits, about a ninth of all families in Mexico. The reduction observed between 1997 and 2000 of boys laboring in pay worked was between 15 to 25% and 10% in domestic work for girls. Parker and Skoufias (2000) show that among children who only worked, considerably fewer continue to only work (especially secondary students), and also significantly more only study and more now do both activities.

Programs to support children leaving work can be integrated usefully with social insurance programs, taking into account parental income and work, optimizing public expenditure and providing families with a long term view of integration to the national labor markets

In general, many LAC countries have more rigid labor regulations than other regions in the world (Table III.1). In the Table, each of the indexes takes a value ranging from zero and one hundred, where a higher value means more stringent regulations.

These indexes measure the level of hiring flexibility, employment conditions, and severance flexibility in labor regulations. The hiring flexibility index includes regulations for part time contracts and all benefits for workers. It also incorporates how easy or difficult it is to fire a temporary worker compared to an employee on a full time contract. Regarding fixed term contracts, the index includes rigidities in the kind of work to be carried out and the length of time working. Countries in LAC have the highest value of this index.

The employment conditions index covers restrictions regarding working days, time off from work, overtime pay, holiday restrictions, night work schedules, compulsory payment for non-work time, payments for days absent, regulations for minimum wages, and all constitutionally-guaranteed labor conditions. The employment conditions index in Europe is greater than the index in LAC.

Table III.1
Labor Regulations Index

Region	Hiring flexibility	Employment conditions	Severance flexibility	Employment regulations
East Asia and Pacific	45	60	30	45
Europe and Central Asia	52	81	39	57
Middle East and North Africa	40	66	35	47
OECD	49	58	28	45
South Asia	39	68	39	49
Latin America and Caribbean	56	79	48	61

Source: Botero et al. (2004).
Note: Each of the indexes takes a value ranging between zero and one hundred, where a higher value means more stringent regulations.

The severance flexibility index measures regulations regarding firings, including the rights of workers, advance notice, payments, and other similar regulations. The employment regulation index is an average of the other three. The highest value for this last index is for LAC region, followed closely only by Europe and Central Asia. One should note, however, that the indexes are based on legal regulations. The regulations themselves generate a high level of litigation, partly due to the high cost of the court system and partly due to a built-in error of the regulation. Also, all or some of them are ignored by LAC informal labor markets.

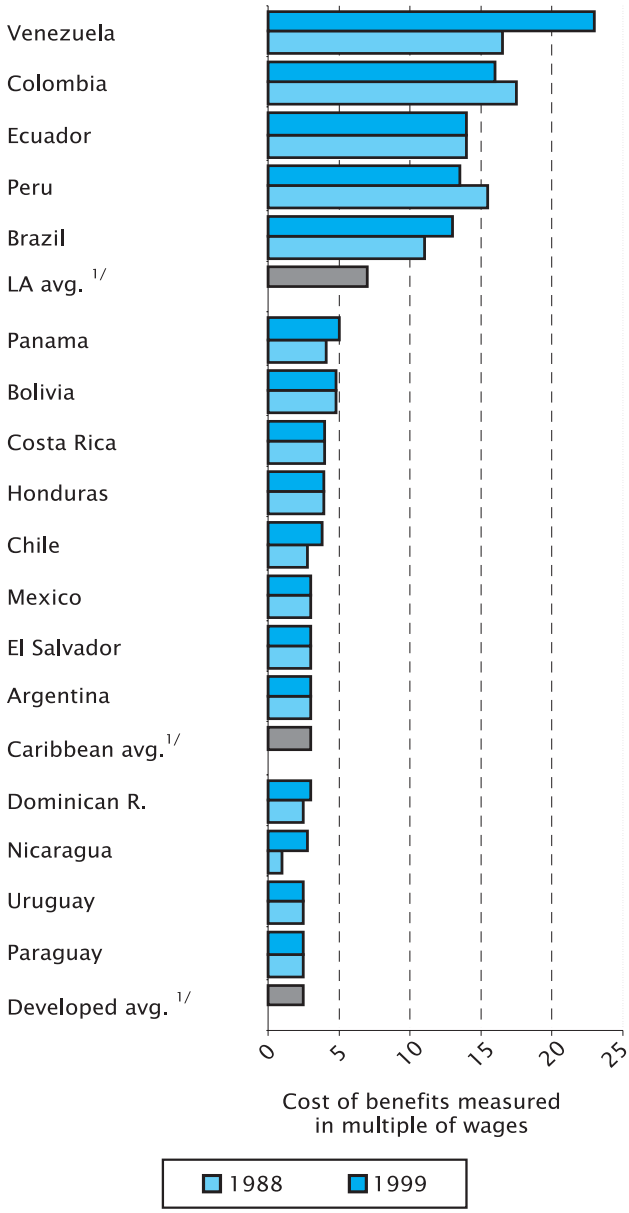
Heckman and Pages (2004) estimate the cost of complying with labor laws as a fraction of average monthly wages. The job security total cost includes the corresponding cost of social security payments paid by employers and employees plus the cost of abiding by job security provisions. This last part of the cost includes the payments of dismissing a worker for economic reasons: advance notice, indemnity, and seniority pay.

The United States has a lower job security cost than any LAC country. Once all costs are aggregated, labor laws impose a much larger cost in OECD countries than in LAC countries. However, the composition of these costs is quite different. While the typical LA country mandates lower social security contributions and advanced notice periods than the average OECD country, indemnity and seniority pay are higher in LAC. Low-income countries tend to have labor regulations that affect adjustment in employment and wages in the labor market. The authors emphasize that by imposing these regulations on the firms, central governments in LAC countries avoid the direct fiscal cost of financing job security albeit at the cost of affecting their labor market performance; this seems to be the strategy of low-income regions.

As can be seen in Figure III.3, the average cost of job security provisions —including advance notice, indemnity and seniority pay—is greater in LA than in the developed countries and the Caribbean region in 1999. These costs do not change significantly between 1988 and 1999 in most LAC countries.

The effects of higher costs of dismissal in LA in the business cycle are: (i) increases in employment during a recession; (ii) decreases in employment in positive final demand shocks; and (iii) decreases in turnover rates. The empirical evidence on the average effect of these costs on employment and unemployment in the region is ambiguous with no clear pattern emerging from the aggregate statistics. When particular countries are analyzed there is a clear tendency that says that after a legal reform that increases the costs of dismissal, there is a decrease in employment and an increase in unemployment, especially at the time of the reform—as in Peru in the late eighties. Also, in legal reforms that deregulated the costs of dismissals—like Colombia in 1991—

Figure III.4
The Cost of Job Security, 1988 and 1999
(cost of benefits measured in multiples of monthly wages)



Source: Heckman and Pages (2004).
Notes: Cost of job security includes advance notice + indemnity for dismissal + seniority pay. Costs of benefits measured in multiples of wages. 1/ Average for Latin American, the Caribbean and Developed countries are for 1999.

estimations suggest that the positive impact of reduced labor costs on hiring outweighs the negative impact of reduced severance costs on firing, resulting in a decline in unemployment rates. The statistical precision of the estimations depends greatly on the quality and the level of aggregation of the data set and on the control of other contemporary changes in the economy.

Across LAC and OECD countries, more stringent labor regulations coincide with a larger percentage of informal self-employed workers—with an over representation of women and unskilled workers relative to other demographic groups—, and with reduced employment rates of young workers and unskilled workers in the formal sectors. Additionally, the high turnover firms have incentives to operate in the informal sector and to keep their sizes inefficiently small (Marquez 1998; Heckman and Pages 2004).

Reducing job security regulations produces high turnover rates and greater flexibility in labor markets. In Colombia, such a change reduced the average tenure and produced a decline in the average duration of unemployment along with an increase in the entry rate to unemployment. The increase in the entry rate in unemployment can be attributed mainly to the higher use of temporary contracts and less to the loss of permanent jobs in the formal sectors. The increase in temporary contracts may produce a reduction in the training investments on workers and therefore on the workers' productivity in the long run (Heckman and Pages 2004).

In contrast to the Colombian experience, the cost of dismissing workers was increased in the 1988 legal reform in Brazil. As a consequence, the employment exit rates declined in the formal sector relative to the informal sector for short employment spells—two years or less—but increased for longer spells because there is an incentive to force dismissals for workers with longer tenures. Over all, the experiences of Colombia and Brazil provide evidence that dismissal costs and other employment protections reduce worker reallocations in the labor markets, in the form of reducing layoffs and lower quits (Heckman and Pages 2004).

It should be noted that, even though there are inflexible labor regulations, labor turnover is high in LAC countries. Certainly the cost of inflexible labor

regulations probably does not lie in the ability of national economies to assign persons to jobs. Job tenure in Mexico is low, about half of the OECD average figures: in an interval of six months, 26% of the unskilled and 9% of the skilled leaves the job, and 85% of those movements are quits, not fires. It is also estimated that the average job lasts for 5.5 years in Mexico, compared with 7.6 years in the United States (Maloney 2001).

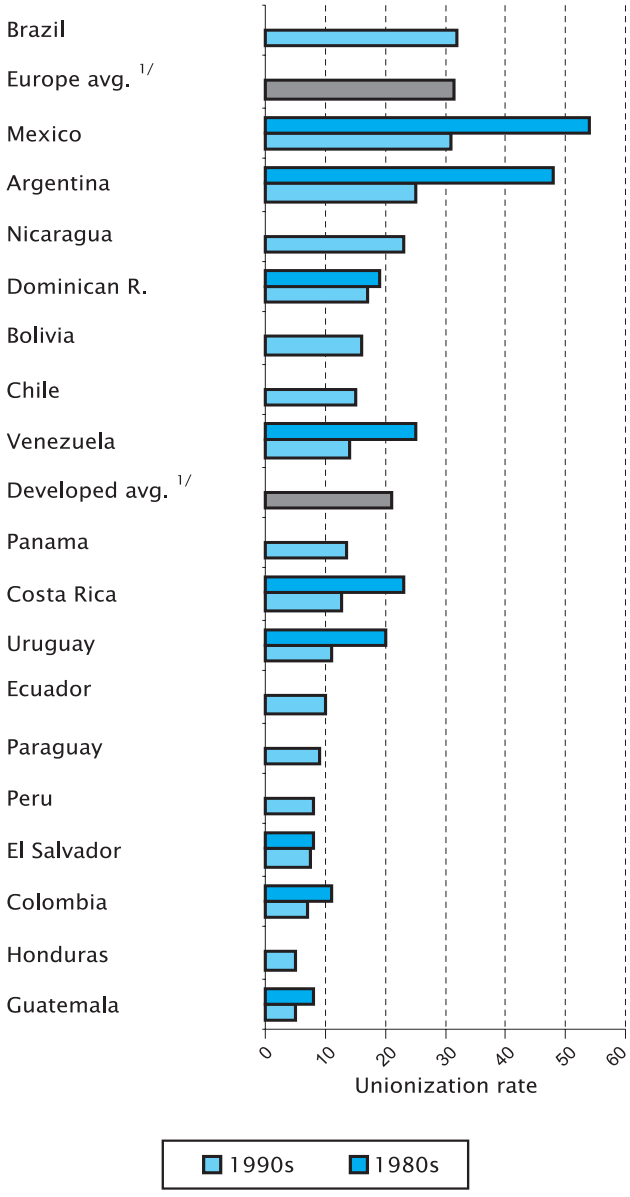
Unionization Rates

Unions in LA countries tend to be firm or sector-based and are relatively small. The unionization rates (percentage of members as a percentage of non-agricultural employment) in these countries are around 14%, lower than the unionization rates in the Continental Europe and English speaking developed countries, where they reach levels above 30% and 20%, respectively. Figure III.5 shows unionization rates in the 1980s and the 1990s. As can be seen, these rates have declined in all of the countries of the region, up to 40% in some countries of LAC. During the nineties, unionization rates in LAC ranged between 5% and 30%. Countries in the LAC region show a lower level of unionization than the countries in the Continental Europe (except Brazil and Mexico) and than the English speaking developed countries (except Brazil, Mexico, Argentina, and Nicaragua).

According to Pencavel (1997), union gains in the developing countries have affected other workers' labor outcomes such as employment, wages and informality. The author distinguishes between three occupational sectors: the unionized, the one with administratively determined wages, and a sector in which wages are determined by market forces. When wages in the unionized sector rise there are wage increases for some other high-skilled workers, a reduction in employment in the unionized and administered wage sector, and reductions in wages in the competitive—mainly informal—sector.

However, it should be noticed that there is some evidence from Peru and Mexico that suggests that the unions do not affect the level of wages of their affiliated workers. Unions therefore do not lead to segmentation due to wage differentials; but instead produce the so-called numerical control on jobs (Pencavel 1997; Hernandez 2000). In addition, IMF (2003) shows that unionization in LAC increases unemployment; also, Heckman and Pages (2004) find a strong adverse impact of unionism on employment in Uruguay.

Figure III.5
Unionization Rates, Eighties and Nineties



Source: ILO (1997).
Notes: Unionization rate is measured by the percentage of affiliated workers among the non-agricultural workers.
1/ The averages for the developed countries and the European countries correspond to the 1990s.

Unemployment Insurance

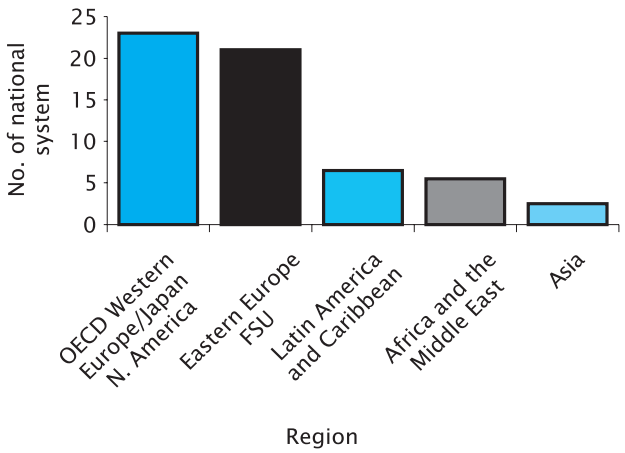
Unemployment protection can take different forms. There are income support programs in the form of: (i) defined benefits with the condition of previous contributions; (ii) defined contributions based on individual accounts; and (iii) means-tested programs usually financed with general taxes. Also, there are active programs designed as temporary public jobs, training subsidies, and wage subsidies. Individual accounts as part of unemployment insurance are less common but have been recently implemented in Chile. Means-tested and active programs are usually non-contributory and short-term programs.

Unemployment insurance is an income support program with defined benefits and subject to previous contributions by the worker, the employer, and the state. As of the year 2002, few countries in the Americas had implemented labor regulations on unemployment insurance. The only countries that had implemented these reforms were Argentina, Barbados, Brazil, Chile, Ecuador, Uruguay, and Venezuela (Vodopivec 2002). Most of the regulations include all unemployed workers, with some exceptions. For example, in Uruguay, only unemployed workers from the industrial and commerce sectors are included; in Venezuela, unemployed domestic and temporary workers are excluded, and in Barbados, unemployed workers from the public sector and the self-employed are excluded.

Figure III.6 shows that, outside Eastern Europe and the Former Soviet Union (FSU), unemployment insurance programs are extremely rare in the developing world with only six programs in Africa and the Middle East, three in Asia and, seven programs in Latin America and the Caribbean (Mazza 2000).

Labor informality is an obstacle to the operation of unemployment protection systems due to the low rate of coverage. For example, in Argentina, which has had two digits rate of unemployment, the coverage of the unemployment insurance, even in a good year for the police, is less than 10% of the unemployed (Islas 2002). Also, the risk of abuse or moral hazard increases if unemployed workers find a job in the informal sector and continue to collect unemployment benefits. This behavior is not easy to detect by the insurance system and may become a huge financial burden and lead to an inefficient resource allocation. In a highly informal labor market, unemployment insurance will rarely get to poor workers because they tend not to contribute to the system. Furthermore, a strong component of state contributions to the insurance policies would entail a regressive use of public resources because of the limited impact on the protection of low-income workers.

Figure III.6
Unemployment Insurance System by Region



Fuente: Mazza (2000).

The possible consequences of unemployment insurance on informality can be summarized as two competing effects: (i) the possibility of having access to additional benefits might attract new workers to the formal sector and (ii) an additional contribution rate raises the costs of labor, increasing the benefit of informality if such contribution is seen as a tax (Islas 2002).

A subject of particular importance is whether and how to cover the often unemployed youth in LAC since an insurance without training or other employment assistance can have adverse effects on the young who have not yet established initial work skills and habits.

Income support programs should increase the incentives of the unemployed to search for jobs. These programs should not produce the opposite incentive: it may be more attractive to collect unemployment benefits than to seek a new job (Hopenhayn and Nicolini 1997). In this sense, it is important that the income supports decrease with the duration of the unemployment. The decreasing path of benefits is contemplated in Chile, where the first benefits are the severance payments from the firm—three months in any case—followed by the compulsory savings in the individual worker account—with employer, employee and state contributions, the unemployment insurance—paid by the employer and the state, and finally by the social assistance benefits paid with general taxation (CIEDESS 2002).

The job security provisions in the form of indemnity and seniority payments are also thought of as an income support protection in the case of firing and likely unemployment. Usually, unemployment insurance and the latter protections reinforce each other. At certain point, however, they compete with each other in a manner that generates inefficiencies. In principle, severance payments and compensation for unjust dismissal have different objectives from those of unemployment insurance, but in practice they seem to act similarly in that they all provide cash benefits to workers when they are laid off from employment. While job termination payments and unemployment insurance serve distinct objectives, both occur together in practice. Since severance payments are funds received upon firing, they do help cushion a worker's loss of income in the immediate period following unemployment even if that is not their primary purpose.

Islas (2002) emphasizes that unemployment insurance may be used as a tool to accomplish the goal of protecting workers without incurring the costs of severance compensation based on seniority. Additionally, unemployment insurance gives more flexibility to the labor market because job adjustments and worker mobility are facilitated. In a time of trade liberalization, unemployment insurance seems to be a more appropriate policy than indemnity and severance payments. Another consideration is brought by Cox Edwards (1997) who argues that if in the developing countries the severance payment system is reformed to become a contribution-defined fund, a national insurance scheme would not be necessary.

Minimum Wages

Labor regulations on minimum wages are set according to national policies, possibly with the goal of alleviating poverty. Changes in the level of minimum wages occur quite frequently in most countries, but incomplete coverage, weak enforcement, and a priority of government policy to keep low inflation rates can prevent the achievement of the policy goals. It may be the case that when minimum wages increase real wages in the covered or formal sector, displaced labor will search for employment in the uncovered or informal sector, driving down wages in that sector. In this case, the minimum wage policy will have a small impact on poverty in the developing countries. However, other authors conclude that if the increase in the formal wages due to an increase in the minimum wage cannot be passed along through prices, some formal firms will move into the informal sector driving up not only informal employment but also the informal wages. Then, the final effect of raising minimum wages on poverty, as Lustig and McLeod (1997) conclude, is really an empirical issue that mainly depends on the behavior of the formal sector demand for labor. A description of minimum wage policy in the Caribbean is summarized in Box III.4.

Figure III.7 compares minimum wages as a fraction of mean wages for several countries in LA and the OECD. The lowest ratios are in Latin American countries. In Colombia, Peru, Mexico, Chile, Argentina, Brazil, Bolivia and Uruguay, the minimum wage represents less than 40% of the average wage in the nineties.

High levels of minimum wages may be quite burdensome and, as a result, they may reduce employment and restrain downward wage movements in the presence of adverse demand shocks, and can induce an important share of small

firms to move to informality. Also, higher levels of minimum wages are accompanied by a higher percentage of earnings below the statutory minimum (as is observed in Venezuela, El Salvador, Paraguay, and Honduras). Countries with lower levels of the real minimum wage, such as Uruguay, Bolivia, Argentina, Chile, Colombia and Mexico, have lower

Box III.4
Minimum Wages in the Caribbean

The Table below shows the minimum weekly wages in various English speaking Caribbean countries in 2000. It is clear that the minimum wage is not uniform among the countries in the region. The minimum weekly wages vary widely from country to country, with Jamaica having the lowest figure of about US$13 and British Virgin Islands with the highest weekly payment of US$360. There are also minor variations in the maximum length of the workweek.

In some countries like Antigua and Barbuda the minimum wage has not been revised since 1981. Although the actual average wage rate paid in this country is way above the minimum this is still of some concern since it exposes labor to the risk of reduced wages in times of economic hardship. Given the fact that employers are only mandated by law to pay the low and outdated minimum wage, some employees may suffer even in times when the economy is growing as firms attempt to become more competitive by cutting costs and reducing the total wage bill.

In most countries the minimum wage only offers to an individual a subsistence lifestyle given the high and rising cost of living in the region. Given high unemployment and fiscal resource constraints it is difficult to enforce minimum wage regulations, which are already too low. Unemployment reduces the bargaining power of employees in the labor market as the employer always has a pool of people able and willing to work to choose from. Fiscal deficits mean that governments would have to commit resources, which are already scarce, to enforce mandated minimum wages. Despite this, the minimum wages should be updated and increased more regularly and they should probably be indexed to the CPI (consumer price index) to ensure that the real payment to labor in the region is not depleted over time.

Minimum Wages in the Caribbean, 2000

Country	Minimum a/ weekly wage (US$)	Minimum weekly wage (local$)	Number of hours and length of stipulated work week	Year last revised
Anguila	70.07 b/	189.20 c/	44	1995
Antigua & Barbuda	106.56	288.00	48/6 day	1981
Aruba	187.96	508.05	N.A.	1995
Bahamas	233.68	233.68	48	2000
Barbados	30.00	60.00	40/5 days	1997
Belize	39.15	78.75	45/6 days	1993
Dominican R.	22.40	60.00	40/5 days	1989
Grenada	24.00	65.00	40/5 days	1990
Guyana	26.00	4750.00	44/8hrs per day	1999
British Virgin Islands	360.00	360.00	8 per day	N.A.
Jamaica	12.95 d/	800.00	40	1996/97
St. Kitts and Nevis	56.18	150.00	40 - 44	1994
St. Lucia	75.00	200.00	40/5 days	1985
St. Vincent and the Grenadines	18.40	50.00	40/5 days	1989
Trinidad and Tobago	44.00	280.00	40	1998

Source: ILO and US State Department (2000).
a/ The minimum wage reported here represents in most cases that payable to domestic workers with accommodation. In all cases it represents the minimum wage payable to the lowest paid category of workers.
b/ An Exchange rate of EC 2.70= US 1.00 used to compute this figure.
c/ A basic week of 40 hours assumed here and in the case of Aruba.
d/ An exchange rate of J $61.79 =US $1.00 is used here. This is the rate available on BOJ website at the time of writing. In all other cases explicit conversions to US$ were not done.
N.A.: Not avaible.

Box III.4 (continued)
Minimum Wages in the Caribbean

Downes, Mamingi y Belle Antoine (2004) evaluate the impact that labor regulations have over job creation in three countries in the English-speaking Caribbean (Barbados, Jamaica, and Trinidad and Tobago). Researchers take as labor regulations a set of economic, social and judicial measures that affect the outcomes and the behavior of the labor market. These regulations cover the following areas: (i) establishment and protection of the workers' rights, (ii) protection of vulnerable groups, (iii) establishment of minimum job compensations, (iv) labor conditions security, and (v) provision of a certain income.

The impact of these labor regulations over the minimum wage, contributions to the national insurance system, and the severance payments has been small relative to the level observed in Latinamerican countries. According to researchers, the adoptions of a volunteer model of industrial relations in some countries of the region turned out in few changes in labor laws without inducing a larger distortion level. Authors mention that, as an example, the severance laws in Trinidad and Tobago and Jamaica, have not changed significantly since their introduction.

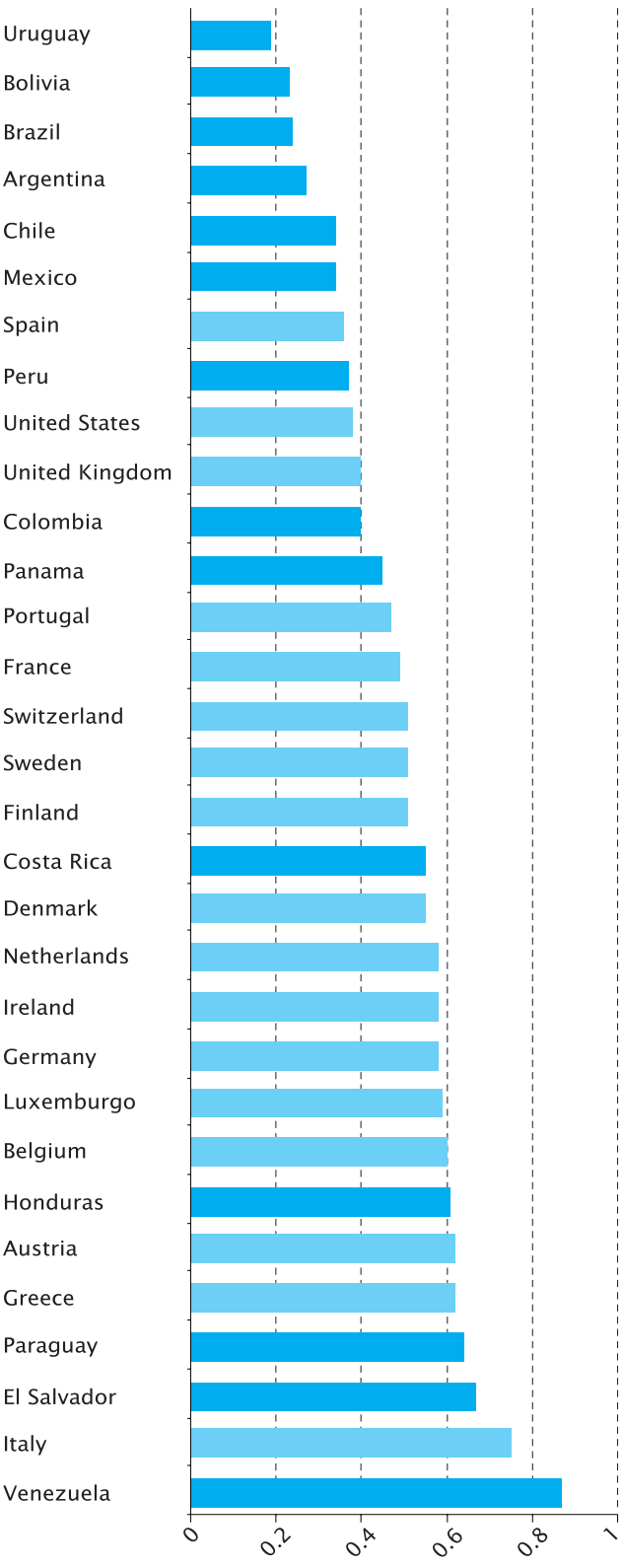
percentages of firms violating the minimum-wage statutes. Whether the adverse effect of a high level of minimum wages is offset by substantial non-compliance remains an empirical question.

Another perspective of the differences between average and minimum wage levels can be obtained by looking at where the minimum wage lies within the distribution of wages. Although the behavior of formal and informal wages is very similar, one may expect that changes in the minimum wage will not affect the distribution of informal wages (Maloney 2003).[6] The most noticeable result is that the behavior of wages in the informal sector is not different from the formal sector: informal employers tend to comply with minimum wage regulations. Formal workers have higher wages than informal workers but the markets are well connected, lending support to the existence of a single integrated labor market (that is, not a dual market), with workers deciding whether to lose social protection in exchange of other benefits of informality. Even with a large informal sector, both formal and informal sectors respond in similar fashion to minimum wages; that is, the informal sector does not show a downward wage flexibility predicted by the previous dualistic view. On the contrary, there is a high degree of compliance of minimum wage regulations in the informal sector. At the same time, these regulations adversely affect the employment ratio of disadvantaged workers of all ages, mainly the young unskilled workers.

Research on the effect of minimum wages in the United States, shows that some increases in the minimum wages may not have negative effects on employment (Kennan 1995). When countries have followed policies of low minimum wages, as has been the case since the eighties (for example, Canada, Mexico, and the United States), small adjustments to the minimum wage can have a redistributive role with no negative impact on employment (Card and Krueger 1995). It is useful then to distinguish between a minimum wage level that can be above the level of productivity of a large share of workers and induce informality, from a minimum wage policy of adjustments commensurate with inflation at a level

[6] Maloney (2003) estimates the distribution of wages for several Latin American countries. He defines informal workers as those who are either, not salaried-affiliated to social security institutions, or work in small firms (of less than 6 people). Maloney points out that minimum wages may have the capacity of altering wage distributions. This is the case, for example, in Colombia where the most common wage observed in both formal and informal distributions of wages, basically coincide with the minimum wage. Other example is Mexico, where the distribution of the wages around the minimum wage seems to be more concentrated than they would be without the regulation.

Figure III.7
Minimum Wage/Mean Wage in OECD Countries and in Latin America



Source: Maloney and Nuñez (2003).

that firms have adapted in such a way that employment is not affected by gradual adjustments.

In many countries the informal economy is often dominated by unions and other type or labor market institutions that elsewhere are sometimes defined as hallmarks of the formal labor market (even though there is less statistical evidence on this issue than on minimum wages). Sometimes, such institutions play the role of rule-makers and enforcers in the informal labor market, given the inability of the State institutions to perform the function. Important examples appear in the areas of ambulatory markets and public transportation. For example, in the absence of judicial processes for the resolution of disputes, small firms and the self-employed may rely on unions, cooperatives, small merchants associations, or similar organizations to solve their quarrels. Again, although these "equilibrium" solutions are what make the informal economy an interesting place for economic activities, they also may generate substantial imperfections in the collective development of society.

III.3.2 Trade Liberalization, Privatization and Informality

As it was discussed in Chapter I, trade liberalization and privatization of public firms or economic activities have been active areas for policy reforms in LAC since the late eighties. Trade reforms, tax reductions, decreasing custom duties, real exchange rate increases, and increased privatization have represented particularly important shifts of policy. This Subsection is concerned with the impact of these reforms on employment, wages, and informality.

Weller (2001) concludes that economic reforms tend to reduce the demand for labor in production processes, implying that an increased structural unemployment can be expected—a jobless growth tendency. It has also been argued that these reforms along with the privatizations of state-owned firms have displaced workers from «protected» formal-sector jobs, mainly to the informal-service sector. The service sector is comprised of heterogeneous economic activities, some of which are capital

intensive, with up-to-date information technology and high-skilled labor requirements. It is possible that the displaced workers from this sub-sector and other economic sectors end up in the low-productivity part of the service sub-sector characterized by its informality. These arguments are used to claim that the effects of trade and globalization are behind the increasing relative demand for skilled workers and declining wages of the unskilled (Saavedra, 2001, Robins and Grindling 1999). However, there is no consensus about the validity of these conclusions.

Also in the need of further empirical testing is the so-called "social dumping" hypothesis, which implies that trade reform will lead to an increase in informal labor market relationships due to competitive pressure on formal establishments, which respond by cutting non-salaried labor costs. The cost-cutting process may be done directly in the firms or through sub-contracting part of the production to workers and firms in the informal sector. Some empirical evidence on the influence of liberalization on informality comes from Mexico: only 20% of Mexican informal self-employed firms report being affiliated with larger firms (Maloney 2004). The author argues that the sub-contracting relationship is not the dominant characterization of informal firm behavior and large firms cannot be held responsible for rising informal employment. Moreover, after the signing of NAFTA in Mexico, the share of informal micro-firms claiming affiliation with large firms, domestic or foreign, in sub-contracting relationships actually declined. Interestingly, affiliated firms show higher earnings adjusting for human capital than those not affiliated. The same author emphasizes that given the low unionization rates and the flexible wages observed in Mexico, the informal jobs created by the larger firms after the liberalization process may not be good strategies for avoiding labor legislation, lowering wages, or worker control over production, but rather a way to face market uncertainty or risk.

Other authors (Goldberg and Pavcnik 2003) also conclude that in Colombia and Brazil there is a non-significant link between trade liberalization and the growth of informal labor markets. Additionally, there is evidence that deregulation in Colombia produced high turnover rates in both tradable and non-tradable sectors in similar magnitudes. Heckman and Pages (2004) consider this evidence as a clear indication that the decline in tenure cannot be attributed to contemporary trade reforms that took place in the early nineties.

Table III.2
Possible Effects of Privatization on Employment

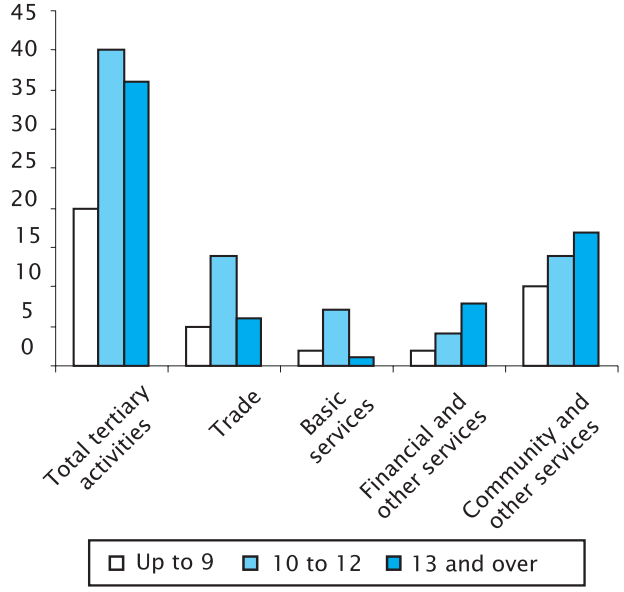
Employment effects	Employment conditions	Management-labor relations
- Reclassification of posts. - New job patterns. - Labor retrenchment and direct job losses. - Gender-blased employment policies. - Medium and long-term employment gains due to increased investment, growth of privatized firms, and diversification of services.	- Greater job mobility. - Diminished guarantee of tenure and job security. - Need for retraining and skill upgrading. - Longer working hours and/or increased workload. - Payment by results schemes and pay freezes. - Loss of seniority and service grades. - Wider wage differentials with greater incentive components. - Loss of pensions rights. - Loss of social benefits (housing,transport, childcare, and health insurance schemes). - Abolition of the prohibition on strikes and industrial actions.	- Greater emphasis on professionalism. - More discretionary power in making management decisions and formulating enterprise policies. - More enphasis on strict implementation of these decisions and policies. - Maginalization of union's influence and bargaining power. - More tedious wage bargaining with preferences for individual rather than collective agreements. - Wider wage differentials with greater incentive components. - Tougher stance of management on worker's performance and work discipline. - Efficiency arguments and profit making gain importance over social objectives.

Source: World Bank (2003).

There is evidence that the new jobs after the privatization and liberalization process have been created mainly in the services sector. Figure III.8 shows the structure of the new salaried jobs by educational level in tertiary activities in the nineties, when a strong liberalization process and economic reforms were taking place en LA. How much these trends are due to either of these two causes is a matter of empirical testing.

The World Bank (2003) has summarized the likely effects of privatization on employment, which are listed in Table III.2. As controversial and in need of further empirical testing as these effects are, it is interesting to emphasize the following possibilities related to employment, wages, and informality: (i) there could be medium and some long-term increases in employment due to increased direct investments but also labor retrenchment and direct job losses; (ii) there could be wider wage differentials by education and training and a marginalization of unions' influence and bargaining power, and (ii) there could be a loss of pension rights and a loss of social benefits—such as housing, transport, childcare, and health insurance schemes.

Figure III.8
Composition of New Wage Jobs in Tertiary Activities by Educational Level and Branch, Latin America 1990's[1/]
(percentage)



Source: Weller (2001).
[1/]The eight included countries are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.

III.4 Conclusions

Research developed during the late nineties and in the current decade has shed new light on the issue of informality in labor markets. The theories around this issue can be summarized in two groups. One can be termed the "dual-market view", which espouses that there are distinct segments in the labor markets where wages and employment are determined by different rules, and workers do not always have the choice of the sector where they will work, resulting in a state where bad and good jobs coexist (with good jobs being those covered by social insurance and other benefits, such a as better health and safety). The other view, that has recently grown in support on the basis on empirical research, is that the informal economy is a place for the development of activities that otherwise would be limited by systems of costly regulations and ineffective taxation, and workers have a choice of where to work. In this view, the motivations for not participating in the formal economy are the absence of a link between costs and benefits in the social security system, an ineffective enforcement of regulations and taxation, and a regulatory tangle that cannot be solved by certain economic agents, in particular small firms and the self-employed. A main empirical difference between the two mentioned approaches is that under the dual-markets view, similar workers end up having different welfare levels (in the form of different wages, benefits, and work conditions), and constantly queue for the jobs in the formal sector. In the other view, workers in the informal economy often earn as much or more than similar individuals in the formal sector, and there is a continuous flow of people from the formal to the informal sector that is voluntary and that is associated with improvements in welfare for the movers.

The importance of the two arguments on the nature of informality can be evaluated in every country

facing a problem of a large informal economy. In both approaches poorly designed regulatory frameworks and tax codes, and an inefficient and discretionary enforcement of them drive the development of informal activities. In this sense, under any of the two approaches, it is useful to have policies that encourage a general improvement of the regulatory framework and tax laws that do not create undue incentives to reduce labor supply for the formal economy. Nevertheless, it is useful to have a diagnostic on the degree of mobility in the labor market, and on the degree to which individuals in the informal economy are compensated for the lack of social protection and other benefits through higher earnings and other non-monetary advantages (for example, the gains from being self-employed). If many in the informal economy have moved there voluntarily and if their earnings levels make it unlikely that they have "bad" jobs, a good policy will be to find mechanisms to extend coverage to those persons, without a goal of reducing or eliminating the economic activities they are developing.

This Chapter also summarizes the recent evidence on the effects of changes in labor institutions—such as labor taxes paid by employers and employees, employment regulations on job dismissals, unionization rates, unemployment insurance, and minimum wages—on wages, employment, and informality. A brief account of the discussion on the effects of trade liberalization and privatization on these latter variables is also presented.

It is worth mentioning some of the conclusions from the comprehensive research of Heckman and Pages (2004) on these issues: (i) labor market regulations increase inequality in LAC countries because same workers benefit and many do not. The benefits derived from the payroll taxes should be compared with the costs in terms of employment; (ii) regulations act unevenly across different groups in society. Young, uneducated, and rural workers are much less likely to enjoy coverage than older, skilled, and urban workers; (iii) the burden of regulation impacts economic activities differently. In an open economy facing world prices, when regulations are not accommodated by adjustments of wages, regulations reduce output and hasten reductions in employment; and (iv) "[E]ven if wages adjust fully and there are no adverse effects of regulation on labor demand, regulation may still have substantial effects on the welfare of workers. If a job security mandate is offset by lower wages, worker welfare is not necessarily improved, at least not for all workers. It may be higher or lower depending on how much the mandate differs from what workers and firms would mutually agree upon in an unregulated environment."

Summarizing, the informal sector is fairly heterogeneous and has voluntary and involuntary members. Excessive labor regulations cannot be seen as the main cause of informality since the segmentation of the labor market is also associated with human capital differences and the high cost of complying with general regulations (not only labor regulations). Informality is concentrated in the self-employed and workers in small firms (often family members of the self-employed), labor turnover is high —mainly due to quits and not to fires, largely voluntary, and does not seem to impose an undue cost on the national economies.

The existence of an informal sector may not generate damage to national productivity by itself, and the short-term welfare losses may be limited. The damage grows over time and comes from the substantial shortfall in the achievement of the social protection goals, because many persons will reach old age without pension rights, many families are at risk of catastrophic expenditures for health services, many women do not have access to child care services, and many suffer disabilities that permanently reduce their ability to sustain a decent standard of living. Given the large size of the informal economy in almost all LAC countries, in the absence of corrective policies this damage is bound to grow rapidly in the next two decades.

Since informality is strongly linked to the self-employed and to micro-firms, it is relevant to raise

the issue of what will happen to the size distribution of firms in the long run. After all, under the hypothesis of segmented labor markets it was believed that gradual urbanization and increasing per capita incomes would lead to higher levels of social protection. Is it reasonable to expect that future decades will generate employment in large firms that offer social protection? Firms might be larger as they become more productive, and this may induce a gradual increase in the share of social insurance in the labor market. However, the process can be very slow, and many decades can pass before coverage reaches a satisfactory plateau. Societies demand protection now, and national governments and their social insurance agencies are under pressure to find avenues to extend protection against risks in much shorter periods.

At the risk of oversimplifying—especially in light of the Section in this Chapter that stresses the heterogeneity of workers in the informal sector—, specific policies have to be designed for at least four main types of workers: (i) the self-employed, who have relatively good earnings levels (higher than their opportunity earnings in the formal sector), but are bewildered by the regulatory tangle and may feel that the benefits provided by the health system financed by social security are not satisfactory; (ii) the older displaced workers (usually in their forties or fifties), who cannot find a job in the formal economy and end up as self-employed or as employees in micro firms; (iii) women with low attachment to the labor market that may need support in the form of family-friendly policies or of policies that facilitate their transition towards full-time employment; and (iv) young workers with low skill levels who also lack the physical capital and the human capital to function as self-employed.

CHAPTER IV
THE INFORMALITY ENVIRONMENT: TAXATION, REGULATION AND ADMINISTRATIVE MODERNIZATION

CHAPTER IV
THE INFORMALITY ENVIRONMENT: TAXATION, REGULATION AND ADMINISTRATIVE MODERNIZATION

IV.1 Introduction

A main feature of social insurance programs is the contributory element. Workers and employers make payments and are entitled to benefits in return. Ideally, the link between payments and benefits would be tight, and payers would value benefits as much as the payments. If this correspondence between payments and benefits could be achieved, the social security program would not have the effect of reducing employment or wages (money wages would be lower as a result of the program, but the effect would be fully compensated by the value of the accrued benefits).

Often, the ideal result is not achieved because of the nature of the benefits and the progressive character of the programs. In-kind benefits are largely independent of the amount contributed, and the health services and child-care services received are the same for all insured families. In most countries, there is a closer link between contributions and benefits in the pension programs than in the health insurance. But the formulas to calculate benefits often have progressive goals and provide higher returns to low wage and less frequent contributors (i.e. persons with a lower life-time labor force participation). It is also known that in many countries the rates of interest implicit in the public pension system are lower than the rates available for private savings. Moreover, the social security agencies usually have high administrative costs. These reasons explain why employees and employers tend to partially see contributions as taxes.

The gap between the social security contributions and the benefits affects the allocation of people working in the formal sector and the informal sector. Which elements influence most the informal economic activities in the labor market? Which elements give people incentives for working under the protection of social security? In this Section we mention some of the studies that have been done on the topic and evaluate with more detail four issues that influence individual decisions to participate in the formal labor market.

A first topic is the level of contribution. High rates of contribution are sometimes seen as an incentive to reduce work effort and to evade payment. The issue becomes more complex when several social protection systems coexist. Two reasons may exist. The first is that rights accrued under one system may be lost after a job change. The second reason is that alternative non-contributive social programs reinforce misalignments of incentives already caused by the social insurance programs. In many LAC countries, the coexistence of disconnected autonomous social insurance schemes generates, for equivalent benefits, different burdens on workers and employers. In other cases, the eligibility for benefits may be independent of current or past contributions, providing incentives to minimize payment. The latter seems to be more

important when non-contributory or other types of welfare payments are offered, and for health programs, in which benefits are independent of contributions or in which access to the system is allowed without regarding for previous medical conditions or contributions.

A second issue relates to how the structure of taxation can affect savings and expenditure decisions by households, given a fiscal burden. We document the fact that national income tax legislation has evolved favorably in the sense of diminishing the distortions that taxation imposes on savings for retirement (the "pension part"). Given the growth of privately managed pension funds (either voluntary or mandatory), the goal of reducing distortions on retirement savings has become even more important for social security. This point is of special significance for the defined contribution pension systems that have grown considerably since the nineties; under these schemes, an adequate fiscal structure can go very far in reducing and virtually eliminating the distortions on labor market decisions. On the other hand, it is not clear that a healthier tax structure has been achieved in programs to finance health services. Tax codes often make use of regressive formulas and favor expenditure on health services rather than health-related savings.

A third issue deals with the decision made by workers and employers to participate in the formal or in the informal economy. Informal activities increase due to a combination of a heavier burden of taxes and regulations, and the inability of institutions to enforce them. The decision to participate in the formal economy affects labor market outcomes as well as the social security programs. Clearly, the size and development of the informal sector, along with the rules of access and contributions of the social security programs, can cause important distortions in the formal labor market. For example, health care provided by the social security system may cover many workers in the informal sector, through a family member employed in the formal sector. In order to provide this health care, the contribution rate that must be imposed on formal sector workers must be higher, causing many workers to migrate to the informal sector. In this way the large size of the informal sector is reinforced, and the labor market as a whole is stuck in an equilibrium with many distortions. In addition, the existence of a large informal sector obliges the federal government to maintain a public health care system that parallels the social security health care system, and this diverts public investment in health care away from the social security agency, increasing the pressure on the system.

Finally, the Chapter deals with a key administrative issue. Social security agencies keep large data bases to enforce payment of social security taxes by employers and to determine the benefits accrued by workers and beneficiaries. The utilization and adaptation of new technologies for social security administrations can make management less costly and thus it allows the social security institutions to incorporate more small and micro firms, currently in the informal sector. A common thread in the Chapters of this Report that deal with the relation of labor markets and the informal economy says that much of the problem is localized in small firms and the self-employed. Information technologies (IT) are delivering new tools that can reduce drastically the costs of registration, management and collection of social security contributions for the currently excluded. More generally, the new IT have cheapened the cost of managing individual accounts for retirement, the operation of processes for targeting and controlling monetary or in-kind transfers for health, income support or child care, and other benefits to an extent that was unimagined in the early decades of social security, and this opens possibilities for the interaction between agencies and their programs, and workers, retirees and their families. Section IV.5 argues that this potential can be fully developed only if public action is taken to solve significant problems of coordination between social agents, including privacy, the interrelation of different fiscal authorities

and levels of government, the enforcement of contracts, applications and other acts made through electronic media.

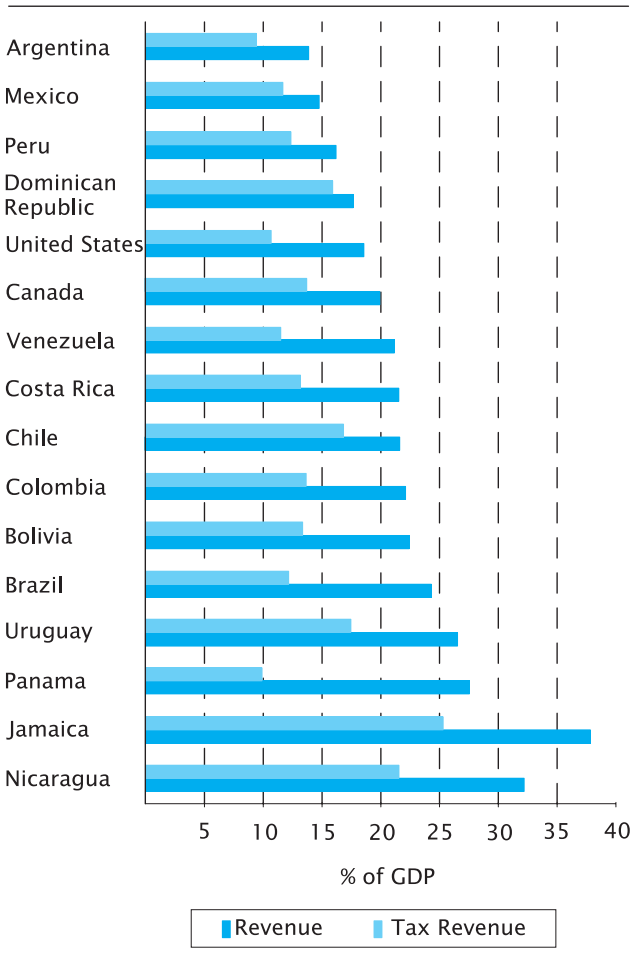
IV.2 Taxation Levels

Possibly the most commonly quoted cost of social security programs is the tax burden. However, as mentioned in the previous Section, the social protection system can be designed to minimize the distortions and to pursue social goals while promoting a competitive environment consistent with economic development. Since the eighties this issue has led to reforms in several countries including those in the OECD. These reforms have tended to diminish taxes on labor, under the hypothesis that high marginal tax rates reduce labor supply and may even lead to lower tax revenues. These trends have also been observed in many LAC countries. The past and future evolution of personal income taxes, social security contributions and value added and other sales taxes are of fundamental interest to social security agencies. In the original blueprint, drawn several decades ago, the payroll tax was supposed to be the main source of revenue in a tripartite scheme to finance social security. However as this Section shows, it has become difficult to increase collections through payroll and personal income taxes and there has been a strong trend across the Continent to reduce these taxes since the mid-eighties. Several countries have decided to increase the VAT to support the financing of social insurance programs, and in general the growth of the uninsured population suggests that new outlets are needed to canalize financial flows from the productive sector towards the social insurance system, if the promises and hopes of universal coverage are to be achieved.

There are several cross-country studies on taxation in Latin America that describe the important changes that have taken place, including Tanzi (2002), Bird (1992), Shome (1999) and Stotsky and WoldeMariam (2002). Among these changes were the introduction and the expansion of the Valued Added Tax (VAT); the reduction of international trade taxes; the decrease of taxes on income; the increase in the level of tax revenues (as a percentage of government revenues and of GDP); and some improvements in tax administration.

In the last two decades, economic situations such as debt crises and inflation have forced several countries in the Americas to seek higher government revenues, and as a result many countries have successfully increased their tax revenues. Information for 2001-2002 indicates that American countries collect on average 22.4% of GDP in total central government revenues and 14.5% of GDP in tax revenues. Figure IV.1 shows these percentages. Nicaragua, Jamaica, Panama, Uruguay and Brazil are the countries that collect the highest percentages of

Figure IV.1
Total Government Revenue and Tax Revenue to GDP Ratio, 2001 and 2002



Source: International Monetary Fund, Government Finance Statistics, Yearbook (2003).
Notes: Data for Mexico and Brazil are from 2000 and 1998, respectively.

government revenues in terms of GDP. On average, 65% of the government revenues come from taxes. A study for Central America by Stotsky and WoldeMariam (2002) presents data from 18 Latin American countries during the periods 1990-94 and 1995-99. Stotsky and WoldeMariam (2002) show that from 1990-94 to 1995-99 tax revenues as a percentage of GDP rose on average from 14.7% to 16.1%; a similar increase occurred in total government revenues as a percentage of GDP.

Stotsky and WoldeMariam (2002) discuss the different sources of revenue included in tax system accounts in Central America, but this classification also applies for other American countries. They classify the revenue sources in three major categories: domestic taxes on goods and services, taxes on income and profits, and international trade taxes. Table IV.1 shows total government revenue and the tax structure in some American countries where information is available up to 2002 and in some cases up to 2001.

