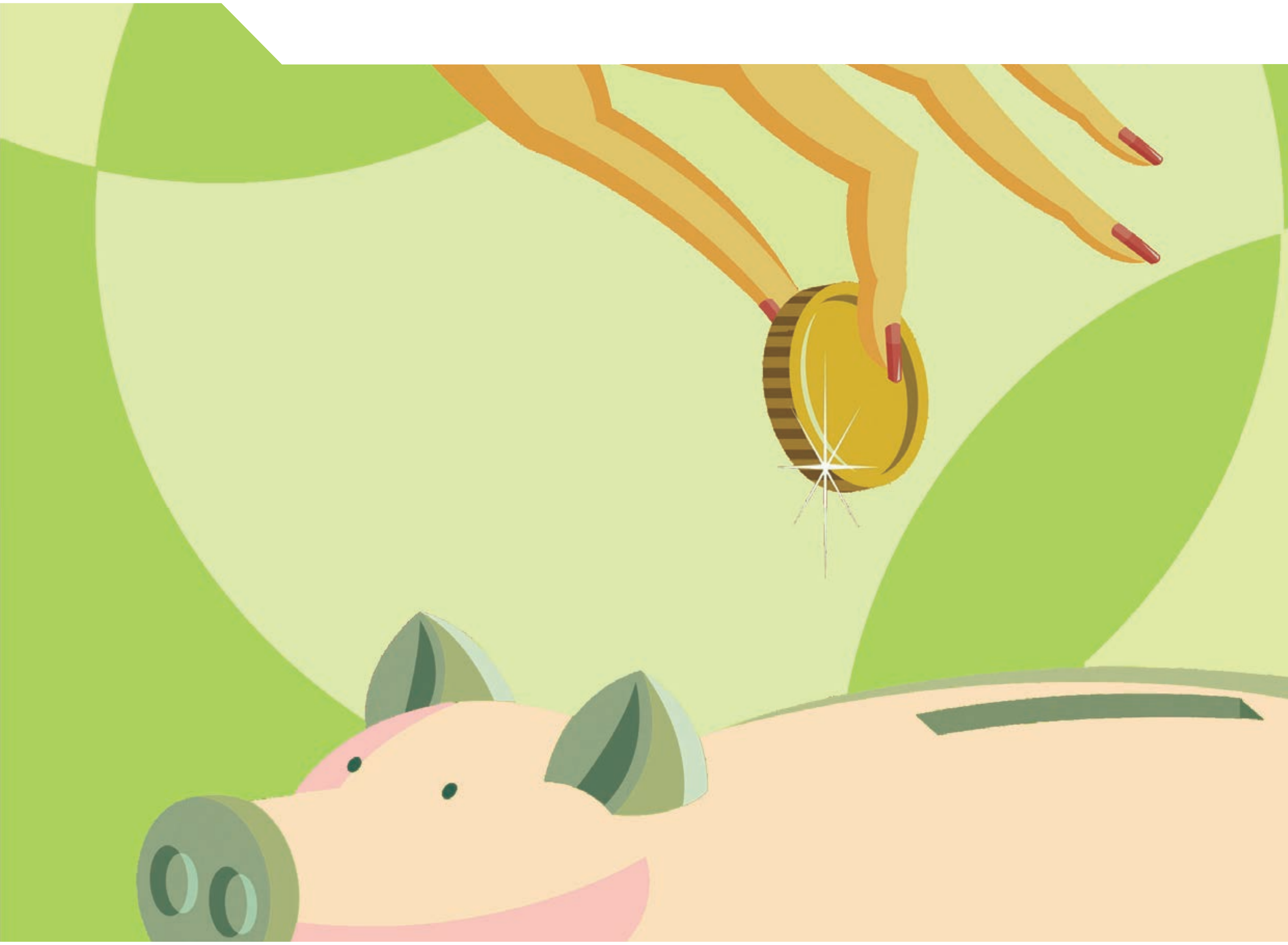
Pensions at a Glance: Latin America and the Caribbean



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Pensions at a Glance

LATIN AMERICA AND THE CARIBBEAN

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Foreword

Pensions at a Glance in Latin America and the Caribbean *provides for the first time an ample range of indicators for comparing pension system design of 26 countries in Latin America and the Caribbean. The indicators are comparable with those of OECD countries and selected G20 members, published by the OECD.*

This report was prepared jointly by the pension teams in the Labor Markets and Social Security Unit of the Inter-American Development Bank (IDB), the Social Policy Division of the Organisation for Economic Co-operation and Development (OECD) Directorate for Employment, Labour and Social Affairs, and the Social Protection and Labor Global Practice of the World Bank (WB). The core team was composed of Angel Melguizo (OECD, formely IDB), David Kaplan (IDB), Robert Palacios (WB), Carolina Romero (WB), Anna Cristina d'Addio (OECD), Andrew Reilly (OECD) and Edward Whitehouse (OECD).

National officials from Ministries of Labour, Ministries of Social Protection, Ministries of Finance and Pension authorities in all 26 Latin American and Caribbean countries provided active and invaluable input to the report, confirming and validating the country profiles in almost all cases. We would like to acknowledge the contributions from Camila Mejia (IDB) and Brooks Evans (consultant, World Bank), the effective dialogue led by Nathyeli Acuna and Ana Paula Sanchez (IDB), and the support of the Knowledge and Learning Sector at the IDB, in particular from Maria Nelly Pavisich throughout this process.

The report has benefited from the commentary of many other national officials and colleagues, notably Mariano Bosch, Santiago Levy, Carmen Pages-Serra and Norbert R. Schady from the IDB, John P. Martin, Monika Queisser, Stefano Scarpetta and Anne Sonnet from the OECD and Phillip O'Keefe, Gonzalo Reyes, Rafael Rofman and Fiona Stewart from the World Bank.

The OECD pension models, that underpin the indicators of pension entitlements, use the APEX (Analysis of Pension Entitlements across Countries) models developed by Axia Economics.

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Acronyms and abbreviations

APEX	Analysis of Pension Entitlements across Countries
DB	Defined-benefit
DC	Defined-contribution
IDB	Inter-American Development Bank
GDP	Gross domestic product
PAYG	Pay as you go
SA	Social assistance

Argentina

INDEC	National Institute of Statistics and Census
RIPTE	Average taxable wages of full-time employees
PBU	Basic Pension Benefit
SSS	Secretariat of Social Security

Bolivia

CCM	Monthly Contribution Compensation
UFV	Housing Promotion Unit

Colombia

DANE	National Administrative Department of Statistics
FGPM	Minimum Pension Guarantee Fund
GPM	Minimum Pension Guarantee
IPC	Consumer Price Index
MFMP	Medium-term Fiscal Framework
PPSAM	Older Adult Social Protection Programme
RAIS	Individual Savings System with a Welfare Benefit
RPM	Defined-benefit of Average Premiums
UVT	Tax Value Unit

Chile

UF	Unit of account

Costa Rica

CCSS	Costa Rican Social Insurance Fund
FCL	Workers' Pension Fund
IMAS	Social Assistance Institute
INA	National Technical Institute
ROP	Mandatory Pension System

Dominican Republic

SESPAS	State Secretariat of Public Health and Social Assistance

Honduras

IHSS	Honduran Social Security Institute

Paraguay

IPS	Paraguayan Social Insurance Institute
IRP	Individual Income Tax

Peru

CIC	Individual Savings Accounts
EPS	Health Care Facility
REJA	Early Retirement Scheme due to Unemployment
SIAF	Integrated System of Financial Administration
SNP	National Pension System
SPP	Private Pension System

Uruguay

BPC	Benefits and Contributions thresholds
IASS	Social Security Assistance Tax

Venezuela

IMS	Median Salary Index
IVSS	Venezuelan Institute of Social Security
UT	Tax unit

Executive summary

The biggest pension policy challenge faced by most countries in Latin America and the Caribbean (LAC) today is low coverage of formal pension systems, both in terms of the proportion of workers participating in pension schemes and the proportion of the elderly receiving some kind of pension income. Efforts to close the coverage gap, for example, through non-contributory pensions, are therefore at the heart of the pension policy debate in the region. However, these policies might pose significant fiscal challenges in the next decades as the population ages. Chapter 2 presents three main indicators describing the demographic conditions relevant for pension policy, namely fertility rates, life expectancy and old-age support ratios. This is followed by a systematic comparison, in Chapter 3, of system designs across countries using the standard *OECD Pensions at a Glance* typology and presenting several key indicators of adequacy, including gender-specific gross and net replacement rates and pension wealth at different income levels. Finally, Chapter 4 provides the profiles of each pension system in Latin America and the Caribbean in terms of their architecture, rules and parameters.

Key findings

Active coverage, i.e. contribution payments of workers to mandatory pension schemes, is low in LAC countries. On average in the region, only 45 in 100 workers are contributing to or affiliated with a pension scheme, a share that has not changed much in the last decades, despite significant structural pension reforms. However, some countries have expanded the share of individuals aged 65 or older receiving pension benefits, mostly by means of non-contributory pensions and special regimes for the self-employed.

The low level of contributions to pension schemes reflects a series of socioeconomic characteristics, notably education, gender and income. Educational attainment has a significant impact on the likelihood of contributing to pension systems: more educated workers are more likely to contribute than less educated workers. Gender is also important as the average labour force participation rate for women in LAC is 56% compared with 83% for men. The gender gap ranges from 20% in Bolivia, Chile, Jamaica, and Uruguay to 40% in Guatemala, Honduras and Mexico. Finally, income differences between households also have an important impact. Workers in the highest quintile of the income distribution have relatively high rates of contribution, while low-income workers rarely contribute to pension schemes. Only 20 to 40% of the middle-income workers contribute to pension schemes, making them particularly vulnerable to old age poverty risks.

A key determinant of pension coverage in LAC is the type of employment. On average, 64 out of 100 salaried workers contribute to a pension scheme in LAC compared to only 17 out of 100 self-employed workers. The size of the firm also matters. In big firms with over 50 workers, 71% of salaried workers contribute, compared with 51% in medium-sized firms (with 6 to 50 workers) and 24% in small ones (with fewer than six workers).

Frequent transitions between formality, informality and inactivity generate very significant contribution gaps in workers' careers in LAC, which will put the adequacy of future retirement incomes at risk. In almost all systems, incomplete contribution histories result in lower pension entitlements, or even ineligibility, which means that both the size of these contribution gaps and their distribution over time need to be examined.