A main shift taking place in LAC is towards Valued Added Taxes (VAT), with at least 23 countries adopting this mechanism. In 2003 the VAT rates ranged from 5 to 23 percent, averaging 14.5 percent. Panama had the lowest VAT rate and Uruguay the highest. Table IV.2 shows the VAT rate in these 23 countries in 2003, as well as the year the tax was introduced and the tax rate at its introduction. Some countries apply single rates and others differentiate between categories of goods. The VAT has proven to be a more resilient tax than income tax, because collecting taxes on consumption is easier, so that the VAT has generally become a steadier source of revenue. For social security programs this has been a major development, because governments have been relying increasingly on the VAT to finance expenditures on pensions and health. In Uruguay there

Table IV.1
Total Revenue and Tax Structure of Central Government, 2001 and 2002
(percent of GDP)

			Taxes on						
	Latest year available	Revenue	Income, Profits and Capital Gains	Payroll and Work Force	Property	Goods and Services	International Trade	Others	Total
Nicaragua	2002	37.83	4.48	-	0.01	14.75	2.30	-	21.54
Jamaica	2002	32.20	9.58	-		-10.87	2.49	2.36	25.30
Panama	2001	27.54	4.11	-	0.38	2.45	2.36	0.59	9.89
Uruguay	2001	26.53	3.86	0.10	1.59	9.83	0.73	0.38	17.46
Brazil	1998	24.24	5.04	1.08	0.02	5.28	0.72	-	12.14
Bolivia	2002	22.38	1.50	-	1.56	9.13	0.87	0.29	13.35
Colombia	2002	22.06	5.43	0.60	0.71	6.06	1.07	0.26	13.61
Chile	2002	21.67	4.67	-	-	10.45	0.95	0.77	16.84
Costa Rica	2002	21.53	3.07	-	-	8.99	0.99	0.12	13.17
Venezuela	2001	21.16	4.15	-	0.41	5.32	1.48	0.12	11.49
Canada [1/]	2002	19.91	9.86	-	-	3.62	0.28	-	13.76
USA	2002	18.56	9.60	-	0.25	0.62	0.19	-	10.67
Dominican R.	2001	17.57	3.96	-	0.15	6.09	5.41	0.21	15.82
Peru	2001	16.20	3.43	0.01	-	8.16	1.43	0.83	12.36
Mexico	2000	14.76	5.04	-	-	9.17	0.60	0.11	11.67
Argentina	2001	13.78	2.48		1.28	4.96	0.59	0.02	9.33
Simple average		**24.09**	**5.33**	**0.14**	**0.39**	**7.19**	**1.53**	**0.35**	**15.00**

Source: International Monetary Fund, Government Finance Statistics, Yearbook (2003).
1/ Data for Canada are preliminary.

is a general tax of 3% which is called "Contribución al Financiamiento de la Seguridad Social (COFIS)". The resources coming from this tax go to a social security agency named Banco de Previsión Social. The tax base of this contribution is similar to VAT tax base and the resources coming from this tax are exclusively for the financing of social security programs.

In 2001 and 2002, domestic taxes on goods and services, consisting of VAT, excises and selective sales taxes, were the major source of tax revenue in American countries, representing on average about 48% of the total tax revenue and 7.2% of GDP. For Dominican Republic, Brazil and Venezuela these taxes on goods and services represented the second source of tax revenue. The importance of domestic taxes on goods and services (especially of the VAT) in the revenue structure of LAC has increased greatly over time. Considering the information presented by Stotsky and WoldeMariam (2002) for the periods 1990-94 and 1995-99, we can see that the percentage of tax revenues collected by this group of consumption taxes rose by 16 points, of which the VAT contributed 15.3 points.

Taxes on income, profits and capital gains are the second source of tax revenues in American countries, averaging 35.5% of tax revenue and 5.3% of GDP in 2001 and 2002. Canada, Jamaica and the United States collect a larger percentage of GDP through such taxes than the rest of the American countries. Argentina and Bolivia collect the lowest percentages (Table IV.1). Taxes on income are separated into personal income and corporate income taxes. Taxes on enterprises are the major source of revenue. In fact, in terms of revenue generation, income taxes on firms collected in LAC countries are very similar to those collected in OECD countries. Revenues from

Table IV.2
Value-Added Tax Rates, 2003 [1/]

	Date VAT Introduced	Standard Rate at Introduction	Current Standard Rate
Argentina	Jan. 1975	16.0	21.0
Barbados	Jan. 1997	15.0	15.0
Bolivia	Oct. 1973	10.0	14.9
Brazil	Jan. 1967	15.0	20.5
Chile [2/]	Mar. 1975	20.0	19.0
Colombia	Jan. 1975	10.0	16.0
Costa Rica	Jan. 1975	10.0	13.0
Dominican Republic	Jan. 1983	6.0	12.0
Ecuador	Jul. 1970	4.0	12.0
El Salvador	Sep. 1992	10.0	13.0
Guatemala	Aug. 1983	7.0	12.0
Haiti	Nov. 1982	7.0	10.0
Honduras	Jan. 1976	3.0	12.0
Jamaica	Oct. 1991	10.0	15.0
Mexico	Jan. 1980	10.0	15.0
Nicaragua	Jan. 1975	6.0	15.0
Panama	Mar. 1977	5.0	5.0
Paraguay	Jul. 1993	12.0	10.0
Peru	Jan. 1973	20.0	18.0
Suriname	Apr. 1999	7.0	10.0
Trinidad and Tobago	Jan. 1990	15.0	15.0
Uruguay	Jan. 1968	14.0	23.0
Venezuela	Oct. 1993	10.0	16.0
Simple average		**10.5**	**14.5**

Source: Taken from Stotsky and WoldeMariam (2002) and updated for direct communication with Bronchi (IMF).
1/ As in October2003.
2/ On 19 June 2003, Deputies approved the proposal to increase the VAT rate to 19% (currently 18%) as from 1 October 2003.

personal income taxes are lower than in the OECD, mainly because of more unequal distributions of income, which imply that few individuals pay the personal income tax and many of them earn tax credits, resulting in low rates of overall revenue.

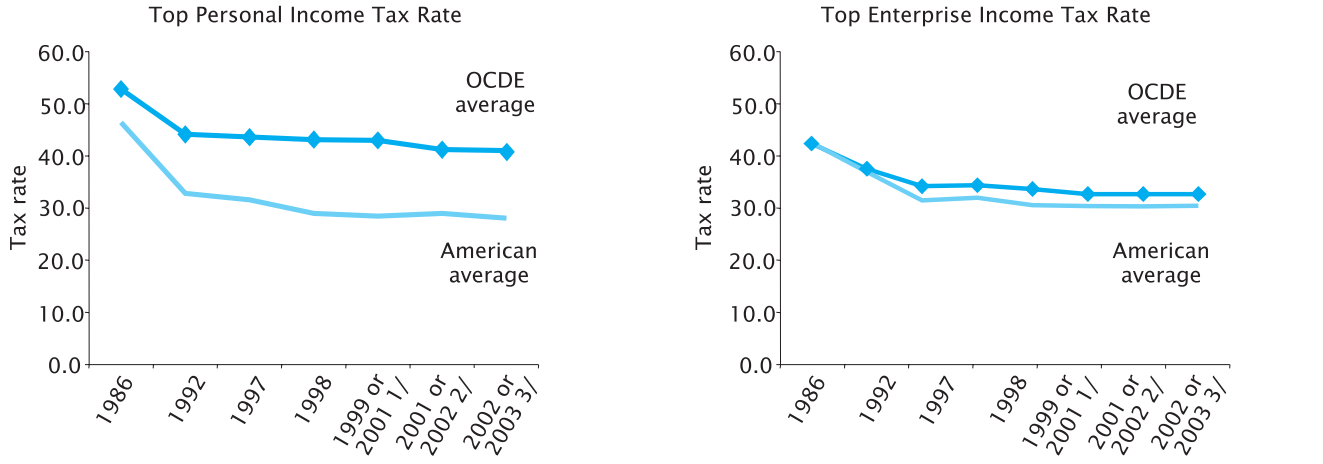
Personal and corporate income tax rates have more or less converged, with top rates averaging 30% (Figure IV.2). In 2003 the regional average rate of enterprise income tax was between 17.0 and 29.3%. This average rate shows little overall variation in American countries. Canada has the highest rate, at 38%, and Brazil and Chile have the lowest rates, at 15% and 17% respectively. In the same year the regional average rate of personal income tax was between 9.8 and 28.0%. The highest rate of 40% is applied in Chile. In Uruguay there is no personal income tax but there is a payroll tax. Figures IV.3 and IV.4 show the top personal and enterprise income tax rates for 20 American countries, grouped by region, in 2003 and its evolution since 1986.

The trends observed in many American countries towards globalization and gradual liberalization of capital movement have obliged a move towards lower tax rates, especially on firms. Top personal income and enterprise income tax rates diminished between the mid-eighties and the beginning of 2000. In 1986 the range of enterprise income tax rates was between 4.3 and 43.3% and that of personal income tax was between 9.0 and 46.4%. Comparing these ranges in 1986 and 2003, we find that the top enterprise income tax rate dropped from 43.3 to 29.3% and the top personal income tax rate diminished from 46.4 to 28.0%. This trend has also been observed in OECD countries, where top rates of the personal income tax diminished on average from 37.3% in 1986 to 31.8% in 2003; whereas enterprise income tax rates dropped from 52.8% in 1986 to 40.0% in 2003. Table IV.3, taken from Stotsky and WoldeMariam (2002), shows the evolution over time of the income tax rates of individuals in LAC.

Tanzi (2000) points out that LAC collect relatively little from taxes on income compared to industrial countries. He suggests five reasons for this, namely: (i) large legal deductions that are not allowed in other countries; (ii) large personal exemptions; (iii) unwillingness to tax financial incomes; (iv) declining statutory tax rates; and (v) tax administration systems that make tax evasion easier.

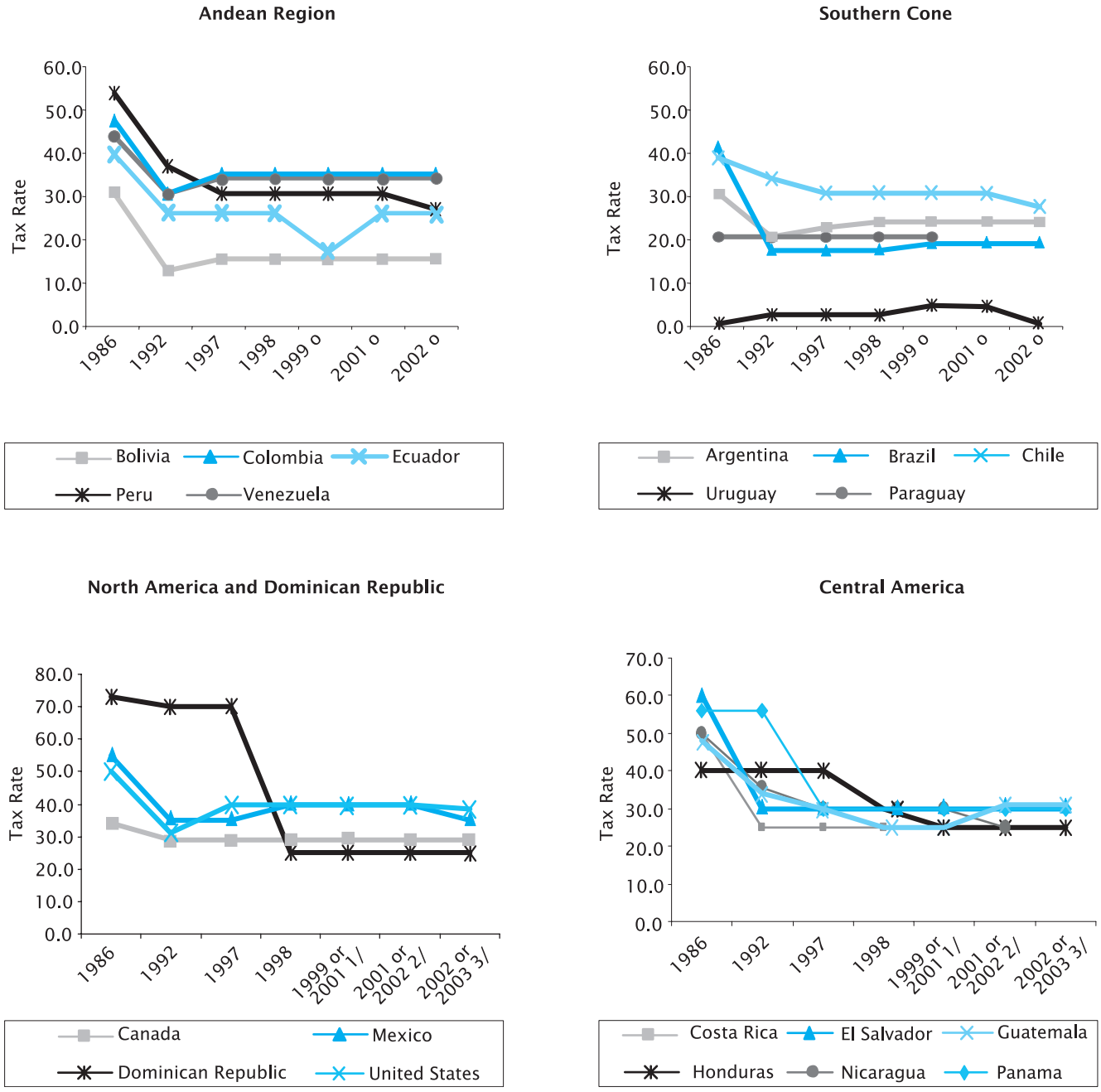
Regarding the large personal exemptions that prevail in LAC, Shome (1999) calculates the personal exemption level in terms of per capita GDP, and the income level at which the upper bracket applies, also in terms of per capita GDP. Personal exemptions rose

Figure IV.2
Top Personal Income and Enterprise Income Tax Rates, 1986-2004



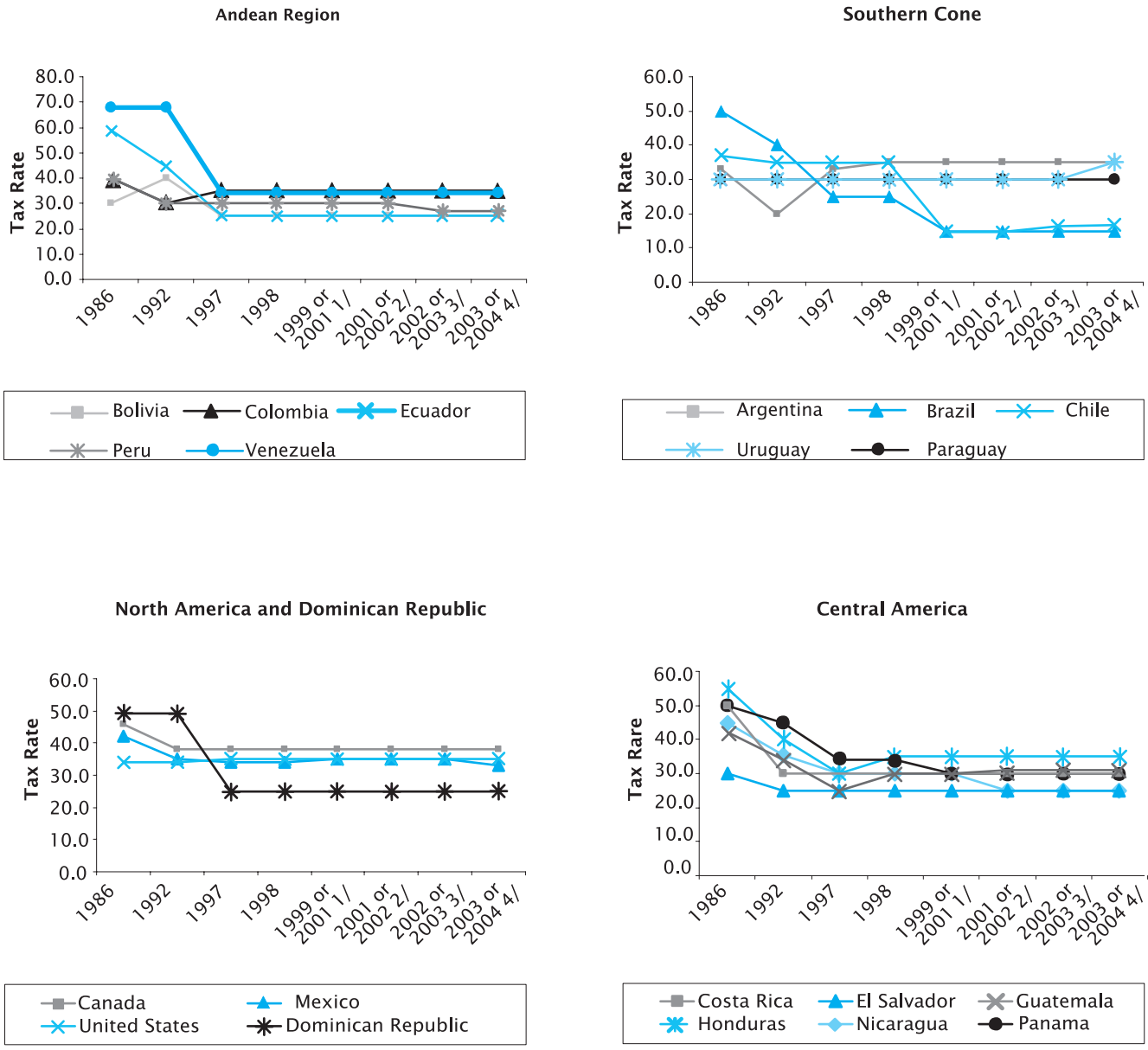
Source: Data taken from Stotsky and Woldemariam (2002).

Figure IV.3
Top Personal Income Tax Rates in some American Countries, 1986-2003



Source: Based on data from Stotsky and WoldeMarian (2002).

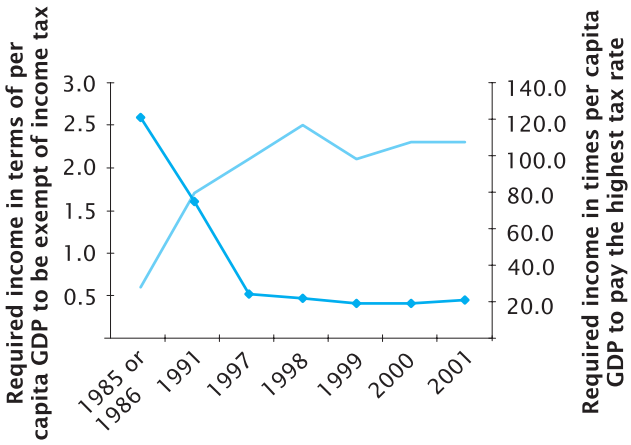
Figure IV.4
Top Enterprise Income Tax Rates in some American Countries, 1986-2004



Source: Based on data from Stotsky and WoldeMarian (2002).

from 0.6% of GDP in 1986 to 2.3% in 2001. For the upper income bracket limits the trend was the opposite with a decrease from 121% in 1986 to 20.7% in 2001 (Figure IV.5). To understand this trend, it is useful to remember that many workers in LAC countries pay no income or social security taxes, particularly those in agriculture and the self-employed. Thus, the rise in personal exemption levels is a decrease in the tax burden for low income workers who actually pay taxes, and represents an attempt to improve compliance and income distribution. The change in the percentage of GDP within the highest tax bracket occurred around the late eighties and early nineties, and there seem to be two main causes. The first is the improved stability of LAC economies compared to previous decades in which inflation and public deficits promoted high taxation levels. The second is the reform in the United States in the mid-eighties towards lower income tax rates, which imposed competitive pressure in the whole region.

Figure IV.5
Personal Income Required to Be Tax Exempt or to Pay the Top Marginal Tax Rate
(average for some LAC)



Source: Based on data presented by Shome (1999).

Whatever the weight of these and other potential explanations of the behavior of income taxes, the trend is certainly also part of the thrust towards higher reliance on the VAT. Social security, generally financed by payroll taxes, and therefore viewed as an add-on to the income tax, is affected crucially by these trends. On one hand, the traditional source of revenue for the system is undermined; on the other hand, a higher reliance on the VAT means that social protection has to be financed to a greater extent from general revenues. In fact, the movements towards establishing non-contributory pensions and towards financing health and child care services from general revenues are already important in several countries and may become a generalized phenomena. Hence, for the agencies involved in social security programs, the continuing evaluation of the trends in national tax systems is of strategic significance.

Compulsory social security contributions paid by employees and employers to social security funds are usually levied on salary income. The average range of social security taxes in 2003, as a percentage of salary income, was between 12.7 and 16.1%. Uruguay applies the highest tax rate of 54.8% followed by Argentina (44.0%), Mexico (32.7%), Peru (24.0%), Chile (20.0%), Barbados (18.3%) and Dominican Republic (17.2%). In 2002 and 2001 social security taxes represented on average 3.6% of GDP in some American countries. Between the period of 1990-94 and 2002, social security tax revenue as a percentage of GDP increased from 2.5 to 3.6%. As shown by Figure IV.6, there was substantial variation among LAC in terms of social security tax revenue as a percentage of GDP.

Combined, personal income taxes and social security taxes amount on average to an equivalent of about 44.8% of taxable wages. Table IV.4 presents data on personal income tax and social security tax rates for some American countries in 2003, as percentages of GDP.

Davis and Henrekson (2004) investigate the long run effects of taxes on labor income, payrolls and consumption using the large variations in tax rates that exist across countries. In a sample of rich countries, they find that an increase in tax rates can produce a large response in terms of hours worked

and the size of the shadow economy, as well as a decrease in the employment to population ratio. For example, in the mid-nineties, an increase across countries of 12.8 percentage points in taxes was related to 122 fewer market work hours per adult per year, a drop of 4.9 percentage points in the employment-population ratio, and an increase in the size of the shadow economy equal to 3.8% of GDP. In Davis and Henrekson (2004) analysis, tax rates elicit larger responses from low skill workers because they have a more elastic labor supply, which means that they have higher relative value of time spent in household activities. This last effect receives feedback from the larger public programs that exist in countries with high tax rates. It has to be mentioned that the analysis of Davis and Henrekson (2004) is subject to important statistical errors because of the inherent difficulty of measuring variables related to the informal economy and their comparability across national economies. Concern about such effects of high tax rates is surely

Table IV.3
Personal Income Tax Rates, 1985-2003

	Percent of taxable income						
	1985 or 1986 [1/]	1992	1997	1998	1999 or 2000 [1/]	2001 or 2002 [2/]	2002 or 2003 [3/]
Argentina	16.5 - 45.0	15.0 - 30.0	6.0 - 33.0	6.0 - 35.0	9.0 - 35.0	9.0 - 35.0	9.0 - 35.0
Bolivia	N.A. - 30.0	10% flat rate	13% flat rate	13% flat rate	13% flat rate	13% flat rate	13% flat rate
Brazil [4/]	0.0 - 60.0	10.0 - 25.0	15.0 - 25.0	15.0 - 25.0	15.0 - 27.5	15.0 - 27.5	15 - 27.5
Canada [5/]	25.0 - 34.0	17.0 - 29.0	17.0 - 29.0	17.0-29.0	17.0-29.0	16.0 - 29.0	16.0 - 29.0
Chile [4/]	0.0 - 57.0	5.0 - 50.0	5.0 - 45.0	5.0 - 45.0	5.0 - 45.0	5.0 - 45.0	5.0 - 40.0
Colombia [4/]	N.A. - 49.0	5.0 - 30.0	35% flat rate	35% flat rate	35% flat rate	35% flat rate	35% flat rate
Costa Rica [4/]	5.0 - 50.0	10.0 - 25.0	10.0 - 25.0	10.0 - 25.0	10.0 - 25.0	10.0 - 25.0	10.0 - 25.0
Dominican Republic [5/ 6/]	2.0 - 73.0	3.0 - 70.0	3.0 - 70.0	0.0 - 25.0	0.0 - 25.0	15.0 - 25.0	15.0 - 25.0
Ecuador [4/]	19.0 - 40.0	10.0 - 25.0	10.0 - 25.0	10.0 - 25.0	0.0 - 15.0	5.0 - 25.0	5.0 - 25.0
El Salvador [5/]	3.0 - 60.0	10.0 - 30.0	10.0 - 30.0	10.0 - 30.0	10.0 - 30.0	10.0 - 30.0	10.0 - 30.0
Guatemala	11.0 - 48.0	4.0 - 34.0	15.0 - 30.0	15.0-39.6	15.0-39.6	15.0 - 39.6	15.0 - 31.0
Honduras [4/ 7/]	3.0 - 40.0	12.0 - 40.0	9.0 - 40.0	15.0 - 25.0	15.0 - 25.0	15.0 - 31.0	10.0 - 25.0
Mexico	3.0 - 55.0	3.0 - 35.0	3.0 - 35.0	10.0 - 30.0	10.0 - 25.0	10.0 - 25.0	3.0 -35.0
Nicaragua [5/]	15.0 - 50.0	8.0 - 35.5	10.0 - 30.0	3.0 - 40.0	3.0 - 40.0	3.0 - 40.0	N.A.
Panama [7/]	13.0 - 56.0	3.5 - 56.0	4.0 - 30.0	10.0 - 30.0	10.0 - 30.0	10.0 - 25.0	4.0 - 30.0
Paraguay [4/ 8/]	5.0 - 30.0	5.0 - 30.0	3.0 - 30.0	4.0 - 30.0	2.0 - 30.0	2.0 - 30.0	
Peru [4/ 9/]	2.0 - 56.0	6.0 - 37.0	15.0 30.0	3.0 - 30.0	3.0 - 30.0	N.A.	15.0 - 26
United States	18.0 - 50.0	15.0 - 31.0	15.0 - 39.6	15.0 - 30.0	15.0 - 30.0	15.0 - 20.0	10.0 - 38.6
Uruguay [10/]		0.7 - 3.0	0.7 - 3.0	0.7 - 3.0	1.0 - 6.3	1.0 - 6.0	0
Venezuela	12.0 - 45.0	10.0 - 30.0	6.0 - 34.0	6.0 - 34.0	6.0 - 34.0	6.0 - 34.0	6.0 - 34.0
Simple average	**7.3 - 49.6**	**7.1 - 33.1**	**8.1 - 32.4**	**8.0 - 29.2**	**7.1 - 27.8**	**8.7 - 27.7**	**9.4 - 27.5**
OECD average [11/]	**22.2 - 52.8**	**16.8 - 44.1**	**15.8 - 43.6**	**16.1-43.1**	**15.0-43.0**	**16.0 - 41.2**	**16.0 - 41.0**

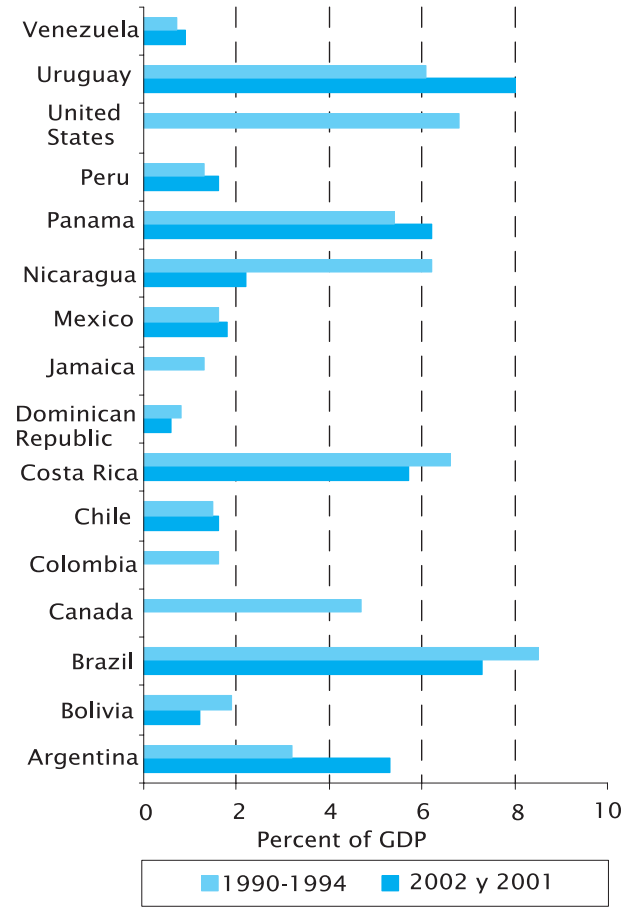
Sources: Until 2002 data are taken from Tanzi (2000) and Stotsky and WoldeMariam (2002). Since 2003 the information comes from Individual Taxes, Worldwide Summaries, by Price Waterhouse, Coopers and Lybrand.
Notes: 1/ The average shown is an average of the two years.
2/ The data unless otherwise indicate, present the tax rates in effect at January 1, 2001.
3/ The data unless otherwise indicate, present the tax rates in effect at January 1, 2002.
4/ Data are for 1999 in column 1999 or 2000.
5/ Data are for 1998 in column 1999 or 2000.
6/ Data are for 1999 in column 2001 or 2002.
7/ Data are for 2000 in column 2001or 2002.
8/ In the case of Paraguay, the personal income tax in 1985/86 was restricted to CEOs, and was eliminated thereafter.
9/ In 2002 the upper tax rate was incremented to 27%.
10/ No income tax is levied on personal income in Uruguay, except for tax on income derived from agricultural activities and tax on commissions.
11/ Excluding Mexico.
N.A.: Not available.

Table IV.4
Personal Income Tax Rate and Social Security Contribution in 2003
(in percent of gross earnings)

	Personal income taxes		Social security contributions				Fiscal burden of employment	
			Employer		Employee			
	Lowest rate	Highest rate	Lowest rate	Highest rate	Lowest rate	Highest rate	Lowest rate	Highest rate
Antigua and Barbuda [1/]	2.5	55.0	23.0	8.5		6.5	17.5	70.0
Argentina [2/]	9.0	35.0		27.0	11.0	17.0	43.0	79.0
Bahamas	0.0	0.0		5.4		3.4		8.8
Barbados [3/]	22.5	40.0		9.8		8.5	40.8	58.3
Bolivia [4/]	Flat rate	13.0				12.2		25.2
Brazil [5/ 6/]	15.0	27.5			7.7	11.0	22.7	38.5
British Virgin Islands [7/]	6.0	20.0		4.5		4.0	14.5	28.5
Canada [8/]	16.0	29.0					16.0	29.0
Chile [9/]	5.0	40.0				20.0	25.0	60.0
Colombia	Flat rate	35.0			7.4	9.4	42.4	44.4
Costa Rica [10/]	12.0	30.0			9.0	15.0	21.0	45.0
Dominican R. [11/]	15.0	25.0		12.5		4.7	32.2	42.2
Ecuador [12/]	5.0	25.0				8.9	13.9	33.9
Guatemala [13/]	15.0	31.0				4.8	19.8	35.8
Mexico	3.0	34.0	14.9	29.4	2.4	3.3	20.3	66.7
Panama [14/]	4.0	30.0				7.3	11.3	37.3
Peru [15/]	15.0	30.0		11.0	12.0	13.0	38.0	54.0
Saint Lucia [16/]	10.0	30.0				5.0	15.0	35.0
United States [17/]	10.0	38.6			7.7	15.3	17.7	53.9
Uruguay [18/]	0.0	0.0		18.6	18.1	36.1	36.8	54.8
Venezuela [19/]	6.0	34.0		1.7		4.5	12.2	40.2
Unweighted average	**9.0**	**28.7**		**12.8**	**9.4**	**10.5**	**24.2**	**44.8**

Source: Individual Taxes 2003-2004, Worldwide Summaries by PricewaterhouseCoopers.
Notes: 1/ Social security contributions are applied over chargeable income up to $4,500 per month. The tax rate includes only social security and medical benefits.2/ The maximum remuneration subject to both employee and employer contribution is AR$4,800 per month. Social security contributions include pension fund, family allowance fund, social health and social services. 3/ The employee's share is 8.5% on earnings of up to a maximum of Bds$3,100 per month. Self employed individuals make contributions quarterly of 13% on earnings. 4/ Only includes pension funds which are administered privately. The maximum remuneration subject to contribution is US$3,400 per month. 5/ Incomes up to R$12,696 are tax exempt. 6/ Social security taxes are payable monthly and the total contribution may not exceed R$171.77 (US$49.06) per month. 7/ For social security contributions employer and employee are taxed on employees earnings up to a maximum of $23,400. 8/ Contribution rates may be higher in some provinces. Contributions are subject to an upper earnings limit for some benefits. Employees are required to pay government pension plan contributions up to Can $1,673.2 and employment insurance premiums up to Can $848. A credit equal to 16% of the lesser of the amount payable and the required premiums for the year is allowed in computing the individual's federal taxes payable. 9/ Salaries are subject to social security contributions up to US$1,360 per month. The excess is not subject to contributions.10/ Incomes up to CRC$1,316,000 are tax exemtp.11/ The base contribution is 10% of the quotable salary of the employee, up to a ceiling of 20 minimum wages in the case of pensions and 10 minimum wages in the case of the family health insurance. 12/ Social security contributions are applied over remuneration arising from employment nonexclusive of statutory social benefits received. Special rates apply to employees working on special sectors of the economy. Social security contributions are deductible, except when borne by the employer. 13/ There is not maximum limit on the taxable amount. 14/ There is not maximum limit on the taxable amount. 15/ The social welfare fund comprise the Pension Fund and the Health System. The Pension Fund is financed by employees and the Health System is financed by the employer. 16/ Up to a maximum contribution of EC$150 per month. 17/ There is a social security tax. The maximum rate is TT$6.45 per week for monthly income over TT$1,000. Seventy percent of such contributions are deductible in arriving taxable income. 19/ The employee's share of social security taxes (old age, survivors and disability) is 6.2% of the first $87,000 of wages, plus Medicare hospital insurance taxes of 1.45% on all wages. The social security tax for self-employed individuals is equal to 12.4% of the first $87,000 of net self employment income plus Medicare hospital insurance tax of 2.9%. 18/There is a tax on individual earnings that was created in 1982, this tax is applied on cash benefits and earnings and also over in kind benefits coming from work, independently if there is or not a dependency relationship. There is no tax rate up to three minimum wages, for earnings between three and four minimum wages there is a tax rate of 2% which increases up to 6% when earnings are above of six minimum wages. Additionally there is a tax rate for retirement and pension benefits that is of 2% which only applies when earnings are above six minimum wages. 19/ Up to Bs190, 080 per month. Social security contributions include an unemployment benefit contribution of 2.2% of the salaries earned by employees.

Figure IV.6
Social Security Taxes in Some American Countries



Source: Stotsky and WoldeMariam (2002) and International Monetary Fund, Finance Government Statistics, Yearbook 2003.

behind the trend towards lower personal income tax rates in the Americas, detailed above.

Even though the average taxation level in LAC is lower than that of OECD countries, a greater proportion of the population does not work in formal economic activities which generate resources to finance social security programs. As mentioned above, the level of tax evasion depends on the tax rates and on the capacity of institutions to enforce compliance. While tax rates are lower in Latin America, it is probably the case that in general enforcement is sketchier and less cost-effective. To the extent that individuals and firms choose to join the informal sector in order to evade taxes, lower enforcement capacity may be one reason for larger informal sectors in these countries.

It is also the case in Latin America that non-contributory social programs often coexist with contributory social security programs. Non-contributory programs are seen as necessary instruments to cover the population in the informal sector, especially in terms of health care and income security in old age. In some LAC, non-contributory programs have been seen as complements to traditional contributory programs and are financed through general taxes or by cross subsidies from other contributive social security programs. However, the coexistence of disconnected autonomous social insurance schemes generates different burdens on workers and employers for equivalent benefits, and certainly can exacerbate adverse incentives in the labor market. For example, the coexistence between non-contributive and contributive programs can affect the payment of social security contributions and can create incentives for using non-contributory benefits instead of completing the requirements of contributory programs to obtain access to benefits.

Bertranou, Solorio and Ginneken (2002) analyzed non-contributory and welfare programs in Argentina, Brazil, Chile, Costa Rica and Uruguay. They found that non-contributory and welfare programs in these five countries cover an important part of the total of pension beneficiaries. The coverage of these programs is 10.1% in Argentina; 22.6% in Chile; 31.2% in Costa Rica; and 9.0% in Uruguay. In Brazil there are two pension programs of similar benefits which do not require individual contributions, for welfare pensions the coverage is 11.1% and for rural pensions it is 33.0%. They also found that in general in these countries non-contributory programs are financed by general taxes, excluding Costa Rica where employer's contributions finances 46% of the benefits. In Brazil and Chile, 10% of the financing comes from salary contributions.

IV.3 Fiscal Incentives for Saving

The rules by which social insurance is provided in an economy influence work in its different time dimensions (hours, intensity, and ages of entry and

retirement), savings, and expenditures of families (during active work years and while retired). The previous Section dealt with the shape and level of contributions, but tax and social security laws include additional rules that can affect work, savings and expenditures. These rules can have large effects on the flow of funds dedicated to support social programs. For some countries, the level of financial support provided to families through the income tax, in order to stabilize income and health expenditures, may be comparable in size to programs that spend directly on pensions and health. Better tax structures promote savings and complement the design of social security programs. We will show that in general income tax legislation across countries in the region has evolved towards diminishing the distortions taxation imposes on savings for retirement and health (consumption smoothing).

IV.3.1 Pensions

Regardless of political preferences, and of the different views on the proper assessment of social security reforms, it is obvious that pension policy has become more important in recent years. Governments across the Americas have taken the challenge of promoting policy debates and reforms, and searching for solutions. This Section deals with a topic that, in contrast, is not discussed as often as it should, because taxation may represent one of the most important public policy tools influencing the long term savings of families.

Tax structure affects pensions in pay-as-you-go systems as well as in private pension plans. Governments may affect the cash flow through taxation mainly at three points: at the time of contribution (in which case the tax is a payroll tax); at the time when interests or capital gains are accrued (this can happen in many periods while funds are saved); and finally, taxes can be levied on the benefits. In the latter case, there can be an income tax (for example, on pensions or on money withdrawn from the fund), or a tax on consumption (a value added tax or other tax on health or child care services). Whitehouse (2001) discusses the different combinations that arise from taxing the resources at different points. Conceptually, the author divides the taxes into two types: the "expenditure tax" and the "comprehensive income tax". He also uses as a code the letters "E" and "T" for "exempt" and "taxed", and defines tax rules applied to pension systems through a combination of these letters (according to the three points in time where a tax can be applied).

The "expenditure tax" is associated with the combinations EET and TEE. This means that the accumulations to the fund coming from interest and capital gains are not taxed (both configurations have an "E" in the middle), but there is a tax either on benefits or on contributions. This policy taxes only expenditure, regardless of the date of occurrence. Examples of this would be taxing pensions through their accumulation to taxable income at the moment of withdrawal, or not allowing deductibility at the time of contribution.

The "comprehensive income tax" is related to the combinations ETT and TTE, which means that interests and capital gains are taxed, in addition to a tax on benefits and withdrawals, or on contributions. The idea behind this type of tax is that all income is taxed, including investment income.

What are the goals of tax policy regarding these choices? Should investment income be taxed? Should taxes be levied on contributions or on benefits? These are crucial questions in determining the welfare of families, and they must be treated as an important feature in the design of social policy.

The specific policy goal should be that one in which taxes do not induce present over future consumption, or conversely, future over present consumption. A case in point is a high tax on contributions together with a tax on investment income, a configuration that favors too much current consumption (saving too little). Similarly, if deductibility of contributions is allowed, and

investment income is not taxed, families may end up saving too much. In these statements, "too much" and "too little" mean that the rate of return delivered by savings in the social security system are higher or lower, respectively, than overall interest rates.

The "expenditure tax" is more successful than the "comprehensive income tax" in achieving the goal of being neutral with respect to inter-temporal consumption decisions. The reason is that the "comprehensive income tax" treats savings as an additional form of consumption, although it is clear that saving for retirement is not a form of consumption. Thus, the "comprehensive income tax" is in a sense a double tax: it collects when the retirement fund receives investment income, but also when contributions are paid or when funds are withdrawn (that is, when pensions are paid).

Tables IV.5 and IV.6, from Whitehouse (2001), show the basic tax rules in OECD countries and LAC. As can be seen, the LAC region has opted in general for the expenditure tax (EET), exempting contributions and investment income, and taxing consumption at retirement (which can be done through mandating the accumulation of withdrawals from pension funds as taxable income and taxing pension income in general).

Of course, income tax laws are substantially more complex than what can be described in these tables. Countries often put limits on the amount of tax-deductible savings for retirement; treat differently the savings of individuals and of corporations, and change tax rates in large proportions across decades (the horizon of interest for the prospective retiree). Tables IV.5 and IV.6 include some notes on these issues.

If, as argued, the expenditure tax is preferred to the comprehensive income tax as a mechanism for funding social programs, there remains the question on whether taxes should be collected "up front", as payroll taxes, or delayed to the time of consumption. Often, policy-makers have decided to apply the tax at retirement, probably because they believe that providing deductibility for savings promotes higher savings. Another motivation may be to transfer the risk of future changes in policy to the government, but it is not clear how this incentive plays out: future governments may feel empowered to increase taxes on investment income or pensions regardless of the promises of previous administrations. In any case, it seems that a stable fiscal environment, with clear rules that are maintained in the long run is the most favorable for the stability of consumption of workers and retirees.

A practice that is useful to achieve a better measurement of the support given by the state to social protection is to calculate the "tax expenditure", a calculation of foregone revenue due to tax exemptions. Approximately half of the OECD countries are calculating the tax expenditure, but no LAC country is doing so.

Tax incentives to private pension plans have budgetary implications and create implicit fiscal assets. Antolín, Serres and Maisonneuve (2004) evaluate how tax incentives to private pension schemes affect fiscal sustainability. They estimate the implicit fiscal asset and the evolution over time of fiscal costs and benefits from tax-favoured pension regimes from 17 OECD countries (including Canada, Mexico and United States).

IV.3.2 Health

The taxation of health expenditures often receives special treatment in tax codes. Societies have a preference towards making access to health services easier and cheaper for the population, so the tax codes favor health expenditure even for the wealthiest. Therein lays the main distortion in the treatment of health finance: subsidies are often given to current expenditure, while health related savings may not receive similar consideration.

As is the case with pensions, tax regulations should not create an artificially higher price of health expenditures in the future vis-a-vis the present, but should rather be neutral. Common tax rules that

Table IV.5
Tax Treatment of Personal Pension Plans in Developed Countries

		Pension fund			Pension payment		
		PIT	Other taxes		PIT/CGT		
Country	PIT	Fund income	Fund income	Fund value	Pension income	Original value	Note
Australia	T	E	T	E	T	E	10% rebate on first A$1,000 (US$670) of contributions, phased out when income exceeds A$27,000; 15% tax on fund income; lump sums taxed at 16.25% over A$77,000; 15% rebate on pension income; deductible contributions treated as fringe benefits.
Austria	E	E	E	E	T	T	50% of contributions deductible up to ceiling; 25% of annuity from individual's contributions taxable; 30% tax penalty on early withdrawal.
Belgium	E	E	E	T	T	T	Limits on deductibility of contributions; 0.17% tax on assets of mutual providers (ASBL); tax credit on annuity; 10% tax on lump sums.
Canada	E	E	E	E	T	T	Pension income credit at basic 17% rate on C$1,000 (US$780) of annuity income.
Denmark	E	E	T	E	T	T	Real interest taxable.
Finland	E	E	E	E	T	T	60% of contributions deductible up to ceiling.
France	T	E	E	E	T	T	
Germany	E	E	E	E	T	T	Contributions deductible up to ceiling, wich may be exhausted by compulsory social security contributions.
Netherlands	E	E	E	E	T	T	Limits on deductibility of contributions.
Iceland	T	E	E	E	T	T	
Ireland	E	E	E	E	T	T	Limits on deductibility of contributions.
Japan	T	E	E	E	T	E	Annuity income net of contributions taxable at standard rates; 50% of net lump sum over Y500,000 (US$4,000) taxable.
Luxembourg	E	E	E	E	T	T	Limits on deductibility of contributions.
New Zeland	T	E	T	E	E	E	
Norway	E	E	E	E	T	T	Limits on deductibility of contributions.
Portugal	E	E	E	E	T	T	Limits on deductibility of contributions; 20% tax on lumps sums net of contributions.
Spain	E	E	E	E	T	T	Limits on deductibility of contributions.
Sweden	E	E	T	E	T	T	Limits on deductibility of contributions; 20% tax on fund income.
Switzerland	E	E	E	E	T	T	Limits on deductibility of contributions.
United Kingdom	E	E	E	E	T	T	Limits on deductibility of contributions.
United States	E	E	E	E	T	T	Limits on deductibility of contributions; 10% tax penalty on withdrawals before age 59 ½.

Source: Table is taken from Whitehouse (2001). Source Derived from OECD (1994a), Table 4.4. See OECD (1994b) for more detailed descriptions.
Note: PIT = personal income tax; CGT = capital gains tax; E = exempt from relevant tax; T = subject to tax.

Table IV.6
Tax Treatment of Personal Pension Plans in Developing Countries

	Contributions	Returns	Benefits	Note
Latin America				
Argentina	E	E	T	Pension and other Social Security contributions are deductible from the taxable income. Pensions and annuities are subject to income tax. The deposit and disposal of employment compensation and pension payments are tax exempt.
Barbados	E	T	T	Contributions to a registered retirement plan and contributions to a registered retirement savings plan are taxed exempt. Up to a maximum of Bds$6,000 or 15% of taxable income.
Bolivia	E	T	T	
Brazil	E	T	T	
Chile	E	E	T	Social Security contributions and a percentage of certain investments in shares and time deposits are excluded from taxable income. Capital gains are taxed as normal income. Investment income is also taxed as a normal income. Only "real interest" in taxed.
Colombia	E	E	T	Mandatory and voluntary contributions made to retirement pension funds are not deemed to constitute income or capital gains for the employee and are not part of taxable income. Up to 30% of the employee's labor income. Voluntary contributions become taxable if they are withdrawn by employee within 5 years of having been deposited in the fund. Contributions to foreign pension systems are taxable.
Costa Rica	E	E	?	Any interest received from local sources is included in taxable income.
Mexico	E	E	T	Capital gains are taxed as normal income. Investment income is also taxed as normal income. Only "real interest" is taxed. Contributions to certain special private retirement accounts and voluntary contributions to AFORE's are deductible of taxable income, up to five minimum wages per year.
Peru	T	E	E	Interest and permanent capital gains are included on taxable income.
Uruguay	E	E	T	There is no personal income tax in Uruguay, but there is a payroll tax.
Eastern Europe				
Czech Republic	C	E	E	
Hungary	E	E	T	Mandatory, or "second-pillar", contributions. Voluntary, "third-pillar" contributions have a tax credit up to a limit (CEE).
Poland	E	E	T	Second-pillar contributions. Third pillar has pre-paid expenditure tax treatment (TEE).
Asia				
India	E	E	T	Employee's contributions to voluntary personal pension plans. Lump sums are tax free. Contributions to employee's and exempt or approved provident funds attract at 20% credit.
Indonesia	E	T	T	Fund's bank deposits and returns on listed local securities tax free; returns on open-ended mutual funds, unlisted securities and property taxed.
Korea	E	E	E	
Philippines	T	T	E	Employee's contributions. Employer's are ETE to tax qualified occupational pension plans and TTE to unqualified plans.

Source: Table taken from Whitehouse (2001) with additional notes for Latin American countries and new information for Barbados, Bolivia and Brazil.
Note T=taxed, E=exempt, C=tax credit

Box IV.1

How Should Pay-As-You-Go Pensions Be Represented in the Public Accounts?

Historically, throughout the world, the liabilities of social security systems have not affected the calculations of the national fiscal deficit. Part of this is related to the fact that national governments usually do not have a balance sheet to account for assets and liabilities, and budgets are managed on a cash flow annual basis. The Manual for Government Financial Statistics of the International Monetary Fund does not consider the liabilities accrued in a fiscal year as expenses, arguing that the payment of pensions can be affected by a change in the law. However, the size of social security programs, the fast growth of expenditures for the next couple of decades, and the reality of a population that expects to collect a pension suggest that some guidelines could be useful to measure the impact of social security on the future of national finances.

On the other hand, the projected payments of a social security system are not a measure of the future impact on the deficit. Those flows have to be discounted by the expected collections, as well as by the interest gained by the pension funds (public and private) that will support the payments. The net result is the unfunded liabilities, which should be projected on a yearly basis and in present value terms.

While it can be difficult for a government to register the full unfunded liabilities, a gradual advance can do much to improve confidence in the system in the short run, and to provide a mid-term solution. Actually, for private corporations that face a shortfall in funding a pension plan, accounting rules allow a gradual solution. A government opting to register this shortfall will have to affect the accounts for the fiscal year immediately, but will be providing full information to all social agents on the future of social security.

While these accounting issues may seem a little boring and some would argue that the explanation of problems can be "left to footnotes", to find a satisfactory solution may be key for the future of national social security systems. As a reference on this point of view, Joseph Stiglitz (2003) argues that the lack of a sufficient public initiative in developing and enforcing accounting rules and principles is a main part of the explanation of the world recession that began in the summer of 2000, and of the many corporate scandals that happened around that year.

Finally, it must also be understood that this is not an issue of public, pay-as-you-go social security systems. Reformed systems always offer a guarantee of a minimum pension, and the fiscal cost of such systems has to be calculated basically in the same way as the deficit of a PAYGO system.

preclude neutrality are: (i) deductibility is allowed for current expenditures on health services, but not for health insurance; (ii) savings for future health expenditures are not tax deductible; (iii) expenditure on health services by employers is treated more favorably than expenditure by households. As in the case of pensions, a positive change has been allowing tax deductions for saving (this solves the problem of favoring current over future expenditures). When tax codes provide preferential treatment for expenditure on health but not for insurance or savings, the benefits of the fiscal cost of the tax deductions may tend to go to the wealthier if the middle class and low income households pay income taxes at low or zero rates, and do not have out-of-pocket expenditures on health services because they use the public services. Table IV.7 shows the tax treatment for health that is applied in some American countries.

A question that has been raised in several countries relates to the convenience of adopting a system of health accounts that would allow tax deductibility on savings dedicated to future health expenditures. The United States has in fact adopted legislation in this direction. The reforms include (i) tax-free asset accumulation on health savings accounts, where contributions are pre-tax, earnings are tax-free and distributions are tax-free if used to pay for qualified medical expenses;[1] (ii) portability,

[1] Tax-free distributions are allowed for health care needs not covered by the insurance policy. Tax-free distributions can also be made for continuation coverage required by Federal law, health insurance for the unemployed and long-term care insurance.

Table IV.7
Tax Regulations for Health Expenditures Made by Individuals

	Contributions to Health Insurance	Medical Expenses	Note
Argentina	D	D	For contributions to third party medical schemes, up to a maximum of 5% of net income is deductible. Other medical expenses may be deducted up to a maximum of 40% of all corresponding invoices of the fiscal year, with deductions not exceeding 5% of net income.
Brazil	D	D	Medical, dental, and hospital expenses are deductible, as well as payments to recognized Brazilian health insurance/medical-cost coverage programs.
Colombia	ND	D	Employees with annual income of less than COP77, 700,000 may choose to deduct either mortgage interest or prepaid medical assistance.
Guatemala	ND	D	Excluding drugs.
Mexico	D	D	Resident taxpayers are allowed to deduct medical and dental expenses for themselves and their dependents. Health insurance premiums are deductible since 2002.
Panama	ND	D	Medical expenses are deductible provided they were incurred in Panama.
United States	ND	D	Subject to limitations.
Venezuela	D	D	

Source: Individual Taxes 2003-2004, World Wide Summaries by Price Waterhouse Coopers.
Notes: D/ Deductibility is allowed. ND/ Deductibility is not allowed.

because the savings follow the individual from job to job and into retirement (upon death the health saving account ownership may be transferred to the spouse on a tax-free basis); (iii) measures to contain rising medical costs, encouraging individuals to buy health plans that better suit their needs (so that insurance is only used when it is truly needed); (iv) benefits for Medicare beneficiaries (in particular, the health savings accounts can be used during retirement to pay for retiree health care, Medicare expenses and prescription drugs). Other characteristics of the system are: the tax-free treatment applies only to workers under age 65 who have qualified health plans; and to individuals that can make pre-tax contributions deductible of up to 100% of the health plan cost.[2] In addition to, individuals between 55 and 65 years of age can make pre-tax "catch-up" contributions during their peak saving years. All the pre-tax contributions can be made by individuals, their employers and family members.

Perhaps the largest advantage of an individual health saving account (IHSA) is to promote savings for future expenditures, instead of subsidizing current outlays. An additional deficiency involved in exempting current expenditures and not savings is that the person has an incentive to spend when he or she is healthy (because he or she has a higher income and faces a higher income tax rate), and cannot use the fiscal subsidy when badly ill (because then, he or she cannot generate income).

Individual savings accounts for health differ from Individual Retirement Accounts (IRAs) because an IHSA will be useful only if it is accompanied by health insurance. However, it may be noted that IRAs also require an insurance component, because social security systems that have adopted them also insure against disability and death.

[2] A qualified health plan has a minimum deductible of US$1,000 dollars with a US$5,000 cap on out-of-pocket expenses for self-only policies.

Sometimes the discussion around IHSA is framed as an "either/or", an "all or nothing" proposal, as if IHSA were to substitute existing social security mechanisms. However, given the fiscal pressure on public systems to finance health, and the large expected growth of private expenditures, a more useful way to think about these accounts is as a complement that will facilitate the adjustment. This adjustment requires attention to at least two planning issues. First, there is a fiscal cost defined by the amount saved and the tax rates applicable to the saving households; and second, the provision and financial functions of the public health care systems should be compatible with private expenditure by households. Finally, the IHSA can be useful only for the tax-paying sector of the economy, which limits its potential impact in LAC countries with large informal sectors.

Health care financing has proven to be a difficult field. Several countries in the region have tried innovative solutions (see the Americas Social Security Report of the CISS 2003), but more research on theoretical and administrative issues is needed. The menu of options is rich (see Box IV.2), and a good design of the rules and regulations affecting savings of households can be a strong support to any mix of policies used to finance health care.

IV.4 General Regulation

There seems to be a consensus in the western countries about the growing importance of "underground" or "informal" economic activities.

Box IV.2
Options for Financing Health Care

The financial structure of health care is closely related to the organization of medical care. Barr (2001) analyzes the options of financing medical care through the assessment of three different strategies: (i) private funding and private production of health care; (ii) public funding and public production; and (iii) public funding of private production. These strategies are applied in the United States, United Kingdom and Canada respectively. Private funding and private production in United States consists of diverse and competing private funding sources. In the United Kingdom and some Scandinavian countries health care is publicly produced and is largely financed from general taxation. In Canada most of the health care is publicly funded and privately provided.

In evaluating the options for financing health care Barr (2001) adopts four criteria to assess the three different strategies. For each strategy he describes the pros and cons related with cost containment, access, waiting lists and consumer choice. The next table summarizes his findings.

Strategy	Advantages	Disadvantages
"Private funding plus private production" (United States)	-Waiting lists are not a problem. -Consumer choice is not a problem but financial pressures restrict patient choice.	-High spending -A gap in coverage remains and access to quality care is unequal.
"Public funding plus public production" (United Kingdom)	-Health service is cheap by international standards. -Access is good even though it is not equal.	-Consumer choice is inflexible and there is limited ability to accommodate consumer preferences. -Waiting lists are long.
"Public funding plus private production" (Canada and Germany)	-Waiting lists are not a problem. -Access is good, nobody is excluded on the grounds of poverty. -Consumer choice is not a problem. However tighter budgets are beginning to constrain choices.	-Vulnerability to third-party incentives and continuous pressures on medical spending.

Box IV.2 (continued)
Options for Financing Health Care

Barr (2001) concludes that the options for financing and delivery health care are limited. Systems that rely on private financing face problems of gaps in coverage and exploding costs and Barr recommends that the main method for financing health should be public funding through taxation or social insurance. He says that this option could be administered by a central government as in the UK; by provincial governments as in Canada; or by state institutions as Germany does. On the other hand, he goes on to point out that it is not clear how provision should be organized, because there are successful systems with health care produced mainly publicly, mainly privately, or via a mix. As a result, he states that "no system of health finance is perfect; the objective of policy-makers is to choose the strategy whose faults are least objectionable to the society in question."

Barr argues that a country interested in using the "public funding plus private production" strategy should consider it only if policy-makers are confident about having the political and the administrative capacity to make necessary cost-containment measures stick. A strategy worth looking at is some sort of social insurance combined with regulation of total medical spending, such as the scheme applied by Stanford University.

In wealthier countries as well as in many developing countries, there is a perception of increasing difficulty of collecting taxes, keeping records on contributors, and in general enforcing laws and regulations designed to achieve the provision of public goods and services. While it is not altogether clear that the problem is growing, the general consensus is that it is very important. For social security programs, informality has represented a significant problem for the financing and long-term viability of the systems, since most benefits for old-age, disability and survivor programs are financed by contributions from employees and employers in the formal economy. A large informal sector makes the financing of social security schemes more difficult, particularly if the system is pay-as-you-go (PAYGO) and if the dependency ratio (i.e. retired population divided by the working age population) is high and/or increasing in the foreseeable future. For social security institutions in particular, it has become difficult to achieve the growing coverage that was perhaps taken for granted in many countries until the sixties and seventies. The post-World War II period witnessed substantial gains in social protection coverage in the LAC region, and the last quarter of the 20th century was dominated by growing concerns about the capacity of social insurance to reach the entire population. By the new millennium, large informal economies are prevalent, and the prospects of a return to a path of increasing coverage are slim.

The labor market in LAC is characterized by a large and growing informal sector. Schneider and Enste (2000) summarize estimates of the informal economy under different methods of measurement for several developed and developing countries. In the Latin American region, the countries with the largest informal economies are Bolivia, Panama, Peru and Guatemala, while the smallest are found in Costa Rica, Argentina, and Chile. For Mexico the estimates vary substantially, between 27.1 and 49% On the other hand, the United States and Canada have the lowest levels, even among OECD countries (Table IV.8).

Giles and Tedds (1999) list the factors that influence informal economic activities. Among these factors are tax rates, tax complexity, regulatory burdens, unemployment levels, levels of disposable income, the inflation rate, the age-gender profile of the population, prevalence of self-employment,

Table IV.8
Informal Economy in Developing Countries

	Informal economy weight (% of GDP)		Informal economy weight (% of GDP)
Central and South America		**Africa**	
Argentina	21.8	Mauritania	20.0
Bolivia	65.6	Morocco	39.0
Brazil	29.0-37.8	Nigeria	76.0
Chile	18.2-37.0	South Africa	9.0
Colombia	25.0-35.1	Tanzania	31.02
Costa Rica	23.2-34.0	Tunisia	45.0
Ecuador	31.2	**Asia**	
Guatemala	50.4-61.0	Cyprus	21.0
Honduras	46.7	Hong Kong	13.0
Mexico	27.1-35.1	India	22.4
Panama	40.0-62.1	Israel	29.0
Paraguay	27	Malaysia	39.0
Peru	44.0-57.4	Philippines	50.0
Uruguay	35.2	Singapoore	13.0
Venezuela	30.0-30.8	South Korea	38.0
Africa		Sri Lanka	20.35-40.0
Botswana	27.0	Taiwan	N.A.
Egypt	68.0	Thailand	16.55-71.0

Sources: Data are take from Schneider and Enste (2000).
N.A.: not available.

frequency of employment in more than one job, immigration levels, confidence in government, tax morality, level of economic and political development, and technological and financial sophistication.

Apart from considering illegal and criminal activities for the term informal or underground, we are still left with a wide range of activities performed outside the sphere of the law. Governments continuously take actions to affect the decisions of individuals to participate in the informal economy. The policy issue includes more than the legal effects on the labor market, because social protection and the ability of the government to provide public goods are endangered by a large informal sector.

A trend that has been identified in OECD studies and that may be of great policy relevance is that the share of the population involved in informal activities has grown in countries where the problem was small two and three decades ago. In Denmark, the share of the adult population performing informal activities went from 8.3 to 22.5% between the eighties and the nineties, and for Germany the figures moved from between 8 to 12%, to over 22% in a similar period. This is not a measure of the underground economy, and in these countries it usually means that workers, who may be covered by the social security system in one occupation, also have a second job or work extra hours in an uncovered activity. This behavior aims to evade contributions once the benefits become largely independent of additional contributions. In view of this trend, it is useful to review the global forces leading to informality.

Giles and Tedds (1999) review the available evidence about underground activity in developed countries. They find a strong association between increases in effective tax rates and increases in the

size of the underground economy. Using statistical tools they attempt to answer questions on the extent of the underground economy, its growth, the motivations of individuals to cheat on their taxes, and the appropriate or even possible government policy responses to tax evasion.

Informal activities result from a combination of heavier tax and regulatory burdens, and from the inability of institutions to enforce them. Loayza (1996) performs a cross-country analysis of multiple factors that are statistically related to the level of informality, and finds that for fourteen Latin American countries the three key variables are the tax burden, labor market regulations and the efficiency of government institutions. Nevertheless, it is not easy to reach conclusions about how to transform these elements. Regulations that support the tax system are often complex, and proposals to simplify the codes have been advanced in many countries. The theoretical argument is that simplifying tax laws makes enforcement easier, and this reduces the incentive of individuals to evade taxes by engaging in informal activities. On the other hand, broadening the tax base and eliminating exemptions, because of the disregard for the special nature of some economic activities, create additional incentives to move certain activities underground.

Certain economic activities suffer chronically from timing problems, in that entrepreneurs must make investments and take on risks long before realizing gains. In consequence, there is a limit in the simplification of fiscal legislation for small firms. It is then necessary to keep some specific accounting and fiscal rules to avoid the taxation of investment in a wrong way (this sort of exemption exists, since the value added tax is usually collected on final goods in most countries). Simplifying the tax code by eliminating this sort of exception might at the margin cause many companies or investors to take their whole operation underground, whereas previously they were formal companies that paid taxes in general and used the tax exemptions legally to reduce their tax burden. While in general the simplification of the tax system and the broadening of the tax base will result in less informality, perhaps legislators and policy makers should be careful about eliminating all exemptions, because the cost of eliminating some might exceed the benefits.

As they seek alternative policies in order to successfully tax informal activities, some countries have developed innovative forms of taxation. Tanzi (2000) discusses the fact that small activities create major problems for tax administrators and mentions that in the last two decades Latin American countries have introduced special tax provisions for small taxpayers. He asserts that for such taxpayers, Argentina, Bolivia, Brazil and Peru have established a single and comprehensive tax which substitutes VAT, income taxes and social security taxes. He argues that the "monotributo" of Argentina and the "Simples" tax of Brazil are particularly interesting as mechanisms for substituting several taxes. The author mentions that Costa Rica, Dominican Republic, Guatemala, Mexico, Nicaragua and Panama have simplified taxes for small taxpayers, by substituting either the VAT or the income tax. In 2004, Mexico approved a provision in the tax code to allow small tax-payers to credit social security contributions against VAT (that is, contributions can be deducted from due payments of VAT); the impact of this innovation on coverage remains to be seen, but proponents expect that a few million families could be benefited.

In the United States, there has been a policy of reducing the tax rate paid by individuals, under the hypothesis that highly progressive systems induce informal activities. For example, Cebula (1997) estimates that an increase in one percentage point of the income tax rate induces growth of 1.4% of the informal economy. However, Johnson, Kaufmann, and Zoido-Lobaton (1998a, 1998b), and Friedman, Johnson, Kaufmann and Zoido-Lobaton (1999) point out that high tax rates are not the direct cause of the informal economy, and that discretionary application of the laws is necessary to explain this phenomenon. This means that employers go underground not only to evade taxes, but also due to corruption and

uncertainty in the application of the law. Franzoni (1998) describes the different economic models that try to explain the role of law and law enforcement on compliance. A main conclusion of this theoretical literature in law and economics is that a simple approach of reforming the laws or the auditing methods may not go far in reducing the problem of non-compliance, because institutional and procedural factors also play a key role. The relevant variable to measure efficiency in enforcement is the "probability that an investigation will eventually result in conviction and sanction for the wrongdoer. Here a host of additional factors come into play: whether evasion leaves detectable traces, the specific ability and expertise of the auditors, the set of investigative tools at their disposal (for example, the degree of banking secrecy), the possibility of inducing taxpayer collaboration, the feasibility of out-of-court settlements, the standard of proof, the definition of 'fault', the clarity of the tax law, the number of levels of appeal, and so on" (Franzoni, 1998). For social security agencies this diagnosis represents a challenge. Audit probabilities and rates of sanction are somewhat under their control, sometimes as administrative tools, and sometimes through the influence the agency can exert over legislation related to its operations. However, the efficiency of the court system and the other factors listed by Franzoni (1998) tend to depend on the general condition of the legal system in the country, which may not be easily influenced by the social security agency.

The influential studies by De Soto (1986, 2000) stress the importance of regulations in determining the size of the informal economy. His first book "The Other Path" (1986) had an important impact on the academic literature on the informal sector in the decade after its publication. In his opinion, inadequate and badly enforced regulations create the largest rates of informality in the world, as entrepreneurs regularly ignore or pay to avoid regulations. As a result businesses are unregistered and land is untitled and the excessive and discretionary regulations not only mean a low level of compliance with the law, but also a huge devaluation of capital, especially of poor people that become marginalized.

Social protection systems can play a positive role to develop the six "effects of property" proposed by De Soto (2000), namely: (i) measuring the economic potential of assets, (ii) integrating disperse information into a single system, (iii) empowering persons with responsibility, (iv) making assets tradable, (v) creating networks and, (vi) protecting transactions. To some extent, recent reforms in social security have given more decision-making power to workers and increased accountability, for example, through systems offering individual retirement accounts. Nevertheless, the evidence suggests that improving the credibility of social security benefits may not be enough. In economies where informality is widespread, several policies may be needed to bring workers into a formal market in which there is general compliance with the law. So far the reforms seem to be too weak in terms of improving credibility or accountability. It is not clear, for example, that individual retirement accounts empower workers – this depends greatly on the quality of service and level of competition in the retirement account market. It is also not clear that such reforms increase the credibility of social security benefits. The only obvious way in which reforms can increase the incentives of workers to be in the formal sector is by attracting them with benefits they cannot acquire in the informal sector. However, if workers can obtain social security pension coverage by working only a few years in the formal sector, and receive health coverage through having another family member working permanently in the formal sector, it is not clear that the creation of individual retirement account will affect their decision to operate mainly in the informal market. It can also be mentioned that investments in reformed systems include a large proportion of public bonds, and individuals may view these savings as subject to risk of future regulations or controls that will reduce their value (as happened in Argentina after the 2001 monetary crisis).

For the foreseeable future, social security will

continue to be the main social program in most LAC countries, and with this importance come substantial administrative responsibilities, such as maintaining the largest and most reliable data base on families' work, wages and benefits received. It will also be true, as it is in North America and Western Europe, that social security entitlements will be the main form of savings for many, perhaps most families. Also, to the extent that records on contributions and benefits are accurate, although social security will not solve the problem of informality, it can contribute substantially to the solution. Accurate records play an even more important role when social protection is fragmented (see Chapter V). When a worker needs to keep multiple records to benefit from social insurance programs, and institutions do not integrate the information from different programs (due to either mismanagement or political considerations that preclude legislative or administrative agreements to integrate information), there is a loss of information. If this happens, then De Soto's worst scenario becomes true, social security becomes a taxation mechanism that provides uncertain benefits, and many households opt for jobs lacking protection.

The results of research discussed above appear to imply a paradox. If the government faces a large informal economy, any strategy that attempts to increase regulations and controls, may exacerbate informality. A more effective policy would be to simplify laws and regulations, to improve the administrative abilities of regulatory agencies in charge of applying and enforcing them, and to streamline court procedures for solving controversies. Thus, in a country with a large underground economy, as is the case in most LAC, reforms to social security that reduce taxes and improve the management of collections or benefits may be useful in the short run but may end up having a limited impact on coverage, and only a holistic approach, dealing integrally with the problems of firms in the informal economy, can be successful.

A large extension of social protection systems achieved mainly through increasing budgetary resources, so as to cover many individuals who work in the informal sector, will not produce incentives to register one's property or to work in the formal sector. In fact, providing health and other social services on a non-contributory basis could increase the size of the informal sector, and would thus be counterproductive from the point of view of De Soto (2000).

IV.5 Administration of Social Security for a Dynamic Labor Market

The administrative and technological organization of social security can have a substantial impact on the ability of the system to offer financial and other services mandated by legislation. Problems of fragmentation of social protection and inability to attract workers and small firms in the informal labor market or in the rural market are due at least in part to the administrative difficulties inherent in managing data bases and information for those populations. Social insurance is not different from other types of insurance in this respect, and it is well known that managing special cases can be extremely costly.

While most of the policy discussions deal with tax and benefit structures, and try to identify the causes of lack of social insurance, they usually assume that the cost of service provision is given, which for social security agencies is not an adequate assumption. Management is the key for success, and even when social security administrations cannot on their own solve the problem of incomplete coverage, they should be accountable for modernizing their processes to make affiliation less costly and allow greater access to benefits. Given the size of social security agencies, and the impact of their services on the welfare of families, their goal should always be to use administrative technologies comparable to those of leading private corporations.

The legal and financial architecture of social insurance is the set of information systems (data collection, transfer, processing and access to information), and financial flows, which facilitate the recognition and collection of contributions at a point

in time and the calculation and provision of benefits in the future. Proper architecture reduces management and data processing costs for all agents in the system (public agencies, fund managers, as well as insurers or suppliers in the field of health care, child care and other social services). The architecture of the collection system differs across countries (and even within countries when there is segmentation of the social protection system). In some cases, contributions are collected by a general or national tax agency, while social security agencies only receive funds and information and do not have a main role in the enforcement (although they may support the collection agency closely). In other cases, the social security agency is in charge of collection and enforcement. Another important difference lies in who calculates contributions initially: some countries allow employers and individuals to present a "tax return", which usually means that they are responsible for calculating their required contributions. In other cases, the agency issues some type of "invoice" on the basis of existing records of employment and wages, which includes the computation of the amount to be paid.

For example, a minimum aspiration for a contemporary social security agency should be to have an operating system based on the World Wide Web, to allow continuous registration and payment of contributions, queries on rights and benefits, and other relatively sophisticated transactions, at low cost. The cost of setting up such a system is substantial, but the initial investment will deliver very low average operating costs. The alternative is to operate social security processes at a cost high enough to make them too costly for small firms and migratory workers.

Examples of success in the area of technology can be found in the pension reforms of several Latin American countries. Within a period of a few years, some reformed pensions systems have begun offering web access to workers and retirees that wish to verify contributions and assets. If a higher level of trust is achieved, and the system is effective in performing basic functions, it may attract at least a subset of the workers who today remain outside the insurance umbrella due to high administrative costs. Nevertheless there are deficiencies in the reformed operating systems. For example, the number of active accounts has grown in large proportions in some countries. This increase results from inadequate management of ID numbers, which produces multiple accounts for the same person.

The operating system of a social security program is a mean to integrate diverse agents, such as fund managers chosen by the worker, health service providers that receive transfers from social insurance funds, hundreds of thousands of employers paying benefits to a highly mobile labor force, millions of disabled persons collecting benefits or receiving other in-kind benefits, as well as an array of public agencies (social security agencies, supervisors of fund managers or health plans, tax authorities, and others). The operating system faces the challenge of managing on a daily basis the flow of information and money to and from this diverse group of agents, and of guaranteeing the integrity of exchanges.

Financial and insurance systems, which are vital for social and individual welfare in a contemporary society, would be impossible without data analysis. Data is indispensable to measure and value risk effectively, to facilitate the continuing operation of laws and regulations, as well as the continuing negotiation of contracts, claims, adjustments and payments. To expand the social capacity to manage risk requires improving the data bases and the technologies for their management. Current technologies allow the development of detailed data bases on risk, with information on income and assets, as well as aggregate variables about the relevant risks faced by individuals, firms, government agencies and other agents.

Social security can play a key constructive role in this development, perhaps because social insurance combines a very long horizon, a need for intensive data management, and one of the widest possible cross-sections of individuals and firms. Also, social

insurance is composed of public programs, thus some of the necessary steps in developing data bases and methodology for analysis are in the public sphere. For example, one initial step towards the development of data bases is the creation of standards and legal criteria. Rules must be issued about what can be included in the data bases, about the information that is public, and the state must guarantee the validity of certain transactions and procedures defined in the law, even in the distant future (administrative and judicial fields). The public nature of the information probably means that some type of subsidy or public service regulation will be needed, as well as legislation on privacy issues.

Information on management should also be included in these data bases, allowing the documentation of contracts between the social security administration and individuals, suppliers, governments and other agents for the provision of risk management and protection. This database should improve the supervision of agencies and corporations that manage social security programs (integrally or parts of the process) through the obligation of revealing basic information. In 2002, the European Union agreed on the adoption of International Accounting Standards, akin to Generally Accepted Accounting Principles (GAAP), used to different degrees in the American continent. This eases the comparison of data bases across countries. To this date, few social security agencies apply GAAP fully, and there is little justification for that omission. Achieving a higher level of confidence in the social security system requires serious consideration of this issue in each country.

Additional to accounting regulations, the laws should mandate quick and full revelation of financial information. Beginning in 2002, the law in the United States requires that when some corporation shares information with any external party, that information must be made known to the general public. These regulations must go hand in hand with the adoption of information technologies (IT), because information must be reliable and produced in formats that can be used by private parties at low cost. Given the large impact of social security on public finance and markets (especially in reformed systems), financial information of social security agencies should comply with similar or stronger standards than those applied to private sector corporations.

There are several improvements in IT which can be used in health management. For example, the Food and Drug Administration in United States has approved the marketing of implantable chips under skin that would provide easy access to individual medical records and also can be used as security and access-control devices. However this topic as well as other topics related with IT generates important privacy issues.

Privacy is another issue that requires state action. Data bases allow access to a wide variety of data about individual behavior and the introduction of these technologies has raised significant concerns about personal privacy. Individuals want to be sure that there will not be a misuse of the information the agency could share to others and sometimes they want that only some information about themselves be available to others and that other kind of information be undisclosed. The new IT will allow social security agencies to provide personalized service, but this raises privacy issues. Regulations must be issued to avoid use of the information by third parties without consent. Among others issues, regulations shall deal with default contracts to manage personal information, as well as the use of personal information for advertising purposes (Varian 2003).

There are mechanisms to hide the identity of individuals on the basis of immediate access to updated information. Currently available technologies allow such linkages of data bases, such as the dynamic evaluation of risk of privacy break up after repeated searches, the masking of matrixes and added noise, and other statistical techniques. Full confidence is achieved only if there is a balance between of data base operators knowledge about the individuals, and the knowledge of the individuals about the data. Processes for consultation and

correction are also needed. Privacy is a complex issue and there are several topics surrounding it but unfortunately this Report does not deal with them.

The construction of data bases connected with the systems to collect taxes and contributions would help to deal with the problem of complex fiscal laws. If the system had comprehensive information on income of individuals and corporations, social security agencies could calculate contributions automatically, including adjustments and special movements that currently require time and budgetary resources. With a sophisticated interphase of the data bases, contribution rules could depend on more variables, and the system could become truly inter-temporal and inter-personal. To the extent that these interrelations became automatic, they would not represent an additional burden on tax payers or beneficiaries. Here, we begin to see how the development of innovative information systems can allow cheaper management of social insurance processes for small firms and individual workers. Often, collection processes are based on a firm's payroll, but small firms and the self-employed often do not have a payroll, even though they pay some taxes (like the value added tax or other taxes on sales) and services (such as electricity, water and telephone).

This is very important for social programs, because there could be better rules to support families with children, workers with unexpected losses of income, high turnover in some jobs, taking into account fuller histories of families. The development of the system would also allow the adoption of a "current account" format, allowing individuals and employers to learn, on-line or at least at low cost (such as an "800 or toll-free number"), updated basic information on contributions, benefits, expected benefits and in general to improve the work of social security agencies in the customer service area. When referring to social security programs as those based on a net, it does not imply that individual users and small firms must directly interact via internet but that social security agencies operate their services intranet (internally) and rely on customer service processes according with each country capacity.

With regard to the problem of fractured social protection systems that prompts this Report, technology will reduce problems associated with loss of benefits due to multiple social insurance systems. The coexistence of various social insurance programs generates problems of portability of pension benefits and loss of health insurance benefits when protection is tied to a particular employment contract. There are large opportunities for improvement through better coordination among all types of social insurance programs.

To close this Section, we can say that while great opportunities for productivity growth are available to social security administrations, successful organizations will be those with the ability of adapting to and using new technologies. Special attention should be paid to the reduction in administrative costs that has been taking place in several industries, especially the insurance industry, because the evidence is that managing individual insurance policies is very costly, even in countries with developed financial sectors. Under the holistic approach suggested in other sections of this Chapter, we argue that advances in the administrative front will not solve the whole problem of informality, but social security agencies are accountable to society for updating their services to the leading technological standards.

CHAPTER V
COEXISTENCE OF PENSION PLANS

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V.1 Introduction

The "coexistence of regimes" or "fragmentation" in social security systems represents a challenge for equity, universality and efficient administration. However, it is important to understand that historically the growth of special schemes was a social answer to the needs of large groups of workers, although in the long run special schemes imply difficulties in establishing a universal social security system. Recent efforts to solve the problem of fragmentation have faced transitional and conceptual difficulties that indicate the need to engage in more research on this problem.

This Chapter will review the issue of fragmentation of pension systems, where the problems and potential solutions are better defined than for health insurance. The following Chapter will concentrate on the segmentation of health insurance and its effects on the labor market, a field in which the approaches that have been attempted or proposed and their evaluation are the subject of wider debates.

Fragmentation represents a challenge for equality because the existence of different rules on required time of contribution, pension calculation and other variables generates the possibility of substantial discrepancies in the well-being of families according to the types of labor contracts they enter into, and this contradicts the general objectives of the pension system. In the private sector, the existence of differentiated pension, health or child care plans can be justified by the management goals of each company. But in the case of public systems, the starting point is generally an assumption of equity in the fiscal support provided to families, and in their rights and duties. Economic events that for the family are random should not result in a loss of social protection. These include unemployment or job turnover generated by the economic cycle, technological or commercial evolution and other events that cause job change or a change in the type of contract (salaried, self-employed, employed in a corporation with a wide package of benefits, employed by a firm with no benefits above the legal minimum, etc.). Social security exists precisely to smooth the effect of such events on the family.

With respect to universality, the existence of different regimes posits obstacles to labor mobility (a subject that has been discussed in previous Chapters of this Report) due to the problem of portability of benefits. The high costs of portability in a segmented system can result in many high turnover workers staying out of the system altogether, and in many others that contribute during part of their life-times to a scheme that will not pay them any benefits in old-age. A common example of this situation is a worker that could move to a more productive job but decides not to because the reduction in pension benefits will be greater than the gains in higher wages. Also, there is a social loss when the mobility of

income earners in a household is reduced by the fear of losing access to adequate medical or child care.

Finally, efficient administration is less likely when the integration of administrative operations is obstructed for regulatory reasons. Historical experience indicates that a total vertical and horizontal integration of social security programs can lead to excessive bureaucracy and to public monopolies that are difficult to regulate. On the other hand, it is clear that there are important processes that require full integration in order to achieve efficiency, such as the development and management of a database of employers, workers and pensioners for collection purposes, the management of minimum guaranteed pensions and other benefits financed directly by the government.

The existence of special or wider benefits for a group of workers (even from the public sector) is not in itself contrary to the adequate functioning of social security, if this special treatment is justified as a necessary personnel policy. As such, a government can be interested in giving special benefits to the military or the judiciary due to their role in state and national security, or it might want to give public school teachers an incentive to diminish rotation between schools and to guarantee enough personnel in schools around the country. In the same way, the private sector companies can utilize complementary pension plans in order to provide incentives for productivity or to increase their employees' satisfaction. However, a win-win solution results when these additional benefits are compatible with the social security system in general, benefiting workers (who frequently are the most affected by their participation in a special system if they have to change jobs), national treasuries (that are partly liable for the losses associated with fragmentation), and public and private employers who use pension plans as a tool for the administration of human resources.

This Chapter shows the advances that have been achieved in relation to consolidation, portability and standardization of requirements for entitlement to benefits, and discusses the difficulties that the existence of special regimes pose to the public administration and to the well-being of workers.

V.2 Historical Models

Even though there has been some progress in reducing the fragmentation of pension systems, there are still well defined problems to be solved and these are often repeated in several countries. Later Sections will focus in depth on country cases and will propose several solutions.

Mesa-Lago (1985) classifies and organizes Latin American pension systems into three groups: pioneer-high, intermediate, and latest-low, according to the period of time in which they were developed. He uses the date when countries introduced their first pension and retirement programs, as well as the degree of development achieved. The pioneer-high group, integrated by Uruguay, Argentina, Chile, Cuba, Brazil and Costa Rica, was the first group to establish social security systems in the region. In the 20's and 30's this group reached high levels of coverage and development. Its population was older and its life expectancy was higher compared to other countries in the region. However, the systems were characterized by stratification, high costs, increasing deficit, and financial and actuarial imbalance. The intermediate group integrated by Panama, Mexico, Peru, Colombia, Bolivia, Ecuador and Venezuela, implemented their programs mainly in the decades of the 40's and 50's. They achieved lower levels of development and coverage. Their systems were less stratified, costs were lower and their financial situation in general more solid compared to the first group. The latest-lower group (Paraguay, Dominican Republic, Guatemala, El Salvador, Nicaragua, Honduras and Haiti) introduced programs during the 60's and 70's. Its population was the youngest and its life expectancy the lowest. Its systems were relatively more unified and had less financial problems, but they also had the lowest levels of coverage and development.

During the eighties, system fragmentation was very common. The process of gradual development in the pioneer-high group resulted in a variety of different programs without any central coordination and, very often, without any supervision. For example, in Chile in 1979 there were 90 social security programs for the elderly and disabled; in Uruguay there were 10 social security pension programs in 1967 and Costa Rica created 19 independent public pension programs after the establishment of the general system, all of which were in force in the mid 80's. Even though the intermediate group had lower multiplicity of programs, in Colombia about 1,000 social security programs survived; in Bolivia there were 51 pension programs, as well as more than 35 in Mexico and 13 in Venezuela. The latest-lowest group was generally unified. For example, there was only one program in Panama and Nicaragua, 3 public pension programs in El Salvador and Guatemala (plus 14 systems of supplementary pension in the latter), and 7 in Honduras. All this resulted in increased administrative costs, serious problems of control and supervision, and lack of "portability." The consolidation process in the 60's, 70's and 80's reduced the number of institutions and/or established a central agency in charge of administration or at least of coordination and supervision, for example, in Argentina, Brazil, Cuba, Chile and Uruguay.

As for uniformity and equality, the countries in the pioneer-high group (and some in the intermediate group) already had programs that protected military personnel and government workers by the end of the 19th century. Social security was developed in a fragmented way in the 20th century, through multiple programs that covered occupational sectors, each of them with its own legislation. This evolution generated a stratified system by occupational lines, with unjustified differences with respect to access, financing and lending that clearly contradicted uniformity of treatment. The best-organized sectors achieved protection earlier and gained more liberal access conditions, whereas the opposite happened in less powerful sectors. In the 60's, 70's and 80's, parallel to the process of unification, there was a process of normalization of access requirements in all the countries in the pioneer-high group, even though some important inequalities remain. The intermediate group benefited from the later creation of its pension programs and sought to establish a general social security system. But in some countries some already existing programs survived and in others new programs and inequalities emerged. The latest-lowest group established the least stratified and more equitable systems, with a few important exceptions.

The most common cases of segmentation are associated with the armed forces and with government workers, but also with certain unions, industries or special activities: workers for the Legislative and the Judiciary branches of government, teachers and professors, bankers, utilities and energy industry workers, and even social security agencies' employees. On the opposite end, farm workers, the self-employed and domestic services' workers, when covered, faced stricter access conditions and obtained lower benefits.

As in most parts of the world, social security pensions in the region were based mainly on contributions, but the six countries forming the group pioneer-high also provided a non-contributory (or supplementary) pension to poor sectors, based on income tests and the availability of resources (Mesa-Lago 1985; Mesa-Lago and Bertranou 1998).

V.3 Recent Processes of Consolidation

V.3.1 Reformed Systems

In order to study the fragmentation of systems, Mesa-Lago (1985) provides a useful classification. He classifies the strategies for LAC transition in three general models: (1) substitution, where the public system is completely replaced by a private one, immediately or gradually: Chile (1981), Bolivia (1997), Mexico (1997), El Salvador (1998), Dominican Republic (2003-2006) and Nicaragua (2004); (2) parallel, where the public and private systems are in competition: Peru (1993) and Colombia (1994), and

(3) mixed, which integrate a public program with a private one, such as in Argentina (1994), Uruguay (1996), Costa Rica (2001) and Ecuador (2004). Among the non-reformed systems, two have introduced or are in the process of introducing parametric reforms (Brazil and Venezuela) and the rest have not had reforms yet (Cuba, Guatemala, Haiti, Honduras, Panama and Paraguay).

The current situation of public pension systems varies according to the model of reform (see Table V.1). In the substitution model, the public pension system has been completely shut down, as in Bolivia and Mexico where the national treasury took on payment responsibility; whereas the public system survives partially in Chile, El Salvador and Dominican Republic. In the parallel model, the public nature of the system is maintained, but to some extent the regulatory authority is concentrated in one administrator: the National Providence Institute in Peru and the Institute of Social Security in Colombia. Lastly, in the mixed models (Argentina, Costa Rica, Ecuador and Uruguay), the administrator of the first pillar continues to be the social security agency; Argentina is a special case because the insured can choose between the public system and the mixed system. In both cases the public system is in charge of the Secretary of State of Social Security through the National Administration of Social Security (ANSES).

The reforms integrated the majority of the programs that were separated before, with important exceptions for the armed forces (in general), for government workers (Argentina, Colombia, Mexico, Peru and Dominican Republic), and other groups in five countries. In Bolivia all programs were integrated into the general system; the law dictates the incorporation of the armed forces under special conditions. Peru maintains a separate program for government workers, but it is closed to new

Table V.1
Unity and Multiplicity in Countries with Structural Reforms, 2003-2004

Countries	General private system		General public system		Programs that are separated from the general system		
	Number of administrators	Members (%)[a]	Existing?	Members (%)	Armed forces	Government workers	Other groups
Argentina	12	80 [c]	Yes	20	Yes	Yes[g]	Provinces, teachers, professionals, etc.
Bolivia	2	100	No	0	Yes [f]	No	No
Colombia	6	45	Yes	55	Yes	Yes[h]	Oil, teachers, etc.
Costa Rica	8	100 [d]	Yes	100 [d]	No	No	Teachers, judges
Chile	6	98	Yes[e]	2	Yes	No	No
Ecuador	N.A.	N.A.	Yes	N.A.	Yes	No	No
El Salvador	3 [b]	91	Yes	9	Yes	No	No
Mexico	12	100	No	0	Yes	Yes	State workers and oil
Nicaragua	N.A.	N.A.	Yes	N.A.	Yes	N.A.	N.A.
Peru	4	96	Yes	4	Yes	Yes[i]	Fund in public sector
Dominican R.	9	N.A.	Yes	N.A.	Yes	Yes[j]	No
Uruguay	4	51 [c]	Yes	49	Yes	No	Bankers, professionals professors, notary public

[a] Percentage of total members combining public and private sectors. [b] At the end of 2003 an administrator went bankrupt and was about to disappear. [c] The insured in the capitalization pillar are also in the basic public system. [d] All insured are in both systems. [e] Closed and reduced to a minimum capacity. [f] Law dictates incorporation under special conditions. [g] Only half of the public employees in the provinces, as well as from the three branches of government are incorporated into the separate program. [h] Only partial, incorporation scheduled for 2014, new government workers have to become members of the private system. [i] New government workers must become members of one of the general systems; special savings fund to improve the public pensions .[j] Government workers at the time of the reform can choose between their own system or moving to the mixed system, the new government workers have to becomes members of the mixed system.
Source: Legislation of the twelve countries; number of administrators: AIOS (2003); percentage of members: Mesa-Lago (2004).
N.A.: not available.

members; new government workers must become members of one of the two general systems; also a special fund was created in order to increase the pensions paid in this sector. In Uruguay, there are three small groups that maintain separate programs: bankers, notaries and professors. In all the countries there are voluntary programs for additional saving. Section V.4 describes further relevant details for several countries.

V.3.2 Public Systems

In LAC it is very common to find special programs for government workers in the Executive, Legislative and Judicial branches, as well as for teachers, bankers and other well organized and influential groups. Also the armed forces have separate programs, with the exception of Panama.

The system in Panama is the most unified in the region since there is only one program that covers all workers in the private and public sectors; there are also voluntary programs for supplementary pensions. The Fund of Social Service (CSS) is an autonomous entity and supplementary funds are administered by private entities.

Cuba unified 51 programs of independent pensions, but it still has three programs: general (managed by the Ministry of Labor and Social Security, MTSS), armed forces, and internal security; there are not programs of supplementary pensions. The MTSS administers all the pension plans (insurance and assistance), with the exception of the armed forces and internal security, that are administered by their respective departments.

Guatemala has three programs: general (Guatemalan Institute of Social Security, IGSS), government workers, and armed forces; there are also 14 schemes of supplementary pensions for the public and private sectors. The general program is autonomous, whereas the government workers' programs are administered by the government, and the armed forces' program by the Ministry of Defense. Supplementary pension funds are administered by financial entities, banks and insurance companies, which are regulated or supervised by the superintendent for banking.

Honduras has seven programs: general (Honduran Institute of Social Security, IHSS), executive, Legislative and Judicial branches, self-governed institutions, teachers and the main university, armed forces, newscasters and the central bank. Each program is administered by a separate agency without any coordination; a national commission of banking and insurance supervises the IHSS investments.

Venezuela probably has the most segmented system: general (Venezuelan Institute of Social Security, IVSS) for private employees, blue collar workers and government workers (the latter were incorporated in 1991), independent workers and domestic workers; central government workers, government and municipal (until 1991); and special regimes for the Judicial power, Legislative power, armed forces, police, central bank, finance office, district attorney's office, department of education, professors, oil and electricity from Caracas, as well as 400 other programs. A reform passed in 2002 orders the integration of all programs, particularly, this law stipulates that in five years all sectors must be incorporated in an integrated system, and that separate programs will coexist with such a system until all rights generated under the old programs are extinct; the special regimes could become supplementary voluntary pension programs. The public programs are autonomous entities and up until now there has been neither coordination nor a supervising organization; the law of 2002 is an attempt to solve this problem (Table V.2).

V.3.3 Effect of the Reforms on Equal Treatment in Contributions and Benefits

Significant deficiencies in completing the process of consolidation are reflected in the heterogeneity of the treatment of contributions and benefits across individuals. Table V.3 shows that in eight of the twelve countries that have had a reform, the conditions of accessibility to the public systems/components (closed or open) were recognized as

Table V.2
Unity and Multiplicity in Public Systems, 2003-2004

	General public system			Groups that are separated from the general system			
	Number of programs	Managing institution	Covered sector	Armed forces	Public sector employees	Others	Perticipation in management of the protectered sectors
Brazil	4 [a]	Ministry	Private	Yes[b]	Yes[b]	State, municipality	Yes
Cuba	3	Ministry	Public	Yes	No	Internal security	No
Guatemala	3	Social Security	Private	Yes	Yes	No	Yes
Honduras	7	Social Security	Private	Yes	Yes[c]	Teachers, university, central banks, journalists	Yes
Panama	1	Social Segurity	All	No	No	No	Yes
Paraguay	7	Social Segurity	Private	Yes	Yes[c]	Teachers, banks graphics, railroads	Yes
Venezuela	13	Social Segurity	Private and public	Yes	Yes[d]	Central bank, controller, prosecutor, universities, etc.	Yes

[a] Main programs, there are others in some states and municipalities. [b] The program of public employees includes the armed forces and part of the states and municipalities. [c] Executive, legislative and judicial branches and autonomous agencies. [d] Program closed before 1991 for central, state and municipal government employees.
Source: Legislation of the countries; Mesa-Lago (2004).

Table V.3
Conditions of Accessibility for Old Age Pensions After the Reform, 2004

	General systems			
	Age of retirement (women/men)		Years of quotes	
	Public	Private	Public	Private
Argentina	60/65	60/65	30	[e]
Bolivia	50/55 [a]	65	15 [a]	[e]
Colombia	55/60 [b]	[e]	20 [b]	[e]
Costa Rica	65 [c]	65 [c]	20 [c]	20 [c]
Chile	60/65	60/65	10 to 20	[e]
Ecuador	60 [d]	60 [d]	30 [d]	30 [d]
El Salvador	55/60	55/60	25	[g]
Mexico	65	65	9.5	25
Nicaragua	60/65	65	N.A.	N.A.
Peru	65	65	20	20
Dominican R.	60	60 and 65 [f]	25 and 30 [f]	25 and 30 [f]
Uruguay	60	60	35	35

[a] Only for those who acquired the right during the closing of the public system. [b] Age will be raised to 57/62 in 2014 and the required time of contribution to 25 years in 2005-2015. [c] Normal retirement at 65 years and 20 year of contribution; anticipated retirement: women at age 59 years and 11 months, men at 61 years and 11 months, and 39/38 years of contributions. [d] Also with 40 years of contributions and any age or ages 65 and 70 with 10 and 15 years of contribution. [e] Does not require specific age and years of contribution, only a minimum amount in the individual account. [f] Contributive: 60 years of age with 30 years of contributions or 55 years of age with a determined amount in the individual account; contributive-sponsored: age 60 with 25 years of contributions; sponsored: subsidiary 60 for the very poor, handicapped or single mothers without resources. [g] There are three alternatives: 25 years of contributions with ages 55/60, 30 years of contributions for any age, and the accumulation of a certain amount in the individual account without taking into consideration age and contributions.
Source: Legislation of the twelve countries; Mesa-Lago (2004).
N.A.: Not available.

equivalent to conditions in private systems. The exceptions are: Bolivia, for those who had a right to retire before the reform; Colombia, where required age and contributions in the public system were more favorable than in the private system, until the 2002 reform; and Mexico, where whoever was insured at the time of the reform can choose at the moment of retirement between the conditions of accessibility to the closed public system and those of the private system. It is important to recall that the meaning of the requirements on age and years of contribution is different in an individual account than in a PAYGO system. In the former, the lack of minimum or scheduled requirements does not mean that workers will end up retiring earlier or later than in a PAYGO system with a similar level of contributions, because that outcome is a function of the interest rates, the commissions charged by fund managers and other variables. Similarly, the meaning of the regulated retirement age is different, because in the reformed systems this parameter usually refers to the age when the individual becomes eligible to receive a minimum pension.

The majority of the reforms increased the ages for ordinary or normal retirement: Argentina, Bolivia, Chile, Ecuador, Nicaragua, Peru and Uruguay (only for women); in Colombia, age will be increased to 57/62 (women/men) in 2014. A minority of the reforms have not increased the age (Costa Rica, El Salvador, Mexico and the Dominican Republic). The required years of contribution have also been increased in the public systems (closed or open) in El Salvador, Peru, Dominican Republic and Uruguay; in Colombia, this parameter will gradually increase between 2005 and 2015. All the countries require minimum years of contribution in order to have the right to access the minimum pension, usually similar to the parameter used by the general pension system.

The minimum ages for welfare or non-contributory pensions are usually higher than those for contributory programs, even though the beneficiaries of non-contributory pensions have lower life expectancy. These ages are 65 in Chile (versus 60 for women), 70 in Argentina (versus 60 for women and 65 for men), and 70 in Ecuador and Uruguay (versus 60 for both sexes). There are exceptions: in the Dominican Republic the same age is set for welfare and contributory pensions (5 years less than the contributory-subsidized for independents), and in Colombia, the new law reduces by three years the retirement age for the pension beneficiaries (Mesa-Lago 2001; Bertranou et al. 2002).

V.3.4 Treatment of Contributions and Benefits in Non-Reformed Systems

In countries with multiple institutions, there are also significant differences in the conditions of access and benefits between the general public system and the separate programs. Retirement ages in the general systems of these seven countries go from 55/60 (women/men) in Cuba and Venezuela to 60/65 in Brazil and Honduras (Table V.4). Also, these systems require between 11 and 25 years of contribution; the average of 15 years is significantly lower than the requirement in countries with structural reforms (21/26 for public/private systems). In segmented programs the accessibility conditions are more generous and most of them offer retirement according to seniority, based on year of services without taking age into consideration. The greater the degree of segmentation of the system, the greater the differences in the conditions. In five countries the retirement age for women is five years less than for men, which combined with a higher life expectancy results in an average pension between six and seven years longer for women. Within this group of countries, Cuba, Venezuela and Panama have the most generous access conditions, and Panama has the highest degree of homogeneity.

The three countries that belong to the late-low group, Guatemala, Paraguay and Honduras, have very diverse conditions of accessibility; relatively liberal in

Guatemala, less so in Paraguay, and strictest in Honduras. In Guatemala old age retirement in the IGSS is at 60 for both sexes and, even though this age is low, life expectancy at retirement is 20/18, relatively low among the seven countries; contributions are required for 15 years, which is the average for the late-low group. However, the program for government employees requires only 50 years of age and 10 years of contribution, or 20 years of contribution with any age, whereas in the program for the armed forces it is possible to retire with 20 years of service at any age.

In Paraguay, old age retirement in the Instituto de Previsión Social (IPS) is 60 for both sexes, with 25 years of contributions, or 55 years old with 30 years of contributions; the latter is the lowest for men in the whole region. Contribution periods are among the longest in the seven countries and are very difficult to reach taking into consideration labor market conditions. In several of these programs (government workers, armed forces, etc.) only between 15 and 25 years of service are required, without taking age into consideration; members of parliament can retire with 55 years of age and 10 years of service or at 60 years old and 5 years of service.

In Honduras, old age retirement is at 60/65 (same as in Argentina, Brazil and Chile and higher than in Costa Rica, Cuba and Uruguay), and consequently life expectancy at the moment of retirement is among the lowest; additionally, 15 years of contributions are required. Conditions for access to benefits are much more liberal in the other programs in Honduras: 58 years old and 10 years of contributions in the executive, Legislative and Judicial branches; 50 and 10 in the teaching profession and 18 years of service with any age in the armed forces (Mesa-Lago 2004).

V.4. Country Cases

This Section analyzes special characteristics of the systems in some countries, which can be useful in order to design better policies for the region. A goal of this Report is to contribute to the knowledge of successful experiences in the solution of social security problems. This Section discusses, among others, the cases of the Superintendence of Social Security of Chile and the reform to the pension program of the public sector in Brazil, which represent solutions to the challenges that other countries face.

V.4.1 Chile

In Chile, the right to social security is guaranteed by the Constitution, which establishes that State action will be directed to guarantee the access of the population to uniform basic benefits, through public or private institutions, and that compulsory contributions may be established.

The regime of protection is based on contributions and is purported to serve the entire

Table V.4
Conditions of Access for Old-Age Pension in the General System, 2004

Countries	Age of retirement (women/men)	Life expentancy from the age of retirement (women/men)	Estimation of years of contribution
Brazil	60/65 [b]	19/13	11 to 15 [b]
Cuba	55/60	26/20	25 [c]
Guatemala	60	20/18	15
Honduras	60/65	21/15	15
Panama	57/62	26/20	15
Paraguay	60 [d]	N.A.	25 [d]
Venezuela [a]	55/60	25/18	14.5

[a] The 2002 law maintains the previous conditions for access until new regulations are issued. [b] Retirement for the age in RGPS with a base salary equal to 80% of the average of the best years levels adjusted since 1994; there are other options. [c] Years of work. [d] Also, age 55 with 30 years of contribution and replacement rates of 80%.
Source: Legislation of the eight countries; Mesa-Lago (2004).
N.A.: Not available.

Box V.1

Coexistence of Social Security Regimes in America

There are several types of pension systems: public, private (personal savings or individual capitalization) and occupational systems (special). Public systems are provided by social security systems at the federal, state or municipal level. Occupational plans are offered by (public or private) employers to their workers, and in private workers voluntarily choose fund managers.

The five countries selected in the American continent have at least two kinds of systems providing social protection to different population groups. In general, there are differences in the requirements for access to benefits provided by each regime, as well as in the benefits offered by each system. In some cases, this can lead to inefficiency and inequity. In the case of Brazil, before the 2003 reform came into effect, public sector employees enjoyed higher benefits compared to the rest of the population; similarly in Colombia, there was extensive institutional fragmentation prior to the December 2003 reform.

Portability is important when systems with different features coexist since it allows a worker contributing to several systems to achieve an adequate pension and makes pension systems more equitable with respect to the recognition of acquired rights.

	Public System	Private System	Special Systems
Brazil	Employed persons in industry, commerce, and agriculture; domestic servants; some categories of casual worker; and self-employed.		Public sector employees and military personnel.
Chile	Wage earners and salaried workers in private sector employment and self-employed.	Wage earners and salary workers, volntary coverage is possible for the self-employed.	Railroad employees, seamen and port workers, public-sector employees, the armed forces, and over 35 other occupations.
Colombia	All employees, including new employees joining Ecopetrol after January 29, 2003. (The insured person may choose either the social insurance system or the system of private mandatory individual accounts and may switch membership once every 5 years).		Employees of ecopetrol who joined before January 30, 2003, teachers, the military and the national police.
Mexico	As of July 1, 1997, all workers must join the private insurance system. At retirement, employees covered by the social insurance system before 1997 can choose to receive benefits fron either the social or private insurance system.	All workers afiliated to the Instituto Mexicano del Seguro Social, its optional for the public workers afiliated to the ISSSTE.	Petroleum workers, public-sector employees and the military.
Uruguay	All employees and self-employed with monthly income of $5,000 or less.	Employees and self-employed with monthly income above $5,000.[a]	Bank employees, notaries, university graduates, the armed forces, and the police force.

[a] Monetary references are expressed in constant May 1995 values and are adjusted based on the evolution of the Mean Salary Index.
Source: CISS (2004a).

population, but Chile shares the frequent Latin America choice of not enforcing the contribution for those without a salary. The system is voluntary for self-employed and independent workers, and mandatory for salaried workers (whether from the public or the private sector, agricultural, maritime or domestic services sectors, etc.). The only exception is for regimes devoted to the armed forces, police and uniformed jail system personnel, who have their own social security system (CAPREDENA and DIPRECA)[1] under a PAYGO financial regime. A bill now under debate in Congress would introduce some modifications to address financial difficulties faced by these funds due to their separation from the general system.

[1] CAPREDENA stands for Caja de Previsión de la Defensa Nacional, and DIPRECA for División de Previsión de Carabineros de Chile.

The Chilean system also includes non-contributory retirement and welfare benefits that support population groups living in poverty and without access to the contributory regime. Poor individuals that meet certain requirements have access to welfare or Pension Assistance (PASIS) and Family Subsidies (SUF).[2] The beneficiaries of this regime receive medical assistance in Health Services hospital centers. Likewise, there are regimes for family benefits (cash transfers to low and middle-income households), unemployment subsidies, maternity and newborn illness, all financed by government transfers.

To cover the benefits of old age, disability and survivorship pensions, the general system is based on individual capitalization, with no relationship to the old PAYGO that is in the process of extinction and includes a small minority of workers.

As for administration, the Chilean system in general can be classified as mixed, since there are public as well as private institutions. In Chile there is a long tradition of participation of private administrators, especially not for profit organizations. Of the private entities that participate in the operation of social security, the Unions for Compensation of Family Allowance (Cajas de Compensación Familiar, CCAF) and the Mutual Employers' Fund for Work Risks have a history of approximately 50 years.

The national government is directly involved in the administration of social security. It completely administers the old pension system that is in extinction, through the INP, which integrated all the social security regimes existing in 1980. The State makes important contributions to the contributory system, financing for example: the minimum pensions of the old system, the minimum pensions guaranteed by the State in the system of individual capitalization, budget deficits of the pension regimes administered by the INP and of public health regimes, the recognition bonds, etc. The government is also responsible for paying for the regimes of family allowances, unemployment subsidy, maternity, care for severely ill infants, and health assistance for the elderly.

The public authority, through specialized controlled organisms called Superintendents (ISAPRES for health, AFP[3] for the new pension system and Social Security for the older pension systems in extinction), controls and resolves all the conflicts in the administrative arena and regulates the performance of public services as well as the private entities that participate in administration.

Chile has essentially solved the problem of fragmentation, but it still has not overcome the problem of lack of coverage explained in Chapters II to IV of this Report. The problem of coexistence is more limited than in other countries because the regime is general and applies to all workers, from both public and private sectors, with the exception of the armed forces and the police. Also, portability of pension rights is not an issue, because affiliation to the AFP system is unique and permanent. In relation to the PAYGO regimes administered by the INP, there are no problems with continuity of benefits, since a change of activities with a possible transfer of social security regime does not affect the acquired rights.

The "old pension system" exhibits a diversity of regimes and pension funds. However, the problem of fragmentation has been solved since these funds were merged into the INP, the public service that administers the old regimes until their extinction. When an active member of one of the old regimes exercises the right to transfer to the individual capitalization system, a recognition bond is secured on the basis of the contributions made in any of the old funds, based on a minimum number of rules.