A large share of older people in LAC will have to rely on other sources of income than contributory pensions, such as work income, assets such as housing, transfers, social pensions and informal family support. Household structure, an important factor for the well-being of the elderly, shows that poorer older people are more likely to be living with a family member. Most of the elderly poor in the region live in multi-generational households suggesting that their welfare is closely tied to that of their family. The long-term trends of increased urbanisation and lower fertility will likely weaken these ties in the future, which will make access to the formal pension system more important.

The role of social pensions in LAC is expanding and, in some countries, they are already a major element of the pension system. These programmes have taken various forms with varying outcomes across countries. In terms of coverage and relative generosity, social pensions are most important in Guyana and Bolivia, followed by Venezuela and Brazil.

In sum, a two-pronged approach will be needed in order to deal with the coverage gap. It is important to increase formal labour market participation, especially for women, so that people can build future pension entitlements in their own right. To the extent possible, workers should be integrated into the contributory systems to boost pension savings and ensure pension adequacy. At the same time, the role for non-contributory (social) pensions is increasing throughout the region and can be a powerful tool for improving the economic well-being of the elderly. These programmes should be assessed both from the perspectives of adequacy and financial sustainability as well as how they interact with other elements of the social protection system, including social assistance and contributory pensions.

Introduction

The biennial *OECD Pensions at a Glance* series was launched in 2005 for OECD countries and subsequently expanded in 2011 to include the remaining G20 countries. Following the launch of *Pensions at a Glance Asia-Pacific* in 2009, this new regional publication covers pensions in Latin America and the Caribbean; it is a joint product by the Inter-American Development Bank, the Organisation for Economic Co-operation and Development and the World Bank.

The main objective of *OECD Pensions at a Glance* is to provide a set of indicators of pension system design using a standard methodology that allows for comparison. These indicators are not intended to show which design is superior but rather, to allow for cross-country comparisons. As in previous volumes in the series, this volume includes a special analytical chapter on a subject considered to be a high priority for policy makers in the region. In this issue, the coverage and adequacy of Latin American pension systems are analysed.

Starting in the early 1990s, a series of pension reforms were introduced throughout Latin America, altering the fundamental design of many pension systems in the region. In particular to address the long-term financial sustainability in the context of population ageing, a number of countries moved from defined-benefit pay-as-you-go public pension systems to systems relying heavily on privately-managed individual accounts.

While the financial *sustainability* of pension systems may have improved in many countries, there was, however, little or no progress on a second key measure of performance, namely coverage. The challenge of increasing coverage, often through non-contributory pensions, has become the issue most discussed in the region today.*

Coverage, defined both as the proportion of workers participating in pension schemes and the proportion of the elderly receiving some kind of pension income, continues to be the most important pension challenge in the region. In the two decades that followed the pension reforms in Latin America, the share of workers contributing to a pension system of any kind barely changed in most countries, leading to a growing emphasis on policies that would address the stubborn coverage gap. The general issue of coverage and more specifically contribution density is covered in Chapter 1 of this report.

In addition to sustainability and coverage, the third key measure of a pension system is *adequacy* and this report aims to provide a set of comparable indicators across the region for the first time. This first edition of *Pensions at a Glance: Latin America and the Caribbean* extends the comparative analysis of adequacy and benefit design that has largely been restricted to the higher income OECD countries until now.

* See for example, Rofman, R., I. Apella and E. Vezza (2013), "Mas Allá de las Pensiones Contributivas: Catorce Experiencias en América Latina", World Bank, Washington, DC; and Bosch, M., A. Melguizo and C. Pagés (2013), "Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean", Inter-American Development Bank, Washington, DC.

These comparisons are difficult without a standardised methodology and presenting the information across countries in an easily understandable manner is a challenge. The collaboration of the three institutions responsible for this study has made it possible to expand the set of countries where these comparisons can be made. To this end, Chapter 2 provides descriptive data on the underlying demographic conditions, particularly those relevant for pension policy. This descriptive analysis is followed by a systematic comparison of system design across countries using the standard *OECD Pensions at a Glance* typology. Chapter 3 provides some key indicators of adequacy including gross and net replacement rates and pension wealth for men and women at different income levels.

Chapter 4 provides the profiles of each country's pension system in 26 Latin American countries in terms of their architecture, rules and parameters. This is the basis for the comparative adequacy indicators. It is also a useful reference for researchers and policymakers interested in specific details about individual countries.

Pensions at a Glance: Latin America and the Caribbean does not advocate any particular kind of pension system or type of reform. The goal is to inform debates on retirement-income systems with data that can be used as a reference point. This positive approach to the analysis of adequacy also recognizes that the benefit design is, to a large extent, a decision that will vary across societies. At the same time, as reform options are discussed in each country, it is important to understand the trade-offs involved.

Through comparisons, countries can learn valuable lessons from other pension systems and their experiences of retirement-income reforms. However, as in all attempts to make valid international comparisons, there are limitations that should be noted. The methodology applied (described in Chapter 3) involves simulating the outcomes for individual workers under certain assumptions about when these individuals begin to work, how long they contribute and the exogenous variables that affect the outcome including wage growth, mortality and interest rates. Pension benefits are projected for workers at different levels of earnings, covering all mandatory sources of retirement income for private-sector workers, including minimum pensions, basic and means-tested schemes, earnings-related programmes and defined contribution schemes. Also included is the impact of the personal income tax and social security contributions on living standards in work and in retirement: all indicators are presented gross and net of taxes and contributions.

The comparison is not of predicted outcomes but rather, the results for similar individuals that are implied by the design of the pension scheme. So, for example, while two countries may have similar, even identical system designs, a significant difference in the patterns of contribution or life expectancy at retirement age would in practice, yield different actual outcomes. Recognising the particular importance of this limitation for Latin America where there is evidence of low contribution density, especially at the lower end of the income scales, Chapter 1 of the report extends the usual micro-level analysis and reports on the sensitivity of the results. The framework is flexible to changing assumptions, the impact of policy reforms and economic developments on pension entitlements can be simulated.

Crucially, the indicators derived from the analysis refer to someone entering the workforce today. It is prospective in this sense with the advantage that this approach takes into account reforms that have already taken place. It does not, however, allow for comparisons of those already retired based on earlier rules. This highlights the fact that pension scheme do change over time and the indicators presented here will need to be updated in future volumes.

Pensions at a Glance
Latin America and the Caribbean

Chapter 1

Policy issues: Coverage and adequacy

The general issue of coverage and more specifically contribution density is covered in Chapter 1. Coverage, defined both as the proportion of workers participating in pension schemes and the proportion of the elderly receiving some kind of pension income, continues to be the most important pension challenge in the region. In the two decades that followed the pension reforms in Latin America, the share of workers contributing to a pension system of any kind barely changed in most countries, leading to a growing emphasis on policies that would address the stubborn coverage gap. While two countries may have similar, even identical system designs, a significant difference in the patterns of contribution or life expectancy at retirement age would in practice, yield different actual outcomes. Recognising the particular importance of this limitation for Latin America where there is evidence of low contribution density, especially at the lower end of the income scales, Chapter 1 of the report extends the usual micro-level analysis and reports on the sensitivity of the results.

Coverage and contribution density

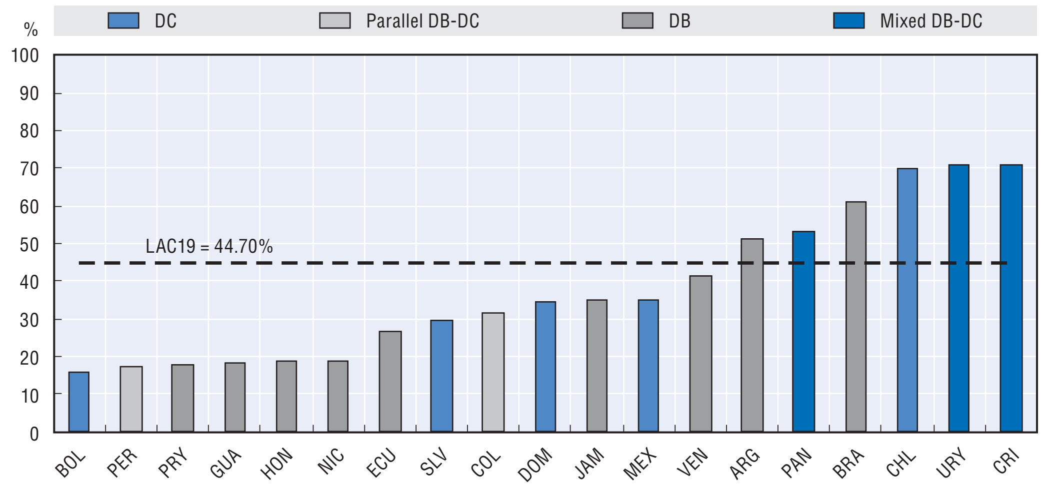
Active coverage,[1] defined as the participation of workers in mandated pension schemes, one of the conventional measures of formality,[2] is low in much of Latin America and the Caribbean (LAC). Some countries in the region have made significant progress in terms of expanding the proportion of those aged 65 or older who are actually receiving pension benefits, mostly due to the implementation of non-contributory pensions and special regimes for the self-employed. Even in countries where a large percentage of the labour force contributes to pension, pension contributions are often too irregular to finance adequate old-age pensions for the majority of the population. Following the model of traditional Bismarckian social insurance systems that is common in many OECD countries, participation in pension saving schemes in LAC is largely determined by participation in formal employment offering social protection coverage and accumulated pension contributions. Policy makers in LAC face important challenges on both fronts, given the low female participation rates and widespread informality in the region, which results in a lack of coverage for some and low contribution densities for others.

According to 2010 household surveys in a range of countries,[3] affiliation with and contributions to pension systems are low on average in LAC and very low in many countries. On average, only 45 in each 100 workers (aged between 15 and 64 years old) are contributing to or affiliated with a pension scheme in the 19 countries analysed (see Figure 1.1).[4] In other words, approximately 130 million workers were not contributing in 2010 to an old-age pension scheme. This situation is especially pronounced in some Andean and Central American countries (Bolivia, Guatemala, Honduras, Nicaragua, Paraguay and Peru) where less than 20% of the total workforce are contributing. Another group of countries, some of them among the most dynamic of the region (such as Colombia, the Dominican Republic and Mexico), only 30 to 40% of all workers contribute. Finally, in most higher-income countries by regional standards, such as Argentina, Brazil, Chile, Costa Rica, Panama and Uruguay, between 50 and 70% contribute. This is still low by international standards (Jütting and de Laiglesia, 2009).