[2] In the wider social protection framework, the mentioned cash and health benefits have been bundled in a program designed for families in poverty, with the goal is to better integrate them to the community (Law 19.949.2004). The number of people with non-contributory pension benefits is approximately 370,000.

[3] ISAPRES stands for Private Provident Health Organizations (Instituciones de Salud Previsional Privadas); AFP stands for Pension Fund Managers (Administradoras de Fondos de Pensión).

Although the subject of international portability is not studied in this Report, it is noteworthy that recently the Official Registry (Diario Oficial) published the bilateral agreement on social security with the Republic of Peru, which recognizes the right of workers to transfer amounts accumulated in their accounts from one country to the other. This is the first agreement that allows portability of existing funds between two countries with pension regimes based on individual capitalization.

Chile is one of the few countries from the LAC zone that has developed unemployment insurance (since October 2002). This helps to reduce the problem of fragmentation, since it allows the unemployed to maintain their coverage. Different from "traditional" unemployment insurance programs, which finance the income subsidy (or supplementary wage) from a public fund, in Chile the insurance against unemployment is based upon an Unemployment Individual Account (CIC, for Cuenta Individual de Cesantía) that initially finances the benefit, and is supplemented with a Solidary Unemployment Fund (FCS, for Fondo de Cesantía Solidario), when there is no balance in the account and all the legal requirements are satisfied (otherwise this would not be an insurance plan). Supplementary income can be obtained for up to five months, according to the years of contributions. Transfers from the CIC are decreasing in order to promote employment search. In order to receive transfers, the worker must be unemployed, and must have contributed a minimum of twelve months. This is a benefit that eliminates the problem that has been mentioned with regard to some labor laws in the LAC region, that condition benefits on whether the termination is justified or not, and generate large numbers of lawsuits. In case a contributing worker becomes a pensioner (with the exception of partial disability) he/she can make use of the available money at once, and in case the person dies the money goes to beneficiaries or heirs; as such, this unemployment insurance scheme contributes to the level of pensions. In case of unemployment for workers under piece-rate, hourly and other short term contracts, the accumulated amount can be recovered at once, provided six months of contributions and proof of contract termination. The FCS guarantees a supplementary income to affiliates who lose their job without fault of their own, are unemployed, are looking for a job, have made 12 months of contributions, and have exhausted the money in their CIC. Beneficiaries of the FCS, also have a right to family and health benefits under the same conditions as in their last job.

The administration of unemployment insurance corresponds to a specialized chartered organization, constituted as a for profit society. The contract is adjudicated through a public tender, for a maximum period of ten years, according to the rules of the Ministry of Labor and Social Prevision. The private administration by this Unemployment Fund Manager (Administración del Fondo de Cesantía, AFC), includes the collection of contributions, the transfer of the funds to the FCS or to the CIC, the investment of the resources, the payment of benefits, and the verification of beneficiaries' compliance with requirements. The AFC receives a commission for administration. The investment of funds by the AFC is subject to the same rules that apply to pension fund managers (the AFP), including the supervisory role for the AFP Superintendence.

In addition to unemployment insurance, in Chile there is a subsidy for unemployment. The protected population includes individuals that are members of any pension regime, who are unemployed and who are not protected by the unemployment insurance. Workers in such condition who have lost their job due to causes that are not their fault, have been registered, are members and contribute under the conditions that are stipulated (52 weeks of contribution to the pension regimes within 24 months) are elegible for this subsidy. The protection is aimed at insuring a monetary subsidy for up to one year in a decreasing amount, together with the right to receive family allowances and medical benefits for the worker and his/her family. This subsidy and all the expenses that are generated by its administration are paid by

the Fund for Family Allowances and Unemployment Subsidy, financed by tax revenues. The administration of this benefit corresponds (with respect to the workers of the private sector) to the INP and the CCAF, whereas for the public sector the employers are directly responsible.

V.4.2 Costa Rica

Social Security in Costa Rica is formed by a group of institutions, programs and administration processes that emerged in the past with the objective of improving social protection. Past policy did not always consider the long-term perspective, and as such there are compatibility, coordination and agreement problems among the different programs. Besides the lack of equity generated, this has resulted in the duplication of efforts and in inadequate administrative processes.

At the basic level of protection, there is a general regime of Disability, Old Age and Death insurance (IVM), managed by the Caja Costarricense del Seguro Social (CCSS). The statutory coverage of the CCSS includes all workers, either employed or self-employed, except those covered by a supplementary regime. In fact, coverage is significantly less than universal.

There are three regimes that exclude the general: those corresponding to the National Teachers' union, the Judiciary and the Executive branches (which, since 1992, groups a conglomerate of plans). The pensions and retirement regime for teachers is really a group of three regimes, all of them coexisting due to historical circumstances.

With respect to the conditions of access to the pension system (contributions, years of contributions, age, etc.), Costa Rica has a wide variety of different rules due to the special and supplementary regimes. Even though there have been attempts to standardize, they have not been effective in practice. For example, Law No. 7983 of 2000 tried to solve the problems of fragmentation of the pension system under the General Pension Law of 1935. The Law of 2000 only contains rules about the transfers among the Supplementary Pension Administrators, but does not specify rules for the basic regimes. For a long time, the design of the pension regimes has overlooked the well-known reality of workers having multiple jobs during their lifetimes, and has also been based on the misled assumption (shared by many countries) that working life would develop as a career with the same company or agency. The law of 1943 assumed that special regimes (for example for teachers and workers in the Judiciary) would disappear gradually, and social security would be implemented gradually. But this assumption has not held true and on the contrary, not only have the preexisting regimes been kept, but new ones have been created, such as the special contributory pension regimes for employees of the National Registry, the Department of Roads and Public Works, and of Communications (mail and telegraphy), among others. As a consequence, the general regime confronts the coexistence of special regimes with succinct norms with respect to rights of portability, norms that are not inherent in the general system.

The problem of portability has not been regulated as such, but only under the heading of "contribution transfers". Neither the rules of the general regime nor the Law that creates the CCSS include rules on this issue. Only the Constitution establishes that: "The funds and reserves of the social security regimes shall not be transferred or employed to an end different from the original."[4] Thus, it seems that the contributions collected by the IVM fund cannot be transferred out of it, while the transfer into the fund is allowed. The special regimes have specific rules on transfers, in general allowing transfers out of and into the funds.

With respect to the "export of rights", the question is to determine a minimum number of years of contributions that should force a regime to export the contributions to other regimes. The general regime of the CCSS does not require a minimum amount of time, because it cannot export, but rather attracts individuals who cannot obtain a pension under other

[4] Art. 73 of Political Constitution.

regimes. The pension plan of the Judiciary establishes the minimum at 10 years, of which 5 must have been as an employee of the Judiciary itself. In the cases of the teachers and government workers there is no minimum period of contribution, because a full career is required by law.

Once contributions are transferred, the pension is granted under the same conditions that would have held if all the contributions had been made in the receiving regime. In this sense, there is a principle of "totalization", so that the amount of benefits or the requirements for entitlement are unaffected.

We should add that, the lack of general rules in domestic regimes generates some difficulties in addressing the rights of workers in the important migration flow coming from Nicaragua and Colombia, a problem accentuated by the absence of an international norm that regulates portability of the rights of migrant workers.

V.4.3 Argentina

The reform to Argentina's Social Security in 1994 emerged from different political, economic and demographic problems, among which were the increase of unemployment and informal work, inefficiency in the administration of funds, as well as the increase in life expectancy. These factors caused severe financial problems that made the State use tax resources to sustain the PAYGO system. Due to this situation, it was necessary to reform the different sub-systems of social security, beginning with deregulation and the creation of a unified system of social security. The different Retirement and Family Allowance Funds merged into the National Administration of Social Security (ANSES). Argentina reformed both the health and pension regimes of social security, but the deep economic crisis that affected the country during the early years of the new millennium has forced new considerations about the future of the system.

The pension and retirement regime continues to be a mixed system, with a PAYGO component organized by the national government through ANSES, and regulated by the Ministry of Labor and Social Security (MTSS), and an individual capitalization system, managed by the Administrators of Pension and Retirement Funds (AFJP), regulated and supervised by a Superintendence for the sector (SAFJP), also under the umbrella of the MTSS.

Any new worker can choose between the two systems, and is allowed to move from the PAYGO to the capitalized system. In the capitalization regime the employee has mobility among the AFJP, after a period of at least one year. The retirement age is 65 for males 60 for females, with 30 years of service and 28 years of contributions. Benefits are determined taking into consideration the following: (i) a universal basic benefit, received by all beneficiaries from both systems, (ii) a supplementary benefit, that is received only by those who have moved from the PAYGO system to the capitalization system, and which is calculated based on the number of years of contribution to the old regime, (iii) a benefit originated in the contributions to the system: (iii.1) for the PAYGO case, the pension depends on an average of contributions and can never be less than the amount of the universal basic benefit; (iii.2) in case of capitalization, the accumulated amount in the individual account can be cashed in the way that the beneficiary chooses (life annuity or programmed withdraws, supervised by the AFJP), with the universal basic supplementary benefits added if applicable.

Even though this structure has not varied substantially since the creation of the individual capitalization regime in 1994, the job market has changed, and recent years have witnessed higher informality and unemployment rates, as well as an increase in the demands for State benefits. The combination of both situations will reduce the possibility of access to retirement. Because of this, there are proposals to facilitate retirement for those who have contributed a significant number of years but cannot retire due to the new economic conditions. The experience during the monetary crisis shows that a funded system is subject to a risk of loss of a large part of its savings due to inadequate monetary

regulations. Argentineans close to retirement age have modified their retirement plans or have accepted lower pensions due to unexpected regulatory controls imposed on their savings.

It has been argued that the regime should be adjusted to recognize entitlement to benefits without a minimum number of years of contribution, given a certain age. One proposal is that when a woman turns 60 or a man turns 65, they could request pension benefits proportional to the number of years of contribution to the regime. This change would benefit those with the required age who have reached 20 years of contributions and are still not eligible for benefits.

Portability of acquired rights among the current systems does not present major difficulties, since these issues have been anticipated in the new legal rules for both the health and pension systems. As for portability for migrant workers, even though service recognition is stipulated by legislation and current agreements, the procedures are complicated and there is a need for more effective administration.

In Argentina, in general, there is no duplicity of functions in relation to the different benefits. In the provident regime, the PAYGO system is governed by only one organization, the ANSES; and the capitalization system is administered by the AFJP, that compete in the market, it is worth mentioning that one AFJP belongs to a State and a provincial government is associated with a private administrator in another AFJP.

Summarizing, in the mid-nineties while Argentina attempted to adopt reforms in the health and pension area to promote flexibility, long term savings and competition, the recent macroeconomic crisis has implied a non-trivial degree of disruption. However, there have been important institutional advances towards solving the segmentation problem.

V.4.4 Dominican Republic

In mid 2001 the Dominican Republic began one of the most comprehensive efforts in the LAC zone to eliminate segmentation in the social protection system. The framework that preceded this reform was characterized by the atomization and exclusion of institutions destined to administer and offer services, by low coverage and large obstacles to access by the poorest and most vulnerable families, and by significant inequalities, caused by lack of compliance with regulations and inefficiency and high operating costs. The reform enacted the Law of Social Security and the General Law of Health to confront this situation, but since the law has only been in effect for three years, results are still unclear.

The inability of the Dominican Social Security to meet the needs of employers and employees for better social protection in old age fostered the birth of institutional, corporate and sector-level initiatives to benefit particular social sectors through collective agreements and pacts. Due to the absence of a generalized pension system, a "provisional archipelago" developed, protecting only some employees in the more productive sector of the economy and public institutions under decentralized and autonomous plans.

The design of the new Dominican Social Security System (SDSS) was strongly conditioned by the preexisting reality, and so a fundamental condition for the reform was to guarantee the rights acquired by the workers, to acknowledge the existing institutions and to establish a transition period with technical assistance in order to advance gradually in the transformation and construction of the new system.

The new SDSS has a universal character and includes three types of insurance: Health Family Insurance, Old Age, Disability and Survivorship Insurance and Labor Risk Insurance. The 87-01 Law considers three big financing regimes: (i) a contributory regime with payments from employees and their employer; (ii)a contributory subsidized regime reserved for independent or self-employed workers, financed with the workers' contributions and a State subsidy to compensate for the absence of employer contributions; (iii) and a subsidized regime for the poorest and most vulnerable in the population (unemployed, indigents and handicapped), with

contributions from the Dominican State. The SDSS establishes the criteria, indicators and economic and social parameters to classify the population by financing regime. Contributions are based on economic capacity, allowing some application of the principles of solidarity and equity.

The SDSS is based on a model of affiliation through a universal and unique identification number, valid for all regimes and sectors, to eliminate double contribution and overlaps in membership. It also has a unified system for information, collection, distribution and payments that allows the Social Security Treasury to assign resources under clear accounting rules, in an attempt to reduce the undue discretionary use of resources.

An important characteristic of the SDSS is the separation of functions. The functions of management, regulation, financing and supervision correspond exclusively to the State; fund management and service provision are performed by public, private or mixed entities that are accredited by the regulatory public agencies. The SDSS comprehends the following entities: the National Council of Social Security (CNSS), the Treasury of Social Security, and the Direction of Information and Protection of the Insured (DIDA).

The public and autonomous entities in the system are: the Superintendence of Pensions, the Superintendence of Health and Work Risks, the Pension Fund Administrators (AFP), the Health Risk Managers (Administradoras de Riesgos de Salud, ARS), and the Health Service Providers (Proveedoras de Servicios de Salud, PSS), as well as other agents that have supplementary social security functions.

The CNSS, the principal authority, with the General Manager (Gerencia General) as its executive arm, is responsible for the management and administration of SDSS and as such dictates policy, regulates the system and its institutions, guarantees coverage extension, protects beneficiaries, and promotes institutional development, completeness of programs, and the financial equilibrium of SDSS.

According to the universality principle, Law 87-01 establishes three types of pensions: (i) contributory pensions for the salaried employees; (ii) solidarity pensions (non-contributory) for poor families; and (iii) pensions for the self-employed (contributions plus state funding). In the contributory pensions the old and new systems coexist: (i) defined benefit for public servants and for workers that are affiliated to the old social security regime, and who are older than 45; and (ii) individual capitalization for affiliates of social security who are younger than 45 and for the rest of workers in the private sector.

The SDSS recognizes, protects and coordinates all the retirement and pension plans existing before the promulgation of Law 87-01, created under specific corporate laws and plans. These are supervised by the Superintendent and have two years to comply with the new rules. In addition to the pension plan of the Dominican Institute of Social Security (IDSS), there are others such as: the Pension and Retirement Fund of Government Employees (Law 379-81); the retirement plans of the Institute of Social Security of the Armed Forces (ISSFFAA), the Institute of Social Security of the National Police (ISSPOL), the National Institute of Auxiliary and Life (INAVI), the Union of Pensions and Jubilations for Chauffeurs, the Fund for the Social Welfare of the Hotel and Gastronomic Workers, the Pension and Retirement Funds of Dock Workers, Construction and Metal Workers, the Social Plans for Newscasters, and other Corporate Retirement Plans of private and public institutions.

The system of individual capitalization included eight private and public funds (AFP), with the goal of managing the affiliates' personal accounts and to invest funds adequately. By law there has to be at least one public AFP, created with the aim of guaranteeing options and the right to choose freely among funds.

The new SDSS adopts policies to allow general portability of pensioners' rights. The new capitalized system for retirement has the following rules of transition (under which all members maintain rights

accrued for years of service and contributions): (i) current pensions are maintained and indexed to the consumer price index; (ii) workers above 45 years receive, in general, a pension according to previous laws; (iii) members protected by previous legislation but below 45 years of age at the time of reform receive recognition for previous contribution years through a recognition bond generating 2% in real interest, deposited in their individual account; (iv) new members, regardless of age, are incorporated to the system of individual accounts, but if they are older than 45 years old when they first join, they can make additional tax deductible contributions in order to increase their pension fund; (v) Dominicans who reside abroad will receive a pension according to the amount contributed plus interest and accumulated profits, in the same currency that those contributions were made; (vi) members above 45 years of age who cannot attain the minimum pension due to limited payment time, will receive a global sum for the amount of his/her personal account, plus the accumulated interest, at the moment of retirement.

V.4.5 El Salvador

In May of 1998, El Salvador enacted a structural reform to its pension system, substituting the old regimes of defined benefits and government administration by one of individual capitalization (defined contribution) and private administration. After six years, the Public System of Pensions (SPP), the old system, has been closed to new members; at the same time it has been subject to a process of standardization of benefits, requirements, and contribution rates. On December 2003, the number of active contributors to the old system was 42,708 individuals (less than 10% of the coverage before the reform), a number that will continue to decrease gradually as older cohorts reach retirement age. The SPP currently administers payments to 102,078 pensioners.

Even though the system has been standardized, administration is still separate under the Instituto Salvadoreño del Seguro Social (ISSS) and the Instituto Nacional de Pensiones de los Empleados Públicos (INPEP), although a merger has been proposed. It is anticipated that the SPP will gradually disappear, as the group of insured in that system become pensioners and eventually die; the government has taken over the liabilities of the old system once the old regimes' reserves are exhausted and until extinction.

The System of Saving for Pensions (SAP) originated with the law that created the new pension system, approved in December 1996 and coming into effect in April 1998. All those who at that point were below 36 years of age, as well as those who joined after the reform are affiliates of the new system. The law allows the self-employed to become members, although it excludes agricultural and domestic service workers. In December 2003, the number of active contributors was only 46.3% of the total labor force. The high level of job turnover and informality affects the development of the retirement funds and the amount of benefits that workers will receive. Coverage as a percentage of the labor force is 18.4%, similar to the level observed before the reform, which indicates the problem of coverage has not been corrected.

V.4.6 Paraguay

The Social Security of Paraguay (SSSP) covers risks for disability, maternity and survivorship (IVS), as well as the risks of common illness, maternity, work related accidents and professional illness. The system has a fragmented structure, managed by several institutions that are not related, even though the Institute of Social Providence (IPS) directly administers most of the system, covers several health risks and includes approximately 50% of contributing workers.

The general system has the following characteristics: (i) it is a pure PAYGO system, using latest wages paid in a certain time period to provide benefits; (ii) it is financed by contributions depending on salaries and a contribution by the government, which has not been made consistently; (iii) benefits are defined and proportional to the salary; and (iv)

Box V.2
Contributions to the Pension System

The reformed contribution rates to pension systems have not exhibited variations in the last decade. The comparison of rates between countries depends on rules on integration of taxable wages, such as caps or exemptions. In Chile, the old age pension contribution is 10% of the worker's wage, plus an additional rate of up to 2.5% to pay the AFP commission and the disability and death insurance premium. Argentina has maintained employer contributions fixed; however, worker contribution diminished by 5% and in 2003 was at the previous rate of 11%. In the United States and Brazil, contribution rates have not presented important changes. In Mexico, pension contributions since the 1997 reform are the same as under the old law, but there is a 10 year transition period to increase the cap on taxable wages from the equivalent of 15 minimum wages (in 1997) to 25 (in 2007).

Contributions to Disability, Old Age and Death, 1993 and 2003
(Percentage of salaries)

		1993	2003
Argentina	Employer		16
	Insured person	Employees:10; Self-employed: 21	Employees: 11 self-employed: 27
	Government	0.09 for employees and 0.189 for self-employed	0
Brazil	Employer	20	20
	Insured person	Employees: 8, 9 or 10 according to their wage level; self-employed:10, 20	Employees: 8, 9 or 11 according to their wage level; self-employed: 20
	Government	0	0
Chile	Employer	0	0
	Insured person	10	10 a/
	Government	0	0
Mexico	Employer b/	5.95 + 2.00	IV: 1.75/RCV 3.15 + 2.00
	Insured person	2.125	IV: 0.625/RCV: 1.125
	Government	0.425	IV: 0.125/RCV: 0.225
United States	Employer	6.2	6.2
	Insured person	Employees: 6.2; self-employed: 12.4 c/	Employees: 6.2; self-employed: 12.4 c/
	Government		

a/ Plus an additional amount between 2.09 and 2.55. b/ From 1992 to 1997, the employer paid an additional 2% to an individual retirement account that was not included in the Disability, Old Age, Retirement and Death. As from July 1997, the Law defines separately the premiums for Life and Disability (IV) and Old Age and Retirement (RCV). c/ Cost of special monthly old-age benefit for persons aged 72 before 1968; whole cost of means-tested allowance.
Source: CISS (2004b).

registration is obligatory. There are three special regimes: for the employees of the National Administration of Electricity, for workers only covered by the health program; and a supplementary regime for independent or self-employed workers.

There are additional funds that cover old age and death, such as the "Fiscal" that protects the police force, the military and other government workers; the "Municipal" for local government workers; the Railroad, Bank, Parliamentary and the Itaipu. Funds administer the benefits of the special regimes.

The conditions for access to benefits are not equal across different agencies and programs. The IPS is, in general, the program with the strictest requirements. All regimes have defined benefits and operate as PAYGO with only partial reserve funds.

It should be emphasized that the different funds do not act as a system; there is a lack of coordination and high levels of disarticulation among them, and with the IPS. Empirical evidence suggests that this is not a system, but rather a cluster of entities which provide coverage to different groups of workers.

While the IPS and some of the small funds have a financial surplus, it will be difficult to maintain all of them in the short and medium term, and some funds have requested permanent financial aid from the State.

Finally, Paraguay does not have an accumulative regime, or portability of the rights across the different institutions and programs of coverage. Thus, transferring workers do not maintain their rights, and this makes obtaining benefits more difficult at the end of their working life, especially when there have been frequent regime transfers. Also there is no central authority, such as a superintendence, to supervise, regulate and control social security effectively.

V.4.7 Colombia

Colombia experienced an important political change in 1991, crystallized in a new Political Constitution that mandated a transition towards a new State, based on the social democratic model. Social security was conceived as a public service, second-generation right, with the State being responsible for benefits available to everyone (article 48). The new constitutional order was key to the implementation of a renewed social security system. This was enacted in Law 100 of 1993. This is probably the most ambitious case in Latin America in terms of seeking a definite solution to the problem of social security fragmentation. About 10 years later, there is progress but there are difficulties in the implementation of Law 100. The 2003 reforms seek to solve some of these problems, but it is understood that additional measures will be necessary.

Before Law 100 was enacted in 1993, there was a segmented pension system with co-existence of several defined benefit regimes. Law 100 structured the social security system to include the following programs: pensions, health, professional risks and supplementary social services. Colombia has a large subsidized program of family allowances that is part of the social security system, and as such it should be considered as a fifth element.

In the pension, as well as the health areas, the Law defined two particular components, depending on families' ability to pay, and on whether the main source of financing is contribution or subsidies from fiscal resources or from other semi-public sources. Moreover, the State applies fiscal resources as a strategy to increase coverage for groups in need and operates the subsidized health regime.

The old regime of defined benefits is subsidized following a regressive pattern, with public resources between 42 and 72% of each current pension. This translated into a budget commitment of 2.04% of GDP in 1999, which allowed only two out of ten people of required age have access to the subsidies for pensions. If the current tendency is maintained, in 2019 it would be necessary to appropriate 5.5% of GDP in order to pay this pension to a minority of retiring Colombians. Pension liabilities, according to the National Planning Office, reached 192.4% of GDP in 2000, and 206% in 2002.

In spite of Law 100, there are still special regimes with some 11% of the total coverage of pension regimes, whereas the pension liabilities of the military forces, the police and the teaching profession represent 30% of the national pension deficit.

Law 797 of January 29, 2003 makes changes to the pension regime of Law 100 of 1993; it advances efforts to reduce the problem of lack of coverage and fragmentation of social security. In relation to the universality of membership, affiliation to the general pension system is established as obligatory for independent workers that were previously voluntary members. In order to achieve greater coverage and financial stability, independent contractors, service providers and the self-employed must affiliate if they have the capacity to pay. Similarly, the general and ordinary regime of pensions is extended to public employees and to employees of the State Oil Company ECOPETROL hired after this reform. In order to achieve permanence in a regime and with a provider, the term to select and transfer is adjusted as well as the transfer from one regime to another (e. g. from the defined benefit scheme to the individual savings system), so that an individual cannot move less than 5 years after the previous selection. Likewise,

transfers are restricted when the affiliate is less than 10 years away from retirement age. There is also a restriction for public sector employees holding jobs that correspond to defined benefit plans; they must stay in the same program as long as they work for the public sector. These restrictions to mobility are important because among the pension reforms in the region, the Colombian reform allowed the greatest mobility between the new regime of individual accounts and the previous defined benefit system, causing high operating costs. Other countries imposed transfer to the new regime; and some others provided the option of staying in the old system but prohibited return transfers. The 2003 reform also prohibits replacing time of contribution by other requirements, which was possible before in special pension regimes, particularly in the educational publishing industry.

One aspect of the 2003 reform that may reduce the fragmentation of the Colombian social security system is the creation of the Unique Registration System for affiliates of all regimes, in pensions, health, professional risks, family subsidies and other social protection benefits. This will facilitate the development of a single data base on contributors and the integration of fiscal and other contributions of the different regimes.

The issue of pension reform has been at the center of public debate, and was included in the Constitutional Referendum that the National Government and the Congress carried out in October 2003. Constituents were consulted regarding the imposition of a unique regime with maximum pension and the disassembling of special regimes, as well as the temporal freezing of salaries and pensions drawn from public resources. The Political Constitution of Colombia requires a minimum amount of votes to validate the referendum, equivalent to the fourth part of a census, and this was not achieved in October 2003. As a consequence, no significant adjustment has been made, but the issue is likely to remain important, since the persistence of special regimes affects the financial health of the system.

V.4.8 Brazil

The Brazilian social security system is formed by three main regimes. The one with the widest coverage is the General Regime of Social Prevision (RGPS), which is public, has national coverage and establishes compulsory membership for private sector workers. The public Particular Regimes of Social Security (RPPS) are mandatory for federal, state and local workers. Finally, the supplementary insurance regimes are voluntary, privately run, and administered by open or closed pension funds.

All the regimes are autonomous and independent, with separate budgets and specific legislation for each of them. They are all PAYGO systems, with the exception of the supplementary insurance, which has a capitalization regime. The general regime is administered by the National Institute of Social Security (INSS), and its main revenues are the contributions of firms' workers. The other regimes, including that of the military, are administered by public entities, following their own rules for retirement and pension benefits.

The 1988 Constitution introduced broad changes in the RGPS. The rules to calculate and readjust benefits were reformed in order to protect them from inflation. At the same time, there is a reallocation of urban and rural benefits and a extension of social coverage to agricultural workers. These initiatives have had fiscal consequences, due to the accelerated demographic changes in Brazil. These changes were a contributing factor to the transition from surplus to deficit since 1995.

In relation to the problem of fragmentation of social security, Brazil has attempted to eliminate this problem and has paid a fiscal cost as a result. On the other hand, Brazil has also made parametric adjustments that reduce fiscal pressure significantly, particularly in the long run. Constitutional Amendment No. 20 (1998) aimed to neutralize, in part, the effects in demographic changes (in the fifties, eight contributors financed each beneficiary, and by 1997 only 1.7 financed one beneficiary). The adjustments made included new rules for granting

benefits specifying their duration. The objective was to calculate benefits according to estimated contributions made by the insured, and to capitalize them according to an implicit rate, which would fluctuate according to the time of contribution, age of the insured and benefit duration. The immediate consequence of the reform has been an increase in the median age for the entitlement to a pension. Between 1998 and 2002, the median age at retirement increased from 48.9 to 54.2 years. In spite of this advance, the current age remains low compared with other countries in America and Europe.

With regard to equality, in 1998 the pension benefits based on time of service were biased towards individuals with higher wages and this resulted in pervasive redistribution from low to high income workers.

The problem that demanded the most urgent solution was, without a doubt, the actuarial disequilibrium of the RPPS, because of the incompatibility between contributions and the acquired benefits. It was in the public sector where the largest incidence of early retirements was observed, as well as accumulations of extra benefits among public employees, and greater duration of benefits.

Hence a priority for the government was the reform of social security regimes for the public sector, through the adoption of rules of convergence between the regimes. Among these are the following: new rules to calculate pension amounts; the creation of a common cap on benefits and contributions for future affiliates; the adoption of contributions by retirees; and the application to public employees of the rules that hold for workers in the private sector.

This reform seeks to reduce the distortions generated by the model, delivers greater equity across social security schemes, allows better adjustment to the new Brazilian demographic situation, permits flexibility in human resource policy, and improves fiscal finances in the medium and long run. Additionally, it assures the fulfillment of the public worker's right to retire with sufficient income, without handicapping the rest of the society and affecting economic growth and development. The reform also foresees the unification of the Administrative Agencies of the RPPS in the States. The existence of duplicated functions by the special regimes of the States and by the agencies of the public administration was the motivation for this change. With unification and use of information technology systems, administrative costs will decrease.

The most important challenge for this and for future governments is to provide social security services to 27 million workers that do not contribute, do not receive benefits, and do not benefit in general from any insurance scheme. The reform expressed this concern and suggested the creation of a low cost and minimal assured benefit social security system for these workers.

In addition to improving the Brazilian social security system, the reform also contributed to the country's political evolution, since it was preceded by wide debates and required an innovative political alliance between the federal government and the state governments. There are still challenges to be faced, but Brazil has advanced towards the objective of forming a universal basic system, with equalized rules for all citizens.

V.4.9 Mexico

The problem of fragmentation in the Mexican Social Security system is associated to two large groups: the central public sector and the rest of the insured. This separation has a constitutional origin and implies that each sector has different benefit and contribution rules. For the public sector a system of defined benefit has been maintained, while the rest has been transferred to a defined contribution system. As in other countries reviewed in this Chapter, mandatory coverage has been restricted to the salaried population.

Social security benefit programs have been administrated by diverse federal and state institutions that exhibit a low level of coordination.

The largest administrators are federal, the Mexican Institute of Social Security (IMSS) for the private sector and publicly owned corporations, the Institute of Security and Social Services of the State Workers (ISSSTE) in the central public sector, and the Institute of Social Security for the Armed Forces of Mexico (ISSFAM).[5] Some special plans created before the Law of Social Security (1943) have been incorporated through the years to the IMSS, but one special case that survives is the oil industry. In the central public sector, the majority of the States have created their own systems of social security following the model of the federal ISSSTE.

The different regimes share two characteristics: not allowing portability of benefits and providing heterogeneous treatment. The public sector plans, where PAYGO is the most common regime, usually offer more favorable treatment than the general IMSS' system, granting pensions at younger ages or based on fewer years of service.

The reform of 1997 changed the IMSS system from a defined benefit model to one of individual capitalization, but it did not reach workers in the public sector. The IMSS covers the majority of the insured population, approximately 85%. All workers were transferred immediately to the new system, but in order to protect acquired rights, at the moment of retirement a person is guaranteed at least the pension that he/she would have obtained under the old regime. Thus, Mexico has not adopted a mechanism of recognition bond to credit workers for the contributions paid before the reform. For the great majority of employees, which have never worked in the central public sector, there is no problem of portability, and with the reform to adopt a regime of individual capitalization the coordination with complementary plans offered by private employers is facilitated.

The social security system with the second largest number of beneficiaries is the federal ISSSTE that incorporates roughly 15% of the insured labor force in the country and has a trend of decreasing coverage because government employment grows at a rate lower than the general labor force. It maintains a defined benefit system and it is in a difficult financial position, since the number of active workers per retiree has fallen to five. For ISSSTE affiliates the cost of fragmentation is more significant than for the affiliates of IMSS, because it is very common for an individual to work for the central public sector and to have some other job in the private sector or in a public company not affiliated to ISSSTE. This disadvantageous condition is more likely to harm workers in the States' ISSSTE regimes, because these are even smaller. Paradoxically, the rules that provide greater benefits to workers in the public sector imply less protection when the person does not work all of his/her life exclusively for the public sector.

The fragmentation and the lack of portability of the Mexican social security system pose problems that have not been attended. The reform of 1997 did not solve the problem, and there is not currently any initiative to allow the standardization of benefits or portability across systems.

V.5 General Problems and Solutions

The description and analysis of the fragmented situations in social security systems point out that even though advances have been achieved thanks to the reforms of the nineties, and other specific efforts to attend the problem, many deficiencies have yet to be solved. Most of the remaining important cases of fragmentation are a problem based in the public sector to a large extent, since there have been advances in standardizing the treatment across regimes and in achieving portability of funds and pension rights, but there is a lag in addressing the same problems in the plans for public employees. North America and the Caribbean are not in the map of conflict zones in this pension policy issue; the

[5] Workers in state corporations have been affiliated to IMSS or to ISSSTE depending on historical circumstances and legal interpretations. Workers in nationalized corporations and other public corporations that produce goods and services tend to be affiliated to IMSS, but those in decentralized organizations created as splinters of the centralized public administration tend to be associated with ISSSTE.

South Cone has generally been successful in solving the problem with reforms in the eighties and the nineties (with the exception of Paraguay); with the recent Dominican reform, the Latin Caribbean can also be added to the list of areas that have solved or are in the process of getting rid of the problem; but Central America, Mexico and the Andean Zone still present important cases where basic legal and administrative actions need to be adopted if the problem is to be solved.

Available options to deal with this problem include the following, in no particular order: (i) to incorporate the insured by special regimes to the general regime, maintaining additional benefits as complementary; (ii) to establish rules for the standardization of periods of payment and benefits from different plans, in a way similar to the practice in international bilateral treaties; (iii) to allow portability of funds across regimes so the worker can change jobs, migrating with financial resources (or a recognition bond with a value determined by past contributions).

The option of incorporating special regimes into the national system is less costly, more equitable, and facilitates the healthy development of complementary pension plans. This does not mean the disappearance of special pension plans for certain companies or segments of the labor market, which may be necessary from the perspective of human resources, following objectives of labor rotation, loyalty and reward that public and private employers would like to offer to their employees. What this option means is that these plans must have an anchor in the national system, in a way that allows workers to change jobs without losing benefits, and that the subsidy and the fiscal guaranties provided by the State can be equal for each worker. Among other cases, this is the way the system operated in the United States and Chile. Chile had one of the more extreme conditions of segmentation in past decades. El Salvador and Colombia are more recent examples. Notwithstanding the sometimes difficult institutional and political balance that may exist in a country to sustain a fragmented system, it seems that this is a solid recommendation, and all countries should find the right time and other proper conditions to adopt it. Whenever it is not present, a permanent policy goal should be to reach a general basic pension system with homogenous rules on contribution rates and benefits for all, and a single data base to manage the general system and to support the development of complementary voluntary savings and public welfare (non-contributory) income guarantee plans for the elderly and the disabled.

The second option is to adopt rules of totalization, which can help the worker to keep his or her benefits. But this result implies a higher cost since it requires the maintenance of multiple administrative structures to manage the information. The totalization solution does not eliminate the problem of unequal treatment, and does not allow a general framework to integrate the complementary and supplementary public and private pension plans.

Finally, the option of allowing the portability of funds across regimes is also costly to administer and can pose practical difficulties in the financial relations among diverse systems. Not only is the transfer of funds costly, but each scheme is forced to evaluate the payments made in the past by a worker changing jobs, and the resulting values can be a matter of controversy. The case of Costa Rica has shown the difficulties inherent in managing a version of this option.

For countries that have advanced to a capitalization system, an appropriate solution is to transfer the responsibility of guaranteeing solidarity components to the national government, which usually take the form of a minimum pension guarantee. In a system of either defined benefit or defined contribution, it is convenient to have a national system of pensions that provides such a guarantee and to adopt regulations that facilitate the interaction of the complementary and supplementary plans with the national program. For countries that have maintained a PAYGO system that guarantees more than a minimum pension, what is important, for the point

discussed in this Section, is to have a common basis for the accumulation of seniority in the system.

For some countries, the historic coexistence of regimes poses obstacles to institutional transformation, but countries should remove these obstacles if they want to reach the basic objectives of social security. Different funds or agencies of social security, handling plans with different rules to generate rights for a pension (for example, periods of contribution and age required for retirement), often operate significantly large administrative systems. Even though there is usually a historic origin to this situation, associated with union's achievements or political agreements that have advanced the level of social protection in the past, the maintenance of segmentation in the long run precludes the possibility of mobility of workers and is unproductive. To the extent that a country can achieve an agreement about the need to have a network of social protection for everybody, solving the issue of portability in the pension system must also become a priority.

The route traced by Chile to achieve portability when it created the system of individual accounts in 1980 (and a model followed in countries around the world), consisted in offering the worker the option of staying in the PAYGO system or moving to the new system at any time, and receiving a recognition bond for acquired rights. Therefore, by having individual accounts for retirement, workers can change jobs without any loss, and those that opt for staying in the previous system have the guarantee of not losing benefits in case they decide to move in the future. In any case, that last one is a temporal condition that will disappear in the following years, as younger workers are less likely to have been affiliated in 1980, the year of the reform. Complementarily, Chile has an Instituto de Normalización Previsional that administers the old plans during the long transition to the new regime, as well as a Social Security Superintendence that regulates and supervises the process.

Recent laws in Colombia and Venezuela mandate the incorporation to the general system of all the separate programs (except for the armed forces in Venezuela). The reform law in Brazil regulates the conditions of the federal, state and city workers, and establishes a maximum pension corresponding to the level in the general program. In Mexico, the system was reformed towards individual capitalization, but instead of the recognition bond or the option of either staying in the old system or moving to the new one (which has been the more common strategy in South America), all workers who were affiliated at the date of the reform received the guarantee to the pension that they would have received in absence of the reform. This allowed the reform to transfer everybody immediately to the new system with huge administrative savings. Nevertheless, Mexico did not apply the reform to the workers of the centralized public sector, which means that for approximately 15% of the insured there is a high cost of mobility between the public and the private sector.

Another option present in an incomplete form in some of the structural reforms, is to give a straight option to the insured, within a specific timeline, to choose between staying in the public system or transferring to the private system. The conditions of access to both systems should be equivalent and the state must abstain from providing advantages to one system over another, and must offer appropriate information to the insured about the advantages and inconveniences of both systems. Sometimes, such as is the case of Colombia, the inadequate use of this option has caused excessive costs and has required additional reforms.

The standardization of normal ages of retirement and contributions required in the private and public system is necessary to eliminate fragmentation. Once more, this homologation does not imply the elimination of complementary plans that employers decide to offer to their employees to reach objectives of human resources management. The normal ages of retirement should be adjusted to the expectancy of life, a policy that would imply a reduction in some countries (Bolivia, Nicaragua, Peru) and an increase in other countries (Costa Rica, Cuba, Panama, Venezuela). The periods

of contribution are excessively long in certain countries with structural reform and very short in some public systems and can also be adjusted. Both adjustments should be based on actuarial calculations. Assistance pensions should be granted at similar ages to contributive pensions.

The high level of migration in the American Continent, which is documented in Chapter II of this Report, generates a cross-border problem of portability. The national pension systems contain elements of solidarity in accordance with national policy, and they were created following a principle of territorial application of the law. The Bilateral Agreement on Social Security (BASS) has the objective of attending to this situation.

Usually, a BASS establishes that in order to calculate benefits, it is necessary to consider the time of contribution in two or more countries, and determines a prorated payment. Even though it is very unlikely to observe a movement towards the standardization of national legislations of social security, for the systems of individual capitalization

Box V.3
Pension Portability in Europe: the Case of France

Pension portability is the ability to make the value of pension benefits independent of job changes. The importance of pension portability within national markets varies across European countries, and depends basically on the importance of their occupational pensions (that are a complement to social security). For example, in the Netherlands occupational pensions are of considerable importance, since social security provides only a flat-rate pension. Another example is France because occupational pensions are compulsory.

France's old-age security system is based on three key principles: entitlements, acquired through employment, benefits provided primarily by contributions, and the coexistence of basic statutory pensions and supplementary schemes (ARRCO 2001). The social security system is complemented by a compulsory occupational pension scheme. The most important of these schemes for the wage earners are the Association Générale des Institutuions de Retraite des Cadres (AGIRC) and the Association des Régimes de Retraite Complémentaires (ARRCO). The first one is for managerial staff (*cadres*) and the second one for salaried employees.

Any employer may choose for his management and supervisory group any particular *cadre* pension he wishes. AGIRC coordinates and generally supervises 27 institutions. Also, through AGIRC, the affiliated institutions share their obligations, in effect pooling resources and liabilities. ARRCO currently brings together 77 supplementary pension institutions (*caisses)* covering all workers in the private sector.

The AGIRC scheme and most ARRCO schemes use a point system, which guarantees the workers' pension rights when they change or leave their job voluntarily or involuntarily. The contributions paid to ARRCO and/or AGIRC by workers and employers are immediately channeled to pensions. They convert the contributions to points. The annual number of points equals the total value of annual contributions divided by a reference wage (which is the cost of acquiring a point). When the employee retires, the total number of points is multiplied by the current value per point to determine the pension entitlement. Any additional entitlement is added to the calculation. Points are accumulated for each member's account until the end of his career, when his/her pension calculation is made. This points system allows pensions to be adjusted each year. An important issue is that a change of employment leads to no loss of entitlements; the accumulation of points in an individual account is not affected by occupational mobility.

However, AGIRC and ARRCO have some differences in their point system. AGIRC uses only a single scheme, thus members continue to belong to the same scheme regardless of the fund to which they are affiliated. ARRCO works as a body that harmonizes and coordinates members schemes when workers have acquired entitlements in several schemes, so they can claim their pensions under practically the same conditions as if only a single scheme were involved (Reynaud 1997). It is important to mention that the value of the points is fixed for all schemes. On the other hand, the French pension system for defined contribution plans permit pension portability because their benefits are vested immediately.

a useful point of reference has been provided by the agreement between Chile and Peru, which has started to allow the integration of individual savings through an international agreement. This integration of funds, and now not only in reference to the prorated payment, allows a better administration of the funds, provides the workers with better options to acquire an annuity payment or give them the chance to choose among a number of retirement plans, and reduces the administrative expenses.

The BASS between the United States and Mexico, signed in 2004 but still subject to the legislative process in each country, includes the possibility that the pension paid by the national system of a country be considered as an asset in the other country in order to apply the rules for the withdrawal of retirement funds. This is important since usually, in a system of capitalization of individual savings, these are used to finance the pension (in the form of annuity payments or programmed withdrawals), and the remaining resources can be used discretionally by the retiree. That is to say, once the person has saved enough to have the rights of a pension, he/she can use the rest of the resources for other purposes. With the disposition of the United States-Mexico BASS mentioned above, there are new options that benefit the worker when he/she has had savings in a country and he/she has already a pension in either of them.

Chapter IV of this Report points towards the importance of improving the legal and financial architecture of social security, and that message is critical to minimize and eventually eliminate the problem of fragmentation. The administrators must radically improve the use of electronic systems to maintain the individual account and other individual registers and to control the payment of contributions, which would allow a faster and more effective processing of pensions, as well as to facilitate the mobility of workers across regimes. The systems have to develop a comprehensive and comparative information system, as well as to educate the insured regarding their options, and in order to foster a provident culture for retirement.

The problem with the coexistence of pension regimes that do not allow the portability of contributions and benefits is accentuated when labor regulations tie benefits to staying in the same job, and impose high costs of separation. Regardless of the success, labor regulations frequently have as a clear objective to reduce the rotation in employment, but in the case of the mobility costs imposed by the coexistence of social security regimes, there is no valid reason to maintain the regulations. Apparently, everybody losses due to the fragmentation: workers lose benefits when they switch jobs, and the employers lose due to the low job mobility.

Consequently, the countries with a problem of coexistence can experience important gains by moving to a national system that would allow complete portability of pension rights. The appropriate policy to accomplish this goal can be affected by the initial institutional situation, but apart from this, a mix of instruments can be designed to solve the problem, as the Dominican Republic has attempted in recent years with the creation of the Consejo Nacional de la Seguridad Social, which tries to bring into harmony the preexisting programs.

CHAPTER VI
HEALTH INSURANCE PORTABILITY, LABOR SUPPLY AND JOB MOBILITY

CHAPTER VI
HEALTH INSURANCE PORTABILITY, LABOR SUPPLY AND JOB MOBILITY

VI.1 Introduction

Access to health care is one of the most highly-valued benefits demanded by citizens in modern societies. Over the last few decades, many countries in the Americas have enacted "rights to health" in statutes in various forms. Although there are considerable differences across these statutes, a clear political consensus exists in support of public interventions designed to provide health care access to everyone. Of a similar rank of importance is the conclusion in Section VI.2 (based on the work of professor Madrian) that "health insurance is an important factor in almost every labor market decision made by individuals: whether to work, where to work, and how much to work." The interaction of the functioning of the health sector and its regulations with the labor market is consequently of large significance for social insurance policy.

Apart from a general agreement that all citizens should have access to health care, the specific form that should be taken by the set of financial and final services that define health insurance and the type and extent of public intervention to achieve it have proven to be the subject of heated debates. Government involvement can take varied forms, including ownership and operation of health facilities by social security agencies (as is the case in Costa Rica, Panama, Colombia and Mexico), subsidizing certain medical services (as in the United States through Medicare and increasingly in several LAC countries), or the preferential treatment for savings and health insurance through the tax code. As is the case with pension benefits, historically the main way to obtain health insurance has been through the employment relation. Reforms designed to achieve improved efficiency and equity have involved portability across jobs and fallback provisions for the unemployed and the disadvantaged in general. The egalitarian views of societies have proven to be strong with relation to access to health services. The extent of state intervention trough financing, ownership, and regulation is strong in the health area.

The formulas that have been attempted for health sector reform are far from homogenous. The public action in health policy has taken varied configurations of public-private mix in financing and services' provision. There is a distinct trend towards the adoption of insurance mechanisms to the detriment of the old "sanitary", "public assistance" or "public charity" approach. This trend has been driven by two important factors: the desire to improve efficiency and the desire to improve the interaction between the health sector and the labor market.

The entitlement to health care takes on three dimensions: universality, comprehensiveness and completeness (Chernichovsky 2000). Universality refers to providing access to everyone, comprehensiveness refers to the goal of covering all health service needs, and completeness refers to the

goal of providing each service with the full spectrum of attention allowed by current technologies. A first hurdle in making these goals operational is that the set of actions that define health care is not well defined. "All health services" can be thought to include preventive actions, long term care service, care and shelter not included in "basic" hospital packages, and so on. Similarly, it is often debated whether co-payments, deductibles, waiting lines, or lists that restrict the drugs that can be financed, unduly restrict the right to complete protection. Universality is relatively easy to understand, but comprehensiveness, and completeness are conditioned by social and technical variables that are difficult to measure. Many health attentions are not medical, and even within the medical field, the set of acceptable or recommendable treatments may not be standardized easily.

Chernichovsky (2000) points out that one consequence of this complexity is that although public intentions lean towards a "solidarity principle", where everyone gets what he needs, in practice we observe a "fairness principle" in which programs tend to gravitate to providing the same benefits to everyone. If a specific service cannot be financed or provided for all then it is not financed or provided for anyone. Therefore, social insurance faces a tradeoff between the goals of universality, comprehensiveness and completeness.

For the aforementioned reasons, the issues of portability are difficult to solve. The evidence says that workers and their families care a lot about health insurance and that they are willing to alter their labor-market and retirement decisions to acquire good health insurance. The segmentation of social security systems described in Chapter V of this Report, which is due to regulatory and institutional reasons, further complicates this difficult problem. But even in a country where the health sector is not artificially segmented by social security regimes, the regulations and programs to support access to health services affect the mobility of workers.

Sometimes, countries have taken policy actions that would be considered radical in other places to balance the solidarity goals of social insurance for health with the need to allow society to operate a flexible labor market. A case in point is the British National Health Service, financed through taxation, which provides universal access in the United Kingdom. Under the British approach, workers have little concern about the impact of labor decisions on their health insurance status, because they can change jobs knowing that they will have access to exactly the same service, at no additional cost. Canada (see Box VI.1) has imposed restrictions on the role of private health insurance for publicly insured physician and hospital services in order to avoid a stratified health system (Hurley et al. 2002).

This Report does not attempt to discuss the way health insurance is organized, but it is useful to keep in mind that the labor market implications of health insurance regulation are derived from the tensions generated by the goal to provide access to services for all in a complete, comprehensive form, namely, the solidarity goal; and the need to have a labor market where the relations between workers and firms can evolve to recognize the needs of the populations and to adopt new technologies, in order to generate productivity gains. If workers could stay with the same employer and the same provider of health services for life, the problem would disappear. Perhaps social security systems are not geared towards handling labor mobility because they were founded during times when the labor market was much more static. Whatever the origin and the current situation, modern concerns dictate the need for a serious consideration of how each country can adjust its social insurance regulations to avoid undue restrictions on labor mobility.

The following sections deal with these issues in the United States (Section VI.2) and the LAC area (Section VI.3), under two different approaches. The United States is a very important case not only because of its large size, but also because it is an exception among developed countries in that it does

not have a universal health insurance program. For the United States, the work of professor Madrian describes the rich research literature on labor markets and health insurance for that country. Although similar evidence is often lacking for less-developed countries, the topics that arise are of general applicability.

Section VI.3 deals mostly with LAC countries and the issue of health regulations. Although these countries may have enacted statutes that promise some access to health services, coverage is low also in most cases, social insurance systems remain fragmented, badly in need of regulations that make the goal of universality achievable. The way in which countries balance the universality, comprehensiveness, and completeness principles and transform them into specific goals and standards will have significant effects on labor markets. The goal of this Chapter is to summarize the main issues on this basic topic.

Box VI.1
Canada's Health Care System

The Canadian health care system, known as "medicare", provides universal and free coverage for the entire population. It is publicly financed but privately run, and is based upon 5 founding principles (Irvine and Ferguson 2002): comprehensiveness (provinces must provide medically necessary hospital and physician services), universality (all the provincial residents are entitled to the plan), portability (protection for Canadians traveling outside of their home province), accessibility (individual's financial resources should not determine access to services), and public administration (provinces must administer and operate health plan on a non profit basis).

The history of Canadian universal health coverage dates back to 1944, when the province of Saskatchewan introduced universal hospital insurance. To encourage the provinces to follow this path, in 1956, the federal government offered a 50-50 cost sharing arrangement if they introduced this service. By 1958 all provinces had universal hospital coverage. In 1962, despite physician strikes, Saskatchewan introduced full universal medical coverage and by 1965 the federal government offered another 50-50 cost sharing if provinces met the requirements of universality, comprehensiveness, public administration, and portability. By 1971, all Canadians were guaranteed access to essential medical services, regardless of their health, income, age or employment status.

Many doctors didn't agree with these reforms, so they opted out of the system and billed the patients themselves. The Canadian Act of 1984 was designed in response to these protests, denying federal support to provinces that allowed extra billing and forbidding private opted out practitioners from billing beyond provincially mandated fee schedules (Irving and Ferguson 2002).

Public health insurance is characterized by local control, doctor autonomy and consumer choice (patients have the freedom to the choose physician and the hospital). The ten provincial governments are the main providers of health care, having to meet the five principles in order to qualify for federal support (about half of total provincial costs). These elements ensure that all essential services are covered, that everyone is covered, and that health care is administered by a nonprofit public agency (Kraker 2001). Each province's plan differs slightly, mostly in how far each plan extends public insurance coverage beyond medically necessary hospital and physician services (prescription drug plans, home care, continuing, and long term care). The federal government makes cash transfers to the provinces, but the provinces may levy their own taxes to finance the costs.

The principal feature of the Canadian system is that the government is the only insurer. Physicians are mostly in private practice and generally work on a fee-for-service basis (under the condition of not billing above the fee schedules negotiated for medicare physicians), as in the United States, but instead of sending the bill to the different insurance companies, they send it to their provincial government. The owners of this "insurance company" are the taxpayers, who have to decide between their need for more health services and their collective ability to pay for them (Kraker 2001).

Box VI.1
Canada's Health Care System (continued)

The provincial health plans cover certain kind of services usually referred to as "core services". "Non-core services" are those that fall outside the legislative framework (Irvine and Ferguson 2002). The Canada Health Act forbids any Canadian from buying from the private sector a medical service that is already covered under the public health system, limiting private insurance to supplemental care. Universal programs help to assure quality for all by extending the service to socially powerful groups. The poor and disadvantaged are included in the system without any "special program". Thus, the advantage of not having a private system paralleling a public one is that the wealthy population cannot buy superior care, increasing the pressure to maintain quality for all and building social solidarity (Bernard 1992).