Structural pension reforms during the 1990s in LAC, following the early experience of Chile in 1981, did not change this picture (see Box 1.1 for a description of the evolution over the last two decades). As Figure 1.1 shows, a range of different pension schemes have been implemented in the region from the traditional defined-benefit pay-as-you-go public systems to defined contributions based on individual capital accounts managed by the private sector along with parallel and mixed structures. Overall, no particular type of pension scheme predominates in terms of having higher pension contribution frequencies and higher numbers of formal sector workers. (For an analysis of the macroeconomic effects of structural pension reforms, see Gill et al., 2005 and for a focus on labor market dynamics, see Bosch et al., 2013.)

The low levels of contribution to pension schemes correlate to a series of socioeconomic characteristics. Educational attainment has a powerful impact on the likelihood of contributing to pension systems; more educated workers are more likely to contribute than less educated workers. Data from the same household surveys show that, on average, only

Figure 1.1. **Contributors or affiliates as a percentage of total workers (aged 15-64 years), around 2010**



DB = Defined benefit; DC = Defined contribution.

Source: Bosch, M., A. Melguizo and C. Pagés (2013), "Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean", Inter-American Development Bank, Washington, DC.

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Box 1.1. **Main trends in pension savings in Latin America and the Caribbean since the 1990s**

Using available household survey data, Rofman and Oliveri (2012) studied active coverage rates in most countries in LAC since the early 1990s. Their analysis confirmed that active coverage rates have not increased significantly in the region remaining low regardless of the type of pension scheme analysed.

The number of those contributing to or affiliated with a pension scheme as a percentage of the active labour force went down from 42% in the early 1990s to around 32% in the 2000s and then went back up to 37% by the end of the decade. On average, active pension coverage fell in almost all of the countries of the region between the early 1990s and the early 2000s, i.e. the period during which most private pension schemes were implemented. The different financial crises inside and outside the region, the privatisation of public services and trade liberalisation are some of the reasons behind these trends. At the end of the 2000s, coverage of the economically active population was less than 30% in eight countries (Bolivia, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay and Peru) and above 60% in only three (Chile, Costa Rica and Uruguay).

There are, however, significant differences among countries. In particular, countries with the highest coverage rates at the beginning of the 1990s (such as Chile and Uruguay) continued to consolidate their pension systems, reaching today coverage rates close to 70%. Other countries, such as Peru and the Dominican Republic, have significantly increased their active coverage rates since the 1990s, even though they are still below 30%. In a third group of countries, such as Ecuador, Nicaragua, and Paraguay, the coverage rate continued to decline over the last two decades. No particular trend in coverage can be observed in the remaining set of countries.

Given the low levels of pension contributions, other elements of the current labour markets in Latin America and the weak impact of growth, it is likely that pension coverage will continue to be low in the future, thus presenting policy makers with one of the key challenges for economic and social policy.

22% of workers with eight years of education or less contribute to any pension scheme, compared to 42% of those who have between nine and 13 years of education, and 68% of those who have 14 years or more. Again, there are large differences between countries. For instance, in Bolivia, Paraguay and Peru, fewer than 5% of the least educated workers have a formal job, while this percentage is considerably higher in Costa Rica (60%) and Uruguay (54%). Moreover, the gap between the least and the most educated seems to be increasing over time in countries such as Colombia, Peru and Venezuela (Rofman and Oliveri, 2012).

The likelihood that a worker contributes also has a gender dimension. The average labour force participation rate for women in the LAC19 countries is 56% compared to 83% for men (which compare with OECD averages of 62% and 80% respectively). The gender gap ranges from 20% in Bolivia, Chile, Jamaica, and Uruguay to 40% in Guatemala, Honduras, and Mexico. Women generally report fewer years of formal employment than men because of career interruptions for child rearing and other caregiving responsibilities and of certain pension policies encouraging their earlier retirement. These facts combined with women's longer life expectancy imply that women on average spend longer periods in retirement with lower pensions, increasing the probability of female poverty in old-age. However, a comparison between Chile and Brazil (OECD, 2012) showed that a significant proportion of women working in different categories of informal employment in both countries have "indirect" pension coverage through their spouses' contributions, which entitle them to survivor pensions.

Women who participate in the labor market contribute very similarly to men in all countries. The most significant differences in LAC can be observed in Costa Rica where coverage is 12 percentage points higher for men and in Venezuela where it is 9% higher for women. Given the weak connection of women with the labor market in many Latin American countries, which translates into lower levels of coverage, non-contributory pensions can play a key role in reducing old-age poverty among women (OECD, 2011).

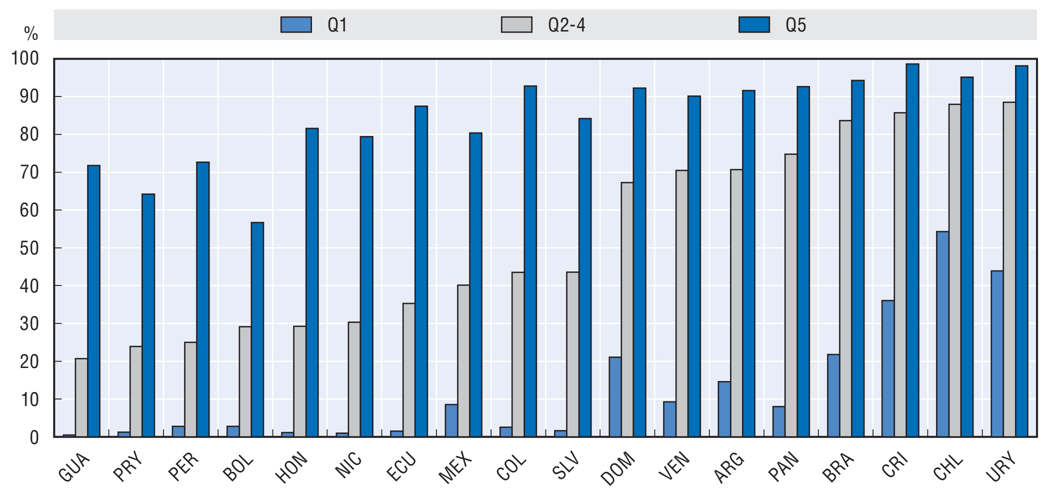
Income differences between households also have an important impact on the probability that people contribute. In all LAC countries, workers in the highest quintile (the 20% highest-income workers) have relatively high rates of contribution of between 80% and 98% in Costa Rica and Uruguay (see Figure 1.2). In contrast, low-income workers rarely contribute to pension schemes; their rates of contribution exceed 20% only in one-quarter of the sample (Brazil, Chile, Costa Rica, the Dominican Republic and Uruguay).

Middle-income workers defined in Easterly (2001) as workers in quintiles two to four that contribute to a pension scheme represent between 20 and 40% of total employment in half of the countries analysed (see Carranza et al., 2012 for an analysis of Colombia, Mexico and Peru). In these countries, the so-called emerging middle class seems particularly vulnerable to old-age poverty risks as they may not make enough contributions to qualify for a pension (see OECD, 2010; and Ferreira et al., 2013).

In relative terms, the gap in pension contribution rates between the lowest quintile and the middle class is largest in countries such as Argentina, Brazil, Panama, and Venezuela where it exceeds 55 percentage points. In the majority of the countries displayed in Figure 1.2, middle-income workers are very far from reaching the coverage rates of those in the highest quintile, and in half of the countries (including some of the biggest economies such as Colombia, Ecuador, Mexico and Peru), this difference exceeds 40 percentage points. The gap between the highest and lowest income quintiles is also very large, especially in Colombia, Ecuador and Panama. These figures highlight another important issue for policy makers in the decades to come – the potential impact of uneven pension coverage and contributions on income inequality.

Regardless of socioeconomic characteristics, the main determinant of pension coverage is *the type of employment* (as previously shown in Levy, 2008; Pagés, 2010; OECD, 2010; and Ribe et al., 2010). On average, while 64 out of 100 salaried workers contribute to a pension scheme in the LAC13 countries,[5] only 17 out of 100 self-employed workers do so (see Figure 1.3). Among the LAC13 countries, only Brazil, Chile, Costa Rica and Uruguay seem to be getting significant pension savings from the self-employed. Voluntary affiliation in some cases, a lack of enforcement despite mandatory affiliation in others, and the usual factors behind low pension savings (low and irregular income, myopia, and procrastination) explain this challenging situation.

Figure 1.2. **Contributors or affiliates as a percentage of total workers (aged 15-64 years) by income quintile, around 2010**



Note: The household survey data for Jamaica do not make it possible to control for income levels.
Source: Author based on Bosch, M., A. Melguizo and C. Pagés (2013), "Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean", Inter-American Development Bank, Washington, DC.
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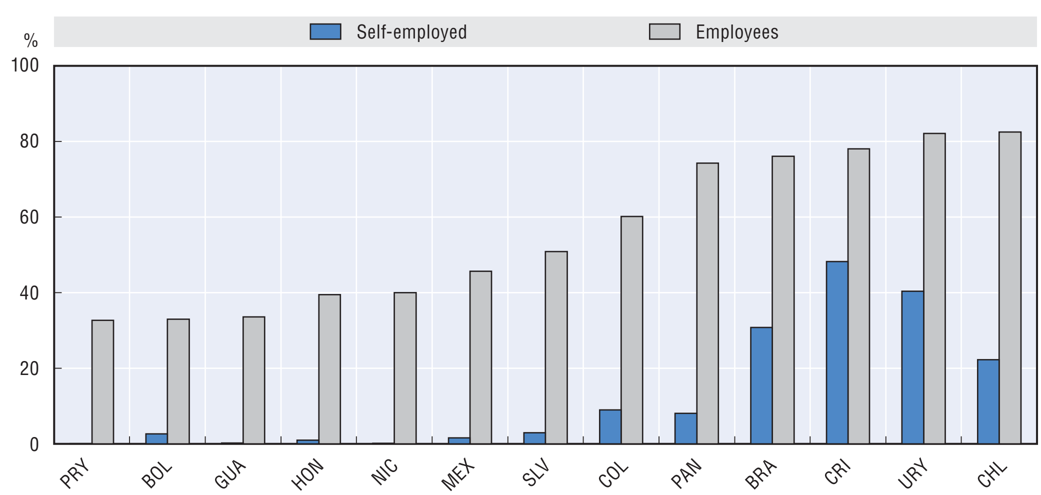
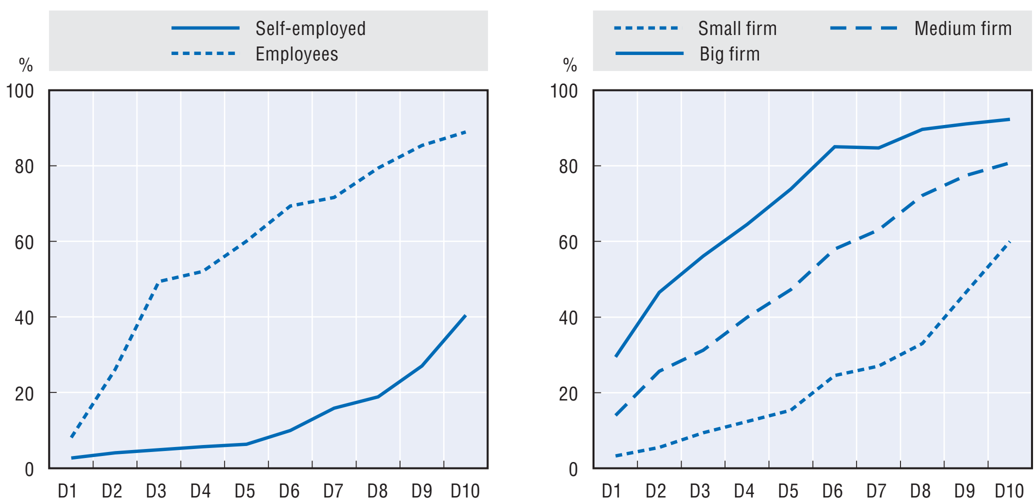
Figure 1.3. **Contributors or affiliates as a percentage of total workers (aged 15-64 years) by type of employment, around 2010**



Note: The available data do not make it possible to differentiate contribution rates by occupation in Argentina, the Dominican Republic, Ecuador, Jamaica, Peru, and Venezuela.
Source: Bosch, M., A. Melguizo and C. Pagés (2013), "Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean", Inter-American Development Bank, Washington, DC.
StatLink http://dx.doi.org/10.1787/888933161332

The size of the firm also plays an important role in the contributions of salaried workers. The larger the firm, the more employees tend to contribute, irrespective of their wage levels. In big firms with over 50 workers, 71% of salaried workers contribute, compared with 51% in medium-sized firms (with 6 to 50 workers) and 24% in small ones (with fewer than six workers). On average in the LAC19 countries, the share of middle-low-income workers (those in deciles 2 and 3) in big firms who contribute to a pension scheme is similar to the proportion of high-income self-employed or high-income salaried workers in small firms (see Figure 1.4). These workers face similar issues as the self-employed, particularly as related to enforcement.

Figure 1.4. **Contributors or affiliates as a percentage of total workers (aged 15-64 years) by income decile and occupation in LAC18, around 2010**



Note: Small firms employ two to five workers, medium firms employ 6 to 50, and big firms have over 50 employees. LAC18 represents the weighted average of Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Paraguay, El Salvador, Uruguay and Venezuela.
Source: Bosch, M., A. Melguizo and C. Pagés (2013), "Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean", Inter-American Development Bank, Washington, DC.
StatLink http://dx.doi.org/10.1787/888933161344

The analysis so far has focused on static cross-sectional data that are publicly available from national household surveys. However, there is a widespread consensus that in LAC, as is the case in most emerging economies (Jütting and de Laiglesia, 2009), workers move frequently between formal and informal jobs and also between salaried jobs and self-employment. On average in the seven Latin America countries displayed in Table 1.1, 21% of formal workers moved into inactivity (5%), unemployment (3%), self-employment (4%), or directly into informal salaried jobs (9%) over a two-year period. In Colombia and Mexico, 25% of formal workers tend to move towards occupations with either less frequent or no contributions every year.

This high level of labour mobility shows the limitations of using cross-sectional household data since only longitudinal data make it possible to follow workers over time. Therefore, generally the household survey data in the region cannot be used, except with great caution, to proxy contribution histories over a worker's whole career. Fortunately, some countries publish and share research databases based on administrative records, which enable analysts to estimate contribution densities by looking at the share of time during which an affiliate has actively saved by making contributions to the pension scheme.

Table 1.1. **Circumstances of formal workers after one year**

Percentages

	Inactivity	Unemployment	Self-employment	Informal salaried workers	Formality
Colombia	6	7	4	9	75
Bolivia	3	2	3	11	81
Ecuador	3	1	4	7	85
Peru	3	3	7	8	79
Venezuela	5	3	7	7	77
Mexico	7	2	3	13	75
Argentina	5	3	2	7	83
Average	**5**	**3**	**4**	**9**	**79**

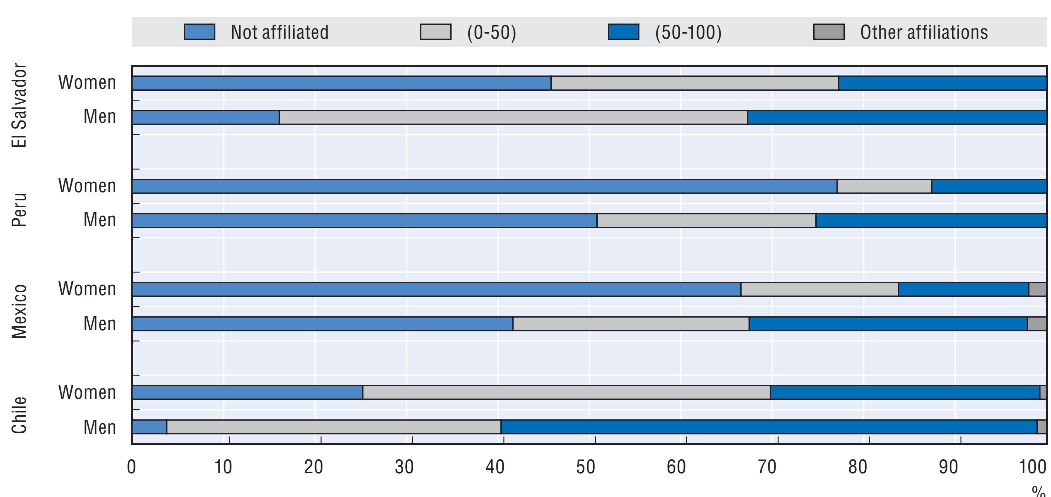
Source: Goñi, E. (2013), *Pandemic Informality*, Inter-American Development Bank, Washington, DC, for Colombia, Bolivia, Ecuador, Peru, and Venezuela; Pagés. C. and M. Stampini (2009), "No Education, No Good Jobs? Evidence on the Relationship between Education and Labor Market Segmentation", *Journal of Comparative Economics*, Vol. 37, No. 3, pp. 387-401, for Argentina; and Bosch, M. and W.F. Maloney (2006), "Gross Worker Flows in the Presence of Informal Labor Markets. The Mexican Experience 1987-2002", *Discussion Paper* No. 0753, Centre for Economic Performance, London School of Economics & Political Science, London, for Mexico.

StatLink http://dx.doi.org/10.1787/888933161847

As shown in Figure 1.5, in Chile, El Salvador, Mexico, and Peru, an unweighted average of over 40% of the working-age population is not affiliated to any pension scheme. This is driven by significantly lower female labour participation compared to men (for example, only 23 out of 100 working-age women in Peru are affiliated). Administrative records suggest that contributions are even lower and more irregular among the affiliated. According to these official records, more than half of the affiliates in these four Latin American countries contribute for less than six months each year. Among women, this share of low-density affiliates rises to 55%, with the largest share being in Chile where 60% of women affiliated with the pension system have contributed for less than 50% of the time.

Figure 1.5. **Affiliation and contribution densities by gender in Chile, Mexico, Peru and El Salvador**

Percentage of working-age population



Source: Bosch, M., A. Melguizo and C. Pagés (2013), "Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean", Inter-American Development Bank, Washington, DC, based on Forteza, A., I. Apella, E. Fajnzylber, C. Grushka, I. Rossi and G. Sanroman (2009), "Work Histories and Pension Entitlements in Argentina, Chile, and Uruguay", *Social Protection Discussion Papers* No. 52446, World Bank, Washington, DC, for Chile; Argueta, N. (2011), "Entre el individuo y el Estado: condicionantes financieros del sistema de pensiones en El Salvador", Fundaungo, San Salvador, for El Salvador; and official data for Mexico and Peru.

StatLink http://dx.doi.org/10.1787/888933161356

In summary, both the household survey data and administrative records show that LAC countries are far from having workers contribute regularly. Therefore, in order to be realistic in terms of predicting outcomes, any simulations of future pension entitlements should incorporate scenarios with less than complete contribution careers. The next section will present some estimates using the OECD pension models and some stylised work histories as well as estimates from official records.

Future adequacy of retirement incomes

The contribution gaps of LAC men and women, correlated with high transition rates, high shares of informality, and low employment rates, will have a significant impact on the future adequacy of retirement incomes. In almost all systems, incomplete contribution histories result in lower pension entitlements.

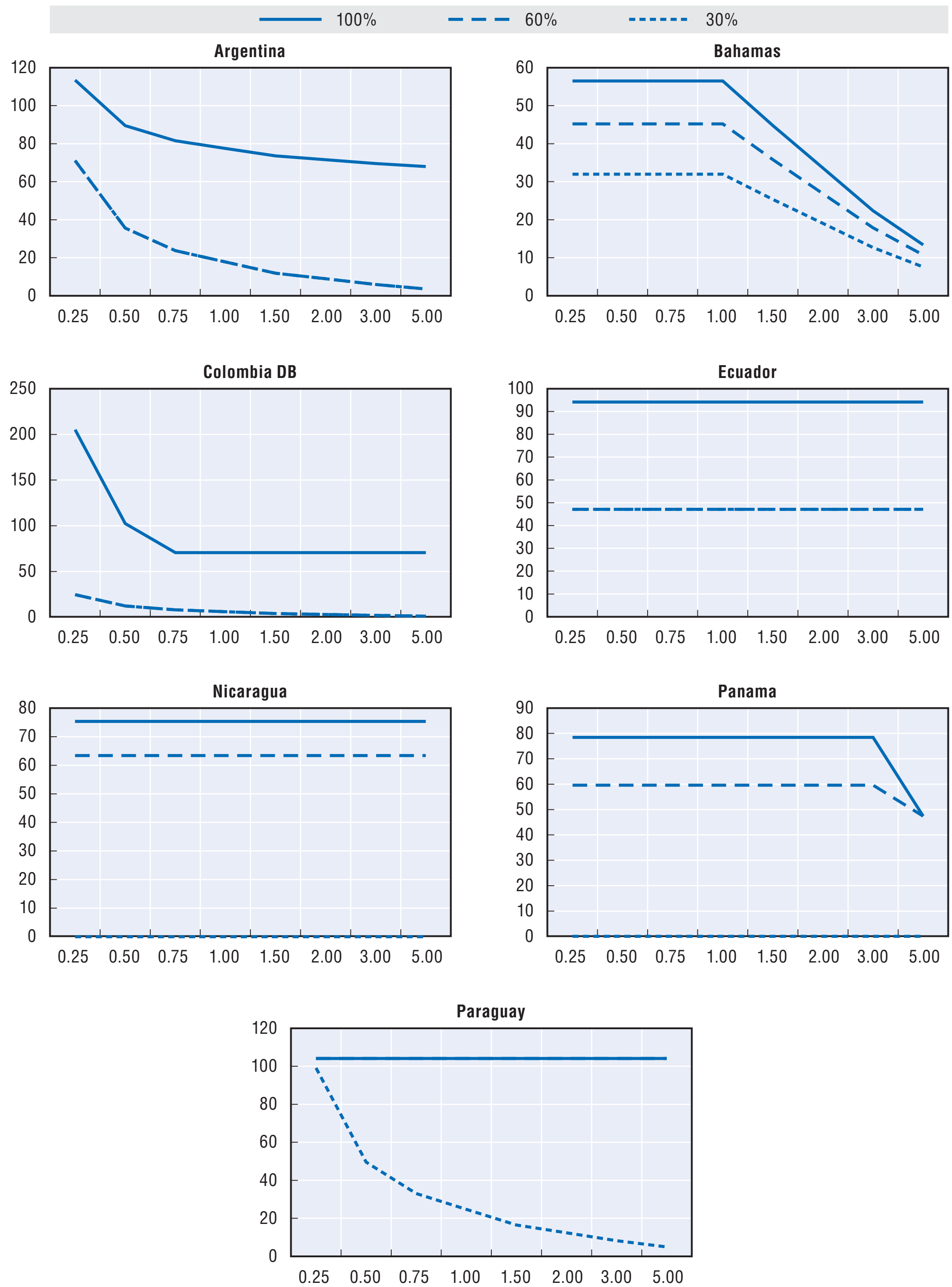
- In defined-contribution schemes, periods without contributions in the early years of a worker's career have a particularly negative impact given the effect of compound interest.
- In defined-benefit systems, if gaps are prolonged or are concentrated at the end of the working life, some workers may not reach the required number of years of contributions to receive even the minimum contributory pension.