With an aging population and the costly advance of new medical technology, Canada's health care system has faced pressure to control health expenditure. Canadian provinces have confronted this situation by limiting the service. Waiting lists and dilapidated technology and equipment are common problems. Canadians are often forced to wait not only for non-emergency surgeries but also for services such as hospital beds and diagnostic tests. (However, they do not have to wait for emergency services). This issue has been a serious matter of debate in the government and several options are being considered. As Romanov's report (2002) points out: "The system is neither unsustainable nor unfixable, but action is required to maintain the right balance between the services that are provided and the resources that can be dedicated to sustain the system in the future".

VI.2 Health Insurance and Labor Markets in the United States

VI.2.1 Introduction and Motivation

In the United States, nearly two-thirds of national income is derived from the labor market—the labor input of individuals employed in producing goods and services. Although labor shares of income tend to be lower in developed countries, the importance of the labor market in all countries is clear. Because of its importance in the economy as a whole, distortions in the efficient operation of the labor market can have a tremendous impact not only on the welfare of specific individuals, but on the economy as a whole. For this reason, policy makers are, and should be, keenly interested in the relationship between the institutions and public policies that impact the labor market.

One institution in the United States whose impact on the labor market has received considerable recent attention is the provision of health insurance. There is no universal provider of health insurance or health care in the United States. Instead, a patchwork system of institutions exists, each covering different subgroups of the population. Certain types of health insurance are provided as a condition of employment, while other types of health insurance are more readily available when individuals are not employed or not fully employed, while still others are available regardless of employment status. The relationship between the labor market and the various types of health insurance coverage available to individuals may motivate some individuals to make different labor market decisions than they would otherwise, in ways that adversely impact overall labor market performance.

This Section summarizes the empirical evidence on how health insurance impacts labor market outcomes, focusing mostly on the United States, the country that that has been the subject of the majority of research in this area. To understand how health insurance impacts labor market outcomes, however, one must first understand the relevant health insurance institutions and how they are linked to the labor market. Thus, the first Subsection summarizes the relevant health insurance institutions in the United States. Next, the Section outlines the empirical evidence on the impact that health insurance has on labor market outcomes such as labor supply

(including retirement, female labor supply, part-time vs. full-time work, and formal vs. informal sector work) and job turnover.

VI.2.2 Health Insurance Institutions in the United States

The most prevalent type of health insurance, covering 64% of the non-elderly U.S. population, is employer-provided health insurance coverage (Fronstin 2003). Roughly half of this group receives this type of insurance by virtue of their own employment, while the rest receive it as dependents of a spouse or parent who is employed. Employers in the United States who provide health insurance do so voluntarily, and many individuals (17% of those who are not self-employed) work in firms where such benefits are not offered (Fronstin 1999). Even in those firms where health insurance is provided as a benefit, not all employees are necessarily eligible, and those who are eligible must generally elect coverage in order to receive it. Indeed, only 62% of wage and salary workers are eligible to receive health insurance benefits through their own employment, and 17% of those individuals decline the coverage that is available to them (although they may receive health insurance from another source) (Fronstin 1999). Some employers also provide health insurance to former employees who have retired, so-called "retiree" health insurance. At present, about 29% of firms employing more than 500 workers offer health insurance to current and future retirees (Fronstin and Salisbury 2003), the fraction of firms offering this coverage, however, has been declining quite substantially over time and is likely to continue to decline.

Various types of government insurance programs cover most, but not all, of the population who are not covered by employer-provided insurance. It is interesting that even at the governmental level, there is no single unified health insurance program. By far the largest government health insurance program is Medicare. Medicare was implemented in 1965 to provide health insurance coverage to individuals aged 65 and over, many of whom were left uninsured or underinsured upon their retirement when coverage through their former employers ceased.[1] Medicare also covers some individuals under age 65, specifically those who are disabled and eligible for Social Security Disability Insurance. Currently, Medicare covers over 96% of those over age 65, and 5% of those under age 65.

Medicaid is a state-run health insurance program funded jointly by the federal and various state governments (some states call the program by different names, for example, in California the program is referred to as Medi-Cal). Historically, this was a health insurance program for public assistance recipients, primarily low income single mothers and their children, and also a source of supplemental insurance for the low income elderly. In recent years it has been expanded to provide coverage to non-welfare-eligible families with modest incomes, particularly children. There is great heterogeneity across states in the eligibility requirements for Medicaid and in the benefits that are actually provided. Overall, 9% of the elderly are covered by Medicaid, as are 12% of the non-elderly (Fronstin 2003). The federal government also provides health insurance to members of the uniformed services and their families. About 3% of the non-elderly population is covered by this type of health insurance (Fronstin 2003).

Various other types of private insurance cover about 7% of the non-elderly population, and perhaps as much as a third of the elderly population. These include individually purchased policies from private insurance companies (such as Blue Cross/Blue Shield), insurance provided through membership organizations such as a trade union or professional associations, university-provided health insurance for college students, and supplemental insurance for the Medicare-eligible elderly (often referred to as Medigap coverage).

This patchwork system of health insurance coverage leaves many people uninsured: those who

[1] At the time the federal Medicare program was implemented, individuals were not eligible for Social Security benefits until age 65.

do not have health insurance through their own or a family member's employment, who are not old enough or disabled enough to qualify for Medicare, who are not eligible or decline to participate in Medicaid, and who either cannot afford or choose not to purchase health insurance in the private market. The estimated 43 million uninsured individuals in the United States represent about 17% of the non-elderly population (Fronstin 2003). Due in large part to Medicare, only a small fraction of the elderly (65+), about one percent, are uninsured.

It is interesting to consider why the United States, in contrast to most other developed countries, has a health insurance system in which employers are the primary providers of insurance rather than the government, at least for the non-elderly.[2] The United States has repeatedly rejected broad attempts to "socialize" either medical care or health insurance provision. The first such initiative, during the 1930s, failed despite the concurrent genesis of so many other government social programs (including Social Security, Unemployment Insurance, and the Aid to Families with Children program, the precursor to contemporary public assistance programs for low income families). The most recent initiative was the failed Clinton administration attempt at national health reform in 2003 (there have been other unsuccessful attempts in the interim).

Even though there are some limited examples of United States companies providing health insurance coverage before World War II, employer-provided health insurance, as an institution, really came into being during the two decades following the War. In the absence of universal government-provided health insurance coverage, market forces pushed employers into their role as the primary providers of insurance. These market forces include: a substantial price advantage given to employers through the tax code since firm health insurance expenditures on behalf of their employees are not counted as taxable income to either the firm or the employees; significant economies of scale that derive from providing health insurance to a large group of individuals; and the ability to pool individuals into insurance groups in a way that largely overcomes the problem of adverse selection that plagues the individual market for health insurance.

VI.2.3 Empirical Evidence on Health Insurance and Labor Market Outcomes

With this understanding of how the various United States health insurance institutions work, we can now consider the relationship between health insurance and various labor market outcomes. This Section describes some of the key empirical estimates of the relationship between health insurance and labor market outcomes, including retirement, employment, full-time vs. part-time work, and job turnover. It does not, however, go into great detail on the strengths and weaknesses of the various empirical studies that are cited. Currie and Madrian (1999), Gruber (2000), and Gruber and Madrian (2004) provide greater detail on the data and methods used in the studies cited here (and many other papers), and offers opinions on the relative merit of the different empirical approaches.

Retirement and the Labor Supply of Older Workers

Perhaps the most important labor market outcome to consider is employment itself—how does health insurance affect individual participation in the labor market? The potential impact of health insurance on labor force participation derives from the fact that for some individuals, being employed is the cheapest (and perhaps even the only) way to obtain health insurance, while for other individuals, not being employed is in fact the cheapest way to obtain health insurance. Health insurance will be a more important factor in the decision about whether or not to be employed for individuals who place high value on health insurance—those with high anticipated medical expenditures either for themselves, or their

[2] It is also interesting to consider why employers are the primary providers of health insurance, but not other types of insurance.

dependents. Since medical expenditures tend to increase with age, individuals approaching retirement should be particularly interested in maintaining their health insurance coverage.

It should therefore not be surprising that the most widely studied facet of labor force participation in the literature on health insurance and labor market outcomes is retirement: to what extent does health insurance determine when and how individuals choose to withdraw from the labor force? The particulars of the health insurance plan are potentially important determinants of retirement outcomes because some types of health insurance are more portable across the transition from work to retirement than are others. For example, employer-provided health insurance is typically, but not always, lost upon retirement. In companies that provide retiree health coverage, however, employer-provided health insurance is portable—individuals retain their coverage even after they retire. Health insurance that comes from a source other than one's own employment would also be portable, including individual health insurance purchased in the private market or employer provided coverage obtained as a dependent through one's spouse (as long as the spouse does not lose coverage).

If health insurance is not portable across the transition from work to retirement, the potential loss of health insurance coverage associated with leaving the work force creates a deterrent to retirement. Thus, we would expect retirement rates to be higher among those with portable health insurance. Once individuals reach age 65 and are eligible for Medicare, losing health insurance coverage completely is no longer a concern for those workers previously covered by employer-provided health insurance. Thus, after age 65, retirement rates among those with non-portable insurance will no longer be lower, and indeed, may increase if individuals have postponed retirement until becoming eligible for Medicare.[3]

The empirical evidence on health insurance and retirement largely supports these theoretical predictions. Several studies have found consistent evidence that individuals whose employers provide retiree health insurance leave the labor force earlier than individuals whose employers do not. For example, Rust and Phelan (1997) estimate that retiree health insurance increases the probability of retiring before age 65 by 12% to 29% (the effects vary with age); Karoly and Rogowski (1994) and Rogowski and Karoly (2000) estimate effects ranging from 47% to 62%; while Blau and Gilleskie (2001) estimate effects ranging from 26% to 80%. Madrian (1994) finds that individuals with access to retiree health insurance leave the labor market between 6 and 18 months earlier than individuals who do not have access to retiree health insurance and are also much more likely to retire before the age of 65.

Individuals who are covered by non-employment-based health insurance, for example, through policies purchased individually in the private market, through trade associations, or Medicaid, also have health insurance coverage that is portable across the transition from work to retirement. Rust and Phelan (1997) extend their analysis to these other types of portable health insurance, and find that as with retiree health insurance, individuals with such coverage also have higher retirement rates than individuals who would lose their health insurance coverage upon retirement. Johnson, Davidoff and Perese (2003) look at the health insurance related costs of retiring more generally, and find that individuals are to retire when these costs are high.

State and federal "continuation of coverage laws" are one set of institutions designed to increase the portability of employer-provided health insurance, both across the transition from work to retirement and for other types of labor market transitions (e.g. job change). These include two well-known federal laws that go by the acronyms COBRA (for the Consolidated Omnibus Budget Reconciliation Act)

[3] If individuals value their current health insurance coverage more than Medicare, which is not implausible, there may still be some deterrent to retirement from having non-portable health insurance coverage even after individuals are eligible for Medicare.

and HIPAA (for the Health Insurance Portability and Accountability Act). COBRA, and other similar state-level continuation of coverage laws, mandate that employers must allow employees and their dependents the option to continue purchasing health insurance through the employer's health plan for a specified period of time after coverage would otherwise terminate, even if the employee is no longer employed by the firm.[4] HIPAA restricts the ability of insurers to impose preexisting conditions or exclusions on individuals who change their health insurance coverage.[5] Both of these laws reduce the costs in terms of potential health insurance coverage loss associated with either retirement or job change.

Although no research exists on the impact of HIPAA on retirement, Gruber and Madrian (1995) examine the effect of COBRA and its state-level precursors on retirement. They find that among those with employer-provided health insurance, these continuation of coverage laws increase the probability of retiring by 30%; in contrast, among those without employer provided health insurance (for whom the laws provide no benefit), continuation coverage has no effect on retirement. These results confirm that retirement is very sensitive to health insurance availability.

An interesting phenomenon occurs at age 65 when individuals become eligible for Medicare. Even for those individuals with employer-provided health insurance that does not continue into retirement, leaving the labor force no longer implies a loss of health insurance because individuals are covered by Medicare. Thus, Medicare eligibility should provide a strong retirement incentive for those individuals not eligible for retiree health insurance. And indeed, a substantial fraction of 64-year-olds do retire at age 65 when they become eligible for Medicare. Empirical research has to date been unable to precisely quantify the magnitude of this Medicare effect because age 65 also happens to be the normal Social Security retirement age and the age at which many pension plans provide full retirement benefits. With so many other factors motivating retirement that are coincident with Medicare eligibility, it is difficult to quantify exactly the magnitude of each effect. The evidence on how other types of health insurance affect retirement, however, suggests that Medicare eligibility should be very important as well.

One idiosyncratic feature of Medicare relative to other types of health insurance that also generates interesting variations in retirement behavior is that Medicare only covers individuals and not spouses or dependent children. As a result, the retirement decisions of two individuals without retiree health insurance who are both about to turn 65, one with a spouse who is younger and the other with a spouse who is older, could be quite different. For the individual with the older spouse, retirement at the age of Medicare eligibility will result in a loss of health insurance coverage for neither spouse—both will be covered by Medicare (the older spouse already is). In contrast, retirement at the age of Medicare eligibility for the individual with a younger spouse will result in a loss of health insurance coverage for the spouse, if the spouse was covered as a dependent on the employee's plan and not through his or her own independent coverage. Interestingly, Madrian and Beaulieu (1998) find that men with younger wives are less likely to retire than are men with older wives until their spouses also become eligible for Medicare. Thus, retirement is affected by not only one's own Medicare eligibility, but also the Medicare eligibility of one's spouse.

Health insurance also impacts the nature of the transition from work to retirement. Some individuals move from full-time work to full-time retirement, while others pursue a more gradual transition from work to retirement, moving from full-time work to part-time work (so-called bridge jobs), and then eventually to full-time retirement. Although many older workers,

[4] Minnesota, in 1974, was the first state to pass a continuation of coverage law. Several states passed similar laws over the next decade. See Gruber and Madrian (1995, 1996) for more detail on continuation of coverage laws.
[5] See Berger et al. (1999) for more detail on the health insurance portability aspects of HIPAA.

when asked, express a desire to make a gradual transition from work to retirement, it may be difficult for many to actually do this before becoming eligible for Medicare while also maintaining health insurance coverage. This is because employer-provided health insurance in the United States is typically contingent upon full-time employment; very few employers provide health insurance benefits to part-time employees. Individuals with retiree health insurance, however, can retire from their full-time job and move to a different part-time or self-employment job while maintaining health insurance through their former employer. Research has shown that individuals with retiree health insurance are indeed much more likely to make a gradual transition from work to retirement than are individuals without retiree health insurance (Quinn 1997). Thus, health insurance that is portable across the transition from work to retirement appears to be an institution that enables individuals to retire both when and how they desire.

Health Insurance Eligibility through Government Public Assistance Programs and Labor Supply

Although much of the research on how health insurance affects labor force participation has been directed at the issue of retirement, older individuals are certainly not the only ones whose employment decisions are impacted by health insurance. Another margin along which health insurance might affect labor market outcomes is through the labor supply decisions of potential public assistance recipients. A key feature of the two primary public assistance programs in the United States (TANF, or Temporary Assistance for Needy Families, and SSI, or Supplemental Security Income) is that, in addition to cash and other benefits, recipients qualify for Medicaid—health insurance provided by the states to public assistance recipients and (potentially) other low income individuals. Since the groups who qualify for these types of programs—low income single female-headed families and the low income disabled and elderly—tend to find low-wage, low-skilled jobs without health insurance, the coupling of Medicaid with public assistance encourages individuals to sign up for and to remain enrolled in public assistance programs.

Overall, the literature suggests that health insurance availability, and Medicaid in particular, has either no effect (Meyer and Rosenbaum 2000; Blank 1989; Montgomery and Navin 2000; Decker 1993; Ham and Shore-Sheppard 2003) or a small effect (Yelowitz 1995; Moffit and Wolfe 1992; Winkler 1991) on the labor force participation of low income single mothers. This is somewhat surprising given the potential importance of health insurance for this population and their children. On the other hand, there is some evidence that the decision to participate in welfare programs, conditional on labor supply decisions, is fairly responsive to the availability of health insurance (Ellwood and Adams 1990; Moffit and Wolfe 1992; Decker 1993; Yelowitz 1996, 1998a and 1998b, 2000). This is an interesting result with important public policy implications.

The Labor Supply of Married Women

Married women, and to a lesser extent married men, are another group whose labor force participation is likely to be impacted by the availability of health insurance coverage. Although most of the interest in the effect of health insurance on labor force participation in both policy and academic circles has been focused on older workers and public assistance recipients, the potential impact in terms of aggregate effects on total hours worked may very well be largest for prime-aged workers, particularly married women who are typically estimated to have a high labor supply elasticity. Given the responsiveness of married women to wage changes, one might expect a high sensitivity to the availability of health insurance coverage as well.

Since most companies that offer health insurance make it available to both employees and their spouses, many married women receive health insurance coverage through their spouses. Whether or not a married woman has health insurance through her spouse turns out to be a very important factor in

whether and how much she works. Married women with health insurance through their husbands are 7 to 20 percentage points less likely to work than are women without health insurance from their spouse (Buchmueller and Valletta 1999; Olson 1998; Schone and Primoff-Vistnes 2000; Wellington and Cobb-Clark 2000). Among those that do work, they are much more likely to be employed in part-time jobs that typically do not provide health insurance than full-time jobs (Buchmueller and Valletta 1999; Olson 1998; Schone and Primoff-Vistnes 2000; Wellington and Cobb-Clark 2000). Thus, for married women, the lack of health insurance from a spouse's employment seems to have a strong influence in motivating married women to find jobs with health insurance themselves.

In one of the few studies of health insurance and the labor market using non-United States data, Chou and Staiger (2001) examine the effects of health insurance on spousal labor supply in Taiwan. Before March of 1995 when Taiwan implemented a new National Health Insurance program, health insurance was provided primarily through one of three government-sponsored health plans that covered workers in different sectors of the economy. Historically, these plans covered only workers and not their dependents. Thus, own employment was the only way for most individuals to obtain health insurance. There was one exception—coverage for spouses was extended to government workers in 1982, and subsequently to children and parents as well. By exploiting this variation in the availability of dependent health insurance coverage, Chou and Staiger (2001) are able to identify the effect of health insurance on employment. They estimate that the labor force participation rate of women married to government employees declined by about 3% after they were able to obtain coverage as spousal dependents relative to the labor force participation rate of women married to other private-sector workers. They estimate similar declines in labor force participation for the wives of private-sector workers following the 1995 implementation of National Health Insurance which made health insurance available to all individuals. Their results are largely corroborated in an analogous study by Chou and Lui (2000) using a different dataset on labor force participation in Taiwan.

A recent study of married women's labor supply in Spain uncovered another interesting link between health insurance finance and female labor supply (De la Rica and Lemieux 1994). In Spain, health care is provided by the government and financed out of a mandatory payroll tax paid partially by the firm and partially by the employee. Payment of the payroll tax entitles both workers and their spouses and dependent children to health care, as well as to a pension and sick leave. Among men, compliance with the payroll tax is nearly universal. Among married women, however, over one-quarter of those who are employed work in the "underground" economy where "required" taxes are not paid.

There are only two studies that have empirically examined the effect of health insurance on the labor force participation decisions of prime-aged men. The first, by Wellington and Cobb-Clark (2000), examines the effect of spousal health insurance on the employment decisions of both husbands and wives. As noted earlier, they find large effects of husbands' health insurance on the labor force participation of married women. They also find an effect of spousal health insurance on the labor force participation of married men: having a wife with health insurance reduces husbands' labor force participation, although the effect is less than half the size of that estimated for married women.

The only other study of health insurance and employment among prime-age men, Gruber and Madrian (1997), exploits the continuation of coverage mandates discussed earlier in the context of retirement to consider the impact of health insurance on the transition from employment to non-employment and on the subsequent duration of non-employment. This study finds that the availability of continuation coverage increases the likelihood of

experiencing a spell of non-employment by about 15% and also increases the total amount of time spent non-employed by about 15%.

Overall, a large body of empirical research on the effects of health insurance on the labor supply of married women and other prime-aged workers gives strong and consistent support to the notion that health insurance affects individual labor supply decisions. When there is a ready source of health insurance available not attached to one's own employment, individuals (particularly married women) are much less likely to be employed. This suggests that the institutional link between health insurance and employment may be a significant factor in the employment decisions of individuals.

There are many other less-studied avenues through which health insurance is likely to impact labor supply. For example, the link between Medicare coverage and the receipt of Social Security Disability Insurance for disabled individuals under the age of 65 could act as a deterrent for work among the disabled, or at least work that would be sufficient to disqualify them from further disability payments and the health insurance (Medicare) that accompanies these benefits.

Health Insurance and Job Choice

Beyond the full- vs. part-time dimension of labor supply, health insurance also has the potential to impact the initial choice of where to work and subsequent decisions about whether to change jobs, including the choice about whether or not to become self-employed. Economists are interested in the issue of job turnover because it is the process by which workers are reallocated away from jobs where they are less productive and into jobs where they are more productive. Impediments to productivity-enhancing job turnover are thus a barrier to economic growth.

Why might health insurance impact job turnover? There are several possibilities. One obvious possibility is that not all employers offer health insurance. Individuals who have employer-provided health insurance and place a high value on it will be reluctant to switch to a company that does not provide health insurance. In addition, individuals who do not have employer-provided health insurance and who place a high value on it may attempt to find jobs at companies that do provide health insurance. An interesting piece of evidence on this front comes from the behavior of married men who are working in jobs without health insurance. Married men without health insurance but who have pregnant wives are two-times more likely to change jobs than married men without health insurance whose wives are not pregnant (Madrian 1994). The impending birth of a child clearly increases the value of health insurance, and these men clearly respond by changing jobs, presumably in an attempt to find something with health insurance.

A second reason why health insurance affects the job turnover decisions of individuals is that not all employer-provided health insurance plans are equal, at least not for an employee who contemplates changing jobs. In addition to variation across employers in the generosity of the health insurance package in terms of co-payments, deductibles and what is and is not covered, there are two more subtle issues to consider. The first is that many employers exclude preexisting conditions for a certain period of time. So, even though a new employer and one's current employer may appear to provide identical coverage, the coverage of the new employer may in fact be vastly inferior for families with medical problems if these problems are not covered under the terms of a preexisting conditions exclusion restriction. The second issue is that employers do not generally offer their employees free choice among the universe of medical providers in the health insurance plans that they provide. Thus, an employment change that is accompanied by a health insurance change may also need a medical provider change. Individuals who value relationships with their current doctors may be averse to changing health insurance plans even if preexisting conditions are not an issue.

Madrian's research on the relationship between health insurance and job turnover suggests that health insurance is indeed an important factor in the decision to change jobs. One interesting finding is that among individuals who have employer-provided health insurance, those who also have coverage through the employment of a spouse are much more likely to change jobs than those that do not (Madrian 1994). In essence, health insurance coverage through a spouse's employment is portable across the transition from one job to another and is one way to skirt the preexisting conditions exclusions that may be in place at a new employer. Another interesting finding is that COBRA, in addition to motivating retirement among older workers, also motivates job turnover among younger workers (Gruber and Madrian 1994). COBRA makes the health insurance from one's former employer portable across jobs, at least for a limited time, but long enough to skirt preexisting conditions exclusions.

It is worth noting that the literature on the effects of health insurance on job choice has not reached a consensus. About one-third of the papers studied find that health insurance significantly impacts the job choice decisions made by workers, with a potential loss of health insurance as a result of job change acting as a deterrent to job turnover, and a potential gain in health insurance leading to increased mobility (Cooper and Monheit 1993; Madrian 1994; Gruber and Madrian 1994; Anderson 1997; Stroupe et al. 2001). Another one-third of the papers find no significant relationship between job choice and health insurance (Mitchell 1982; Holtz-Eakin 1994; Penrod 1994, Holtz-Eakin et al. 1996; Slade 1997; Kapur 1998; Spaulding 1997). And the remaining third find evidence that varies by empirical specification or the sub-group analyzed, or effects that are not statistically significant at standard levels (Buchmueller and Valletta 1996; Brunetti et al. 2000; Madrian and Lefgren 1998; Berger et al. 2004; Gilleskie and Lutz 2002). It is interesting to note that a fair number of the studies that find a significant effect of health insurance on job choice obtain estimates that are fairly similar in magnitude—that the potential loss of employer-provided health insurance associated with job change reduces job mobility by 25 to 50% (Cooper and Monheit 1993; Madrian 1994; Buchmueller and Valletta 1996; Stroupe et al. 2001).

It is also interesting to consider the relationship between health insurance and job turnover from the employer's perspective. For an employer that offers health insurance coverage, a sick employee is costly in two ways. First, a sick employee may be less productive. Second, a sick employee (or a healthy employee with sick dependents) is likely to generate higher insurance claims. Because of their medical expenditures, these employees may be relatively more attractive targets for layoffs. The link between health insurance and employment may therefore have an adverse impact on families with medical problems if these problems lead to claims-based layoffs.

Health Insurance and Labor Demand

In addition to its impact on the employment and job choice decisions of individuals, health insurance may also affect the labor demand decisions of employers. There are two features of health insurance provision that are particularly salient in this regard. This first is that health insurance is a fixed cost of employment. Expected employer expenditures on health insurance do not increase when the weekly hours worked by their employees increase, and they do not increase when compensation increases. They only increase when more employees are hired. This feature of employer-provided health insurance gives firms an incentive to economize on the costs of providing health insurance in two ways. The first is by hiring fewer employees but at longer weekly hours—this is one way to maintain production while reducing the overall costs of providing health insurance. The second is by hiring fewer but more productive employees—employees who can produce more than the average employee would. Cutler and Madrian (1998) provide partial evidence that firms have substituted long weekly hours for more workers as

health insurance costs have increased over recent years. Moreover, the effects are nontrivial. The increase in weekly hours associated with the increase in health insurance costs between 1980 and 1993 resulted in a change in average weekly hours among those with health insurance equivalent to roughly half the change in labor input that is observed in a typical recession.

The second feature of health insurance that is salient to the labor demand decision is the distinction between full- and part-time workers in the tax treatment of employer expenditures on health insurance. Employer expenditures on health insurance are usually not subject to taxation—with one caveat: employers must satisfy a set of Internal Revenue Service[6] nondiscrimination rules which stipulate that if a firm is to provide health insurance, it must make it widely available to (almost) all employees. In essence, employers cannot selectively decide that they will provide health insurance to some employees and not to others, either because of favoritism or as a cost-saving measure. However, certain groups of employees, namely part-time, temporary and seasonal workers, are exempt from the requirements of the nondiscrimination rules. Thus, employers can deny health insurance coverage to part-time, temporary and seasonal workers while still obtaining favorable tax treatment for their health insurance expenditures on full-time permanent employees. As the provision of health insurance becomes more expensive, the non-discrimination rules give employers stronger incentives to hire part-time and temporary workers in lieu of full-time workers as a way to economize on insurance expenditures. This could account for some of the phenomenal growth in the temporary services industry over the past two decades.

More concrete evidence on the employers substitution of full- to part-time workers in the face of higher health insurance costs comes from the state of Hawaii. In 1974, Hawaii mandated employer provision of health insurance to full-time, but not part-time workers. Thurston (1997) finds that those industries most affected by the mandate, namely industries in which relatively few full-time workers were covered by health insurance, saw large increase in the fraction of workers employed in part-time jobs. In contrast, industries in which almost all full-time employees were already receiving health insurance saw little shift in the fraction of full- vs. part-time workers.

Thus, health insurance affects both the size and composition of the work force that firms' employ. As health insurance becomes more costly to provide, employers have an incentive to reduce their health insurance costs by substituting overtime for employment, skilled labor for unskilled labor, and part-time and temporary workers for regular full-time employees.

VI.2.4 Conclusion on the Interplay between Health Insurance and Labor Markets

There is an important relationship between labor market outcomes and the institutions and rules governing health insurance provision in the United States. Health insurance is an important factor in almost every labor market decision made by individuals: whether or not to work, where to work, and how much to work. It is also an important factor in the human resource decisions made by employers: how many workers to hire, whom to hire, and how to structure the terms and conditions of employment.

These issues are perhaps more important in the developing countries of the world that are currently struggling to develop their own health care and health insurance institutions. An important lesson to be learned from the experience of the United States is that while employer provision of health insurance is a convenient way to finance insurance benefits without involving the government budget directly, not everyone will be covered under this type of program. Reliance on and encouragement of employer provision of health insurance will invariably result in government

[6] The Internal Revenue Service (IRS) is the federal tax revenue collection authority in the United States.

programs to fill in the gaps—to cover the otherwise uninsured either in whole or in part. But it is the interplay among these various institutions, some tied directly to the labor market and others not, that results in distortions of the labor market decisions of individuals and firms.

VI.3 Latin America

VI.3.1 Evolution in the Last Two Decades

Social insurance for health has evolved across the Americas in important ways in the last 10 to 20 years. Often, Constitutional or other statutory amendments have created and reinforced the view of an existing right of access to health services, to health insurance, and even to "health" itself. Governments have attempted reforms to pursue the general legal mandate, and social insurance has been at the center of the debates to develop and implement the desired changes.

For pension programs, there is a general agreement on the need to integrate some basic functions of programs to allow the movement of workers across occupations or segments of the labor market. This agreement is currently lacking in the area of health, where the segmentation of the social protection system is often associated with different standards of service for different groups of the population, and interest groups involved in the provision of services, with the consequence that groups may arise as opponents of reform initiatives to achieve integration.

The debate surrounding social security for pensions has swirled around the issue of moving towards capitalization systems, and the way to combine public guarantees and operations with private incentives for savings and management. Although the debate on the degree to which individual savings have to be combined with public components can be harsh in some circles, the variety of issues surrounding the debates on health insurance is wider, making it difficult to detect a dominant trend in thought that could define to where the systems are moving.

Finally, the financial problems of pension systems and the weight they impose on public finance are substantial and there has been substantial research on measuring the burden. The reforms during the eighties and nineties, while insufficient, have made progress towards a solution. Unfortunately, in the health area the horizon has been gloomier: most if not all national systems that provide insurance for health suffer from high costs and some degree of mismanagement that have put them at immediate risk of not being able to provide an important set of services. While for pension systems these risks are predicted to be a growing problem over a few decades, for health the financial challenges are coming in the extremely short run. Social and political pressures are also different in the health arena, they are seen as imminent, and sometimes, quite properly, as life and death issues. Reformers have been more cautious in advancing changes in the regulation and management for the social insurances for health, not only due to political opposition or large costs of adjustment, but also because theoretical views are less conducive to the development of "simple" solutions. Even though pension policy is a complex field, most experts agree that the provision of services and insurance for health has a special degree of complexity.

The right to health services, health insurance, or plainly to "health" has been developed at a statutory level in many countries over the last two decades.[7] Notwithstanding the stronger declarations in law, across the Continent many families remain uninsured or enjoy limited access to basic health interventions and live with a health status below any acceptable standard. The exclusion from basic access to health

[7] Antigua and Barbuda, Bolivia, Brazil, Chile, Colombia, Cuba, Dominica, Ecuador, Granada, Guyana, Haiti, Jamaica, Mexico, Paraguay, Surinam, and Venezuela have established the right to health or the right to health protection in their Constitutions. Peru confers in its *Ley General de Salud* the State's responsibility to grant public health services and progressive universal insurance. In several cases, the acknowledgement of this right has been part of the undertaken reforms in the sector in recent decades. PAHO (2004).

services leads to exposure to even larger risks, and higher disability and death rates for the uncovered families (Rosenberg and Andersson 2000). It is estimated that over 30% of the LAC population is excluded from social protection for health.[8] Among the groups with lower protection levels are the children, the elderly, the indigenous groups, the workers under temporary contracts and informal labor relations, the self-employed and the unemployed, and the still large rural population. Lack of social insurance aggravates the poverty traps propagated by the vicious cycle of disease and poverty, and translates into unattended health needs, reduced access to health services, long term poverty and irrational use of public resources for drugs and emergency services (Whitehead et al. 2001). One topic of special interest is the way in which financing schemes have been modified to share resources, reduce out-of-pocket expenditures, and promote more equity in the destiny of public expenditures.

There has also been a substantial shift in social thought that fundamentally challenges the role of

Box VI.2
Chile's Health Care System

The Chilean system of health services is a mixed system, both in terms of financing and in terms of service delivery. For financing, it combines a public social security scheme with a private system of competitive insurance. These two components share the source of financing: active workers and pensioners must devote 7% of their monthly income to pay for health insurance. Each worker has the freedom to choose between the schemes.

From the point of view of finance, the Chilean system relies upon two institutions: *Fondo Nacional de Salud* (FONASA) and the *Instituciones de Salud Previsional* (ISAPRES).

FONASA is the only public health insurer and covers around 60% of the population, basically the urban and rural poor, the lower middle-class, and the retirees (Manuel 2001). The resources of this institution come from general taxes (50%), mandatory contributions (33%), and income-based co-payments for the use of public hospitals. The institution offers a redistributive social security insurance in which benefits received are independent of the payment made. Citizens who make no mandatory contributions are affiliated under the "institutional modality", which limits the access to public facilities and co-payments. The enrollees who contribute can choose among the different public and private providers who have subscribed contracts with FONASA.

The ISAPRES cover about 25% of the population through different insurance plans in a managed care model. Their membership tends to be mid and high-wage workers. The Superintendent of ISAPRE (SISP) is their regulatory agency.

From the standpoint of delivery, health service is provided by private and public institutions. The public supply comes from a wide decentralized public network of health service centers administered by municipalities. Public hospitals are reimbursed for the number of medical interventions provided according to a tariff list (instead of receiving a historical or block budget). The private sector is integrated by hospitals, doctor's offices, drugstores and laboratories that are primarily concentrated in high population density regions.

Several problems in the Chilean health system have been identified. Basic health attention is provided for the entire population, but the supply of more complex services is still limited. The mixed system has resulted in a segmentation of the population: the elderly and the population with costly diseases end up in the public health sector, applying pressure to the finances of the public system (Tokman 2000). This occurs because private insurers can freely adapt premiums to health risks (premiums are 2.5 to 5 times higher for elderly than for young people) and reject potential buyers who are considered high risk individuals.

[8] This figure does not take into account the population that is excluded from the access to services due to insufficient availability or quality of services.

Box VI.2 (continued)
Chile's Health Care System

People subscribe to the private system while they remain healthy and with a relatively high income, and once their medical risk increases, they are forced to move to FONASA, which ends up with the segment of the population that has the highest expected expenditures and pays the smallest contributions.

Since citizens can choose between the private and public scheme, equity in access cannot be obtained using only health-sector insurance instruments (Manuel 2001). This leads to a basic question each country has to face in designing a health system that combines the right incentives for efficiency and equitable access to services: redistribution can be done within the health system, but one must use wider instruments, like the personal tax system and complementary programs that allocate public budgets to supplement the needs of specific groups (Kaplow and Shavell 1994).

Information problems are a common issue in both sectors. Private insurance companies provide too many health plans that result in confusing information, and some of its beneficiaries switch to the public system when they need expensive procedures which are not covered by the plan. FONASA still lacks of reliable information and co-payments are hard to establish that correspond to the beneficiary's ability to pay.

social security. In the past, the main policy goal was the universal access to services, which can be termed as a goal of guaranteeing the supply. Over the last decade, a new idea has taken force, espousing as its main goal the guarantee of financial protection, to avoid putting households at risk of poverty or economic distress due to sickness or accidents (Rosenberg and Andersson 2000). Two important corollaries to this idea are that public policies to provide financial protection do not only apply to the poor, but rather to anyone at risk of becoming poor due to an illness or to an accident; and second, even for the poor, the transfer of in-kind or monetary subsidies does not solve the problem of having access to mechanisms to face temporary shocks on wealth or income, which can be due to health related events but also to other risks, such as crop-failure, natural disaster (in cities or farms), unemployment, and others. This idea has created new playing fields for policy debates. For example, different groups and families are not vulnerable to the same risks, and programs have to be flexible to attend the diversity of social actors. Similarly, an increase of budgetary resources may not be enough to solve some of the main problems because the older programs may not have an adequate structure to help families smooth their consumption and investment patterns.

For social security agencies, the goal of "increasing coverage" defines an objective, but the term has actually had different meanings even within the same country. Under the new view, social protection includes not only the existence of physical supply, but also the positive ability of financing them through pre-paid schemes that minimize out-of-pocket expenditures at the moment of consumption. This means the person should be able to receive service independently of his ability to pay at the moment of consumption. The main problem with this approach is how to include historically excluded groups into the social security system (Figueras et al. 2002).

Lack of insurance translates into out-of-pocket expenditures when the family faces a health-related event. Sometimes, perhaps often, as is evidenced in many preventive procedures or in diseases or accidents that do not generate immediate and large pain, families may delay the expenditure, worsening mid-term health conditions potentially causing an

undue demand of expensive segments of public health services such as emergency rooms.[9]

Lack of coverage also limits a social security program's ability to pool risks and to face expensive events that pose a risk to the financial sustainability of the system. The HIV/AIDS epidemic is a case in point. As discussed in Chapter VII of this Report, payment of cases by social security in a low-coverage country leads to excessive reliance on social security funds to treat the disease, because it is always difficult for a public program to reject patients. In the case of HIV/AIDS, the escalation of cases and costs has been particularly fast. To a lesser extent, the problem is repeated for kidney disease, diabetes, cancer, and many other diseases that have to be treated by social security, even when historically low coverage might have meant correspondingly low collections and low abilities to pool risks.

The impact of out-of-pocket expenditures is only partially determined by catastrophic expenditures. Additionally, many households can be effectively banned from any access to some health services. Three determinants of catastrophic expenditures have been identified on the basis of evidence from 59 countries, 13 of them from the Americas: payment of services, low ability to pay, and lack of prepaid or insurance schemes (Xu et al. 2003). The concept of catastrophic expenditures is measured in relation to the ability to pay of households, and not in an absolute sense. The same international evidence presented by Xu et al. (2003) shows that out-of-pocket expenditures are regressive, and preclude the achievement of the equity goals present in most countries. Among Western European and North American countries, only Portugal, Greece, Switzerland, and the United States have more than 0.5% of households facing a probability of catastrophic expenditures in a given year. Using survey data for the 1992-97 period, among less developed nations, the highest proportion of households at risk has been identified in countries in transition (Azerbaijan, Ukraine, Vietnam and Cambodia), while LAC countries have a somewhat lower incidence (Argentina, Brazil, Colombia, Paraguay, and Peru).

Evidence shows that there is a positive relation between the share of households with catastrophic expenditures for health and the participation of out-of-pocket expenditures in total expenditures on health. An additional percentage point in the proportion of total expenditure coming from out-of-pocket expenditures, increases in 2.2 percentage points the share of households facing catastrophic expenditures. Argentina, Colombia, Mexico, and Thailand have a participation of out-of-pocket expenditures in total health expenditures between 40 and 45%, and catastrophic expenditures range from 0.8% in Thailand to 6.3% in Colombia (this is the proportion of households that incur in catastrophic expenditures).

The main message of this literature is that social security, private insurance, or other public or private mechanisms that operate on a prepaid basis can reduce substantially the risk faced by households of a catastrophic economic condition due to events adverse to health status.

For most of the LAC region, the plans and hopes of national governments in the 20th century relied to a large extent in the growth of social security. In the decades after the end of the Second World War, it was expected that industrialization and urbanization would support rapid growth of the social security institutions (Rosenberg and Andersson 2000). However, by the seventies it became apparent that the share of salaried workers in the LAC economy was stabilizing at levels well below those observed in North America and Western Europe, and that alternative forms of work would leave many working families outside of the social insurance umbrella. This meant that the public assistance approach, financing increases in supply of health services for the

[9] An expense in health is considered catastrophic when the health costs of a family (household) exceed 30% of their income net of food and housing expenditures. World Health Organization (2000).

population by national or local governments, remained as the main remedial strategy throughout the region. The public assistance agencies rarely worked on developing a risk management approach and in general did attempt to integrate their supply with social security financing. This lack of integration is due to the fact that in the LAC region, social security has played not only the financial role, but also has been a provider of final health services. National health systems grew as two or three-tiered systems, with workers in more stable, salaried jobs receiving financing and services from social security, and the poor, the self-employed, the farmers and other groups at disadvantage receiving services from other public suppliers of lower quality. The third tier has been a large private sector that provides services to all the population, to supplement the deficiencies of the public supply and to offer improved services to those capable of paying for them.

While some reforms began in the eighties, by the new millennium the issue of lack of coverage of social insurance or of any type of insurance loomed large in the LAC region. As discussed in this Chapter for the United States, the link between the labor market and health insurance is fairly strong in developed countries; for the LAC region, the relation has proven to be extremely strong, and traditional social security agencies, financed through a payroll tax, have faced great difficulties to increase national coverage in the last two decades.

Sometimes, the policy challenge of increasing insurance coverage is put as one of developing a "Bismarck" or a "Beveridge" model for social protection (Feachem 2002). This means that countries have an option of moving towards a system of universal protection (a "Beveridge model"), which implies lowering or eliminating payroll taxes (a keystone of a "Bismarck model") and providing access to health services to all the population. Regardless of the label, it is useful to think about what policy options are open to a national government and to its national social security agency (or agencies). The close link between social protection and the labor contract, and the need to coordinate a complex network of providers of health services and relations between users and suppliers means that a successful approach may have to be more complex than simply a decision between financing through general taxation or through payroll taxes. The development of mechanisms to achieve universal access to social protection will have to deal with issues such as the optimal way to pool resources and risks and the way in which allocation to finance services is most efficient.

VI.3.2 Fragmentation and Alternatives to Increase Health Insurance Coverage

All of the issues of fragmentation of social security systems discussed in Chapter V apply to the health area, with an additional and substantial complication. They apply in general because in the Continental LAC area social security was often developed as a program with insurances for work risks, health and pensions (disability and old age). Reforms during the eighties and especially the nineties have often meant that the programs have been separated. Agencies for pension programs work independently of agencies for health programs. However, when there was an initial condition of fragmentation of social security, it has often been transmitted to the new agencies. There are important exceptions, and in Colombia, Costa Rica, and Chile; there have been explicit policies to reduce the fragmentation of the access to public financial flows for health. In health, as in pensions, a multiplicity of insurers or providers does not mean increased choices for users since they are usually assigned to a provider on the basis of their labor contract or other characteristic (Rosenberg and Andersson 2000).

A main thrust of reforms has been to separate the following functions: financing, insurance, and service provision. It is expected that this will improve efficiency and equity, by facilitating access to services and allowing the movement of financial flows across providers. It is believed that tying the allocation of resources (the financial function) to the provision of services leads to inefficiency and lack of access (Chernichovsky 2000).

Some recent reforms have attempted to separate the financial and the provision functions of health systems. Each country has followed a distinct route specific to local history, institutions, and policy goals. In the common thread that links these reforms is the need to increase protection both for the non-insured and for the already insured. The general trends can be summarized in two strands. The first is represented by a continued stake on the growing formalization of the economy that would allow social security to provide health insurance to many more families, maintaining other public non-contributory and non-insurance programs through health ministries that have evolved to use targeting users and means testing of potential beneficiaries. These systems are usually fragmented, with different schemes for insurance and provision of services. The second path has been followed by countries that have attempted new policies to achieve universal coverage, which usually have caused some separation of health coverage from other social security branches and caused at least a partial de-linking of the payment of payroll taxes from access to health services (which usually has implied a higher level of financing from general government revenues). Perhaps the most ambitious effort in the LAC area has taken place in Costa Rica, but Colombia is also an important reference for this tendency.

In practice, the existence of strong vertically-integrated providers (that is, separate regimes that control the financing and provision of services for a social group, with little or no flows of budgets and patients across regimes), makes it difficult to adopt public planning or market instruments and in general to coordinate directly or through regulation the institutions that provide insurance and services. This statement ought not be seen as a negative feature of systems where the insurance and provision process are vertically integrated. A large part of the health sector in the United States has vertical integration, and on the other side of the spectrum, and in general, health organizations in the world are also characterized by vertical integration when controlling financial flows and final services contracts. The problems of inefficiency come from the relation of the system with the labor market: when health insurance lacks portability and when the demand by patients of specific medical attentions cannot flow towards the more convenient supplier (and has to be served in the physical facilities controlled by the insurer). Thus, to the extent that workers can move across suppliers of insurance and services, and patients can also move to receive attention in the most convenient facilities, vertical integration of insurance and service provision does not have to result in a socially inefficient solution. However, the problem in many LAC countries is that historically the system developed to have vertical integration, as well as restrictions to the movement of workers and patients across social insurance systems. Here, it is seen that even if all households were covered by some form of insurance, the fragmentation of the system would be harmful if labor or patient mobility remained constrained.

One of the countries that has made a more concerted effort to solve the problems of fragmentation is Colombia, through the Ley 100 (Law 100) of 1993. All residents of Colombia must be affiliated with an insurance plan, which can be public or private, national or local, for-profit or not-for-profit. As in other countries, many households receive insurance through an insurance plan tied to their job. The Ley 100 prohibits discrimination, and appropriates funds to finance households with low ability to pay. With a more limited view, the 1996 reform in Argentina to the "Obras Sociales" (Social Works), allows the family to choose the Obra Social that will provide services, and establishes subsidies to de-link the contributions from the right to receive health care services (see Box VI.3). The challenge in both cases has been to organize financial flows and define the package of services that has to be offered, which requires increasing the regulatory capacity of the national agencies (Figueras et al. 2002).

The two approaches are not exclusive. Widening the reach of "traditional" social security programs

or the opening of new channels for the flow of financing towards service provision can be a fruitful strategy (to separate financing and provision of services). Given that the public sector already spends significant amounts of budgetary resources on health services for the non-insured, it makes sense to create the institutions to manage the resources from a social insurance point of view, allowing these households to become insured at very low cost or fully subsidized, but also gaining effective mechanisms for the movement of these households towards the traditional social security institutions, and also permitting integration of supply facilities and resources.

VI.3.3 Factors that Have Facilitated the Reforms

Two elements are required in order to increase health insurance coverage. First, the financing of health has

Box VI.3
Argentina's Health Care System

Argentina's Constitution guarantees access to medical attention for the entire population, even for non-citizens. To this end, a three-tiered health care system has been designed. The social security sector, administered by trade and professional unions known as "Obras Sociales" (OSs), is the main provider of health insurance and covers about half of the population. The public sector offers a social security program, known as the "Programa de Asistencia Médica Integral" (PAMI), which insures the elderly and disabled; it also offers free care and hospitals for the uninsured. These two tiers are financed from payroll taxes. Finally, the private sector provides prepaid plans for a small and wealthy minority. These three sectors are supposed to cover all individuals within the country, but the reality is that the system is highly segmented, inefficient and inequitable (Cavallo 2002).

Argentina's social security insurance has evolved in a peculiar way: workers were automatically affiliated (and could not opt out) to a health scheme administered by trade unions. Each scheme's risk and funding depended on the activity or industry that the union represented. A redistribution fund was created to help the poorer OSs. However, the beneficiaries of this fund were not the low income groups, but rather the unions with more political power.

The OSs were created in 1970, and since then, they have been operating with little or no accountability. The mandatory enrollment of workers and employers prevented any form of competition. These factors, along with the changes in the economy (increase of informal employment, tax evasion, and unemployment) resulted in a decline and mismanagement of funds for heath care delivery. Affluent workers bought private insurance while the low income workers turned to public hospitals, diminishing the number of affiliates to the OSs. Service substitution did not affect the scheme: they still received a guaranteed revenue even if they did not provide any service. This double coverage phenomenon bred enormous waste and inefficiency into the system (Cavallo 2002).

There were attempts to reform the system, but the political influence of the unions who argued that they were not ready to start competing with the private sector, stopped the process. It was not until 1997 when the OSs started to compete, but only among themselves, and with little mobility because of bureaucratic restrictions and because there was little difference in quality among the OSs.

Unsatisfied enrollees of the OSs looked for medical assistance in the public sector. Public hospitals were mainly designed for the uninsured, and the increasing demand resulted in a scarcity of funds. In 1995 public hospitals were allowed to charge the OSs for the services provided to their beneficiaries, but payments were rarely made. As a result, services and medical equipment deteriorated, and the already deficient management and the lack of information just worsened the public sector's conditions.

The main problem of Argentina's health care system is not funding, which accounted for 11.4% of the GDP in 2001, but rather the poor allocation of those funds, especially for the OSs (Cavallo 2002).

These problems, along with the 2002 crisis that forced most health programs to cut their expenses while the demand for public services increased because of the individuals that could not afford the private system anymore, resulted in rationed health care services and limited access to drugs.

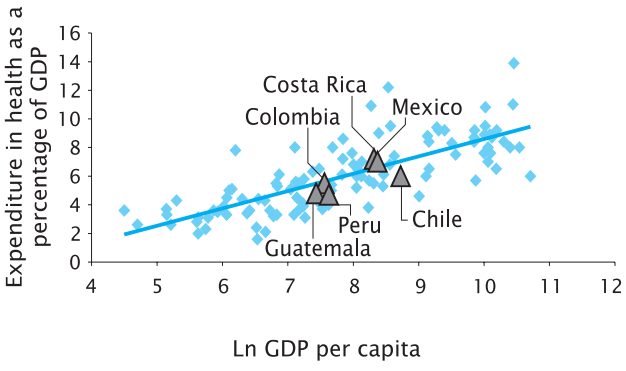
to be separated from the traditional payroll tax that finances pensions and other economic subsidies. Second, investment in health through public resources originating from general public funds must be increased. Chapters III and IV of this Report show that the problem of the informal, uninsured labor market is to a large extent associated with self-employment, low skills of workers, and an inability to save.

Expenditures in health in the LAC countries are between 4% and 8% of GDP (Figure VI.1). Brazil, Costa Rica, and Chile have higher insurance coverage rates, but also higher investment rates. An exception is Colombia, where a lower level of expenditures is observed after 1997 due to the deterioration of general economic conditions.[10]

In terms of budget priorities (Figure VI.2), Costa Rica, Bolivia, and Colombia are countries where health expenditure is more important as part of total government expenditures; the developments in Mexico in recent years are also making health a high priority item. A third relation is that Colombia, Chile, and Costa Rica have the lowest levels of out-of-pocket expenditures (Figure VI.3), while Mexico maintains the highest level due to the low coverage of health insurance. A final observation of relevance for this issue is that lower out-of-pocket expenditures are associated with improved health results. Chapter IV of this Report described the significant reforms to the tax systems for labor in the Continent, which have redrawn the scenario over the last 20 years. Figure VI.1 is suggestive of the importance of the tax system for health insurance policy since there is a clear relation between the ability of the public sector to collect revenue and the ability of the public sector to spend in health.

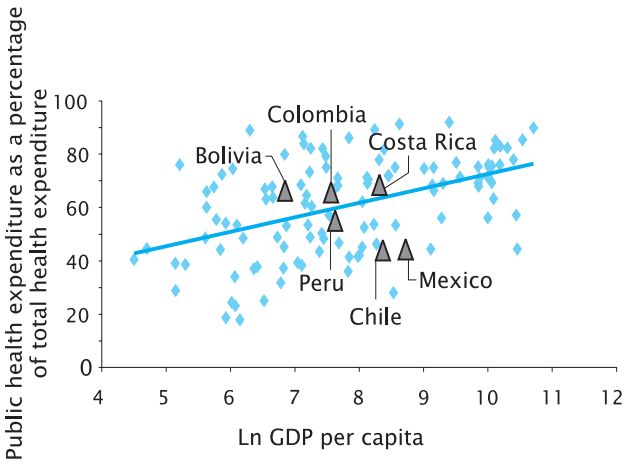
Given that there are some clear lessons for health reform, a natural question is why comprehensive health reform is not observed more often. The strategy of waiting for the long term growth of the traditional social security regimes has gradually lost its allure, and the consolidation of self-employment and the informal economy suggests there is a need to provide the national social insurance

Figure VI.1
Health Expenditure and GDP Per Capita, 2001



Source: US GDP per capita was approximated with Gross National Product, World Bank (2001). The ratio of health expenditure towards GDP for 2001 was obtained from WHO (2004).