Therefore, it is important to examine not only the size of these contribution gaps but also their distribution over time. The analysis of data from two pilot surveys carried out by the Inter-American Development Bank (IDB) in 2008 for Lima (Peru) and Mexico City (Mexico) suggests, for example, that gaps tend to be distributed evenly during a working life, which is consistent with the frequent labour transitions discussed above. In Lima and Mexico City, workers aged 55 to 59 years old contribute to the pension schemes for an average of 18 and 17 years, respectively. Assuming that these workers entered the labour market at age 20, their average contribution densities may be estimated to be about 48 and 47%, respectively.

However, these results should be taken only as rough proxies of contribution densities since they just reflect a self-reported cross-section, taken in 2008, of the whole contribution history of every worker in the survey. Also, only a few countries in the region (e.g. Chile and Mexico) have sufficient administrative data to construct the entire contribution history. This highlights the need for better and longer panel data as job mobility may be part of a worker's longer-term plan and thus may not be evident in the short-term data.

To address this issue, Figures 1.6 and 1.7 illustrate a key pension indicator, the net pension replacement rate, for workers with different stylised contribution densities. Given the lack of real contribution histories for the majority of countries and the imperfections of cross-sectional data, the figures illustrate three stylised profiles for male workers: i) formal workers (100% density of contributions, which is representative of high-income workers in most countries); ii) workers with 60% contribution densities (close to average in less informal countries such as Argentina, Chile, Panama, and Uruguay); and iii) workers with 30% contribution densities (the average in more informal countries such as Colombia, the Dominican Republic, Ecuador, El Salvador and Mexico). Contribution gaps are assumed to be evenly distributed with age, in line with the results for Mexico City and Lima/Peru.

Figure 1.6. **Replacement rates by wage level in selected defined-benefit pension schemes**



Note: See Chapter 3 below for an explanation of the assumption of the OECD pension models. The X axis refers to wage as multiple of average wage and the Y axis refers to the percentage of own wage.
Source: OECD pension models.

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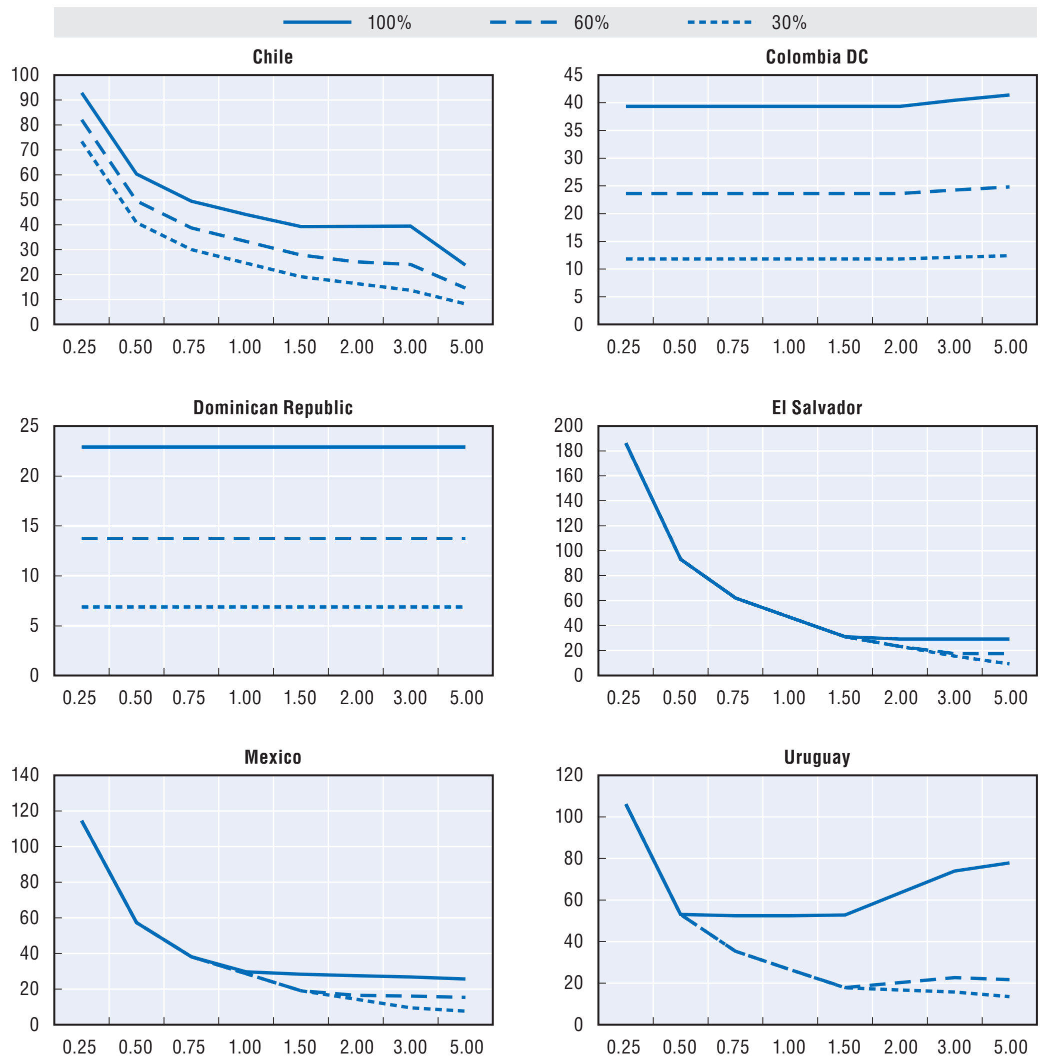
Figure 1.7. **Replacement rates by wage level in selected defined-contribution and mixed pension schemes**

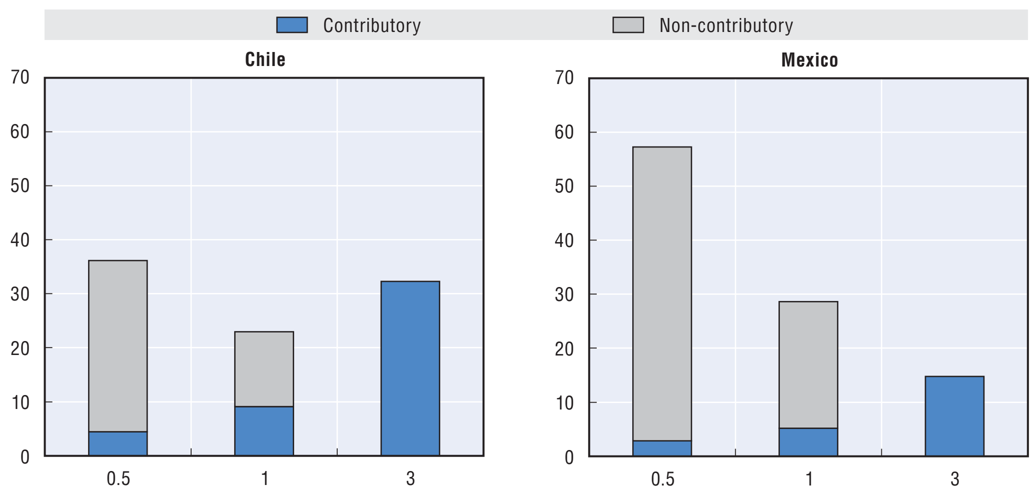


Note: See Chapter 3 below for an explanation of the assumption of the OECD pension models. The X axis refers to wage as multiple of average wage and the Y axis refers to the percentage of own wage.
Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161377

Figures 1.6 and 1.7 show very significant differences between these categories that are especially large in defined-benefit systems when workers are not eligible for minimum contributory pensions because of low densities (for example, in Nicaragua and Panama). In defined-contribution schemes, replacement rates tend to be lower given that they reflect only contributions and financial returns (whereas defined-benefit systems may incorporate some implicit subsidies). Meanwhile, defined-benefit schemes have minimum vesting rules that can lead to not having a pension even after having contributed for several years. For instance, in Mexico's old defined-benefit system workers who contributed for fewer than ten years received no benefits at all. Finally, net replacement rates were simulated by combining administrative data on densities and wage levels for Chile and Mexico (Figure 1.8). The results suggest that workers who earn half of the minimum wage in both countries have contribution densities of 13% and 8% respectively, much lower than those who earn either the average wage (24% and 17% respectively) or three times the average wage (82% and 55% respectively). Because of the non-contributory components in some of these countries, net replacement rates for these low-wage low-density workers can be above 50%.[6] Considering only the contributory components, the net replacement rates barely reach 10 to 15% for low-income and middle-income workers respectively. Finally, the net pension replacement rates for high-income workers (who would not benefit from the targeted non-contributory components) range between 15 and 32%, and these differences would be much bigger in absolute terms.

Figure 1.8. **Replacement rates by wage level in Chile and Mexico**



Note: The X axis refers to wage as multiple of average wage and the Y axis refers to % of own wage.
Source: Authors' own calculations.

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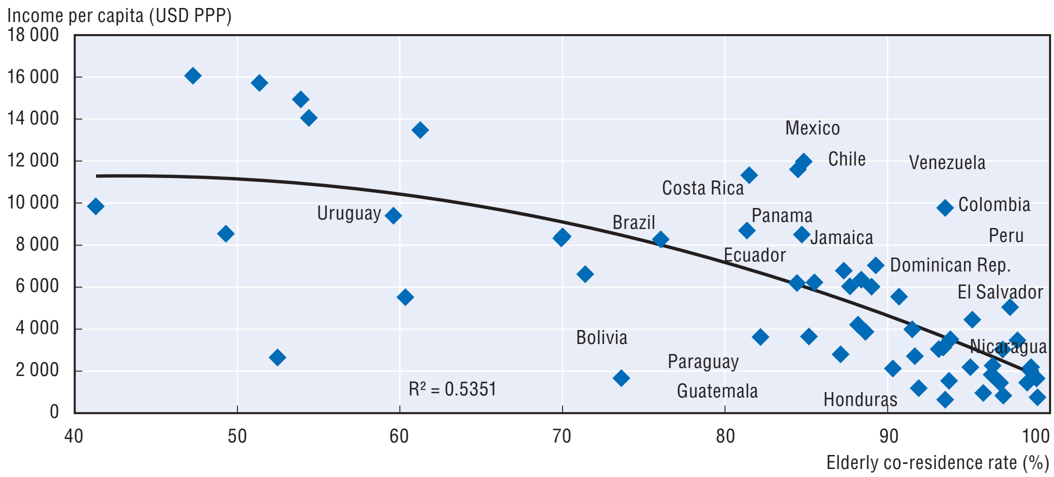
Economic well-being of the elderly

Growing concern about the effects of limited coverage on the current and future adequacy of pensions in the region must be viewed in the broader context of the economic well-being of older people in general. A large share of older people in LAC will have to rely on other sources of income than contributory pensions. This includes work income, assets such as housing,[7] informal transfers, and support within households and families and from government programmes such as social pensions (discussed in more detail below).

An important starting point for the analysis of the economic well-being of the elderly is their household structure. Figure 1.9 plots the relationship between per capita income (in USD PPP) and co-residence – which is defined as a person aged 60 or older living with family members other than a spouse. While there is a strong (negative) relationship between income level and the likelihood that an elderly person will be living with a family member, there are nevertheless significant variations between countries with similar income levels. Chile and Mexico are clear outliers with high incomes and high co-residence rates.

In addition to the cross-country pattern, the income/co-residence relationship also applies within countries with the lower part of the income distribution having higher co-residence rates, as shown in Table 1.2. Most of the elderly poor in Latin America live in multi-generational households suggesting that the welfare of the vast majority of the

Figure 1.9. **Comparison of co-residence rates in Latin American countries**



Note: This figure includes 55 countries.
Source: Calculations based on ASPIRE Household Survey Data, *World Bank Database*.
StatLink http://dx.doi.org/10.1787/888933161396

region's elderly who receive no formal pension income is closely tied to that of their family. At the same time, evidence of intra-household allocation of resources is scarce and little is known about the relative consumption of the elderly in this regard.

The long-term trends of increased urbanisation and lower fertility will also reduce the chances of this kind of family support being available in the future implying that the limitations of the formal pension system will become increasingly important. However, well-targeted programmes such as cash transfers aimed at poor households have the potential to reach most of the elderly poor.[8]

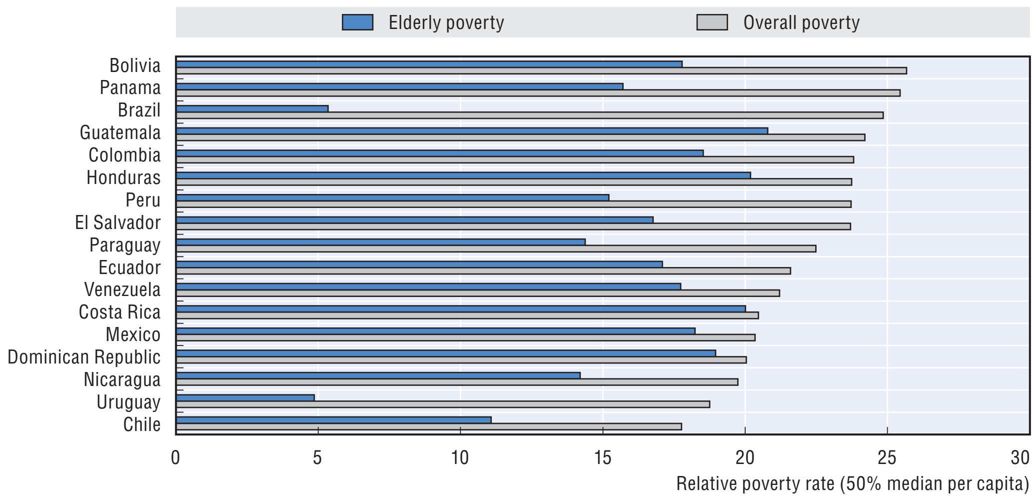
Table 1.2. **Co-residence rates by quintile in LAC**
Percentages

	Poorest	2	3	4	Richest
Argentina	68	56	42	47	40
Bolivia	79	54	68	66	64
Brazil	85	59	59	57	55
Chile	79	65	61	64	57
Colombia	74	81	84	75	61
Costa Rica	67	55	70	73	65
Dominican Republic	87	78	75	75	65
Ecuador	64	70	70	68	60
El Salvador	81	84	80	74	69
Guatemala	78	80	84	78	75
Honduras	85	84	85	82	77
Mexico	66	72	71	69	65
Nicaragua	95	92	92	87	78
Panama	68	76	68	65	51
Paraguay	74	82	80	72	67
Peru	70	73	71	73	66
Uruguay	64	42	40	33	27
Venezuela	80	88	86	85	73

Source: Calculations based on ASPIRE Household Survey Data, *World Bank Database*.
StatLink http://dx.doi.org/10.1787/888933161856

There is little evidence that the elderly are poorer than the non-elderly. Figure 1.10 shows that relative poverty rates at the individual level are lower for the elderly in all of the countries where data are available. The most dramatic differences are in countries with large social pension programmes such as Bolivia and Brazil or where there is high coverage of the contributory pension scheme as in Chile and Uruguay.

Figure 1.10. **Relative poverty rates of the elderly and non-elderly in Latin America**



Source: Calculations based on ASPIRE Household Survey Data, *World Bank Database*.

StatLink http://dx.doi.org/10.1787/888933161408

Table 1.3 compares elderly and non-elderly households to see which are more likely to be found in the bottom two quintiles of the distribution. The table shows that in most countries the elderly are less likely to live in households in the bottom two quintiles of the income distribution than in households in the higher quintiles. However, it also shows that the results of such comparisons can be very sensitive to assumptions regarding how size and composition of the household affects welfare. An important adjustment often made in the literature is an adult equivalence scale which assumes that children have lower consumption needs. Another important adjustment that is sometimes made to ensure valid inter-household comparisons is to take into account the economies of scale involved in household consumption. To the extent that some consumption is shared, a larger household may not consume as much per capita as a smaller household and yet may enjoy the same living standard. Intuitively, there are certain fixed costs involved in a household of whatever size, meaning that additional members make little difference to the household's overall consumption.

In Table 1.3, the first and fourth columns show the share of elderly and non-elderly households in the bottom 40% of the distribution without adjusting for household composition or size. The rates are also shown for both groups adjusted for the composition and size of the household. In general, the results show that, even with these adjustments, households with elderly members are less likely to be in the bottom two quintiles of the distribution than households with no elderly members.[9] The most important exceptions are Costa Rica and the Dominican Republic. In three countries, the difference is marginal, and in two-thirds of the countries – Argentina, Bolivia, Brazil, Colombia, El Salvador, Honduras, Nicaragua, Paraguay, Uruguay and Venezuela – the advantage held by elderly households over households with no elderly members is significant. Brazil stands out because elderly households are less than half as likely to be found in the bottom two quintiles as households with no elderly members. This is undoubtedly due to a large extent to the high level of spending on Brazil's rural pension scheme (see below) as well as the high coverage of formal sector workers by contributory pensions. The Brazilian example is an extreme case where spending on rural pensions is three times as much as the more well-known "Bolsa Familia" targeted to poor households. The latter programme disproportionately benefits children. In each country, the allocation of scarce budget resources raises the question of this type of tradeoff.

Table 1.3. **Households with or without elderly members in the bottom 40%**

	Any elderly – unadjusted	Any elderly – economies of consumption	Any elderly – economies of scale	No elderly – unadjusted	No elderly – economies of consumption	No elderly – economies of scale
Argentina	0.302	0.277	0.314	0.433	0.443	0.43
Bolivia	0.357	0.34	0.368	0.411	0.414	0.407
Brazil	0.228	0.211	0.222	0.451	0.456	0.453
Colombia	0.37	0.358	0.36	0.411	0.416	0.414
Costa Rica	0.41	0.389	0.425	0.397	0.403	0.392
Dominican Republic	0.436	0.415	0.443	0.387	0.395	0.385
Ecuador	0.381	0.363	0.389	0.406	0.413	0.404
El Salvador	0.363	0.348	0.36	0.416	0.422	0.417
Guatemala	0.397	0.394	0.401	0.4	0.401	0.4
Honduras	0.402	0.393	0.405	0.399	0.402	0.398
Nicaragua	0.351	0.344	0.349	0.421	0.423	0.421
Paraguay	0.364	0.343	0.361	0.411	0.418	0.413
Uruguay	0.283	0.254	0.309	0.46	0.474	0.446
Venezuela	0.369	0.36	0.363	0.411	0.414	0.413

Note: The cutoff is set at 40% of the welfare distribution. The assumption is that the consumption of the elderly and youth is 75% of that of adults. Economies of scale are assumed to be 0.7. The shading indicates the poorest group.
Source: Calculations based on ASPIRE Household Survey Data, *World Bank Database*.