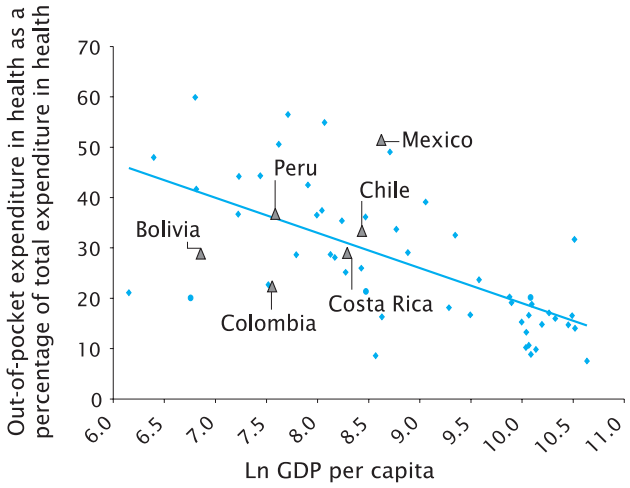
Figure VI.2
Public Expenditure as a Percentage of Total Health Expenditure and Income Level, 2001



Source: US GDP per capita was approximated with Gross National Product, World Bank (2001). Public expenditure in health as a percentage of total health expenditure in 2001 was obtained from WHO (2004).

[10] Reported figures for Colombia in the PHO show a higher expenditure level as a proportion of GDP. However, after the enactment of the *Ley 100* there was a significant increase in expenditure, mainly public. While the increase has been important, it seems that public expenditure has substituted private expenditure.

Figure VI.3
Out-of-pocket Expenditure in Health as a Percentage of Total Expenditure in Health and GDP Per Capita, 2001



Source: US GDP per capita was approximated with Gross National Product, World Bank (2001). Out-of-pocket expenditure as a percentage of total expenditure in health was obtained from WHO (2004).

systems with new tools.

The fiscal constraint is a hurdle that has to be set forth clearly. The fragmentation of social insurance is often linked to heterogeneous levels of quantity and quality of services received by different groups in the population, and to the long-standing operation of corporations, trade and labor associations, and other social agents that have stakes in the way the system functions. These concerns are often legitimate because they have to do with the protection of the quality and quantity of services received, and the financial protection already enjoyed by those groups. A reform searching universality that may reduce the level of benefits for some groups is bound to face substantial opposition. For this reason, breaking the link between the insurance and the provision functions often involves increasing subsidies to uninsured groups, particularly if access to the (usually) better funded social security system is to be allowed. From this perspective, the discussion of Chapter IV on the trend towards lower income and payroll taxes and higher value added taxes gains additional importance because the VAT seems to be a basic fiscal tool used in Europe and parts of South America to guarantee access to health insurance.

Following the Chernichovsky (2000) list of policy goals, in order to advance the social protection goals for farmers, the self-employed, migrant workers, and other groups in the informal economy, it can be useful to delineate the balance of universality, comprehensiveness, and completeness that should be achieved by a national insurance system. For example, the 1993 Colombian reform, or the Popular Insurance in Mexico, enacted en 2003, aim to promote equality measured as the fiscal support given by the national government to all families, recognizing that there will be differences in the services received because some families will contribute additional private resources to their health plans. Canada has more refined standards and tries to avoid the stratification of the system for final provision, while in Cuba the aim is to provide the same standard of comprehensiveness and completeness to all. This pondering of policy options can make possible to develop a policy of strong government action to regulate the flow of funds necessary to guarantee health insurance to all the families, while allowing a diversity of providers and special plans.

This Chapter has mentioned how the "right to health" has been enacted in most LAC countries. Yet, in the absence of the fiscal and financial structures necessary to facilitate the development of insurance plans and their coordinated operation, and of the consistency between health and labor regulations, such a right may remain as a simple declaration. It can also be mentioned (although it is not the topic of this Report), that social security agencies involved in the provision of services are often in need of organizational reforms in the areas of purchasing and provision of services in order to reduce costs and to provide more attractive services to workers who prefer to move into the informal economy, without insurance, due to the low expectations of the services to be received when sick.

CHAPTER VII
SOCIAL SECURITY DIRECTED TO ADDRESS HIV/AIDS FINANCING IN THE AMERICAS

CHAPTER VII
SOCIAL SECURITY DIRECTED TO ADDRESS HIV/AIDS FINANCING IN THE AMERICAS

VII.1 Background

Emergent diseases have posed new challenges to health systems in the human resources, technological and financial areas. One of these diseases is HIV/AIDS, which has substantially increased, over a short period of time, the number of persons requiring very expensive health care. Policy makers are faced with the question of how to make the best use of available resources in order to expand the coverage, access and quality of HIV/AIDS services, while continuing to meet other health demands. Often, social security programs share a large part of the financial burden. In order to prioritize and optimize the allocation and use of resources, it is essential to have information about the total amount, as well as the sources, distribution and uses of available resources. However, many countries lack reliable data on HIV/AIDS, necessary for policy design.

In many developing countries the pandemic has sharp social and economic edges, and competes with other social demands for priority in public budgets. It is important to note that HIV/AIDS treatments are very expensive in comparison with other diseases. Consequently, at the end of 2002, 370,000 persons in Latin America and the Caribbean needed treatment through Antiretroviral (ARV) therapy and only 53% of them were covered (60% of these persons resided in Brazil (Olivera et al. 2004)). The vast majority of HIV/AIDS expenditures are financed by public sources: this includes direct government (ministries of health), as well as social security sources.

This Chapter includes the results of an effort to collect and collate data on the social security expenditure on HIV/AIDS from as many countries as possible in the Americas. Many countries lack reliable data necessary for estimating the current level of aggregate financing and the prospects for increased funding. Information is also needed to estimate the allocation of spending to priority programs and specific population groups. National HIV/AIDS accounts have become a feasible and useful approach for understanding many policies (Izazola-Licea, 2000a, 2000b, 2000c, and SIDALAC 2001).

This Report contains elements that can help to plan more effective policies in the struggle, by recognizing the specific characteristics of the epidemic in the Americas. The data collected in this study was used to assess the extent to which twenty one countries have allocated resources to back up social security financing directed to HIV/AIDS. In addition, the study analyzes the lessons learned from initial procedures regarding organized social response towards the financing of HIV/AIDS and from some of the best practices observed.

This Report uses data from different sources: the Regional AIDS Initiative for Latin America and the Caribbean (SIDALAC), the Joint United Nations Program on HIV/AIDS (UNAIDS), the World Health Organization

(WHO), the World Bank (WB), the International Labor Organization (ILO), the Centers for Disease Control and Prevention (CDC), the Kaiser Family Foundation (KFF), Health Canada, the Caribbean Epidemiological Centre (CAREC), and the 2004 Report on the Global AIDS Epidemic. Additional sources used in this Report were electronic databases, government regulatory bodies, research institutions, and consultations with individual health economists.

Information on national and social security expenditures on HIV/AIDS was obtained from SIDALAC for developing countries, from the KFF for the United States and from Annual Reports on social security in the various English-speaking Caribbean countries. The level of expenditures on HIV/AIDS is estimated using secondary sources of information, official reports and by conducting specific surveys. The expenditures were classified by source (public, private, international), by the use of funds (prevention, care), by objective, and by the type of provider institution. All of the monetary figures reported by SIDALAC are quoted in United States currency.

It is necessary to specify some of the concepts used in this Chapter. Acquired Immune Deficiency Syndrome (AIDS) is the breakdown or inability of certain parts of the immune system to function, thus making a person susceptible to diseases ("opportunistic infections") that they would not ordinarily develop. The Human Immunodeficiency Virus (HIV) is the retrovirus isolated and recognized as the cause of AIDS. Generally, there is a period of time in which individuals infected with HIV do not develop AIDS. Antiretroviral Treatments (ARV) are drugs used for HIV/AIDS that delay the manifestation of AIDS or premature death. The treatment has evolved in the last 20 years since the beginning of the epidemic, from no treatment to treatment with a single drug (AZT), to dual-drug therapy and, now, to Highly Active Antiretroviral Therapy (HAART). HAART is a more efficient treatment since it uses at least three active ARV and is prescribed to many HIV-positive people even before they develop symptoms of AIDS.

VII.2 Epidemiological Profile

Globally, at the end of 2002, there were 42 million people living with HIV, and of these, 3 million were living in the Americas (UNAIDS 2002). At the end of 2002, there were an estimated 980,000 HIV/AIDS cases in North America, with 45,000 newly infected during the same year. The Caribbean is home to some of the world's highest infection rates after sub-Saharan Africa, with adult prevalence exceeding 4% in some countries. In 2002 alone, an estimated 440,000 people were living with HIV/AIDS in the Caribbean, with 60,000 newly infected during 2002, and another 1.5 million were living with the infection in Latin America, with an estimated 150,000 newly infected during 2003. Approximately 57% of all cases in Latin American and Caribbean are in Brazil (CDC 2001). At the continental level, the United States, Brazil and Haiti accounted for 66% of the total of HIV-positive cases in 2001. Central America has high adult prevalence rates (population aged 15 to 49): the six countries in LAC with higher rates are Guyana, Belize, Honduras, Panama, Suriname and Guatemala, with four of these countries in Central America.

The HIV/AIDS epidemic in continental Latin America falls within the framework of a low endemic setting. On average, Latin American countries estimate HIV prevalence among 15 to 49 year-olds at 0.5%. In the majority of Latin American countries, the epidemic is still concentrated in high-risk populations: men who have sex with men (MSM), injected drug users (IDU), commercial sex workers (CSW), prisoners, and individuals with sexually transmitted infections (STI). Some of the exceptions are found in Brazil, Honduras, Guatemala and Belize, where the epidemic appears to be heterosexually driven and spreading rapidly. Sex between men and injected drug use play a significant role in HIV transmissions in the Southern Cone. Other increasingly vulnerable populations are young people and women. Also, in some countries the effect of AIDS on rural communities is increasing rapidly. HIV prevalence varies considerably across the LAC region, ranking from less than 0.03% in Cuba to almost 6% in Haiti. The prevalence estimated among adults in the

United States is between 0.6 and 0.8%, the highest prevalence of any developed country (Table VII.1).

In Canada, heterosexual contact and drug use through injection are increasing as primary risk factors in reported HIV cases (Health Canada 2000). In the United States, estimations made by the U.S. Center for Disease Control and Prevention establish that one half of the new infections in men and close to two thirds in women occur in the black population, even though this group comprises only one fifth of the population. One quarter of all new HIV infections are among IDU and about 42% of newly identified HIV-positive individuals each year acquired the infection through sexual activity between men (UNAIDS/WHO/PAHO 2001).

Over the past decade, the ratio of men with HIV to women with HIV has narrowed considerably, to about 3 to 1 in Latin America and 2 to 1 in the Caribbean (UNAIDS 2002). In Canada the ratio of newly reported HIV cases was measured at 9.4 infected men for every infected woman between 1985 and 1994, but it shot down to 1.5 by 1998.

Table VII.2 shows the number of persons living with HIV/AIDS (PLHA) in the English-speaking Caribbean. The absolute numbers appear small; however, the sample of countries shown in this Table includes mostly small developing island states, with populations ranging from a low of just approximately 11,000 persons in Anguilla to a high of 2.2 million persons in Jamaica. In fact, only Jamaica and Trinidad and Tobago have populations of more than one million. As can be observed, the HIV prevalence rates among adults are considerable higher than the prevalence rates for Latin America, shown in Table VII.1.

Table VII.1
Number of Children and Adults Living with HIV/AIDS in North America and Latin America

	Total population (thousand)	Adults and children living with HIV/AIDS	HIV-positive adults who are women	Children living with HIV/AIDS	HIV prevalence adult rate (%)
Argentina	37,980.63	130,000	30,000	3,000	0.7
Bolivia	8,645.08	4,600	1,200	160	0.1
Brazil	176,257.33	610,000	220,000	13,000	0.7
Canada	31,271.07	55,000	14,000	500	0.3
Chile	15,613.27	20,000	4,300	500	0.3
Colombia	43,526.43	140,000	20,000	4,000	0.4
Costa Rica	4,094.45	11,000	2,800	320	0.6
Cuba	11,270.69	3,200	830	100	0.03
Dominican R.	8,615.91	130,000	61,000	4,700	2.5
Ecuador	12,810.12	20,000	N.A.	N.A.	0.3
El Salvador	6,415.01	23,000	N.A.	N.A.	1.6
Guatemala	12,035.74	60,000	N.A.	N.A.	1
Haiti	8,217.70	250,000	120,000	12,000	6.1
Honduras	6,780.69	57,000	27,000	3,000	1.6
Mexico	101,965.01	150,000	32,000	3,600	0.3
Nicaragua	5,335.05	5,800	1,500	210	0.2
Panama	3,063.52	25,000	8,700	800	1.5
Peru	26,766.69	53,000	13,000	1,500	0.4
United States	291,037.95	890,000	180,000	10,000	0.6
Uruguay	3,390.92	6,300	1,400	100	0.3

N.A.: Not available.
Sources: UNAIDS (2002).

VII.3 The Economic Impact of HIV/AIDS

The two main determinants of the economic impact of the epidemic are: first, that it affects adults in the most productive years of their lives, which reduces labor force capacity through a decline in both the number of workers and productivity; and second, the cost of the treatment for associated opportunistic infections and the relatively high cost of ARV agents prescribed to HIV patients. Costs of ARV agents are such that some of the countries with the highest rates of infection have little or no access to antiretroviral therapy.

According to the ILO, at least 26 million people infected with HIV worldwide are workers aged 15 to 49 years, in the prime of their working lives. The effects are catastrophic, not just on workers and their families, but on companies and national economies. The loss of workers and work-days due to AIDS-related illnesses can result in declines in productivity, earnings losses, and attrition in skills and experience. Given that prevalence rates of HIV/AIDS are generally high in working age individuals relative to other population segments, strong implications for social security schemes are to be expected. Infected/ill individuals are often drawn from the economically active population or are dependents of those in the labor force. The epidemic also strikes hard among the poor, who can not afford the least treatment and care, thereby worsening existing problems of poverty and inadequate social protection.

Figure VII.1 shows that in the United States AIDS caused a surge in the number of disability pensions due to infectious and parasitic diseases. These numbers do not include the cases that resulted in death. In the absence of ARV treatments, that became increasingly available around the mid-nineties, the disease would have had a large effect on social security, possibly increasing by more than 10% the cost of the program. This illustrates the importance of providing wider access to ARV treatments in order to reduce payments by social

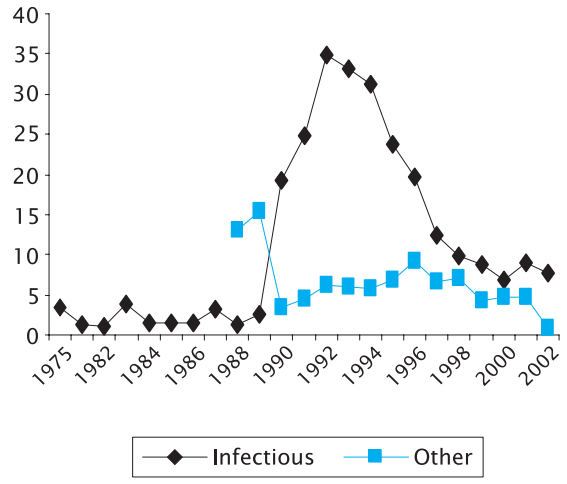
Table VII.2
Estimated Number of Persons Living with HIV/AIDS in the English-Speaking Caribbean, 2003

	Estimated number of people living with HIV/AIDS		HIV prevalence rates in adults (14-49) (%)
	Low	High	Estimate
Anguilla	125	209	N.A.
Antigua and Barbuda	526	878	N.A.
Aruba	905	1,507	N.A.
Bahamas	5,228	8,714	3
Barbados	2,650	4,416	1.5
Belize	4,104	6,840	2.4
Dominica	101	168	N.A.
Grenada	329	549	N.A.
Guyana	23,408	39,014	2.5
British Virgin Islands	164	274	N.A.
Jamaica	21,729	36,215	1.2
Saint Kitts and Nevis	269	449	N.A
Saint Lucia	1,906	3,176	N.A.
Saint Vincent and the Grenadines	395	659	N.A.
Trinidad and Tobago	13,861	23,101	3.2

N.A.: Not available.
Source: CAREC/PAHO/WHO (2004) and UNAIDS (2004).

security programs and to facilitate the return of affected persons to the labor force.

Figure VII.1
Disability Benefits Awards for Infectious and Parasitic Diseases for Persons 50 Years of Age or Younger in United States, 1975-2002
(thousand)



Note: AIDS and HIV records are counted in Infectious and parasitic diseases. Before 1990, they were included in Other.
Source: SSA (2002).

One major problem of an incurable disease is the necessity of therapy for the rest of the patient's life. In addition, ARV therapy is more expensive relative to medications used for other incurable diseases. In recent years political commitment to respond to the HIV/AIDS pandemic has increased and a number of studies have raised concerns about the resources needed for prevention and care. Studies prepared for the United Nations General Assembly Special Session (UNGASS) in 2001, estimated the financial resource requirements for responding adequately to the pandemic. In particular, Schwärtlander (2001) called for spending US$9.2 billion by the year 2005, scaling up gradually from a lower figure in 2000. In November 2002, another study carried out by the United Nations Program on HIV/AIDS (UNAIDS 2002) estimated that the global resource requirement to combat AIDS will increase from US$3.2 billion in 2001 to US$10.5 billion in 2005, and up to US$15 billion in 2007. For Latin America and the Caribbean, UNAIDS estimates that by 2007 the region will need more than US$2 billion in order to move successfully towards the 2015 Millennium Development Goal of halting and reversing the spread of HIV/AIDS.

Few efforts have been made to estimate the full economic impact of HIV/AIDS in Latin America. However, several extensive analyses have examined the direct impact of HIV/AIDS on health systems, and the results are presented in the following Sections.

VII.4 Health Sector Coverage

The administration of the health care systems in Latin America is usually divided into three main groups of institutions: the public sector (Ministry or Secretary of Health), which normally handles health promotion, sanitation and curative care for uninsured low-income families; social security, which was conceived as a way to protect the salaried workers; and the private sector, which includes private insurers, prepayment institutions and providers for profit or non-profit. While there are significant differences across LAC countries, institutional care for patients with HIV/AIDS in the Americas is similar to care for other diseases. The Ministry of Health is usually responsible for designing preventive policies for the whole population and covers AIDS treatment for a small group of uninsured patients. The social security institutions provide care and antiretroviral therapy in some cases to a number of the patients for whom they are responsible, although often they receive a significantly higher share of patients from the national pool than the proportion of the population that they insure. Private insurance companies rarely cover AIDS-related costs, especially for high risk groups. A major problem for social security in the LAC countries is the exclusion of sizable proportions of the population. Most of these countries have highly segmented systems and low coverage of social security. Only in countries with a unique network or highly integrated health sector (i.e. Costa Rica, Cuba), is most of the population covered and absolute exclusion rare.

A World Bank study asserts that a substantial proportion of people infected with HIV do not have adequate health care in Latin America (Garcia-Abreu

et al. 2003). Some of the reasons are: limited access to services, high cost of services (including those provided in public hospitals), low-quality clinical care, lack of infrastructure for prevention programs, and insufficient psychological and social services. Many uninsured individuals must pay out-of-pocket for services. Particularly in Central America (except for Costa Rica), coverage under social security systems is scarce and out-of-pocket payments are more common.

In the United States, major health care programs include: Medicaid, a program to finance health care services for certain low-income people, jointly funded by the federal and state governments; and Medicare, a program to finance health care services for elderly and disabled people.

Canada has a predominantly publicly financed health care system. The health insurance plans of the provinces and territories must insure all medically necessary health services (including hospital, physician, surgical-dental) and, where permitted, services rendered by other health care practitioners. Reasonable access by insured persons to medically necessary hospital and physician services must be unimpeded by financial or other barriers, such as discrimination on the basis of age, health status or financial circumstances (Health Canada 2002).

In the English-speaking Caribbean, the government has traditionally taken responsibility for the bulk of financing and delivery of health care. This has been an important factor in assuring equitable access regardless of income. Health coverage, understood as a social security or social safety net, generally falls under the ministries of health. With few exceptions, most countries provide care free of charge at the point of delivery in the public health sector. Where user fees exist, such fees are highly subsidized by the state, generally fall well below the actual cost of service provision, and are not in alignment with fees charged in the private sector for similar services.

VII.5 HIV/AIDS Expenditure

HIV/AIDS national expenditures include public and private spending (private expenditures include private health insurance, payments out-of-pocket, and user fees). Expenditures on HIV/AIDS are divided among prevention programs (such as information and communication, education, distribution of condoms), voluntary counseling and testing, home-based care, healthcare expenses incurred in facility-based care, and treatment of opportunistic infections.

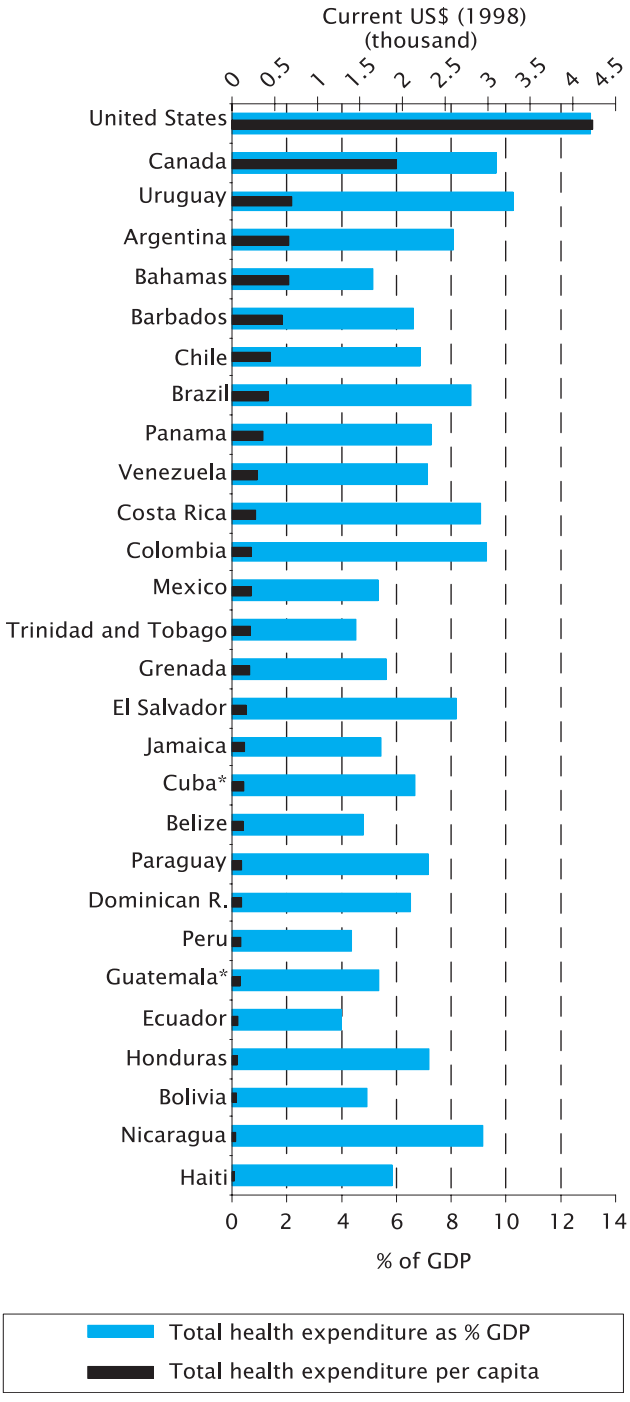
Since expenditure on HIV/AIDS is a part of total health expenditures, this variable partially reflects the resources available for HIV/AIDS. Figure VII.2 shows total health expenditure as a percentage of GDP and in per capita terms for several countries in the region. Countries are listed in descending order with respect to health expenditure per capita, which varies from US$4,236 in the United States to US$30 in Haiti. Later it will be shown that countries ranked by HIV/AIDS expenditures per capita maintain a similar order. Health expenditures as a percentage of GDP differ less among countries and are not closely related to the countries' health expenditure per capita. Measuring health expenditure as a proportion of GDP can reflect the importance of health, but due to large variance in GDP per capita, it does not reflect the true lack of resources in many health care systems.

In aggregate terms social security spending on health in Latin American countries accounted for almost 39% of general government expenditure on health in 2001. Social security does not feature significantly in health spending in the English-speaking Caribbean, where central governments generally have responsibility for both financing and delivery of public health services. Social security funds contribute to the general government health expenditure only in Antigua-Barbuda and St. Lucia.

National HIV/AIDS expenditure per capita for Latin American countries ranges from a high of US$5.86 in Uruguay to a low of US$0.37 in Bolivia. However, most of the expenditure in Uruguay comes from the private sector. Note from Figure VII.2 that Honduras

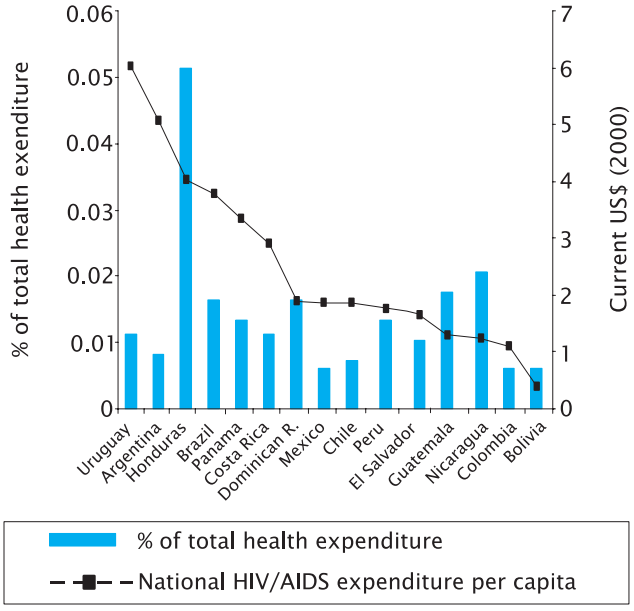
is one of the countries with low health expenditure per capita; however it spends US$3.91 per capita on HIV/AIDS (see Figure VII.3), and more than half of this is out-of-pocket spending (World Bank 2003). It is useful to point out that variables in per capita terms were obtained using total estimated population, while in other publications "per capita HIV/AIDS expenditure" is sometimes defined using only the number of adults aged 15-49 years as the denominator.

Figure VII.2
Total Health Expenditure Per Capita and as a Percentage of GDP, 1998



Note: Data from 1997 was considered for Cuba and Guatemala.
Source: PAHO (2003).

Figure VII.3
National HIV/AIDS Expenditure as a Percentage of Health Expenditure and Per Capita, 2000



Source: Izazola-Licea et al. (2003).

Total expenditure in the year 2000 for the set of LAC countries considered in Table VII.3 is estimated at US$1.2 billion. Of this, 51% was spent in Brazil (US$625 million), followed by Argentina (US$183 million) and Mexico (US$180 million). These three countries account for approximately 80% of total HIV/AIDS expenditure, and comprise nearly 67% of the population in the group of countries.

VII.5.1 Social Security Expenditure

In the LAC region, public sector sources dominate expenditures on HIV/AIDS in Mexico, Panama, Brazil, Costa Rica, El Salvador and Guatemala. In 2000, the lowest participation of the public sector was observed in Bolivia (0.92%), Peru (21.43%), Honduras (26%) and Paraguay (28.53%). In Peru and Honduras more

Table VII.3
Summary of Expenditure HIV/AIDS by Country and Sources Founding, 2000

	Public HIV/AIDS expenditure					
				Social security HIV/AIDS expenditure		
	US$ (thousand)			US$ (thousand)	PPP$ (thousand)	% of national HIV/AIDS expenditure
Argentina	125,336	201,548	68.5	31,935	51,354	17.4
Bolivia	74	179	2.3	N.A.	N.A.	N.A.
Brazil	498,317	1,087,344	79.7	N.A.	N.A.	N.A.
Chile	15,189	30,851	55	6,545	13,294	23.7
Colombia	38,327	124,598	85.7	30,981	100,717	69.3
Costa Rica	8,870	18,410	78	7,189	14,921	63.2
Cuba	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Dominican R.	4,841	12,410	39.5	1,203	3,084	9.8
Ecuador	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
El Salvador	5,669	12,111	56.9	1,129	2,412	11.3
Guatemala	10,230	23,422	72.3	8,832	20,221	62.4
Haiti	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Honduras	4,254	11,319	16.7	566	1,506	2.2
Mexico	162,121	249,460	90.2	133,696	205,722	74.4
Nicaragua	2,372	11,860	39.3	60	300	1
Panama	9,183	15,879	89.7	6,876	11,890	67.1
Peru	9,824	22,624	22.1	4,802	11,058	10.8
Uruguay	7,434	11,358	37.9	729	1,114	3.7
TOTAL	**902,040**	**1,833,374**	**74.1**	**234,543**	**437,592**	**19.2**

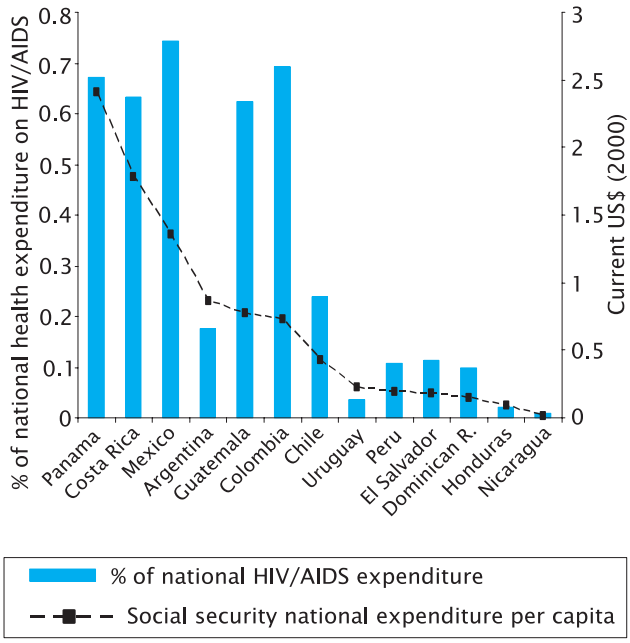
	Private HIV/AIDS expenditure			Donor VIH/AIDS expenditure			National HIV/AIDS expenditure	
	US$ (thousand)	PPP$ (thousand)	% of national HIV/AIDS expenditure	US$ (thousand)	PPP$ (thousand)	% of national HIV/AIDS expenditure	US$ (thousand)	PPP$ (thousand)
Argentina	57,302	92,145	31.3	122	197	0.07	182,760	293,890
Bolivia	753	1,833	24.2	2,279	5,546	73.3	3,105	7,557
Brazil	121,944	266,086	19.5	4,714	10,285	0.7	624,975	1,363,716
Chile	12,060	24,496	43.7	327	664	1.1	27,576	56,012
Colombia	5,876	19,101	13.1	487	1,583	1	44,690	145,283
Costa Rica	2,493	5,174	21.9	N.A.	N.A.	N.A.	11,363	23,584
Cuba	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Dominican R.	5,580	14,304	45.5	1,824	4,676	14.9	12,245	31,390
Ecuador	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
El Salvador	2,609	5,573	26.2	1,670	3,568	16.7	9,948	21,253
Guatemala	2,545	5,827	18	1,361	3,117	9.6	14,137	32,366
Haiti	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Honduras	13,887	36,955	54.7	7,208	19,181	28.4	25,349	67,454
Mexico	17,057	26,246	9.4	495	762	0.2	179,673	276,468
Nicaragua	1,388	6,942	23	2,270	11,348	37.6	6,030	30,150
Panama	754	1,304	7.3	298	515	2.9	10,235	17,698
Peru	33,409	76,935	75.4	1,037	2,387	2.3	44,270	101,946
Uruguay	12,131	18,535	62	N.A.	N.A.	N.A.	19,565	29,893
TOTAL	**289,789**	**601,457**	**23.8**	**24,092**	**63,829**	**1.9**	**1,215,920**	**2,498,659**

PPP: Values in US dollars are adjusted by purchasing power parity.
N.A.: Not available.
Source: Izazola-Licea et al. (2003).

than half of the national HIV/AIDS expenditures come from private sources (Table VII.3). Social security finances most treatment for HIV/AIDS in Costa Rica (99%), Guatemala (86%), Panama (86%), Mexico (83%) and Colombia (80%). On the other end of the spectrum, social security represents less than 10% of national outlays in four countries: Bolivia, Honduras, Nicaragua and Uruguay (Figure VII.4).

Table VII.4 shows total social security expenditure on HIV/AIDS and reveals considerable differences among countries. Social security expenditures on HIV/AIDS treatments range from a high of US$137 million in Mexico to a low of US$0.06 million in Nicaragua. Per capita outlays by social security on HIV/AIDS also exhibit large variance: Panama is on the high end with US$2.41 followed by Costa Rica with US$1.78, and Nicaragua is on the low end with US$0.01. Aggregate social security expenditure for the thirteen countries shown in Table VII.3 is nearly US$235 million and represents 19.3% of total expenditure on HIV/AIDS.

Figure VII.4
Social Security Expenditure on HIV/AIDS Per Capita and as a Percentage of National Expenditure on HIV/AIDS, 2000



Note: Data from 1997 was considered for Cuba and Guatemala.
Source: PAHO (2003).

Table VII.4
Social Security Expenditure on HIV/AIDS, 1999-2000

	1999				2000			
	US$ (thousand)	% of GDP	% of health expenditure	Per capita US$	US$ (thousand)	% of GDP	% of health expenditure	Per capita US$
Argentina	42,856	0.01%	0.17%	1.17	31,935	0.01%	0.14%	0.86%
Bolivia	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Brazil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Chile	8,739	0.01%	0.21%	0.58	6,545	0.01%	0.17%	0.43
Colombia	32,413	0.04%	0.40%	0.78	30,981	0.03%	0.42%	0.73
Costa Rica	8,291	0.05%	0.78%	2.11	7,189	0.04%	0.70%	1.78
Cuba	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Dominican R.	N.A.	N.A.	N.A.	N.A.	1,203	0.01%	0.13%	0.14
Ecuador	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
El Salvador	926	0.01%	0.10%	0.15	1,129	0.01%	0.11%	0.18
Guatemala	5,937	0.03%	0.76%	0.54	8,832	0.04%	1.06%	0.77
Haiti	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Honduras	5	0.0001%	0.001%	0.00	566	0.01%	0.11%	0.09
Mexico	107,318	0.02%	0.37%	1.10	133,696	0.02%	0.45%	1.35
Nicaragua	N.A.	N.A.	N.A.	N.A.	60	0.00%	0.02%	0.01
Panama	2,520	0.03%	0.35%	0.90	6,876	0.07%	0.97%	2.41
Peru	1,667	0.003%	0.05%	0.07	4,802	0.01%	0.14%	0.19
Uruguay	595	0.003%	0.03%	0.18	729	0.00%	0.04%	0.22

N.A.: Not available.
Source: Izazola-Licea et al. (2003).

VII.5.2 United States Federal Spending

This Section provides an analysis of the United States federal funding for HIV/AIDS during the period 1999 to 2002. In the United States, federal funding to combat the epidemic can be divided into five categories: (i) health care and support services, (ii) cash and housing assistance, (iii) research, (iv) prevention, and (v) global or international programs.

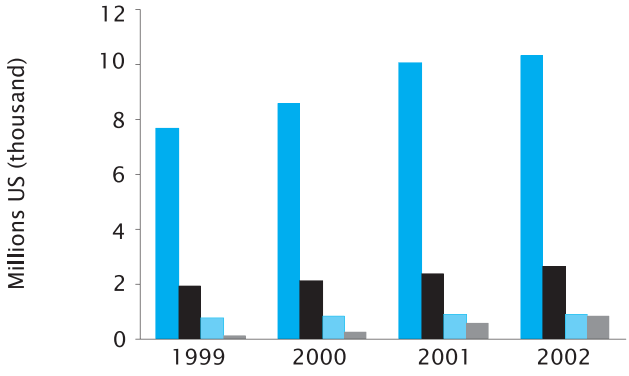
Figure VII.5 shows the trend in federal HIV/AIDS expenditure. Between 2000 and 2001, HIV/AIDS expenditure increased by 18.1%, reaching US$13.9 billion in 2001 and US$14.7 billion in 2002. Of this last figure, US$10,348 million (70.4%) was spent on care and assistance, US$2,614 million (17.8%) on research, US$925 million (6.3%) on prevention, and the remaining US$807 million (5.5%) on international activities.

Less than half of all federal HIV/AIDS funding is specifically designated by law to HIV/AIDS programs. The balance of funding comes from programs such as Medicaid and Medicare that are intended to provide care and services to any person who qualifies, based on his or her medical, functional, and income status. Besides federal and state funding, many local governments, foundations and charities also provide HIV/AIDS services.

Medicaid is the largest single payer of direct medical services, covering 50% of all individuals and 90% of all children with AIDS. Estimated federal and state total HIV/AIDS-related Medicaid expenditure was US$4.1 billion in 2000. Many people living with AIDS qualify for Medicaid because they have a low income, limited assets, and are disabled by definition due to their HIV status. Still others, who may have too high an income to qualify, become eligible through state-sponsored programs for the medically needy. For 2002, combined federal and state Medicaid spending for HIV/AIDS is estimated at US$7.7 billion (of this figure, 55% comes from federal sources).

Medicare also provides resources for individuals with HIV/AIDS who are disabled. As the quality and effectiveness of AIDS care improves, more people with the disease will be living longer and turning to Medicare for hospital care, outpatient medical visits, and prescription drugs. In 2002, Medicare HIV/AIDS spending was estimated at US$2,050 million, or 14% of total federal HIV/AIDS spending.

Figure VII.5
Trends in Federal HIV/AIDS Spending by Category, 1999-2002



	1999	2000	2001	2002
Care and assistance	$7,709	$8,603	$10,062	$10,348
Research	$1,904	$2,127	$2,368	$2,614
Prevention	$746	$821	$917	$925
International	$146	$243	$585	$807

Source: Kaiser Family Foundation (2003).

VII.5.3 Donor Expenditures

Table VII.3 summarizes donor funding to combat HIV/AIDS, in both US currency and adjusted by purchasing power parity. In LAC, donors have been active in providing resources. As can be seen from Table VII.3, the Latin American countries for which data is available receive annual external funding for HIV/AIDS of US$24 million. This represents 1.98% of overall government expenditure on HIV/AIDS for these countries. External funds play an important role in poor countries like Honduras (28.4%) and Nicaragua (37.6%). Brazil, Nicaragua, Bolivia and Dominican Republic receive most of the external funds. Approximately, less than a third of the external funds go to Guatemala, El Salvador, Peru and Paraguay. In some countries such as Bolivia, donors´ participation in the response to HIV/AIDS exceeds the amount spent by the public and private sectors. In Nicaragua the funds provided by donors represent approximately twice the amount of private expenditure and almost equal public expenditure on the disease.

VII.6 Antiretroviral Therapy (ARV) in the Americas and the Role of Social Security

In sixteen LAC countries, most of the social security expenditures on HIV/AIDS are channeled to treatment (81.1%), which mostly focuses on ARV (54%) (Aran et. al. 2003). From 1999 to 2000 social security expenditures on ARV increased by 22%. This figure seems to be part of a medium term trend towards social security agencies in LAC providing more access to ARV for infected patients, thus mimicking the trend of Medicare in the United States.

VII.6.1 Access to ARV Therapy

Approximately half of the population in LAC in need of ARV receives treatment. On the other hand, one third of HIV-positive persons who need ARV lack the resources to take the treatment, while 44% of HIV-positive people receive HAART (Garcia-Abreu et al. 2003). HAART has become the most important strategy for treating the HIV infection in developed countries. However the vast majority of the 40 million people living with HIV/AIDS in developing countries do not have access to comprehensive care and in particular to ARV therapy. According to the WHO, some 6 million people in developing countries are in need of HAART, but only 230,000 have access. In LAC, an estimated 170,000 HIV people were receiving such treatment at the end of 2001, most of them in Brazil (UNAIDS 2003).

Currently, in the Americas, a majority of persons with AIDS have access to treatment only in the United States, Canada, Brazil, Mexico, Costa Rica, Panama, and Cuba. In Costa Rica, the public health service covers 100% of the population, and about 950 people with AIDS receive antiretroviral medication. In Panama 60% of all people with AIDS are covered by a government program, which provides their medication. Brazil, the country with the highest number of HIV infected people in the region, addressed the problem early in the pandemic with a comprehensive AIDS program written into the law in 1996. The Brazilian

Table VII.5
Antiretroviral Demand and Coverage in Latin America by Subsector, 2002-2003
(number of cases and percent of patients who need therapy)

Patients	Patients who need ARV therapy	Patients with ARV therapy	Ministry of health	Social security	Armed forces	Other
Argentina	23,500	23,500	17,226	5,774	N.A.	500
Percentage		(100)	(73)	(25)		(2.1)
Bolivia	440	24	4	20	N.A.	N.A.
Percentage		(6)	(16)	(84)		
Chile	3,604	3,288	3,288	N.A.	N.A.	N.A.
Percentage		(91)	(100)			
Colombia	24,000	8,433	1,000	6,061	1.181	191
Percentage		(35)	(12)	(72)	(14)	(2.3)
Ecuador	500	324	70	169	60	N.A.
Percentage		(65)	(22)	(52)	(19)	
Paraguay	600	385	350	N.A.	N.A.	35
Percentage		(64)	(58)			(5.8)
Peru	7,000	1,050	23	600	200	227
Percentage		(15)	(2.2)	(57)	(19)	(22)
Venezuela	9,525	9,525	6,955	2,300	270	N.A.
Percentage		(100)	(73)	(24)	(3)	
Mexico	22,411	20,908	5,912	14,996	N.A.	N.A.
Percentage		(93)	(29)	(72)		

N.A.: Not available.
Source: Process of Joint Negotiation for the Access to Antiretroviral and Reactive Drugs in the Andean Subregion, Argentina, Mexico and Paraguay (2003).

government purchases some drugs from abroad and from domestic producers. Other models in the region include the delivery of HAART by non-governmental organizations as in rural Haiti (Farmer et al. 2001).

As can be seen in Tables VII.5 and VII.6, for most countries in Central America and for Mexico, Colombia and Bolivia, social security systems are the main sources for financing ARV treatments. Ministries of Health in Central America, except for Nicaragua, are slowly increasing their coverage of ARV treatment and social security in Honduras is increasing the number of treatments. In Argentina and Chile, the Ministry of Health finances most antiretroviral therapy.

In the English-speaking Caribbean there are no social security programs covering HIV/AIDS treatment per se. However, infected persons who are covered by social security programs may be entitled to income replacement benefits related to ill health and absenteeism from work. These individuals would also be entitled to treatment and care in public health facilities either free of charge or at nominal fees. Contributors to the social security scheme are, in general, covered by illness and disability benefits. In this region, Bahamas and Barbados have been identified as success stories for treatment and care of HIV/AIDS patients and are also the only two countries in which over 95% of patients had access to essential drugs—those that satisfy the primary health care needs of the population—between 1987 and 1997. Belize and Grenada ranked lowest in the region, with more than 50% of infected individuals without access to essential drugs in 1995 and 1997.

Data from Table VII.7 shows access to ARV therapy in the English-speaking Caribbean for five countries for which information was available; Barbados had the highest percentage of adults in need of treatment who were actually receiving treatment. With an estimated 52% treatment level, the Barbados access-need rating was twice that of the country with the second highest rating—Jamaica, where only 22.7% of adults in need of treatment were receiving ARV therapy. According to the World Bank (2004) the

Table VII.6
Patients Being Treated with Antiretrovirals as a Percentage of Demand in Central America, 2003

	Guatemala		Honduras		El Salvador		Nicaragua	Costa Rica	Panama	
		Social security	Health sector	Social security	Health sector	Social security	Health sector	Social security	Health sector	Social security
Adults	3	64	5.2	30	10.5	86%	0	100	17	85
Children	20	22	17	N.A.	18	0%	0	100	79	100
Pregnant women	20	14	5	23	56	75%	30	100	36	N.A.

N.A.: Not available.
Source: UNAIDS (2003b).

Table VII.7
Adults 14 to 49 Years with Advanced HIV Infection Receiving ARV Therapy in the British Caribbean Countries, June 2004

	Adults in need of treatment [a]	Adults receiving ARV therapy	
		Number	% of those in need of treatment
Barbados	490	255	52
Belize	440	29	6.6
Guyana	2,000	251	12.6
Jamaica	2,200	500	22.7
Trinidad and Tobago	4,300	784	18.2

a: 2003.
Source: UNAIDS/WHO (2004).

mortality rate for HIV/AIDS has fallen by approximately 43% in Barbados since antiretroviral drugs became universally available in January 2002.

In the United States, AIDS Drug Assistance Programs (ADAP), which are federally and state-funded and state-run since 1987, have made treatment available to low-income HIV patients who do not qualify for Medicaid. Currently, ADAP buy 20% of the HIV drugs prescribed, enough for 92,000 people. The other 80% of patients in need of these drugs have insurance or are covered under federal programs. Using this data it is estimated that 460,000 people in the United States are on treatment, as of the end of 2003.

In the United States, insurance companies play an important role not only by protecting their clients from financial risk, but also by providing medical care that otherwise could be unaffordable. Researchers have shown that being insured is correlated to significantly lower mortality in HIV patients in the United States (Goldman et al. 2004). Therefore, policies that focus on increasing insurance coverage can save many lives. However, there are different types of insurance coverage, which may generate disparity in the quality and intensity of the treatment. For example, in the United States uninsured and publicly insured HIV patients have a lower probability of obtaining expensive drug therapy compared with privately insured HIV patients with similar medical conditions (Bhattacharya et al. 2002). For example, HIV patients with private insurance are more likely to be on HAART than patients with public insurance. Similarly, most publicly insured patients are treated only in advanced stages of the disease since they need to demonstrate a disability to qualify for coverage. Bhattacharya et al. (2002) establish that private insurance is more effective in reducing premature death among HIV patients, and this may be related to the difference in the usage of HAART and to the intensity of treatment. Very little is known about the role of private insurance for HIV and AIDS treatment in LAC, quite possibly because private insurers provide little protection for this disease.

Even though in Canada access to health care is considered equitable, complete access to treatment has not been attained, especially for the drug injectors. A report by WHO/UNAIDS/PAHO (2001) establishes that only 40% of drug injectors were receiving any ARV drugs nearly a year after they had become medically eligible. One of the possible reasons is that doctors may not prescribe therapy to drug injectors for fear they will not take the medicine as prescribed. Failure to stick to a treatment regime can lead to drug resistant strains of HIV, making therapy a less effective weapon against the virus.

As the epidemic progresses, the number of people needing treatment will rise substantially and demand will change. Increased demand will come from people who are not normally users of health care, especially young adults. Care will be needed both for acute, treatable illnesses and terminal conditions. The scale of this additional demand is particularly problematic. Health sectors already have difficulty in meeting other medical care needs. It is likely that HIV/AIDS will consume a substantial share of public health budgets, even if only a proportion of needs related to the disease are met.

Access to HAART is urgently needed. The epidemic is still in its early stage throughout most Latin America. Most of those currently infected are at an early stage of HIV; most have no symptoms of the illness and do not yet require HAART. But they will, and so health care providers in the public and private sector as well as policy makers face increasing demand for HAART.

VII.6.2 ARV Therapy Cost

The point of the discussion is very important: the introduction of very expensive but very effective medications must be evaluated, as any public policy, with some consideration for its effects on costs. Hence, the effects of introducing such treatment must be identified, and both increases and decreases in costs must be measured in order to accomplish the cost benefit analysis. The discussion in these pages mentions some important facts: the experience in

Brazil (which is peculiar because of the large drop in the cost of ARV treatment), the one of the United States and the one of Mexico. It also mentions what theory says about the expected effects of ARV treatments: increased medication cost, reduced hospital visits, reduced incidence of opportunistic disease, sick leave, and premature death.

ARV costs remain an important barrier to treatment, although progress has been made towards lowering costs. In 2000, the price of HAART for one patient for one year was US$10,000–US$12,000. By early 2002, generic competition and the practice of differential pricing by pharmaceutical companies had contributed to considerable price reductions for low-income countries. The prices for certain generic combinations are US$300 per person, per year (UNAIDS 2004).

New mechanisms for reducing drug prices and providing funding for the purchase of drugs have been developed. These include global funds to fight AIDS, tuberculosis, and malaria, the United Nations Accelerating Access Initiative (AAI), and several initiatives developed by pharmaceutical companies. The AAI is a public/private partnership initiated in 2000 among a number of United States and international agencies (PAHO/WHO, UNAIDS, WB, UNFPA, and UNICEF), and six pharmaceutical companies (Bristol Myers Squibb, Glaxo Smith Klane, Boehringer Ingelheim, F. Hoffmann–La Roche, Merck & Co. Inc., and Abbott Laboratories). This partnership aims to increase access to HIV care, treatment and support. Negotiations have made high quality drugs, including generic ones, more affordable in low and middle-income countries, and have also provided technical assistance to countries that wish to expand their capacity to deliver care and treatment.

According to the WHO, the triple combination of medicines (HAART) is the standard for HIV/AIDS care. Dual drug regimes are moderately effective, but are unlikely to produce long term durable benefits in most patients. Although not the standard of care, dual regimes are considerably better than no therapy. Single drug regimes should not be used at all in the treatment of HIV infection. Table VII.8 shows the prices for some of the HAART drugs. The lowest prices vary between US$284 and US$584, and the average cost of HAART is US$484. There are also considerable variations in price among countries.

The introduction of expensive but very effective antiviral medications has led to questions about the effects of these medications on the total use of resources for the care of HIV/AIDS patients. Since the

Table VII.8
Average Price per Person per Year for the First-Line Treatment Regime, 2004

Regime	Sourced from	Lowest price (US dollars)	Average price (US dollars)
(Stavudine 30 mg + lamivudine + nevirapine)	Ranbaxy Laboratories Limited	285	420
Stavudine 30 mg + lamvivudine + nevirapine	Bristol Mayers Squibb Company + GlaxoSmithKline + Boehringer Ingelheim	555	N.A.
(Stavudine 30 mg + lamivudine) + efavirenz	Ranbaxy Laboratories Limited + Merck & Co., Inc.	472	472
Zidovudine + lamivudine) + nevirapine	(Ranbaxy Laboratories Limited or Hetero Drugs Limited) + Hetero Drugs Limited	287	481
Zidovudine + lamivudine) + nevirapine	(GlaxoSmithKline) + Boehringer lingelheim	675	N.A.
Zidovudine + lamivudine) + efavirenz	(Ranbaxy Laboratories Limited or Hetero Drugs Limited) + Merck & Co., Inc.	544	564
Zidovudine + lamivudine) + efavirenz	(GlaxoSmithKline) + Merck & Co., Inc.	584	N.A.
Total average			**484**

N.A.: Not available.
Source: UNAIDS/WHO (2004).

advent of HAART, data on outcomes and cost of care are becoming increasingly commonplace at scientific meetings, in an attempt to provide a context for evaluating the high cost of multi-drug therapy. No study has been able to describe and measure all of the relevant cost and outcome variables that would be necessary for a complete understanding of evolving therapy HIV.

A study by Hellinger (1993) for the United States estimates lifetime medical cost of treating a person infected with HIV at US$119,000. Other costs include loss of earnings due to premature death from AIDS. One study estimated that for the first 10,000 AIDS cases in the United States, the average cost of years of work lost equaled about US$480,000 per death, or a US$4.6 billion total (Hardy et al. 1986). Large technological changes in treatment since the mid-nineties imply that both the quantity and quality of drugs used by patients is increasing, but total outlays may actually become smaller if prices also fall enough, and if improved work capacity can reduce substantially the costs of disability insurance. However, such scenario is not yet on the horizon.