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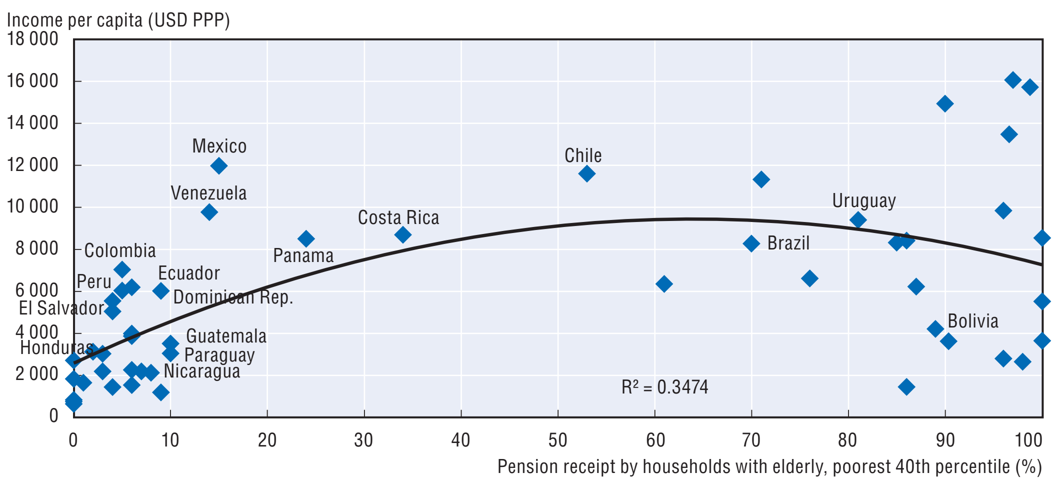
Pensions and retirement incomes

As would be expected given the evidence presented earlier regarding coverage, the importance of pensions in the incomes of households with elderly members varies widely across the region. However, in most countries, they play a relatively limited role in poor households. The exceptions are countries with very high coverage rates and those that rely heavily on non-contributory or social pensions.

Figure 1.11 shows the relationship between the percentage of elderly households in the bottom 40% of the distribution that receive any pension income and per capita income (in USD PPP) in 55 countries around the world. There is clearly a positive relationship between income and the coverage of low-income households across the sample, but the correlation is not high. This is due to the fact that while contributory pension coverage is higher the richer the country, social pension policies can increase the coverage among the bottom part of the income distribution even in poor countries. The same is true for LAC countries, with Venezuela and the Dominican Republic having much lower coverage than other countries at the same income level.[10] In contrast, Bolivia stands out as having much higher coverage than other countries with a similar income level such as Honduras and Nicaragua. Coverage in Bolivia measured in this way is likely to have increased further in the last few years since the data point does not reflect the most recent change in the *Renta Dignidad* programme that reduced the eligibility age from 65 to 60. Several countries are outliers in that the share of elderly in the bottom 40% receiving pensions is relatively low given its income level. Interestingly, and as discussed in the next section, some of these countries are now in the process of introducing or expanding their social pension schemes.[11]

Figure 1.11. **Share of the elderly in the bottom two quintiles who receive a pension**



Source: Calculations based on ASPIRE Household Survey Data, *World Bank Database*.

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Social pensions

The expansion of non-contributory pensions (also known as "social pensions") or cash transfers targeted to the elderly is a global phenomenon[12] but nowhere has it been more dramatic than in Latin America. Rofman et al. (2013) documented this recent phenomenon for ten countries in the region that together represent more than 90% of the population of LAC. Table 1.4, which is based on this study, traces the most important policy changes over the last two decades and clearly shows the recent pattern of expansion of these non-contributory programmes.

The programmes are all aimed at increasing the share of the elderly population receiving government transfers but have taken various forms. Bolivia pays a universal pension although with some reduction for those receiving contributory pensions. Venezuela makes eligibility contingent on not receiving a contributory pension as does Mexico. In Argentina, eligibility restrictions for contributory pensions were relaxed for certain cohorts but the change is temporary.[13] Finally, in Chile, the social pension is integrated with the contributory pension with the aim of reducing incentives not to contribute to evade the defined-contribution scheme (see Box 1.2). These variations in social pension design imply significant differences in cost and incentives.

Table 1.4. **Expansion of non-contributory pensions in LAC, 1990-2013**

1990-2001	2001-07	2008-13
Brazil (1991): FUNRURAL pension age is reduced to 60 for men and 55 for women **Guyana (1993):** Old-age pension became universal **Bolivia (1996):** Bonosol	**Argentina (2003):** Advance old-age pension was established **Belize (2003):** Non-Contributory Pension Programme (NCP) **Colombia (2003):** PPSAM Social Protection Programme for Older People **Ecuador (2003):** Pension for Older People **Guatemala (2005):** Economic Contribution Programme for Older People **Mexico (2007):** *70 y más*	**Bolivia (2008):** *Renta Dignidad* **Chile (2008):** *Pension Basica Solidaria de Vejez* **Ecuador (2009):** Pension for Older People becomes universal **El Salvador (2009):** Universal Basic Pension **Panama (2009):** *100 a los 70* **Argentina (2010):** The state provides a life-long pension equal to 70% of the minimum pension or ARS 832.64/month **Peru (2011):** Pension 65 **Mexico (2012):** *70 y mas* was extended to localities with more than 30.000 inhabitants **Colombia (2012-13):** Extension to all citizens over 65 without pension benefits living in poor rural areas **Mexico (2013):** Change from *70 y más* to *65 y más and announced shift to universality*

Source: Authors based on Rofman, R., I. Apella and E. Vezza (2013), "Mas Allá de las Pensiones Contributivas: Catorce Experiencias en América Latina", World Bank, Washington, DC.

Box 1.2. **Integrating non-contributory and contributory pensions: Chile's new solidarity pillar**

Chile introduced a new solidarity pillar in 2008 that would complement the existing contributory pension system based on individual capitalisation. In 1981, Chile had replaced its traditional defined-benefit PAYG pension system with a defined-contribution system with individual accounts managed by specialised private firms. Two types of non-contributory benefit existed: i) a social assistance pension targeted to the lowest income quintile of the population with eligibility precluded if there was any other source of pension; and ii) a minimum pension guarantee for pension fund contributors that had attained only low balances after at least 20 years of contributions.

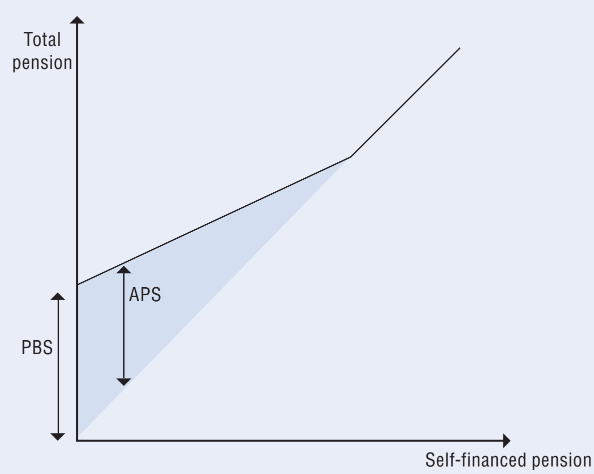
By 2006, it was clear that, although the system had been very successful in obtaining high real rates of returns for the pension funds, pension levels would not be adequate for a large portion of the population. Most members of the system did not contribute frequently enough to build a large balance. Although the proportion of the labour force that worked in the formal sector was relatively high at around 60%, only a minority held steady jobs in the formal sector. Berstein et al. (2006) estimated that around 50% of members would receive a pension lower than the minimum pension, and many would not reach the 20 years of contributions required for the pension guarantee. On the other hand, many of these individuals would not be poor enough to qualify for the social assistance pension. As a result, low- to middle-income individuals fell into a coverage gap.

Box 1.2. **Integrating non-contributory and contributory pensions: Chile's new solidarity pillar** *(cont.)*

In order to increase pension levels, the government followed a dual strategy by: i) expanding contributory coverage so that anyone who is able to save makes pension contributions; and ii) providing a non-contributory minimum pension level and a supplement for low pensions through a new solidarity pillar.

Measures to expand the contributory base included gradually introducing mandatory contributions for the self-employed through the tax system, strengthening enforcement, and creating incentives for workers to make voluntary contributions. With regard to non-contributory benefits, Chilean policy makers faced a trade-off between providing income protection and reducing incentives to save. The new solidarity pillar had to be designed in a way to be compatible with incentives to contribute in the system. Since neither the existing social assistance pension nor the minimum pension guarantee provided adequate income support to alleviate poverty in old age, it was decided that the new pillar would replace both programmes. In order to maintain some incentives to contribute, the benefit was designed not as an absolute minimum floor guarantee but as a minimum pension for individuals with no contributions plus a top-up for individuals with contributions. The amount of the top-up would be reduced depending on the level of the contributory pension. The reduction was designed so that the total pension (the sum of the contributory and non-contributory pensions) would always be increasing along with the balance accumulated in the individual account. In other words, the new solidarity pillar was designed as a minimum pension benefit with a "clawback" as shown in the diagram below. The amount of the minimum benefit was set at a level above the existing social assistance pension (but below the minimum pension guarantee), and the clawback rate was set at a level close to 30%. Operationally, the new solidarity pillar was composed of two benefits: i) the basic solidarity pension (PBS) for individuals with no contributions and ii) a solidarity pension supplement (APS), which is the top-up for individuals with some contributory pension. The target population for the new benefits would be individuals aged 65 years or older who belonged to the 60% poorest households and had a minimum of 20 years of residency in the country. Thus, the minimum benefit went from being a targeted poverty alleviation programme to a broad programme aimed at excluding the most affluent, and the contribution requirement was replaced by a residency condition.

Clawback in the solidarity pillar



In addition to differences in coverage and eligibility rules, benefit levels vary widely, resulting in significant differences in costs as shown in Table 1.5.