Successful HIV prevention programs that target the right populations can be highly cost-effective. One million dollars spent on HIV prevention can save US$2.7 million, depending on HIV prevalence in the population targeted (Kahn 1996). As with other infectious diseases, the optimal economic solution can be to drive the rates of infection to zero or near zero, making treatment much cheaper in the long run. However, as will be discussed below, reducing infections to such an extent is very difficult.

According to the latest results from an HIV Cost and Services Utilization Study (HCSUS), the first large-scale effort to collect information on a nationally representative sample of individuals receiving care for AIDS and HIV disease in the United States, average expenditures per HIV patient declined from US$1,792 per month in 1996 to US$1,359 in 1997, before rising slightly to US$1,410 in 1998. Average annual per patient treatment costs declined from US$20,300 to US$18,300 after adjustments for illness severity, patient deaths and other factors (Bozette et al. 2001).

Data from southern Alberta, Canada, shows that the cost of anti-viral drug treatment per patient per month increased from US$655 in 1995 to 1996 to US$1,119 in 2000 to 2001 (Krentz et al. 2003). Based on these cost estimates, the cost of ARV therapy for HIV in Canada was US$806 million per year in 2003.

HIV/AIDS cost Canadians more than US$2 billion in 1999, in direct and indirect costs (Dodds et al. 2004). Health care costs accounted for about US$560 million; prevention, research and support to AIDS victims for about US$40 million; and lost production due to premature death and disability for nearly US$1.5 billion.

In Mexico, access to treatment, including ARV and other medical care varies considerably across socioeconomic groups (Saavedra 2000), and access is highly correlated with participation in the social security system. Since 1992, Mexico's social security institutions have offered access to HIV/AIDS care through specialists at secondary and tertiary hospitals, with no additional deductible or co-payment. However, the uninsured that seek care at facilities of the Ministry of Health have had a much more difficult time accessing treatment. ARV remains out of reach for the poor and those who do not have access to social insurance or to the federal FONSIDA program (National Fund for Persons Living with HIV/AIDS). To address this gap, the Minister of Health has committed to provide ARV treatment to everyone who needs it by 2006. Since 1996, ARV treatment has been provided to people with social security insurance and to a small number of uninsured people.

A study of the Mexican health care sector identifies total costs attributable to utilization of health services once patients begin taking ARV treatment. There is a marked increase in health care costs after initiation of triple therapy and the prices of ARV treatments are the major cause of this increase. Costs are higher for social security than for other public providers (Bautista et al. 2002). The study reports an average annual cost of health care of patient care between US$836 and US$1,144, depending on the stage of the disease. The average annual cost per patient with ARV treatment in the

non-insured public sector is calculated at US$2,625 and in the social security system it is estimated at US$3,059. Clearly the costs of caring for people with HIV/AIDS are higher in the social security system.

Empirical evidence from Brazil suggests that savings on hospitalization and outpatient visits exceeds the cost of the ARV program. However findings in the study carried out in Mexico demonstrate that there has been no immediate cost savings from the initiation of triple therapy in the Mexican case. The cost of ARV, starts out high and rises substantially, while the decline in the use of inpatient services is too small to make a difference.

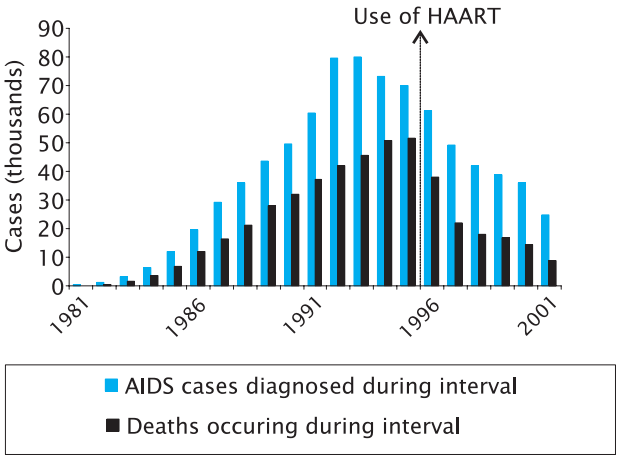
In Brazil, the reduction in medication costs has decreased the overall cost of the AIDS program, with 50% of all ARV medications being produced in the country. Brazil achieved an annual cost reduction of 48% per ARV patient, from US$4,860 in 1997 to US$2,530 in 2001. Cost per patient-day fell from US$13.4 in 1997 to US$8.5 in 2000. Between 1996 and 2001, average hospital admissions per patient per year dropped from 1.65 to 0.28, with 358,000 hospitalizations being prevented, resulting in savings of more than US$1 billion. Opportunistic infections, mainly tuberculosis, showed a dramatic reduction of 71% between 1996 and 2000, 54% alone in 1996 to 1997 coinciding with widespread HAART availability. There was also a 61% reduction in costs for Pneumocystis Carinii infection and 81% for Mycobacterium Avium. Total ARV expenses in 2002 were 1.5% of the total Ministry of Health's budget, less than 0.05% of Brazil's gross domestic product.

VII.6.3 Effects of ARV and Prevention

New antiretroviral therapies have resulted in improved quality of life and survival for people living with HIV/AIDS. In Brazil, United States (Figure VII.6) and Canada widespread access to antiretroviral therapy has dramatically decreased AIDS mortality and delayed the manifestation of AIDS, but new infections have not decreased appreciably and thus HIV prevalence has increased with approximately 900,000 persons now living with HIV (UNAIDS/WHO/PAHO 2001).

The situation is not simple because treatment regimes must be followed throughout the patient's lifetime, and insufficient prescriptions, misused or missed doses can generate resistant strains of the virus and increase the possibility of transmitting such strains. In order for ARV therapy to be effective, a broad health resources infrastructure is needed, including specialized laboratories and infectious disease services in hospitals, capable of complying with quality standards. By strengthening current infrastructure and training physicians, treatments could become more efficient (Garcia-Abreu et al. 2003).

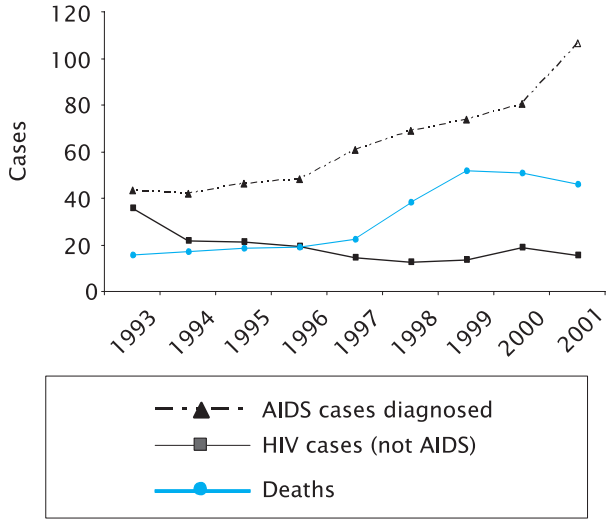
Figure VII.6
Deaths in Persons with AIDS Cases in the United States, 1981-2001



Source: CDC (2001).
Available at : http://www.cdc.gov/hiv/stats/hasr1202/table21.htm

On the other hand, access to HAART may not turn out to be a watershed victory in the fight against HIV. In the United States, the reduction in mortality rates of HIV patients after 1996 has been related to the initiation of HAART. According to Goldman et al. (2004), although one of the recent developments in the history of the HIV epidemic is a large improvement in the survival probabilities of infected persons, there is also an increase in infection rates since 1996, apparently due to a change in the behavior of potentially affected populations. The point of this observation is that breakthroughs in treatment alone cannot guarantee overall health improvements.

Figure VII.7
Number of AIDS Cases, HIV Cases and Deaths in Persons with AIDS in the United States



Source: CDC (1993-2001).

Figure VII.7 illustrates an important reduction in AIDS deaths but also a significant increase in HIV infection cases. Rand researchers' Goldman et al. (2004) suggest that there could be a causal connection between these events. They find that patients with better insurance have a greater tendency to engage in risky behavior. Less costly and improved treatments allow HIV patients to become healthier and more efficient at spreading the disease. This hypothesis may have general implications: for diseases with a cure or with treatments that substantially reduce the probability of pain and death (as opposed to incurable diseases), investing in improved treatment methods may have the adverse effect of reducing the care taken by at-risk populations to avoid infection. If breakthrough in treatment allow HIV patients to engage in more risky behavior, then a significant increase in the costs of providing services related to HIV patients could result from improved treatment methods. There may also be a problem of asymmetric information, since individuals with AIDS could become healthier and so, it may be more difficult for other individuals to identify them. Hence, individuals interacting with AIDS patients will also be less likely to exercise caution. There is no legal obligation of an infected person to other individuals at risk of being infected by him/her. In fact, laws against discrimination may negate any such legal obligations.

Until the mid-nineties, populations at risk apparently engaged in precautionary behavior, especially individuals engaged in risky sexual practices. For example, Smith (2003) reports the result of a survey of married and never married women in 1992, in which the percentage of individuals that changed their sexual behavior as a result of AIDS was 12% for the married and 52.4% for the never married. Data are not available yet, but an open question is whether improved treatment will reduce private incentives for prevention.

Many researchers agree on the importance of prevention, since it reduces future treatment. Latin America spends large proportions on treatment (between 60 and 80% of total HIV/AIDS expenditures). The majority of countries, including Brazil, Argentina, Chile, Uruguay and Mexico allocate substantial resources to ARV drugs, while spending only 10 to 30% on prevention. A World Bank (2003) study for 16 Latin American countries estimated that 8.7% of social security expenditures on HIV/AIDS was allocated to prevention[1]. Even though prevention is a crucial strategy for fighting an incurable disease, it is not a common task of social security programs, that are designed mainly to finance curative treatments. More generally, a "medical" approach to prevention may not be effective, because the propagation of the virus takes place in a wide social environment, and potential victims are not likely to search for medical advice until infected.

VII.7 Country Cases

Around the world, concern about efficiency of HIV/AIDS expenditure is growing, but nobody is certain

[1] Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, El Salvador, Honduras, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

what this actually means in practice. In LAC, experiences from Brazil and Haiti have demonstrated that it is possible to deliver HAART in a mid-income and a low-income developing country, and this Section recounts the experiences of Brazil, Haiti, the English-Speaking Caribbean and of some specific populations.

VII.7.1 Brazil

Data from Brazil show that HIV associated morbidity and mortality, in particular tuberculosis incidence and hospitalization time, were markedly reduced through the introduction of HAART. The results are comparable to the experience of the United States and Western Europe: mortality has been reduced by 60 to 80%. According to Brazil's Ministry of Health, an estimated 358,000 hospital admissions were avoided because of this program during the period 1997-2001, representing savings of US$1.1 billion (Ministry of Health of Brazil 2002). It is worth noting that today, 63% of the ARV drugs used are generics, and their prices have fallen by 82% over 5 years. In addition, the Ministry of Health negotiated a 60% cost reduction for imported drugs.

In 1997, an estimated 35,900 people were receiving treatment. In 1998 this had increased to 55,600 and in 2001 to 105,000. As of July 2003, about 115,000 persons with AIDS were receiving antiretroviral treatment. Spending on ARV has followed the same pattern, increasing from US$34 million in 1996 to US$232 million in 2001 (Marins et al. 2003).

Summarizing, free distribution of drugs for treatment of HIV-positive individuals has an impact on the reduction of morbidity and mortality, a substantial reduction in hospital admissions and treatment costs associated with opportunistic infections, a reduction in under-reporting of AIDS cases, and increased willingness to be tested due to information about the effectiveness of the drugs and their availability free of charge.

VII.7.2 Haiti

In a study in Haiti, directly observed therapy (DOT) was used for the administration of HAART with considerable success. AIDS researchers have started to report data on the feasibility of providing HAART in resource-limited settings. Farmer et al. (2001) of Harvard University reported their experience in rural Haiti with a small sample of 60 cases, in a directly observed therapy–HAART pilot project at Clinic Bon Sauveur, which is located in one of the poorest parts of the poorest country in the Western Hemisphere. The treatment was directly observed therapy, given once or twice per day by community health workers (many of whom are HIV infected themselves). While Farmer et al. noted that it is too early to draw conclusions about mortality, so far all patients enrolled have had a positive clinical response characterized by weight gain and abatement of AIDS-related symptoms, and the medications have been well tolerated. More objective data on immunological, virological and clinical responses are needed, but Farmer et al. had shown that consistent treatment is possible under very adverse conditions. This study shows that persons in poor countries can adhere to a treatment regime, and that AIDS treatment can be successfully delivered.

VII.7.3 English-Speaking Caribbean

The Caribbean countries were the first in the Americas to develop a sub-regional approach to accelerating access to ARV. They first carried out a series of consultations in order to design a response strategy aimed at expanding and accelerating access to care and treatment.

In February 2002, representatives from the Caribbean Community (CARICOM) countries met with the partners of the Accelerated Access Initiative (AAI) to reach an agreement on the principles of a sub-regional approach, highlighting similarities within the region in the stage of the HIV epidemic and the countries' response, as well as the importance of mobile populations between countries. Thereafter the countries developed a proposal for Accelerating Access to Care and Treatment in the Caribbean. By June 2002, four Caribbean countries—The Bahamas, Barbados, Jamaica, Trinidad and Tobago—had

participated in the AAI and had obtained significant reductions in the price of ARV from participating manufacturers by July of the same year. The negotiations were conducted by the CARICOM Secretariat, PAHO/WHO and UNAIDS, as part of the Accelerated Access Initiative (AAI). The Pan Caribbean Partnership against HIV/AIDS (PANCAP) and the participating companies signed the agreement in July, during the Barcelona conference.

Through the regional AAI in the Caribbean and Central America, ARV costs have been reduced from between US$10,000 to US$12,000 to US$1,100 to US$1,600 per patient per year for a first line treatment of AZT/3TC + NVP or EFZ. The combinations have been pre-qualified by the WHO to assure quality and efficacy. These prices were announced originally in October 2003 and again in January 2004, and to date they have been available to the 16 countries in the Caribbean where the Clinton Foundation's HIV/AIDS Initiative is active.

VII.7.4 Specific Populations

HIV and the Elderly

While HIV/AIDS attacks primarily adults and young persons, a segment of the older people is sexually active and most prevention programs do not target this population. Carter (2002) points out that this could have implications, because the elderly may not even realize that they should be concerned about the disease, and so may be more likely to have unprotected sex and less likely to seek testing. On the other hand, some experts worry about misdiagnosed HIV infections among the elderly since symptoms could be confused with those of other age-related diseases. The problem could worsen as the baby boom generation ages. Specialists suggest reaching older groups through workshops on HIV and safe sex practices.

Mother-to-Child Transmission

One of every three pregnant women infected with HIV passes the virus to their child. Simple oral antiretroviral therapy given to the mother in the last month of pregnancy can reduce the rate of transmission down to one in ten. The prevalence rate of HIV/AIDS is increasing among women especially in sub-regions such as Central America and the English-speaking Caribbean. Actually, in the English-speaking Caribbean every day a child is born with HIV.

Estimates for the Dominican Republic establish that provision of preventive services for pregnant women could cut the number of infections in children born with HIV from 930 to around 270 per year. Also, Jamaica plans to offer counseling and voluntary testing, with antiretroviral and breast-milk substitutes for pregnant women who test positive. Honduras is also planning an intervention since it is expected that HIV-positive mothers will give birth to 400 children in the near future, and in the absence of intervention this will translate into approximately 120 HIV-positive infants. In Guatemala, 3% of the country's total spending on AIDS is directed to pregnant infected women. Expenditures in preventing mother-to-child transmission could be effective since this is a well defined high-risk population and the policy can significantly reduce the number of children living with HIV (UNAIDS/WHO/PAHO 2001).

VII.8 Conclusions

There is considerable uncertainty about the future of the HIV/AIDS pandemic. Increasing numbers of people living with HIV/AIDS are almost certain for several years or decades to come, due to demographic inertia and underreporting, and because the disease remains incurable. The financial pressure on social security programs has nowhere to go but upwards in countries that have not achieved a stable model of attention and still have many uninsured social groups.

The HIV/AIDS experiences in various countries can provide useful information to improve policy making in this area. These experiences also show that spending is very unequal between and within counties. The importance of social security as a source of funding to treat HIV/AIDS varies considerably across countries. In the LAC region, Costa Rica, Mexico, Guatemala, Colombia and Panama are the countries

where social security systems play an important role, providing more than 80% of the funds for treatment through ARV therapies. In the United States, Medicare is also a key player in financing treatments.

In recent years great progress has been made in making ARV drug therapies an affordable and realistic option for even the most resource-constrained countries. ARV therapies that delay the inevitable fatal onset of AIDS have given new hope to people with HIV; many are defying earlier predictions and living relatively normal lives. Drug therapy does not cure the infection, but it extends the window of health that precedes the eventual decline into full-blown AIDS. Medical specialists now speak optimistically about drugs that keep HIV dormant for years, perhaps decades, converting HIV from an automatic death sentence into a chronic disease. On the other hand, HAART can increase the probability of infection, since healthier patients have greater possibilities of spreading the disease and may be less cautious. Long-term behavioral change is needed to reduce dramatically the financial and social cost of the disease, but low private costs of attention and improved results of therapies make such prevention more difficult. For incurable diseases like HIV/AIDS only prevention can bring a permanent reduction of the number of infected persons.

Prevention and treatment should be considered as part of an integral approach to care. However, prevention is not the main goal of social security systems, which usually only finance treatments. Even when these systems provide medical attention directly, they follow a curative approach rather than an overall preventive approach. Field experience has shown that treatment and prevention efforts are both necessary and complementary strategies for combating the HIV epidemic. Effective prevention is key because it can reduce the high expected future expenditures on HIV/AIDS. Thus, social security agencies that finance treatments can gain through in-depth cooperation with the rest of society to promote prevention. As far as HIV prevention interventions are concerned, knowledge of effectiveness is well documented. (e. g. Kahn 1996 and Broomberg 1996). The spread of HIV has been greatly influenced by socioeconomic and structural factors. Targeted prevention strategies that simultaneously address risk behavior and factors that generate vulnerability, including poverty, discrimination, inadequate education, and gender inequality, may be effective in many settings. Structural interventions that influence these factors might be important for the prevention of HIV in developing countries. Unfortunately, such approaches have not been implemented on a scale sufficient to halt the epidemic.

One of the major barriers to access ARV therapies is their high cost. Negotiations have achieved price reductions, which has helped countries to expand their coverage. On the other hand, HAART can reduce the number of hospitalizations and consequently reduce the overall costs as in the case of Brazil, where savings during 1997 to 2001 are estimated at approximately US$1.1 billion. The introduction of HAART has proven to be a good strategy for combating the epidemic. However, improved health services, better infrastructure and trained physicians are needed to make the treatments more effective.

Expenditure on HIV prevention and care programs has been increasing substantially. Therefore, it is important to ensure that new resources are used most effectively and efficiently to have the maximum impact on the HIV/AIDS epidemic. In order to better control the epidemic, policymakers must improve monitoring and analysis through the creation of a strategic surveillance network, and must invest more in prevention and education designed to reach the people most vulnerable to infection.

CHAPTER VIII
SUMMARY

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VIII.1 A Period of Economic Reform

The term social security refers to a program (or a set of programs) financed with mandatory tripartite contributions (in proportions that vary across countries and programs but predominantly paid by workers and employers), that guarantees an income level to individuals or families in the events of retirement, disability or death, and provides insurance or subsidies for health or child care expenditures and other benefits (such as family allowances or unemployment insurance). In recent decades, social security programs have in many cases required increasing government transfers to meet their obligations and to cover financial deficits in the pension and health areas. Currently, there is a heated debate about the optimal structure of social security programs. Researchers and policy-makers believe that this is a basic policy tool to define the incentives for working and saving of families, for the development of the financial system, and definitely to provide families with the means to achieve stability against events that are out of their control.

Economic reforms have direct effects on the ability of social security to perform its duties in at least two ways: first, through their impacts on the general economic environment, productivity, and wages; and second, some reforms relate directly to the way social security collects taxes and the way benefits are financed.

Labor market informality (the set of jobs without social protection) is related, among other things, to social security's low credibility in the population. In some countries in Latin America and the Caribbean, for example, this can be the result of declining pension benefits driven by macroeconomic instability, an event that was very common in the seventies and eighties, but still occurs today.

Another relevant issue is the coexistence of several schemes or social security institutions in a national system, each with its own rules of eligibility, contributions, and benefits, a condition that often leads to lack of portability of benefits between different programs and to a loss for families when their members change jobs. The lack of portability is an institutional failure, which also affects labor market outcomes because workers care about health insurance and pensions rights when deciding to change jobs or retire.

With respect to the economic reforms that have shaped the environment in which social security operates, since the eighties many countries in the Continent have implemented structural reforms towards the liberalization of domestic and international trade, the deregulation and privatization of industries to facilitate new investment, and to induce an environment of stronger competition. Also, some countries have reformed tax codes lowering income tax rates and

have moved towards value added taxes, which are perceived to be a more efficient form of collection that reduces the disincentives for working and saving.

Trade liberalization imposes competition on firms that is quickly reflected in the way they demand labor services, on how fast they hire and fire, and how salaries change. Similarly, a tax reform is a main determinant of incentives for working and saving. In this debate, it is useful to distinguish between the effect of labor regulations on employment growth from their effect on the relative importance of the socially insured and the uninsured sectors. Recent debate on determinants of the informal economy suggests that the informal labor market may not be handicapped in terms of wage levels and wage growth and other amenities of jobs, except for the lack of social insurance coverage.

Investment provisions in trade agreements play a key role to allow a rapid transfer of technology and these effects are necessary to achieve the competitiveness of a national economy. Trade liberalization does not have to be a threat to social protection systems and, in many cases, may have actually benefited them through the creation of better jobs.

It is not clear theoretically whether trade reform should lead to an increase or to a decrease in formal labor market relations, but one hypothesis states that trade liberalization leads to competitive pressure on formal establishments, which respond cutting costs, including costs associated with social protection. Therefore, it is sometimes argued that employers may reduce health and safety conditions, contributions to social security, and in some cases even shift their jobs to the informal labor market.

Many believe that labor market reforms are badly needed throughout the region. The main issues discussed have been the legal constraints on labor contracts that affect the cost of separation of workers, the restrictions on temporary hires, the high costs of resolving disputes due to the inefficiency of the administrative or judicial courts, the uncertainty involved in the legislation of collective bargaining, and the problems related to the informal economy.

Privatization and deregulation seem to have worked in ways similar to the effects of free trade. By generating new opportunities they have encouraged the growth of certain industries and encouraged productivity growth in general. These policies have sometimes been condemned for the risk of having negative effects on employment in some industries due to stronger competition, but the evidence is not supportive of this argument. On the other hand, it is also true that a process of sustained growth in coverage of social protection has not arisen from these reforms. This means that improved productivity does not necessarily leads to higher levels of coverage of social insurance, at least in the short or medium term. Countries therefore cannot rely on a better investment environment and on job creation as the magic cures for the problem of social security coverage.

VIII.2 Social Security, Work and Population

The world population experienced its highest levels of growth in the last decade, a result of higher fertility rates and lower mortality rates in previous decades. According to various projections of the world population for the next five decades, the growth of the world population will continue, although at a lower rate. While, in the first half of the century, the Americas will continue to be an area of high population growth, the growth rate of this region will be lower than in the past, but with important differences in the population growth between the countries of the continent.

The current population of the Americas is about 820 million and is expected to reach one billion before 2025. Differences in growth rates across countries are expected to have a significant impact on the distribution of population levels across the Americas, which imply that the ability to finance the retirement of the elderly may be substantially different across countries.

Although differences exist between countries, the population 65 years and older is generally growing substantially in the Americas. The aging in the Americas is occurring at a greater speed than the historical experience in Europe. The older population will grow to a rate of 3.5% in the period 2000 to 2025, three times the rate of the total population. The largest growth rates will occur in countries that do not currently exhibit high percentages of people over 65 years, like Honduras and Paraguay.

The working age population is expected to increase faster than the total population in the majority of countries of the Americas. The rate of increase in the labor force will remain high for many years to come due to the large birth cohorts of the eighties and nineties. Additionally, an increasing percentage of those who are economically active will be women. The labor boom will continue for the next few decades, although with a notable difference from the "first half" of the boom, because the working population will be older. In this context, it is important to consider that any change in social security policy may affect the life styles of their populations, especially, between the ages of 50 and 65 (over which the policy decisions on retirement have the largest impact).

Hence, two main questions arise, both of which have strategic implications for social insurance. First, will labor force participation of adults below 55 years of age keep increasing to North American levels or will it remain around Southern European standards? Second, will the behavior of people approaching retirement age follow European patterns of lower activity, North American patterns of reduced but still high participation rates in labor markets, or Japanese levels of participation above 70% after age 60?

International statistics show that between 1965 and 1990 the number of people around the world who were living in a country other than the one in which they were born has increased in absolute numbers, although in percentage terms migrants represented just 2.3% of world population at both dates. Also temporary and return migration have become much more common, causing a larger increase in gross flows that in net flows. The Americas will continue to be an important region for migration, particularly for migration across countries within the Continent, where Canada, United States, and Argentina will remain as net receivers of migration for the next half century.

One of the policy questions that arises around the migratory issues relates to whether an inflow of young workers can help countries with older populations to solve the financial problems of social insurance systems. According to some projections, increased immigration does very little to mitigate the fiscal stress facing these countries, since immigrants are disproportionately low-wage earners (low skilled immigrants), and they typically receive more benefits (government pension and health care spending) than they pay in taxes, in relation to native workers. Therefore, the conclusion is that the only policy that could help these countries face its demographic dilemma is a massive expansion of high skilled immigration.

Social security institutions face two challenges, population aging and migration. Better communication and cooperation of national governments and social security administrations can help to cope with migration issues. For the aging issue, more research is needed in order to design social security policies.

VIII.3 Informality in the Labor Market and Social Security

The objective of this Chapter is to discuss the difficulties faced by the LAC region governments to comply with the goal of increasing the coverage in their social security systems.

The principal obstacle for increases in coverage can be found in the "informal", "black-market", or "uncovered" population (self-employed and small firms mostly with five workers or less that cannot be fully monitored by the regulatory and fiscal agencies and that are associated with high levels of poverty). The magnitude of the problem is seen in the fact that the informal sector in Latin America currently employs

between 30 to 70% of the urban economically active population and that these percentages are growing.

Currently, there are more complex views on what the informal economy is and what its repercussions for social security are. A view that perhaps was prevailing in development economics and policy discussions until the seventies and eighties was based in the dual-labor markets hypothesis. This theory states that the informal sector should be seen as a residual sector comprised of disadvantaged workers rationed out of good jobs. During the nineties empirical research reached different conclusions. Many now view the informal sector in the LAC region as an unregulated, developing country analog of the voluntary entrepreneurial small firm sector found in advanced countries. According to this view many workers in the informal economy decide to be there voluntarily, which means that they would not be better off in formal sector jobs in terms of earnings or satisfaction given their qualifications and other characteristics. The question for social security policy is why these persons decide to abandon the protection offered by social security programs.

The explanation may be a combination of the following factors: (i) the cost of contributions (these workers prefer to pay for basic necessities such as foodstuffs, clothing, and housing instead of more remote and uncertain needs); (ii) a design of social security programs that favors the extension of coverage of all family members, regardless of their job status, or that offers the rights to economic benefits even when the formal labor career was intermittent; (iii) administrative models for the collection of taxes and for the provision of services that favor the treatment of large employers and permanent jobs. They also face high costs and are ineffective in managing cases of small employers, the self-employed, high-turnover jobs, and migrants.

Additionally, the social costs can be summarized in the following points: (i) the lack of social protection often determines the need for supplementary social programs; (ii) the lack of compliance with the general regulatory framework induces ecological risks, deficient environments for health and safety, low tax revenues, and unfair competition, among others; (iii) both the self-employed and the employees of micro-firms are at higher risk of falling into poverty because they work in defective environments and are disconnected from social insurance; and, (iv) informal firms cannot grow to reach optimal sizes.

The labor market institutions, the taxes on labor, the regulations on employment, and the liberalization of trade, as well as the privatization and deregulation policies, affect the results of the labor market, such as employment, wages, and the size of the informal market. The taxes on labor (including the contributions to social security), have an effect on employment and wages that is ambiguous in some cases, but to the extent that is easier for employers and individuals to move to the informal economy, higher taxes can have a large impact on formal labor relations. The LAC region has relatively high costs of regulations on employment (prior notice and severance payments for job separations), in comparison with North America and Western Europe, and there is a direct relation between these stringent regulations and informality. With regards to unionization rates, these are relatively low in the Continent, and there is only weak evidence on their impact on informality; however, some authors have found that union gains in developed countries are related to other labor market outcomes such as employment, wages and informality.

Few countries in the LAC region operate an unemployment insurance system, and there seems to be a concern about the effects of a program of this type due to the large levels of informality. However, the evaluation of the recent experiences of Argentina and Chile will be useful for considering the feasibility of unemployment insurance in other countries with large informal economies.

There is a direct relation between minimum wages and informality, because higher minimum wages are associated with more unemployment in the formal sector, and a higher share of employment in the informal sector, but it has also been found that when

countries have followed a policy of low minimum wages with inflation-related adjustments, employment may not be affected by small increases in real minimum wages.

Trade liberalization and deregulation/ privatization seem to have had ambiguous effects on employment, and additional research is needed to design new labor public policies. The increase in investment associated with liberalization tends to generate higher formal employment in large and mid-sized firms, but on the other hand, there is a displacement of workers at least in the short-run, which has generated growth in the service sector (which is disproportionately informal).

Specific policies have to be designed for at least four main types of workers: (i) the self-employed, who have relatively good earnings levels (higher than what they could earn in the formal sector), but are bewildered by the regulatory tangle and may feel that the benefits provided by the health system financed by social security are not satisfactory; (ii) the older displaced workers (usually in their forties or fifties), who cannot find a job in the formal economy and end as self employed or as employees in micro firms; (iii) women with low attachments to the labor market that may need support in the form of family-friendly policies or in the form of policies that facilitate their transition towards full-time employment; and (iv) young workers with low skill levels who also lack the physical capital and the human capital to function as self employed.

VIII.4 The Informality Environment: Taxation, Regulation and Administrative Modernization

What elements influence the informal economic activities in the labor market and the incentives to be protected by social security? Chapter IV mentions some of the studies that have been done on the topic and evaluates with some detail four issues that influence individual decisions to participate or not in the formal labor market. These issues are taxation, fiscal incentives for saving, general regulation, and administrative modernization.

Possibly the most commonly cited cost of social security programs is the tax burden. Since the eighties this issue has led to reforms in several countries across the Continent. Among these changes have been the lowering of income taxes, a reform that happened across the region; the introduction and the expansion of the Valued Added Tax (VAT); the reduction of international trade taxes; the increase in the level of tax revenues (as a percentage of government revenues and of GDP); and improvements in tax administration.

The difficulty in increasing collections through payroll and personal income taxes has led several countries to introduce and to rely more on the VAT to support the financing of social insurance programs. At least 23 American countries have adopted this mechanism. In 2003 the VAT rates in LAC range from 5 to 23%, averaging 14.5%. The VAT has proven to be a more resilient tax than the income tax, because collecting taxes on consumption is easier, and the VAT has generally become a steadier source of revenue. For social security programs this has been a major development, because governments have been relying increasingly on the VAT to finance expenditures on pensions and health. The movements towards establishing non-contributory pensions and towards financing health and child care services from general revenues are already important in several countries and may become a generalized phenomena. Hence, for the agencies involved in social security programs, the continuing evaluation of the trends in national tax systems is of strategic significance.

The rules by which social insurance is provided in an economy influence work in its different time dimensions (hours, intensity, and ages of entry and retirement), savings, and expenditures of families (during active work years and while retired). Tax and social security laws include additional rules that can affect work, savings, and expenditures. These rules can have large effects on the flow of funds dedicated to support social programs. For some countries, the level of financial support provided to families through the income tax laws, in order to stabilize income and

health expenditures, may be comparable in size to programs that spend directly on pensions and health. Better tax structures promote savings and complement the design of social security programs. In the Americas income tax legislation has evolved towards diminishing the distortions that taxation imposes on savings for retirement and health.

In the case of pensions, tax structure affects financial flows in pay-as-you-go systems as well as in private pension plans. The 2005 Report describes the way in which governments may affect the cash flow through taxation, that can take place at three points: at the time of contribution (in which case the tax is a payroll tax); at the time when interests or capital gains are accrued (this can happen in many periods while funds are saved); and finally, taxes can be levied on the benefits. There are different combinations that arise from taxing the resources at different points, but the most common combinations are called the "expenditure tax" and the "comprehensive income tax". The expenditure tax means that accumulations to the fund of interest and capital gains are not taxed, but there is a tax either on benefits or on contributions. This policy taxes only expenditures, regardless of the date of occurrence. The comprehensive income tax means that interests and capital gains are taxed, in addition to a tax on benefits withdraws or on contributions. Latin American countries have opted in general for the expenditure tax.

The expenditure tax is more successful than the comprehensive income tax in achieving the goal of being neutral with respect to inter-temporal consumption decisions. If, as argued, the expenditure tax is preferred to the comprehensive income tax as a mechanism for funding social programs, the question remains whether taxes should be collected "up front", as payroll taxes, or delayed to the time of consumption. In any case, it seems that a stable fiscal environment, with clear rules that are maintained in the long run is the most favorable strategy for the stability of consumption of workers and retirees.

In the case of health, the taxation of health expenditures often receives special treatment in tax codes. Societies have a preference towards making access to health services easier and cheaper for the population, so the tax codes favor health expenditure even for the wealthiest. Therein lays the main distortion in the treatment of health finance: subsidies are often given to current expenditure, while health related savings may not receive similar treatment. A question that has been raised in several countries relates to the usefulness of adopting a system of health accounts that would allow tax deductibility of savings dedicated to future health expenditures. As is the case with pensions, tax regulations should not create an artificially higher price of health expenditures in the future vis-a-vis the present, but should rather be neutral.

The decision to participate or not in the formal economy affects the labor market as well as the social security programs, which face the difficulty of increasing coverage and reaching all the population. Clearly, the size and development of the informal sector, interacting with the rules of access and contributions of the social security programs, can cause distortions in the formal labor market.

The labor market in LAC is characterized by a large and growing informal sector. The countries with the largest informal economies are Bolivia, Panama, Peru, and Guatemala, while the smallest are found in Costa Rica, Argentina, and Chile. On the other hand, the United States and Canada have the lowest levels, even among OECD countries.

Among other factors, informal activities result from a combination of heavier tax and regulatory burdens, and the inability of institutions to enforce them. The regulations that support the tax system are often complex, and proposals to simplify the codes have been advanced in many countries. The theoretical argument is that simplifying tax laws makes enforcement easier, and this reduces the incentive of individuals to evade taxes by engaging in informal activities. On the other hand, broadening the tax base

and eliminating exemptions, because of the disregard for the special nature of some economic activities, creates additional incentives to move certain activities underground.

In the presence of a large informal economy, a government strategy that attempts to increase regulations and controls can result in an exacerbated informality. A more effective policy would be to simplify laws and regulations, to improve the administrative abilities of regulatory agencies in charge of implementing and enforcing them, and to simplify court procedures for resolving disputes. Thus, in a country with a large underground economy, as is the case in most LAC, reforms to social security that reduce taxes and improve the management of collections or benefits may be useful in the short run but may end up having a limited impact on coverage, and only a holistic approach, dealing integrally with the problems of firms in the informal economy, can be successful.

The utilization and adaptation of new Information Technologies (IT) for social security administrations can make access to benefits less costly. Information technologies are delivering new tools that can reduce drastically the costs of registration, management, and collection of social security contributions for the people currently excluded from social security. More generally, the new IT have lowered the costs of managing individual accounts for retirement, the operation of processes for targeting and controlling monetary or in-kind transfers for health, income support or child care, and other benefits to an extent that was unimagined in the early decades of social security, and this opens possibilities for the interaction between agencies and their programs, and workers, retirees and their families. This potential can be fully developed only if public action is taken to solve significant problems of coordination between social agents, including privacy, the interrelation of different fiscal authorities and levels of government, the enforcement of contracts, applications, and other acts made through electronic media.

VIII.5 Coexistence of Pension Plans

Although there has been a tendency to decrease the fragmentation of the pension systems, there are still problems that can be seen in various countries. Mesa-Lago provides a useful classification of Latin American countries based on the date in which they introduced their first pension and retiree programs and according to the level of development achieved by each one of them. The classification is as follows: (i) the Pioneer-high group: Argentina, Chile, Cuba, Brazil, and Costa Rica (in the twenties and thirties), this group reached the highest coverage and development of their systems; (ii) the Intermediate group: Panama, Mexico, Peru, Colombia, Bolivia, Ecuador, and Venezuela (in the forties and fifties), that achieved a medium level of development and coverage; and (iii) the Latest-lower group: Paraguay, the Dominican Republic, Guatemala, El Salvador, Nicaragua, Honduras, and Haiti (in the sixties and seventies), that have the youngest population and the lowest life expectancy, their systems were relatively more unified and they had less financial problems, but they had the lowest coverage and development of their systems.

This Chapter shows the advances that have been achieved in consolidation, portability, and standardization of access conditions to pension benefits, as well as the difficulties that the existence of special pension plans brings to public administration and workers.

During the eighties, system fragmentation was very common. For example, in Chile in 1979 there were 90 social security programs for old age and disability. Since social security developed in a fragmented way, through multiple programs that gradually covered specific occupational sectors, each of them had its own insured population and legislation. This evolution generated a stratified system along occupational lines, with unjustified differences related to access, financing, and benefits that would contradict the goal of uniformity of the treatment. Between the sixties and the eighties, concurrent with the process of unification, there was a process of normalization (relative homologation) of the conditions of

accessibility in some countries, even though some maintain important inequalities. The most common cases of segmentation were associated with the armed forces and with government workers, but also with certain unions, industries or special activities: workers for the legislative and the judiciary, teachers and professors, bankers, public service, utilities and energy industry workers, and even social security agencies' employees. Nowadays these special plans still prevail in some countries, even though improvements in general programs policies have been made.

The recent processes of consolidation can be seen in systems reformed to allow savings in individual accounts, and in the non-reformed systems. Reformed systems are classified according to the strategies for LAC transition following three general models: (a) the Substitution model, where the public system has been completely replaced by a private one, immediately—Bolivia (1997) and Mexico (1997)—or gradually, as in Chile (1981), El Salvador (1998), and the Dominican Republic (2003-2006); (b) the Parallel model, when the public and the private systems are in competition: Peru (1993) and Colombia (1994); (c) the Mixed model, that integrates a public program with a private one, among which are found Argentina (1994), Uruguay (1996), Costa Rica (2001), and Ecuador (2004).

Among the non-reformed systems, Brazil and Venezuela have been introducing parametric reforms in recent years while the others have not introduced any changes (Cuba, Guatemala, Haiti, Honduras, Panama, and Paraguay). In spite of the reforms, there are still inequities in benefits and access conditions in the different programs of social security.

In relation to reforms to standardize the treatment of contributions and benefits, it can be observed that there has been a homologation in access conditions (age of retirement and years of contribution) between the public and private systems, with the exception of Bolivia, Colombia, and Mexico. In non-reformed systems, in which there are multiple agencies or plans, countries also have kept differences in access conditions and in benefits between the general public system and the separated programs, with Cuba, Venezuela, and Panama as the countries with more generous access conditions; Panama has the most homogenized conditions of the region.

The reforms during the eighties and the nineties were made with the objective of solving problems such as fragmentation, homogenization, portability, coverage, and financial sustainability. The general results are the following:

Fragmentation: Argentina, Chile, El Salvador, and Colombia have improved while Mexico, the Dominican Republic, and Costa Rica have not concluded their consolidation processes.

Homogenization in access conditions: Countries with reformed systems in general have improved in this direction, except for Mexico and Colombia.

Portability at national and international levels: at the extremes are Chile (who recently signed a bilateral agreement with Peru), and Mexico who does not allow any portability among the existing schemes. In general, the national gains from eliminating fragmentation and achieving homologation are tied to the elimination of the problem of a lack of portability.

Coverage: The gains have been low for most of the countries, and this remains as a central issue in the policy agenda.

Financial sustainability of the system: The finances of social security are still in a critical situation in most countries, even though reformed systems have started the funding for new generations, and in reformed and non-reformed systems there have been parametric reforms to reduce costs. Two important cases are the reforms in the United States in the eighties and Brazil more recently.

VIII.6 Health Insurance Portability, Labor Supply and Job Mobility

Access to health care is one of the most highly-valued benefits demanded by citizens in modern societies, but the specific form in which it is implemented is still an issue of heated debates. The formulas that have been attempted for health sector reform are

far from homogeneous, although, in general, they are driven by two important factors: the desire to improve efficiency and the desire to improve the interaction between the health sector and the labor market. In the attempt to increase access to health services according to the solidarity approach, each country should adjust its social insurance regulations to avoid undue restrictions on labor mobility.

The labor market is, for most countries, the largest market, so the distortions that affect its efficient operation can have a tremendous impact on the economy as whole. This fact is exemplified by the United States economy, and the case deserves particular attention, not only because of its size, but also because it is an exception among developed countries for not having universal health insurance. The relationship between the labor market and the various types of health insurance coverage available to individuals in the country may motivate some of them to make different labor market decisions than they would otherwise.

The United States has a patchwork system of institutions that provide health insurance. About 64% of the non-elderly population is covered by the employer-provided health insurance, which provides benefits to employees and to their dependents. Various types of government insurance programs cover most, but not all, of the population who are not covered by employer-provided insurance. The largest government program is Medicare, which provides coverage to individuals aged 65 and over and to the disabled. The second largest program is Medicaid, which at first covered the elderly and low income single mothers and their children, and was later expanded to provide coverage to non-welfare-eligible families with modest incomes. Various other types of private insurance cover about 7% of the non-elderly population. This patchwork system leaves many people uninsured (17% of the non-elderly, although only about 1% of the elderly, due to Medicare coverage).

Empirical evidence of various studies supports the importance of health insurance portability on labor market outcomes. From the labor supply side, lack of portability and protection for dependents creates a deterrent to retirement and to job mobility, while the availability of insurance that comes from a source other than one's own employment (for example, employer provided coverage obtained as a dependent, the possibility to be eligible for Medicare or health insurance bought in the private market) has the opposite effect. Research on governmental programs of "continuation of coverage", like COBRA and HIPAA, shows that retirement is very sensitive to the availability of health insurance.

From the labor demand side, distortions occur mainly because employer-provided health insurance is a fixed cost that gives firms the incentive to economize on the costs of providing insurance in two ways: hiring fewer employees but at longer weekly hours or hiring more productive workers, and by hiring part-time workers, to whom there is no obligation to provide health insurance.

For the aforementioned reasons, it can be concluded that the interplay among these various institutions, some tied directly to the labor market and others not, results in distortions of the labor market decisions of individuals and firms.

Social insurance for health across the Americas has evolved in important ways in the last 10 to 20 years, but the debate surrounding health service does not show a clear trend in thought that could identify to where the systems are moving. Policymakers have been more cautious in proposing changes in the regulation and management for the social insurances for health, not only due to political opposition or large costs of adjustment, but also because theoretical views are less conducive to the development of "simple" solutions.

There has been a substantial shift in the social thought about the role of social security. In addition to the goal of guaranteeing the supply, the goal of guaranteeing financial protection to avoid putting households at risk of poverty of economic distress due to sickness or accidents is paramount. This goal can be achieved using mechanisms such as pre-paid

schemes that minimize out-of-pocket expenditures at the moment of consumption, in such a way that services can be received independently of the ability to pay.

In LAC most households lack insurance or only have limited health access. About 30% of the population is excluded from social protection for health, especially the most vulnerable groups, which aggravates poverty traps. Lack of coverage also limits the ability of social security programs to pool risks, which poses a risk to the financial sustainability of the system as a whole.

In the decades after the end of the Second World War, it was expected that industrialization and urbanization would lead to the rapid growth of social security institutions. However, by the seventies it became apparent that the share of salaried workers in the LAC countries was stabilized at levels well below those observed in developed countries. Public assistance remained as the main remedial strategy throughout the region and national systems grew as two or three-tiered systems, with workers in more stable, salaried jobs receiving financing and services from social security, and the poor and other disadvantaged groups receiving services from other public suppliers of lower quality (but they rarely worked on developing a risk management approach). There is also a third tier that has been a large private sector that provides services to all the population, to supplement the deficiencies of the public supply and to offer improved services to those capable of paying for them.

These traditional institutions, mainly financed with payroll taxes, have had problems increasing coverage at a national level in the last two decades. The public debate on how to deal with this issue is moving toward the development of universal protection models that decrease or eliminate payroll taxes and provide access to health services for the entire population.

In the LAC Continental area, social security was often developed as a program with insurances for work risks, health, and pensions. Reforms during the eighties and especially the nineties have often meant that these programs have been separated, to make agencies for pension programs work independently from health agencies. However, these new independent agencies often suffer from the very fragmentation they were designed to eliminate.

Some recent reforms have attempted to separate the financial and the provision functions of health systems. Each country has followed a distinct route specific to local history, institutions, and policy goals. The common thread that links these reforms is the need to increase protection both for the uninsured and for the already insured. The general trends can be summarized in two strands. The first is represented by a continued stake in the growing formalization of the economy that would allow social security to provide health insurance to many more families, maintaining other public non-contributory and non-insurance programs but allowing fragmentation in the provision of services. The second path has been to achieve universal coverage, which usually has caused some separation of health coverage from other social security branches and has caused at least a partial de-linking of the payment of payroll taxes from access to health services (which usually has implied a higher level of financing from general government revenues).

The existence of strong vertically-integrated providers makes it difficult to adopt public planning or market instruments. Additionally, problems of inefficiency come from its relation with the labor market, when restrictions on labor mobility appear because each provider controls financing and because the demand by patients of specific medical attentions cannot flow towards the more efficient supplier (and has to be served in the physical facilities controlled by the insurer).

Two elements appear to be required in order to increase health insurance coverage. First, the financing of health has to be separated from the traditional payroll tax that finances pensions and other economic

subsidies. Second, investment in health through public resources originating from general public funds must be increased.

The "right to health" has been enacted in most LAC countries. Yet, in the absence of the fiscal and financial structures necessary to facilitate the development of insurance plans and their coordinated operation, and of the consistency between health and labor regulations, such a right may remain as a simple declaration.

VIII.7 Social Security Directed to Address HIV/AIDS Financing in the Americas

Acquired Immune Deficiency Syndrome (AIDS) is the breakdown or inability of certain parts of the immune system to function, thus making a person susceptible to diseases ("opportunistic infections") that they would not ordinarily develop. The Human Immunodeficiency Virus (HIV) is the retrovirus isolated and recognized as the cause of AIDS. Generally, there is a period of time when people are infected with HIV but do not develop AIDS. Antiretroviral Treatments (ARV) are drugs used for HIV/AIDS that delay the manifestation of AIDS or premature death. AIDS treatment has evolved in the last 20 years since the beginning of the epidemic, from no treatment to treatment with a single drug (AZT) to dual-drug therapy and, now, to highly active antiretroviral therapy (HAART). HAART is a more efficient treatment since it uses at least three active ARV, it is prescribed to many HIV-positive people, even before they develop symptoms of AIDS, even though many will never develop these symptoms.

By the end of 2002, there were 42 million people living worldwide with HIV, and of these, 3 million were living in the Americas. At the end of 2002, there were an estimated 980,000 HIV/AIDS cases in North America, with 45,000 people newly infected during the same year. The Caribbean is home to some of the world's highest infection rates after sub-Saharan Africa, with adult rates exceeding 4% in some countries. In 2002 alone, an estimated 440,000 people were living with HIV/AIDS in the Caribbean with 60,000 newly infected during 2002, and another 1.5 million were living with the infection in Latin America, with an estimated 150,000 infected during 2003. Approximately 57% of all cases in Latin American and the Caribbean are in Brazil. At the Continental level, the United States, Brazil, and Haiti accounted for 66% of the total of the estimated people living with HIV in 2001. Central America has high adult (population aged 15-49) prevalence rates; four out of the six countries in LAC with the highest infection rates are in Central America. Some of the countries with the highest rates of infection have little or no access to antiretroviral therapy.

In the majority of Latin American countries, the epidemic is still concentrated in high-risk populations: men who have sex with men, injected drug users, commercial sex workers, prisoners, and people with sexually transmitted infections.

The economic impact of the epidemic is primarily due to the fact that it affects adults in the most productive years of their lives—hampering the capacity of the labor force with a decline in the number of workers and in worker productivity— and the cost of the treatment for associated opportunistic infections and ARV agents prescribed is high. According to the ILO, at least 26 million people infected with HIV worldwide are workers, aged 15 to 49 years.

The administration of the health care system in Latin America is in most cases divided into three main groups of institutions: the public sector, social security, and the private sector. The ministry of health is usually responsible for designing preventive policies for the whole population and covers AIDS treatment for a small group of uninsured patients. The social security institutions provide care and antiretroviral therapy in some cases for the patients covered by the insurance, although often, they receive a share of additional patients since they do not have regulations that restrict treatments to pre-existing cases, as the private insurers do. Private insurance companies in LAC rarely cover AIDS-related costs, especially for the population at highest risk. A major

problem for social security in the LAC countries is the exclusion of social protection in health. In general, most of these countries have highly segmented social security systems with low coverage. Only in countries with a unified network or a highly integrated sector (i.e. Costa Rica and Cuba), is most of the population covered and is absolute exclusion rare.

Some of the reasons why many people do not have the necessary treatment include: the high costs of services including those provided in public hospitals, clinical care below acceptable standards, lack of infrastructure for prevention programs in health care environments, and insufficient psychological and social services.

Social security spending on health in Latin American countries was almost 39% of the general government expenditures on health, in 2001. Social security in the British Caribbean countries does not feature significantly in health spending, where central governments generally have the major legal responsibility for both financing and delivery of services in the public health sector. Total expenditure in the set of LAC countries under study for the year 2000 is estimated at US$1.2 billion

In the United States, federal funding for the HIV/AIDS can be divided into five categories: (i) health care and support services, (ii) cash and housing assistance, (iii) research, (iv) prevention, and, (v) global or international programs. It should be noted that slightly less than half of all federal HIV/AIDS funding is designated by law to be used specifically for HIV/AIDS programs, through Medicaid and Medicare, created to provide care and services to any person who qualifies, based on his or her medical, functional, and income status. Besides federal and state funding, many local governments, foundations, and charities also provide specific services.

Some countries in LAC receive external funds for HIV/AIDS. External funds play an important role in poor countries like Honduras (28.4%) and Nicaragua (37.6%). Brazil, Nicaragua, Bolivia, and the Dominican Republic receive the most external funds.

Approximately half of the population in LAC who need ARV receives treatment. One third of HIV-positive persons lack the resources for treatment while 44% of HIV-positive people receive HAART.

For most countries in Central America and for Mexico, Colombia, and Bolivia social security systems are the main sources for financing ARV treatments. Most of the estimated people currently infected are still at a relatively early stage of HIV disease; most of them have no symptoms and do not yet require HAART, but they will.

ARV costs remain an important barrier to treatment, although progress has been made to lower these costs. In 2000, the price of HAART for one patient for a year was US$10,000 to US$12,000. By early 2002, generic competition and the practice of differential pricing by pharmaceutical companies had contributed to price reductions for low-income countries. The situation is not simple since treatment must be followed for a lifetime, and insufficient prescriptions, misused or missed doses can generate resistances and increase the possibility of transmitting resistant strains of the virus. In order for ARV therapy to be effective, a broad health resources infrastructure is needed, including specialized laboratories and infectious disease services in hospitals, capable of complying with quality standards.

While HIV/AIDS attacks primarily adults and young persons, older people are sexually active and most prevention programs do not have an effect on this population, because the elderly may not even realize that they should be concerned about the disease, and they are more likely to have unprotected sex and do not have regular HIV tests. On the other hand, experts are worried about misdiagnosed HIV infections in the elderly since they could be confused with other aging-related diseases.

Another important group is infected women, because one of every three pregnant women infected with HIV passes the virus to her child. Having access to a simple oral antiretroviral therapy given to the mother in the last month of pregnancy can reduce

the rate of transmission to one in ten. The infection rate of HIV/AIDS is increasing among women especially in sub-regions as Central America and the English-speaking Caribbean. In fact, in the British Caribbean region, a child is born every day with HIV.

There still exists a great uncertainty about the future of the HIV/AIDS pandemic. Increasing numbers of people living with HIV/AIDS are almost certain for several years or decades due to demographic inertia, underreporting, and because the disease remains incurable. The financial pressure on social security programs in countries that have not achieved a stable model of treatment and that still have many uninsured social groups will continue to increase. Policy makers have to redesign their policy in order to expand the coverage, access, and quality of this type of health care. Prevention and treatment reinforce each other and should be considered as part of and integral approach to care.

REFERENCES

REFERENCES

Amadeo, Edward J. and José M. Camargo, "Brazil: Regulation and Flexibility in the Labor Market." In *Labor markets in Latin America: Combining social protection with market flexibility,* edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Anderson, Patricia M. "The Effect of Employer-Provided Health Insurance on Job Mobility: Job-Lock or Job-Push?" Unpublished, Dartmouth University, 1997.

Antolin, Pablo, Alain de Serres and Christine de la Maisonneuve. "Long-Term Budgetary Implications of Tax-Favoured Retirment Plans." *OECD Economics Department Working Paper* No. 393, 2004.

Arán, D., C. Arán and J. A. Izazola-Licea. "El Rol De La Seguridad Social De América Latina En La Lucha Contra El HIV/SIDA." FUNSALUD/SIDALAC, 2003.

ARRCO. "Supplementary Pension Schemes for Workers in France." 2001.

Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones. *Boletín Estadístico* No. 9. Buenos Aires: AIOS, 2003.

Asociación Internacional de Seguridad Social. "Social Security in the People's Republic of China." *ISSA. 28th. General Assembly.* Beijing, 2004.

Barr, Nicholas. *The Welfare State As Piggy Bank: Information, Risk, Uncertainty, and the Role of the State*. Oxford University Press, 2001.

Basu, Kaushik. "Child Labor: Cause, Consequence, and Cure." *Journal of Economic Literature* 37, no. 3 (1999): 1083-1119.

Bautista, Sergio Antonio, Tania Dmytraczenko, Gilbert Kombe and Stefano M. Bertozzi. "Costing of HIV/AIDS Treatment in Mexico." *Partners for Health Reform Plus*, 2002.

Behrman, Jere R., Nancy Birdsall and Miguel Székely. "Economic Reform and Wage Differentials in Latin America." *Inter-American Development Bank Research Department Working Paper* No. 435, 2000.

Berger, Mark C., Dan A. Black and Frank A. Scott. "Is There Job-Lock? Evidence From the Pre-HIPAA Era." *Southern Economic Journal* 70, no. 4 (2004): 953-976.

Berger, Mark C., Dan A. Black, Frank A. Scott and Amitabh Chandra. "Health Insurance Coverage of the Unemployed: COBRA and the Potential Effects of Kassebaum-Kennedy." *Journal of Policy Analysis and Management* 18, no. 3 (1999): 430-448.

Bernard, Eleine "The Politics of Canada's Health Care System." 1992. Available online at: http://www.law.harvard.edu/programs/lwp/eb/healthc.pdf.

Bertranou, Fabio, Carmen Solorio and Wouter van Ginneken, eds., *Pensiones No Contributivas y Asistenciales: Argentina, Brasil, Chile, Costa Rica y Uruguay*. Santiago: ILO, 2002.

Bhattacharya, Jay, Dana Goldman and Neeraj Sood. "The Link Between Public and Private Insurance and HIV - Related Mortality." *National Bureau of Economic Research Working Paper* No. 9346, 2002.

Bird, Richard M. "Tax Reform in Latin America: a Review of Some Recent Experiences." *Latin American Research Review* 27, no. 1 (1992): 7-36.

Black, Dan, Douglas Holtz-Eakin and Stuart Rosenthal. "Racial Minorities, Economic Scale, and the Geography of Self-Employment." In *Brookings-Wharton Papers on Urban Affairs 2001,* edited by William G. Gale and Janet Rothenberg Pack. Washington, D.C.: Brookings Institution Press, 2001.

Blanchard, Oliver. "Designing Labor Market Institutions." Unpublished, 2002.

Blanchflower, David G. "Self -Employment: More May Not Be Better." *National Bureau of Economic Research Working Paper* No. 10286, 2004.

Blanchflower, David G. and Andrew J. Oswald. "Self - Employment and the Enterprise Culture." In *British Social Attitudes: the 1990 Report,* edited by Roger Jowell and S. Witherspoon. Grower Press, 1990.

Blanchflower, David G. and Andrew J. Oswald. "What Makes an Entrepreneur?" *Journal of Labor Economics,* 16, no. 1 (1998): 26-60.

Blanchflower, David G., Philip Levine and David Zimmerman. "Discrimination in the Small Business Credit Market." *Review of Economics and Statistics* 85, no. 4 (2003): 930-943.

Blanchflower, David G. Andrew J. Oswald and Alois Stutzer. "Latent Entrepreneurship Across Nations." *European Economic Review* 45, no. 4-6 (2001): 680-691.

Blank, Rebecca M. "The Effect of Medical Need and Medicaid on AFDC Participation." *Journal of Human Resources* 24, no. 1 (1989): 54-87.

Blau, David and Donna B. Gilleskie. "Retiree Health Insurance and Labor Force Behavior of Older Men in the 1990s." *Review of Economics and Statistics* 83, no. 1 (2001): 64-80.

Bongaarts, John and Rodolfo A. Bulatao. "Completing the Demographic Transition." *Population and Development Review* 25, 1999.

Borjas, George J. and Stephen G. Bronars. "Consumer Discrimination and Self Employment." *Journal of Political Economy* 97, no. 3 (1989): 571-605.

Borjas, George J., Richard B. Freeman and Lawrence F. Katz. "How Much Do Immigration and Trade Affect Labor Market Outcomes?" *Brookings Papers Economic Activity* 1 (1997): 1-90.

Botero, Juan, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes y Andrei Shliefer. "The Regulation of Labor." *World Bank Working Paper,* 2004 (mimeo).

Bozzette, Samuel A., Geoffrey Joyce, Daniel F. McCaffrey, Arleen A. Leibowitz, Sally C. Morton, Sandra H. Berry, Afshin Rastegar, David Timberlake, Martin F. Shapiro and Dana P. Goldman. "Expenditures for the Care of HIV-Infected Patients in the Era of Highly Active Antiretroviral Therapy." *New England Journal of Medicine* 344, no. 11 (2001): 817-823.

Bravo, Jorge. "Fiscal Implications of Ageing Societies Regarding Public and Pension Systems." In *Population Ageing: Challenges for Policies and Programmes in Developed and Developing Countries*, edited by Robert Cliquet and Mohammed Nizamuddin. New York: United Nations Population Fund; and Brussels: Centum voor Bevolking-en Gezinsstudiën CBGS, 1999.

Broomberg, Jonathan. "The Cost of HIV Prevention." En *AIDS in the World II.* Oxford University Press, 1996.

Brown, Drusila K. "Child Labor in Latin America: Policy and Evidence." *Discussion Papers Series* No. 0110. Department of Economics, Tufts University, Medford, MA., 2001.

Brady, Henry E., Kamran Nayeri, Michael M. Brunetti and Carlos E. Dobkin. "Health Status, Health Insurance, and Worker Mobility: A Study of Job Lock in California." Unpublished, University of California Berkeley UC DATA/Survey Research Center, 2000.

Buchmueller, Thomas C. and Robert G. Valletta. "The Effects of Employer-Provided Health Insurance on Worker Mobility." *Industrial and Labor Relations Review* 49, no. 3 (1996): 439-455.

Buchmueller, Thomas C. and Robert G. Valletta. "The Effect of Health Insurance on Married Female Labor Supply." *Journal of Human Resources* 34, no. 1 (1999): 42-70.

Card, David and Alan B. Krueger. *Myth and Measurement: The New Economics of the Minimum Wage*. Princeton, New Jersey: Princeton University Press, 1995.

Card, David, Francis Kramarz and Thomas Lemieux. "Changes in the Relative Structure of Wages and Employment a Comparison of the United States, Canada and France." *National Bureau of Economic Research Working Paper* No. 5487, 1996.

Caribbean Epidemiology Centre CAREC/PAHO/WHO. *Status and Trends Analysis of the Caribbean HIV/ADS Epidemic 1982-2002*. Port of Spain: Caribbean Epidemiology Centre, 2004.

Carter Janelle. "Health Highlights. HIV and the Elderly." *Health Policy Review* 3, no. 2, 2002.

Cavallo-Runde, Sonia. "The Crisis in Argentina's Healthcare System." *Harvard Health Policy Review Archives,* 3, no. 2, 2002.

Cebula, Richard. "An Empirical Analysis of the Impact of Government Tax and Auditing Policies on the Size of the Underground Economy: The Case of the United States, 1973-1994." *American Journal of Economics and Sociology* 56, no. 2 (1997): 173-186.

Center for Disease Control and Prevention (CDC). *HIV/AIDS Surveillance Reports 5-13, 1993-2001.*

Center for Disease Control and Prevention (CDC). "GAP Country Program." 2001.

Chernichovsky, Dov. "The Public-Private Mix in the Modern Health Care System Concepts. Issues and Policy Options Revisited." *National Bureau of Economic Research Working Paper* No. 7881, 2000.

Chou, Shin-Yi and Jin-Tan Liu. "National Health Insurance and Female Labor Supply: Evidence From Taiwan." Unpublished, New Jersey Institute of Technology, 2000.

Chou, Yiing-Jeng and Douglas Staiger. "Health Insurance and Female Labor Supply in Taiwan." *Journal of Health Economics* 20, no. 2 (2001): 187-211.

CIEDESS. *El Seguro de Desempleo*. Corporación de Investigación, Estudio y Desarrollo de La Seguridad Social. Chile, 2002.

CISS. *Evaluación de Las Reformas, Informe sobre la Seguridad Social en América*, 2003.

CISS. "Social Security Bulletin." March 1, no. 3, 2004a.

CISS. "Social Security Bulletin." May 1, no. 5, 2004b.

Citizenship and Immigration Canada. *The Monitor*. 2003. Available online at: http://www.cic.gc.ca/english/monitor/issue03/03%2Dworkers.html, (consulted on August 20, 2004).

Clark, Kenneth and Stephen Drinkwater. "Pushed Out or Pulled in? Self-Employment Among Ethnic Minorities in England and Wales." *Labour Economic Review* 7, no. 5 (2000): 603-628.

Cooper, Philip F. and Alan C. Monheit. "Does Employment-Related Health Insurance Inhibit Job Mobility?" *Inquiry* 30, no. 4 (1993): 400-416.

Coppel, Jonathan, Jean-Christopher Dumont and Ignazio Visco. *Trends in Immigration and Economic Consequences*. Paris: OECD, 2001.

Cortázar, Rene. "Chile: The Evolution and Reform of the Labor Market." In *Labor markets in Latin America: Combining social protection with market flexibility*, edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Cox-Edwards, Alejandra. "Labor Market Regulation in Latin America: an Overview." In *Labor markets in Latin America: Combining social protection with market flexibility,* edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Creedy, John. *Pensions and Population Ageing: An Economic Analysis.* Cheltenham y Northampton: Edward Elgar Publishing, 1998.

Currie, Janet and Brigitte C. Madrian. "Health, Health Insurance, and the Labor Market." In *Handbook of Labor Economics Vol. 3,* edited by Orley Ashenfelter and David Card. Amsterdam: Elsevier Science, 1999.

Cutler, David M. and Brigitte C. Madrian. "Labor Market Responses to Rising Health Insurance Costs: Evidence on Hours Worked." *RAND Journal of Economics* 29, no. 3 (1998): 509-530.

Dávila-Capelleja, Enrique R. "México: The Evolution and Reform of the Labor Market." In *Labor markets in Latin America: Combining social protection with market flexibility,* edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Davis, Steven J. and Magnus Henrekson. "Tax Effects on Work Activity, Industry Mix and Shadow Economy Size: Evidence From Rich-Country Comparisons." *National Bureau of Economic Research Working Paper* No. 10509, 2004.

Davis, Steven J., John C. Haltiwanger and Scott Schuh. *Job Creation and Job Destruction.* Cambridge, MA: MIT Press, 1996.

De la Rica, Sara and Thomas Lemieux. "Does Public Health Insurance Reduce Labor Market Flexibility or Encourage the Underground Economy? Evidence From Spain and the United States." In *Social Protection Versus Economic Flexibility: Is There a Tradeoff?*, edited by R. M. Blank, 265-299. Chicago: University of Chicago Press, 1994.

De Soto, Hernando. *El Misterio Del Capital.* Diana, 2000.

Decker, Sandra L. "The Effect of Medicaid on Access to Health Care and Welfare Participation". Ph. D. Dissertation, Harvard University, 1993.

Denton, Frank T., Christine H. Feaver and Byron G. Spencer. *Projections of the Population and Labour Force to 2046: Canada.* Social and Economic Dimensions of an Aging Population. SEDAP Research Paper No. 15, 2000.

Diario Oficial. "Convenio Bilateral de Seguridad Social con La República del Perú." D. S. No. 37. *Relaciones Exteriores.* Chile, 2004.

Dickens, William T. and Kevin Lang. "Labor Market Segmentation Theory: Reconsidering the Evidence." *National Bureau of Economic Research. Working Paper* No. 4087, 1992.

Dodds, Colin, Ronald Colman, Carol Amaratunga and Jeff Wilson. "The Cost of HIV/AIDS in Canada." *GPI Atlantic,* 2001.

Downes, Andrew S., Nlandu Mamingi and Rose-Marie Belle Antoine. "Labor Market Regulation and Employment in the Caribbean". In *Law and Employment: Lessons from Latin America and the Caribbean*, edited by James J. Heckman and Carmen Pagés. Cambridge, MA: NBER and Chicago, IL: University of Chicago, 2004.

Drury, Elizabeth. *Age Discrimination Against Older Workers in the European Union.* Studies on the Fourth Pillars. Geneva: Papers on Risk and Insurance, 1994.

Duryea, Suzanne, Olga Jaramillo and Carmen Pagés-Serra. "Latin American Labor Markets in the 1990's: Deciphering the Decade". Washington, D.C.: BID, 2003

ECLAC. "América Latina: Población Económicamente Activa 1980-2025." *Boletin Demográfico* No. 64. *Economic Comission for Latin America and the Caribbean.* Chile: ECLAC, 1999.

ECLAC. *América Latina y el Caribe: Estimaciones y Proyecciones de Población 1950-2050. Economic Comission for Latin America and the Caribbean.* Chile: ECLAC, 2000.

ECLAC. *Balance Preliminar de las Economías de América Latina y el Caribe. Economic Comission for Latin America and the Caribbean.* Chile: ECLAC, 2000.

ECLAC. *Panorama Social de América Latina 2000-2001. Economic Comission for Latin America and the Caribbean.* Chile: ECLAC, 2001.

ECLAC. *Anuario Estadístico de América Latina y el Caribe 2003. Economic Commision for Latin America and the Caribbean.* Chile: ECLAC, 2003.

ECLAC-CELADE. "Migración Internacional en América Latina: IMILA". *Boletín Demográfico No. 65,* 2001. Available online at: http://www.CEPAL.cl/Celade/publica/bol65/DE_SitDemBD65.html (consulted on August 17, 2004).

ECLAC-CELADE. *Demographic Information*, 2004. Available online at: http://www.CEPAL.cl/celade/proyecciones/basedatos_BD.htm (consulted on August 20, 2004).

Ellwood, David and Kathleen Adams. "Medicaid Mysteries: Transitional Benefits, Medicaid Coverage, and Welfare Exits." *Health Care Financing Review, 1990 Annual Supplement,* (1990): 119-131.

Evans, David S. and Boyan Jovanovic. "An Estimated Model of Entrepreneurial Choice Under Liquidity Constraints." *Journal of Political Economy* 97, no. 4 (1989): 808-827.

Evans, David S. and Linda S. Leighton. "Some Empirical Aspects of Entrepreneurship." *American Economic Review* 79, no. 3 (1989): 519-535.

Farmer, Paul, Fernet L'andre, Joia S. Mukherjee, Marie Sidonise Claude, Patrice Nevil, Mary C. Smith-Fawzi, Serena P. Koenig, Arachu Castro, Mercedes C. Becerra, Jeffrey Sachs, Amir Attaran and Jim Yong Kim. "Community-Based Approaches to HIV Treatment: DOT-HAART in Resource-Poor Settings." *Bulletin of World Health Organization* 79, no.12 (2001):1145-1151.

Farmer, Paul, Fernet L'andre Mukherjee, J. S., et. al. "Community Based Approaches to HIV Treatment in Resources-Poor Settings." *Lancet* 358, no. 9279 (2001): 404-409.

Feachem, Richard G. A., Neelman K. Sekhri, and Karen L. White. "Getting More for Their Dollar: a Comparison of the NHS With California's Kaiser Permanente ." *BMJ* 324, no. 7330 (2002): 135-143.

Federación Internacional de Administradoras de Fondos de Pensiones. *Resultados y Desafíos de las Reformas de Pensiones*. CIEDESS, 2003.

Fehr, Hans, Sabine Jokisch, and Laurence Kotlikoff. "The Developed World's Demographic Transition: The Roles of Capital Flows, Immigration and Policy". *National Bureau of Economic Research Working Paper* No. 10096, 2003.

Feldstein, Martin. "There's No Such Thing as a 'Jobless' Recovery". *WSJ*, October 13, 2003.

Fields, Gary S. "Rural-Urban Migration, Urban Unemployment and Underdevelopment and Job-Search Activity in LDC's." *Journal of Development Economics* 2, no. 2 (1975): 165-187.

Figueras, Josep, Philip Musgrove, Guido Carrin and Antonio Durán. "Retos Para Los Sistemas Sanitarios De Latinoamérica; ¿Qué Puede Aprenderse de La Experiencia Europea?" *Gaceta Sanitaria* 16, no. 1 (2002): 5-17.

Fraga, Arminio. "Latin America Since the 1990s: Rising From the Sickbed?" *Journal of Economic Perspectives* 18, no. 2 (2004): 89-406.

Franzoni, Luigi Alberto. "Tax Evasion and Tax Compliance." In *Encyclopaedia of Law and Economics, Volume IV, The Economics of Public and Tax Law,* edited by Bouckert B. and De Geest G., 52-94. Cheltenham: Edward Elgar, 1998.

Freije, Samuel. "Informal Employment in Latin America and the Caribbean: Causes, Consequences and Policy Recommendations." *Labour Markets Policy Briefs Series,* Inter-American Development Bank, 2001.

Friedman, Eric, Simon Johnson, Daniel Kaufmann and Pablo Zoido-Lobaton. "Dodging the Grabbing Hand: The Determinants of Unofficial Activity in 69 Countries." *Journal of Public Economics* 76, no. 3 (2000): 459-493.

Fronstin, Paul. "Employment-Based Health Benefits: Who Is Offered Coverage vs. Who Takes It." *EBRI, Issue Brief* No. 213, Employee Benefit Research Institute: Washington, D.C. 1999.

Fronstin, Paul. "Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2003 Current Population Survey." *EBRI Issue*

Brief No. 264, Employee Benefit Research Institute: Washington, D.C. 2003.

Fronstin, Paul and Dallas Salisbury. "Retiree Health Benefits: Savings Needed to Fund Health Care in Retirement." *Employee Benefit Research Institute, Issue Brief No. 254*: Washington, D.C, 2003.

Funkhouser, Edward. "The Urban Informal Sector in Central America: Household Survey Evidence." *World Development* 24, no. 11 (1996): 1737-1751.

García-Abreu, Anabela, Isabel Noger and Karen Cogwill. *HIV/AIDS in Latin America: The Challenge Ahead. Health, Nutrition and Population Family HNP*, World Bank, 2003.

Garro-Bordonaro, Nora. "La Seguridad Social y el Mercado Laboral en América." Conferencia Interamericana de Seguridad Social. *Revista Seguridad Social* 240 (2003): 11-27.

Garro-Bordonaro, Nora and Jorge Meléndez-Barrón. "Un Análisis de Los Diferenciales Salariales Entre Trabajadores con y sin Seguridad Social." 2004, (mimeo).

Giles, David E. and Lindsay M. Tedds. "Taxes and the Canadian Underground Economy." *Canadian Tax Paper* No. 106, 2001.

Gill, Indermit, Claudio E. Montenegro and Dörte Dömeland. *Crafting Labor Policy. Techniques and Lessons From Latin America*. World Bank and Oxford University Press, 2002.

Gill, Indermit, William F. Maloney and Carolina Sánchez-Páramo. "Liberalización del Comercio y Reforma Laboral en América Latina y el Caribe en los Años Noventa". *En Breve* (World Bank), no. 1, May (2002).

Gilleskie, Donna B. and Brian Lutz. "The Impact of Employer-Provided Health Insurance on Dynamic Employment Transitions." *Journal of Human Resources* 37, no. 1 (2002): 129-162.

Goldberg, Pinelopi K. and Nina Pavcnik. "The Response of the Informal Sector to Trade Liberalization." *National Bureau of Economic Research Working Paper* No. 9443, 2003.

Goldman, Dana, Darius Lakdawalla and Neeraj Sood. "HIV Breakthroughs and Risky y Sexual Behavior". *National Bureau of Economic Research. Working Paper* No. 02138, 2004.

Groshen, Erica and Simon Potter. "Has Structural Change Contributed to a Jobless Recovery?" *Federal Reserve Bank of New York Current Issues in Economics and Finance* 9, no. 8, 2003.

Gruber, Jonathan. "Health Insurance and the Labor Market." In *Handbook of Health Economics Vol. 1*, edited by A. J. Culyer and J. P. Newhouse. Amsterdam: Elsevier Science, 2000.

Gruber, Jonathan and Brigitte C. Madrian. "Health Insurance and Job Mobility: The Effects of Public Policy on Job-Lock." *Industrial and Labor Relations Review* 48, no. 1 (1994): 86-102.

Gruber, Jonathan and Brigitte C. Madrian. "Health Insurance Availability and the Retirement Decision." *American Economic Review* 85, no. 4 (1995): 938-948.

Gruber, Jonathan and Brigitte C. Madrian. "Health Insurance and Early Retirement: Evidence From the Availability of Continuation Coverage." In *Advances in the Economics of Aging,* edited by D. A. Wise. Chicago: University of Chicago Press, 1996.

Gruber, Jonathan and Brigitte C. Madrian. "Employment Separation and Health Insurance Coverage." *Journal of Public Economics* 66, no. 3 (1997): 349-382.

Gruber, Jonathan and Brigitte C. Madrian. "Health Insurance, Labor Supply and Job Mobility: A Critical Review of the Literature." In *Health Policy and the Uninsured*, edited by C. G. McLaughlin. Washington, D.C.: Urban Institute Press, 2004.

Gruber, Jonathan and David A. Wise. *Social Security and Retirement around the World.* Chicago: University of Chicago Press, 1999.

Ham, John y Lara Shore-Sheppard. "The Impact of Public Health Insurance on Labor Market Transitions." Unpublished, Ohio State University, 2003.

Hamermesh, Daniel S. "Labor Demand in Latin America and the Caribbean: What Does It Tell Us?" In *Law and Employment: Lessons from Latin America and the Caribbean*, edited by James J. Heckman and Carmen Pagés. Cambridge, MA: NBER y Chicago, IL: University of Chicago, 2004.

Hardy, A. M., K. Rauch, D. Echenberg et. al. "The Economic Impact of the First 10,000 Cases of Acquired Immunodeficiency Syndrome in the United States." *Journal of the American Medical Association* 255, no. 2 (1986): 209-211.

Harris, John R. and Michael Todaro. "Migration, Unemployment and Development: A Two Sector Analysis." *American Economic Review* 60, no. 1 (1970): 126-142.

Health Canada. "HIV and AIDS in Canada." *Surveillance*, 2000.

Heckman, James and Carmen Pagés. "The Cost of Job Security Regulation: Evidence From Latin American Labor Markets." *National Bureau of Economic Research Working Paper* No. 7773, 2000.

Heckman, James and Carmen Pagés. Introduction to *Law and Employment: Lessons from Latin America and the Caribbean.* Cambridge, MA: NBER and Chicago, IL: University of Chicago, 2004.

Hellinger, Fred J. "The Lifetime Cost of Treating a Person With HIV." *Journal of the American Medical Association.* 270, no. 4 (1993): 474-478.

Hernández, Enrique, Nora Garro and Ignacio Llamas. *Productividad y Mercado de Trabajo en México.* Plaza y Valdez and UAM, Mexico, 2000.

Holtz-Eakin, Douglas. "Health Insurance Provision and Labor Market Efficiency in the United States and Germany." In *Social Protection Versus Economic Flexibility: Is There a Tradeoff?*, edited by R. M. Blank. Chicago: University of Chicago Press, 1994.

Holtz-Eakin, Douglas, John R. Penrod and Harvey S. Rosen. "Health Insurance and the Supply of Entrepreneurs." *Journal of Public Economics* 62, no. 1-2 (1996): 209-235.

Hopenhayn, Hugo and Juan Pablo Nicolini. "Designing an Optimal Unemployment Insurance Program, With Application to Argentina." In *Labor markets in Latin America: Combining social protection with market flexibility*, edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Hurley, Jeremiah, Rhema Vaithianathan, Thomas Crossley and Deborah Cobb-Clark. "Parallel Private Health Insurance in Australia: A Cautionary Tale and Lessons for Canada." *IZA Discussion Paper* No. 515, 2002.

IADB. *Se Buscan Buenos Empleos.* Washington, D.C.: IADB, 2004.

ILO. *World Labour Report 1997-1998: Industrial Relations, Democracy and Social Stability.* Geneva: ILO, 1997.

ILO. *World Labour Report 2000: Income Security and Social Protection in a Changing World.* Geneva: ILO, 2000.

ILO. *Decent Work and the Informal Economy. Report VI, International Labour Conference, 90th Session.* Geneva: ILO, 2002.

ILO. *Social Security: Issues, Challenges and Prospects. Report VI, International Labour Conference, 89th Session.* Geneva: ILO, 2001.

ILO. *Every Child Counts: New Global Estimates on Child Labour.* Geneva: ILO, 2002.

ILO. *Panorama Laboral 2003.* Lima: ILO, 2003.

ILO. *Labour Statistics Database.* Copyright International Labour Organization, 1998-2004. Geneva: ILO, 2004.

ILO. *Tendencias Mundiales de Empleo.* Switzerland: ILO, 2004.

IMF. *Government Finance Statistics Manual 2001.* Washington, D.C.: IMF, 2001.

IMF. *Government Finance Statistics: Yearbook 2003.* Washington, D.C.: IMF, 2003.

IMF. *World Economic Outlook: Growth and Institutions.* Washington, D.C.: IMF, 2003.

Irvine, Benedict and Shannon Ferguson. "Background Briefing: The Canadian Health Care System." 2002. Available online at: http://www.cnehealth.org/pubs/health_care_in_canada.pdf

Islas, Gonzalo. *Worker's Unemployment Protection Systems in the OAS Countries*. Lima: Oficina Regional Para América Latina y El Caribe, ILO, 2002.

Izazola-Licea, José Antonio. *Cuentas Nacionales en VIH/SIDA: Estimación de Flujos de Financiamiento y Gasto en VIH/SIDA, Guatemala, 1997/1998*. Mexico, D.F.: FUNSALUD, 2000.

Izazola-Licea, José Antonio. *Cuentas Nacionales en VIH/SIDA: Estimación de Flujos de Financiamiento y Gasto en VIH/SIDA, Brasil, 1997/1998*. Mexico, D.F.: FUNSALUD, 2000.

Izazola-Licea, José Antonio. *Cuentas Nacionales en VIH/SIDA: Estimación de Flujos de Financiamiento y Gasto en VIH/SIDA, Uruguay, 1997/1998*. Mexico, D.F.: FUNSALUD, 2000.

Izazola-Licea, José Antonio, Arán D. and Valladares R. "El Financiamiento de las Respuestas Nacionales Contra el SIDA en América Latina y el Caribe y el Flujo de Financiamiento Internacional." Mexico, D.F.: FUNSALUD, 2003.

Johnson, Richard W., Amy J. Davidoff and Kevin Perese. "Health Insurance Costs and Early Retirement Decisions." Unpublished, The Urban Institute: Washington, D.C., 1999.

Johnson, Simon, Daniel Kaufmann and Pablo Zoido-Lobaton. "Regulatory Discretion and the Unofficial Economy." *American Economic Review* 88, no. 2 (1998): 387-392.

Kahn, James G. "The Cost Effectiveness of HIV Prevention Targeting: How Much More Bang for the Buck? *American Journal of Public Health* 86, no. 12 (1996): 1709-1712.

Kaiser Family Foundation. *Federal HIV/AIDS Spending: A Budget Chartbook: Fiscal Year 2002*, 2003.

Kaplow, Louis and Steven Shavell. "Why the Legal System Is Less Efficient Than the Income Tax in Redistributing Income." *Journal of Legal Studies* 23, no. 2 (1994): 667-681.

Kapur, Kanika. "The Impact of Health on Job Mobility: A Measure of Job Lock." *Industrial and Labor Relations Review* 51, no. 2 (1998): 282-297.

Karoly, Lynn A. and Jeannette A. Rogowski. "The Effect of Access to Post-Retirement Health Insurance on the Decision to Retire Early." *Industrial and Labor Relations Review* 48, no. 1 (1994): 103-123.

Kennan, John. "The Elusive Effects of Minimum Wages." *Journal of Economic Literature* 33, no. 4 (1995): 1950-1965.

Kidd, Michael P. "Immigrant Wage Differentials and the Role of Self-Employment in Australia." *Australian Economic Papers* 32, no. 60 (1993): 92-115.

Kraker, Daniel. The Canadian Cure. 2001. Available online at: http://www.inmotionmagazine.com/hcare/canadahc.html.

Krentz, Hartmut B., M. Cristopher Auld and M. John Gill. "The Changing Direct Costs of Medical Care for Patients With HIV/AIDS, 1995-2001." *CMAJ* 169, no. 2 (2003): 106-110.

Lewis, William W. *The Power of Productivity. Wealth, Poverty and the Threat to Global Stability.* Chicago: University of Chicago Press, 2004.

Ley 19.949. *Sistema De Protección Social Para Familias En Situación De Extrema Pobreza Denominado Chile Solidario*. Chile, 2004.

Loayza, Norman V. "The Economics of the Informal Sector: A Simple Model and Some Empirical Evidence from Latin America." *Carnegie-Rochester Conference, Series on Public Policy* 45 (1996): 129-162.

Lora, Eduardo. "Structural Reforms in Latin America: What Has Been Reformed and How to Measure It." *Research Department Working Paper* No. 466. Inter-American Development Bank, Washington, D.C., 2001.

Lora, Eduardo and Marta Luz Henao. "Colombia: The Evolution and Reform of the Labor Market." In *Labor markets in Latin America: Combining social protection with market flexibility,* edited by

Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Lucas, Robert E. "Models of Business Cycles." *Blackwell, Oxford,* 1987.

Lustig, Nora Claudia and Darryl McLeod. "Minimum Wages and Poverty in Developing Countries: Some Empirical Evidence." In *Labor markets in Latin America: Combining social protection with market flexibility*, edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Madrian, Brigitte C. "Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job Lock?" *Quarterly Journal of Economics* 109, no. 1 (1994): 27-54.

Madrian, Brigitte C. "The Effect of Health Insurance on Retirement." *Brookings Papers on Economic Activity* 1 (1994): 181-232.

Madrian, Brigitte C. "Health Insurance Portability. The Consequences of COBRA." *Regulation* (1998).

Madrian, Brigitte C. and Nancy D. Beaulieu. "Does Medicare Eligibility Affect Retirement?" *Inquiries in the Economics of Aging*, edited by D. A. Wise. University of Chicago Press, 1998.

Madrian, Brigitte C. and Lars John Lefgren. "The Effect of Health Insurance on Transitions to Self Employment." University of Chicago, 1998 (mimeo).

Maloney, William F. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *World Bank Economic Review* 13 (1999): 275-302.

Maloney, William F. "Distortion and Protection in the Mexican Labor Market." *Center for Research on Economic Development and Policy Reform, Stanford University, Working Paper* No. 138, 2002.

Maloney, William F. "Informality Revisited." *Policy Research Working Paper Series* 2965, World Bank, 2003.

Maloney, William F. and Jairo Nuñez. "Measuring the Impact of Minimum Wages: Evidence from Latin America." *National Bureau of Economic Research Working Paper* No. 9800, 2003.

Manuel, Annick. "The Chilean Health System: 20 Years of Reforms." *Salud Pública de México* 44(1) (2002): 60-68.

Marcouiller, Douglas, Veronica Ruiz de Castilla and Cristopher Woodruff. "Formal Measures of the Informal-Sector Wage Gap in Mexico, El Salvador and Peru." *Economic Development and Cultural Change* 45 (1997): 367-392.

Marins, José Ricardo, Leda F. Jamal, Sanny Y. Chen, Marilisa B. Barros, E. S. Hudes, A. Barbosa, P. Chequer, P. Teixeira and N. Hearst. "Dramatic Improvement in Survival Among Adult Brazilian AIDS Patients." *AIDS* 17, no. 11 (2003): 1675-1682.

Mazumdar, Dipak. "The Urban Informal Sector." *World Development* 4, no. 8 (1976): 655-679.

Mazza, Jacqueline. "Unemployment Insurance Case Studies and Lessons for Latin America and the Caribbean." *Inter-American Development Bank Research Department Working Paper* No. 411, Washington, D.C., 2000.

Mesa-Lago, Carmelo. "El Desarrollo de La Seguridad Social en América Latina". *ECLAC. Estudios e Informes* no. 43. Santiago, 1985.

Mesa-Lago, Carmelo. "Social Assistance on Pensions And Health Care For The Poor In Latin America And The Caribbean". In *Shielding the Poor. Social Protection in the Developing World*. Washington D.C. Brookings Institution and IADB, 2001.

Mesa-Lago, Carmelo. "Las Reformas de Pensiones en América Latina y Su Impacto en Los Principios de La Seguridad Social". *ECLAC Serie de Financiamiento de Desarrollo* No. 144. Santiago, Chile, 2004.

Mesa-Lago, Carmelo and Fabio Bertranou. *Manual de Economía de La Seguridad Social Latinoamericana*. Montevideo: Centro Latinoamericano de Economía Humana, 1998.

Meyer, Bruce D. and Dan T. Rosenbaum. "Medicaid, Private Health Insurance, and the Labor Supply

of Single Mothers." Northwestern University, 2000 (mimeo).

Ministerio de Salud de Brasil. *National AIDS Drugs Policy*. Brasilia Coordenacao Nacional de DST e AID, Ministerio da Saude, 2002.

Mitchell, Olivia S. "Fringe Benefits and Labor Mobility." *Journal of Human Resources* 17, no. 2 (1982): 286-298.

Moffitt, Robert and Barbara L. Wolfe. "The Effect of the Medicaid Program on Welfare Participation and Labor Supply." *Review of Economics and Statistics* 74, no. 4 (1992): 615-626.

Montgomery, Edward and John C. Navin. "Cross-State Variation in Medicaid Program and Female Labor Supply." *Economic Inquiry* 38, no. 3 (2000): 402-418.

Moore, Kevin. "The Effects of the 1986 and 1993 Tax Reforms on Self-Employment." Board of Governors of the Federal Reserve System. Washington, D.C., 2003 (mimeo).

Márquez, G. "Protección al Empleo y Funcionamiento del Mercado de Trabajo: Una Aproximación Comparativa." Inter-American Development Bank, 1998 (mimeo).

OECD. *Measuring the Non-Observed Economy: A Handbook.* Paris, 2002.

Oliveira, Maria Auxiliadora, Lucía Luiza Vera, Andréia R. Mendoza, A. F. S. Couto-Esher, L.A. Krech, E. M. Santos, M. A. E. Consendey, T. B. Azeredo and J. A. Z. Bermudez. "Health Care Financing and Access to Antiretrovirals in Latin America: Case Studies of Argentina, Brazil and Colombia." Paper presented in *XV International AIDS Conference*, 2004.

Olson, Craig A. "A Comparison of Parametric and Semiparametric Estimates of the Effect of Spousal Health Insurance Coverage on Weekly Hours Worked by Wives." *Journal of Applied Econometrics,* 13, no. 5 (1998): 543-565.

PAHO. *Analysis of Health Sector Reforms Region of the Americas*. Pan-American Health Organization and Latin-America and Caribbean Regional Health Sector Reform Initiative. Washington, D.C.: PAHO and LACHSR, 2004.

PAHO. *Health Expenditures Database for Latin America and the Caribbean*. Washington, D.C.: PAHO, 2003.

Parker, Susan W. and Emmanuel Skoufias. "The Impact of PROGRESA on Work, Leisure, and Time Allocation" *International Food Policy Research Institute Working Paper*. Washington, D.C.: IPFRI, 2000.

Pencavel, John H. "The Legal Framework for Collective Bargaining in Developing Countries". In *Labor markets in Latin America: Combining social protection with market flexibility,* edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Penrod, John R. "Empirical Essays in the Economics of Labor and Health." Ph. D. Dissertation, Princeton University, 1994.

Pessino, Carola. "Argentina: The Labor Market During the Economic Transition". In *Labor markets in Latin America: Combining social protection with market flexibility,* edited by Sebastian Edwards and Nora Claudia Lustig. Washington, D.C.: Brookings Institution Press, 1997.

Pisani, Michael J. and José A. Pagán. "Sectoral Queueing in a Transitional Economy: The Case of Nicaragua in the 1990's." *Review of Labour Economics and Industrial Relations* 17, no. 4 (2003): 571-597.

Pisani, Michael J. and José A. Pagán. "Sectoral Selection and Informality: A Nicaragua Case Study." *Review of Development Economics,* forthcoming, (2004).

Population Reference Bureau. *Human Population: Fundamentals of Growth Population Growth and Distribution*. 2004. Available online at: http://www.prb.org/Content/NavigationMenu/PRB/Educators/Human_Population/Population_Growth/ Population_Growth.htm (consulted on August 20, 2004).

Price Waterhouse Coopers. *Individual Taxes 2003-2004. World Wide Summaries*, 2003.

Proceso de Negociación Conjunta Para El Acceso a Drogas Antirretrovirales y Reactivas en La Subregión Andina, Argentina, México y Paraguay. Organismo Andino de Salud, 2003. Available online at: www.conhu.org.pe/docmarco.pdf.

Quinn, Joseph. "The Role of Bridge Jobs in the Retirement Patterns of Older Americans in the 1990s." In *Retirement Prospects in a Defined Contribution* World, edited by D. Salisbury. Washington, D.C.: Employee Benefit Research Institute, 1997.

Reynaud, Emmanuel. "Private Pensions in OECD Countries-France." *Labour Market and Social Policy Ocasional Papers.* No. 30. OECD, 1997.

Robbins, Donald J. and Thomas H. Gindling. "Trade Liberalization and the Relative Wages for More-Skilled Workers in Costa Rica." *Review of Development Economics* 3, no. 2 (1999): 140-154.

Rodrik, Dani. *Has Globalization Gone Too Far?* Institute for International Economics, Washington D.C., 1997.

Rogowski, Jeannette A. and Lynn A. Karoly. "Health Insurance and Retirement Behavior: Evidence from the Health and Retirement Survey." *Journal of Health Economics* 19, no. 4 (2000): 529-539.

Romanov, Roy J. *Building on Values: The Future of Health Care in Canada - Final Report.* National Library of Canada, 2002.

Rosenberg, Hernán and Bernt Andersson. "Repensar la Protección Social en Salud en América Latina y el Caribe." *Revista Panamericana de Salud Pública* 8, no. 1/2 (2000): 118-125.

Rust, John. and Christopher Phelan. "How Social Security and Medicare Affect Retirement Behavior in a World of Incomplete Markets." *Econometrica* 65, no. 4 (1997): 781-831.

Saavedra, Jorge. "The Process of Access to Anti-Retroviral Therapy in Mexico: Case Study." En *Access to anti-retroviral therapy in high middle income Latin American countries* (2000): 104-194.

Saavedra, Jaime and Alberto Chong. "Structural Reform, Institutions and Earnings: Evidence from the Formal and Informal Sectors in Urban Peru." *The Journal of Developments Studies* 35, no. 4 (1999): 95-116.

Saavedra, Luz A. "Female Wage Inequality in Latin American Labor Markets." *Policy Research Working Paper* No. 2741. World Bank, 2001.

Saint-Paul, Gilles. *Dual Labor Markets. A Macroeconomic Perspective.* MIT Press, 1996.

Schneider, Friedrich and Dominik H. Enste. "Shadow Economies: Size, Causes, and Consequences." *Journal of Economic Literature* 38, no. 1 (2000): 77-114.

Schneider, Friedrich and Neck Reinhard. "The Development of the Shadow Economy under Changing Tax Systems and Structures: Some Theoretical and Empirical Results for Austria." *Finanzarchiv* 50, no. 3 (1993): 343-369.

Schone-Steinberg, Barbara and Jessica Primoff-Vistnes. "The Relationship between Health Insurance and Labor Force Decisions: An Analysis of Married Women." Agency for Healthcare Research and Quality, 2000 (mimeo).

Schuetze, Hans G. "How Do Small Firms Innovate? a Study of Innovative SMEs in British Columbia." In *Local and Regional Systems of Innovation*, edited by J. de la Mothe and G. Paquet, 191-209. Boston: Kluwer Academic Publishers, 1998.

Schuetze, Herbert J. "Taxes, Economic Conditions and Recent Trends in Male Self-Employment; a Canada-U.S.: Comparison." *Labour Economics* 7, no. 5 (2000): 507-544.

Schwärtlander, Bernhard, John Stover, N. Walker, et al. "Resources Needs for HIV/AIDS." *Science* 292 (2001): 2434-2436.

Sethuraman, Salem V. *The Urban Informal Sector in Developing Countries: Employment Poverty and Environment*. Geneva: International Labor Organization, 1981.

Shome, Parthasarathi. "Taxation in Latin America: Structural Trends and Impact of Administration." *International Monetary Fund Working Paper* WP/99/19, 1999.

SIDALAC. *National HIV/AIDS Accounts: National Estimation of Financial Flows and Expenditures on HIV/AIDS.* Mexico: FUNSALUD, 2001.

Skoufias, Emmanuel and Susan W. Parker. "Conditional Cash Transfers and Their Impact on Child Work and Schooling: Evidence from the PROGRESA Program in Mexico." *Economía* 2, no. 1 (2001): 45-96.

Slade, Eric P. "The Effect of the Propensity to Change Jobs on Estimates of 'Job-Lock'." Johns Hopkins University, 1997 (mimeo).

Smith, Tom W. "American Sexual Behavior: Trends, Socio-Demographic Differences, and Risk Behavior." *NORC.* Updated. Version 5, 2003.

Social Security Administration, SSA. *Annual Statistical Report on the Social Security Disability Insurance Program, 2002.* Available online at: http://www.ssa.gov/policy/docs/statcomps/di_asr/2002/sect2.html.

Spaulding, James Wallace. "Fringe Benefits, Job Quality and Labor Mobility: Pension and Health Insurance Effects on Job-Change Decisions." Ph. D. Dissertation, University of Wisconsin-Madison, 1997.

Stiglitz, Joseph. *Economics of the Public Sector.* 3rd. edition, New York: W.W. Norton, 2000.

Stotsky, Janet G. and WoldeMariam Asegedech. "Central American Tax Reform: Trends and Possibilities." *International Monetary Fund Working Paper* WP/02/227, 2002.

Stroupe, Kevin T., Eleanor D. Kinney and Thomas J. Kniesner. "Chronic Illness and Health Insurance-Related Job Lock." *Center for Policy Research Working Paper* No. 19, Maxwell School of Citizenship and Public Affairs, Syracuse University, Syracuse, New York, 2001.

Tanzi, Vito. "Taxation in Latin America in the Last Decade." *Center for Research on Economic Development and Policy Reform Working Paper* No. 76, 2000.

Taylor, Philiph and Alan Walker. "Intergenerational Relations in the Labour Market: the Attitudes of Employers and Older Workers." *The New Generational Contract, Intergenerational Relations, Old Age and Welfare.* Edited by A. Walker. London: University College London Press, 1996.

Telles, Edward E. "Urban Labour Market Segmentation and Income in Brazil." *Economic Development and Cultural Change* 41 (1991): 231-250.

Thomas, Jim J. *Informal Economic Activity.* Harvester Wheatsheaf, Hemel Hempstead, 1992.

Thurston, Norman K. "Labor Market Effects of Hawaii's Mandatory Employer-Provided Health Insurance." *Industrial and Labor Relations Review* 51, no. 1 (1997): 117-135.

Tokman, Marcelo. "Age Segmentation in the Chilean Health System." *Estudios de Economía* 27, no. 1 (2000): 5-32.

Tokman, Víctor E. "Policies for a Heterogeneous Informal Sector in Latin America." *World Development* 17 (1989): 1067-1076.

U.S. Census Bureau. *Global Population Profile: 2002.* International Population Reports, 2004.

U.S. Citizenship and Immigration Services. *Yearbook of Immigration services.* 2001. Available online at: http://uscis.gov/graphics/shared/aboutus/statistics/ybpage.htm. (consulted on August 17, 2004).

U.S. Citizenship and Immigration Services. *Yearbook of Immigration Services.* 2002. Disponible online en: http://uscis.gov/graphics/shared/aboutus/statistics/ybpage.htm. (consulted on August 17, 2004).

U.S. Department of Labor. Labor Force Data. Available online at: http://www.bls.gov/emp/emplab1.htm. 2004 (consulted on August 17, 2004).

UNAIDS. *AIDS Epidemic Update.* Geneva, 2002.

UNAIDS. *Latin America Fact Sheet Produced for World AIDS Day Geneva.* Geneva, 2002.

UNAIDS. "Financial resources for HIV/AIDS programmes in low- and middle-income countries

over the next five years", Programme Coordinating Board, thirteenth meeting: Lisbon, 11-12 December 2002. AIDS Epidemic Update. Geneva, 2002.

UNAIDS. *Accelerating Access Initiative, Framework Document for Central America. Progress Report on the Global Response to the HIV/AIDS epidemic,* 2003.

UNAIDS. *AIDS epidemic update*. 2003.

UNAIDS. *Access to HIV Treatment and Care. Fact Sheet*. 2004.

UNAIDS/OMS. *Epidemiological Fact Sheet*. 2004 Update. 2004. Available online at: www.who.int/GlobalAtlas/PDFFactory/HIV/index.asp

UNAIDS/OMS. *Treating three million by 2005. Making it happen*. The WHO strategy. Progress Report. Geneva. Available online at: www.who.int/3by5/publications/documents/en/WHO%20Progress%20Report.pdf. 2004b.

UNAIDS/OMS/OPS. *HIV and AIDS in the Americas: an epidemic with many faces*. Washington. D.C., 2001.

United Nations. *World Population Ageing: 1950-2050*. New York, 2002.

United Nations. *World Demographic Trends*. New York: Report of the Secretary-General, 2003.

US State *Department. Statistics Database*. Copyright U.S. State Department, 2000.

Van Ginneken, Wouter. "Social Security for the Informal Urban Sector: A New Challenge for the Developing Countries." *International Social Security Review* 52 (1999): 49-69.

Van Ginneken, Wouter, ed. *Social Security for the Excluded Majority: Case Studies of Developing Countries*. Geneva: OIT, 1999.

Varian, Hal R. *Economics of Information Technology*. University of California, Berkeley, 2003.

Verband Deutscher Rentenversicherungsträger. "Rentenversicherung in Zeitreihen." 2004. Available online at: www.vdr.de.

Vodopivec, Milan and Dhushyanth Raju. "Income Support Systems for the Unemployed: Issues and Options." *The World Bank, Social Protection Discussion Paper* No. 0214, 2002.

Weeks, J. "Policies for Expanding Employment in the Informal Urban Sector of Developing Economies." *International Labour Review* 111, no. 3 (1975): 1-13.

Weller, Jürgen "Los Mercados Laborales en América Latina: Su Evolución en El Largo Plazo y Sus Tendencias Recientes." *ECLAC Series Económicas,* no. 11 Santiago, Chile, 1998.

Weller, Jürgen. *Economic Reforms, Growth and Employment. Labour Markets in Latin America and the Caribbean*. Book no. 66. Chile: ECLAC, 2001.

Wellington, Allison J. and Deborah A. Cobb-Clark. "The Labor-Supply Effects of Universal Health Coverage: What Can We Learn From Individuals With Spousal Coverage?" In *Worker Well-Being: Research in Labor Economics,* edited by S. W. Polachek, Amsterdam: Elsevier Science, 2000.

Whitehead, Margaret, Göran Dahlgren and Timothy Evans. "Equity and Health Sector Reforms: Can Low-Income Countries Escape the Medical Poverty Trap?" *The Lancet* 358 (2001): 833-836.

Whitehouse, Edward. "The Tax Treatment of Funded Pensions." *OECD Working Paper* No. 9910 (1999).

WHO. *Informe sobre la Salud en el Mundo 2000*. Geneva: WHO, 2000.

WHO. *Informe sobre la Salud en el Mundo 2004*. Geneva: WHO, 2004.

Williams, Cara. "Sources of Workplace Stress." *Perspectives on Labour and Income* 4, no. 6 (2003): 5-12.

Williamson, Jeffrey G. and Timothy J. Hatton. "What Explains Cross-Border Migration in Latin America?" *Harvard Institute of Economic Research, Discussion Paper* No. 2012, 2003.

Winkler, Anne E. "The Incentive Effects of Medicaid on Women's Labor Supply." *Journal of Human Resources* 26, no. 2 (1991): 308-337.

Woodruff, Cristopher and Rene Zenteno. *Remittances and Microenterprises in Mexico*. San Diego: University of California, 2001.

World Bank. "World Development Indicators/Data Query." 2001. Available online at: http://devdata.worldbank.org/data-query/.

World Bank. "HIV/AIDS in Central America: An Overview of the Epidemic and Priorities for Prevention". Latin American and Caribbean Region: Global HIV/AIDS Program. World Bank, 2003.

World Bank. *Public-Private Infrastructure Advisory Facility PPIAF Toolkit*. Washington, D.C.: World Bank, 2003.

World Bank. *Income Inequality in Latin America and The Caribbean: Breaking With History?* Washington, D.C.: World Bank, 2003.

World Bank. *World Economic Outlook: Growth and Institutions.* Washington, D.C.: World Bank, 2003.

World Bank. *World Development Indicators CD-ROM*. Washington: World Bank, 2004.

World Bank. *AIDS Regional Update: Latin America & the Caribbean*. Available online at: http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20054567~pagePK:34370~piPK:34424~theSitePK:4607,00.html. 2004.

Xu, Ke, David B. Evans, Kei Kawabata, Riadh Zeramdini, Jan Klavus and Cristopher J. Murray. "Household Catastrophic Health Expenditure: a Multicountry Analysis." *The Lancet* 362, no. 9378 (2003): 111-117.

Yelowitz, Aaron S. "The Medicaid Notch, Labor Supply and Welfare Participation Evidence from Eligibility Expansions." *Quarterly Journal of Economics* 110, no. 4 (1995): 909-940.

Yelowitz, Aaron S. "Did Recent Medicaid Reforms Cause the Caseload Explosion in the Food Stamp Program?" *UCLA Working Paper* No. 756*; IRP Discussion Paper* (1996): 1109-1196.

Yelowitz, Aaron S. "The Impact of Health Care Costs and Medicaid on SSI Participation." In *Growth in Disability Benefits: Explanation and Policy Implications,* edited by Kalman Rupp and David C. Stapleton. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1998.

Yelowitz, Aaron S. "Why Did the SSI-Disabled Program Grow So Much? Disentangling the Effect of Medicaid." *Journal of Health Economics* 17, no. 3 (1998): 321-350.

Yelowitz, Aaron S. "Using the Medicare Buy-In Program to Estimate the Effect of Medicaid on the SSI Participation." *Economic Inquiry* 38, no. 3 (2000): 419-441.