Table 1.5. **Social pensions in Latin-American countries**

Programme		Eligibility conditions				Coverage and adequacy		
		Targeting			Qualifying conditions			
		Means tested/ Poverty targeted	Pension/ benefit test	Geographically targeted	Age	Beneficiaries/ 65+ pop.	Benefit/ Income per capita	Social pension wealth/GDP per capita
Argentina	Pensiones Asistenciales	y	y	n	70	1.8%	25.0%	1.7
Bahamas	Old Age Non-Contributory Pension	y	y	n	65	..	..	1.7
Barbados	Non-contributory Old Age Pension	y	y	n	65 + 6 m	30.1%	23.3%	2.9
Belize	Non-Contributory Pension Programme	y	y	n	67/65	30.0%	12.5%	1.9
Bolivia	Renta Dignidad	n	n	n	60	91.0%	12.6%	2.4
Brazil	Previdencia Rural	n		y	60/55	86.0%	17.2%	5.0
	Beneficio de Prestacao Continuada	y	y	n	65	12.0%	33.0%	..
Chile	Pension Basica Solidaria de Vejez	y	y	n	65	83.0%	12.0%	2.1
Colombia	PPSAM	y	y	y	57/52	44.0%	4.3%	1.0
Costa Rica	Regimen No Contributivo	y	y	n	65	59.0%	17.8%	3.2
Dominican Republic	Nonagenarios	y	y	n	60	..	n.a.	3.0
Ecuador	Pension para Adultos Mayores	y	y	n	65	56.0%	7.7%	1.8
El Salvador	Pension Basica Universal	y	y	y	70	17.0%	12.2%	2.2
Guatemala	Aporte economico del Adulto Mayor	y	y	n	65	16.0%	18.0%	2.8
Guyana	Old Age Pension	n	n	n	65	151.0%	18.0%	2.4
Haiti	Not applicable							
Honduras	Not applicable							
Jamaica	PATH	y	y	n	60	24.0%	2.0%	0.5
Mexico	65 y mas	n	y	y	65	63.0%	5.0%	0.6
Nicaragua	Not applicable							
Panama	100 a los 70	n	y	n	70	81.0%	12.6%	1.7
Paraguay	Pension alimentaria	y	y	n	65	29.0%	29.3%	4.4
Peru	Pension 65	y	y	y	65	41.0%	8.6%	1.3
Suriname	Not applicable							
Trinidad and Tobago	Senior Citizen Pension	y	y	n	65	99.0%	30.5%	4.6
Uruguay	Pensiones no contributivas	y	y	n	70	7.0%	22.0%	3.3
Venezuela, RB	Gran Mision Amor Mayor	y	y	n	60/55	23.0%	18.0%	6.9

y: yes; n: no; ..: not available.

Note: Social pension wealth is the present value of the stream of payments at current levels from eligibilty age until death based on country specific mortality tables.

Source: Rofman et al. (2013), *Social Pension Database HelpAge*, Household Surveys and author's calculations.

StatLink http://dx.doi.org/10.1787/888933161872

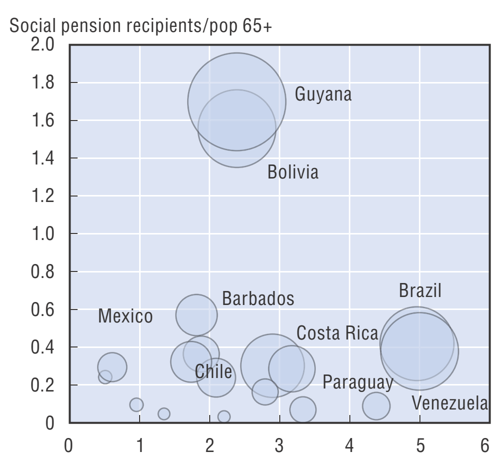
In six countries, social pension recipients represent more than one-half of the population aged 65 and over. In Bolivia, Guyana, and Suriname, social pensions are essentially universal.[14] In contrast, social pensions are clearly marginal in El Salvador, Paraguay, and Peru and do not exist at all in Haiti, Honduras, and Nicaragua. Benefit levels also vary widely. Benefits range from only 3% of national per capita income in Jamaica to more than 40% in Venezuela. Comparing the relative generosity of social pensions is complicated by the different expected durations of retirement between countries, which are determined by life expectancy at the age at which a worker becomes eligible for the social pension. One way to capture this is by calculating the present value of social pension payments from the age of eligibility until death taking into account country-specific mortality patterns. The last column of Table 1.5 shows the present value of benefits. This takes into account not only the differences in benefit levels but also the differences in life expectancy at the age of eligibility. By this measure, Venezuela has by far the most generous social pension, followed by Suriname and Brazil. While Bolivia, Guyana, and Suriname all have universal pensions, the social pension wealth indicator suggests that Suriname's relative benefit level is twice as generous as that of the other two countries.

Combining the social pension wealth indicator with the coverage rate makes it possible to compare social pensions in different countries. Figure 1.12 below maps the social pension programmes in the region in three dimensions – pension wealth is on the x axis, coverage is on the y axis, and the size of the circle is proportional to the expense of the programme. This is calculated by projecting spending through to 2040 and dividing the present value by current GDP.[15]

The figure shows that, in terms of coverage and relative generosity, social pensions are most important in Guyana and Bolivia, followed by Venezuela and Brazil. Although not shown on the figure, Suriname and Trinidad are also among the largest social pension programmes in the region, and Trinidad's ageing projections suggest that it will be among the most expensive. These last two will also be the most expensive because their populations will age more rapidly in the next two decades. The Government of Mexico recently announced that it would further extend coverage and double benefits; while the full implementation of Chile's new social pension will increase its coverage over the next few years. Social pensions play a much less prominent role in the rest of the region.[16]

Figure 1.12 makes it possible to make comparisons between countries by abstracting from their different demographic situations. These differences are quite large. The proportion of the population aged 65 and above is around 14% in Uruguay but less than 5% in Bolivia. As the younger populations begin to age, countries with large social pensions (according to the indicator in Figure 1.12) can expect large spending increases unless the programmes become more targeted or less generous.

Figure 1.12. **Social pensions in Latin American countries**



Note: Pension wealth is on the x axis, coverage is on the y axis, and the size of the circle is proportional to the expense of the programme.
Source: Rofman, R., I. Apella and E. Vezza (2013), "Mas Allá de las Pensiones Contributivas: Catorce Experiencias en América Latina", World Bank, Washington, DC, and HelpAge International.

StatLink http://dx.doi.org/10.1787/888933161427

In summary, the role of social pensions is expanding in Latin America and the Caribbean, and, in some countries, they are already a major element of the pension system. While social pensions can help to fill the coverage gaps in the region's contributory pension schemes, the more extensive and generous programmes will present policy makers with a fiscal challenge as the population ages.

Conclusion

This chapter has focused on the coverage of formal pension systems, both in terms of active workers that contribute as well as the elderly that receive pensions, increasingly from non-contributory pensions. Coverage is an issue with a high priority in the region today and the gaps arise from a number of factors including:

- non-compliance or informal labour activity that precludes participation contributory pension schemes
- low contribution density which, in turn, affects the adequacy of future pensions for many individuals, especially those with low incomes
- current elderly whose lack of pension income reflect these first two dimensions but in the past
- the role and coverage of social pensions, i.e. cash transfers to the elderly that are not tied to contributory pension schemes.

The countries in Latin America and the Caribbean are attempting to address the coverage issue in different ways but the most evident trend and the policy that appears to be having the most impact is the extension of social pensions. In addition to its impact on coverage, this policy shift has important long term fiscal implications in these aging countries. It also affects the analysis of adequacy that is the subject of the rest of this report. For example, in countries like Bolivia, where the social pension is the only source of income for the vast majority of the elderly, the design of the contributory scheme is less relevant for assessing the adequacy of the system and for making international comparisons. At the same time, countries that are adopting social pension schemes that will complement the pension income of some workers receiving a contributory pension, as in Chile, must now pay closer attention to the implications of this approach for adequacy.

Notes

1. This term is equivalent to pension contribution rate in the book Bosch et al. (2013).
2. Informality has been defined using different criteria. According to Enste and Schneider (2000), informal activity is defined as all economic activities in unregistered enterprises that contribute to the gross national product (GNP). Informality has also been defined in terms of the occupation (as consisting of own-account workers and unpaid family workers) or by the size of the unit of production (ECLAC, 2008). Other international organisations have defined informal workers as those who do not benefit from social security and are not protected by labour regulations (ILO and WTO, 2009; and OECD, 2010, in case of lacking a written contract). This section will follow the definition used by Bosch et al. (2013) in which formal sector workers are those who make contributions to any pension scheme.
3. Argentina: Encuesta Permanente de Hogares – Continua (EPHC), 2010; Bolivia: Encuesta de Hogares (EH), 2009; Brazil: Pesquisa Nacional por Amostra de Domicilio (PNAD), 2011; Chile: Encuesta CASEN (CASEN), 2011; Colombia: Gran Encuesta Integrada de Hogares (GEIH), 2010; Costa Rica: Encuesta de Hogares de Propósitos Múltiples (ENAHO), 2010; Dominican Republic: Encuesta Nacional de Fuerza de Trabajo (ENFT), 2010; Ecuador: Encuesta Periódica de Empleo, Desempleo y Subempleo (ENEMDU), 2010; El Salvador: Encuesta de Hogares de Propósitos Múltiples (EHPM), 2010; Guatemala: Encuesta Nacional de Empleo e Ingresos (ENEI), 2010; Honduras: Encuesta de

Hogares Permanente de Propósitos Múltiples (EPHPM), 2010; Jamaica: Labor Force Survey (LFS), 2010; Mexico: Encuesta Nacional sobre Ingresos y Gastos de los Hogares (ENIGH), 2010; Nicaragua: Encuesta Continua de Hogares (ECH), 2010 ; Panama: Encuesta de Hogares (EH), 2010; Paraguay: Encuesta Permanente de Hogares (EPH), 2010; Peru: Encuesta Nacional de Hogares (ENAHO), 2010 ; Uruguay: Encuesta Continua de Hogares (ECH), 2010; and Venezuela: Encuesta de Hogares por Muestreo (EHPM), 2010); Colombia: GEIH

4. These are data on contributions when available (in Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela and Uruguay). Some countries only have data on contributions made by salaried workers (Argentina, Ecuador, Paraguay, Peru, the Dominican Republic and Venezuela). In the rest, the figures relate to affiliation with a pension scheme. This distinction has important implications. Affiliates or members are those who at some time registered for the pension system but who may or may not have continued contributing. Meanwhile, the term contributors refers only to those who are contributing to the system at a specific moment in time. Many of the affiliates do not make contributions regularly, meaning that they may not be eligible to receive pension benefits in the future.
5. Data are not readily available for the whole sample of countries.
6. Non- contributory pensions supplement the contributory pension or establish a minimum pension level.
7. See *Pensions at a Glance 2013: OECD and G20 Countries* (2013a) for a discussion of the role of home ownership. The same section shows that the elderly are substantially more likely to own their homes than younger household heads.
8. For example, Behrman and Parker (2013) have shown the benefits of the targeted cash transfer programme to the elderly poor in Mexico.
9. The combination of both types of adjustment is not shown because the results remain similar.
10. It is interesting to note that in 2012, Venezuela introduced a new social pension scheme that is likely to have dramatically increased coverage of those at the bottom of the distribution assuming that the programme is well-targeted.
11. The data for Mexico, which are for 2010, do not reflect the reduction in the age of eligibility from 70 to 65 and the recent government announcement that the programme will be made universal. Venezuela introduced a new social pension in 2012 that has dramatically increased coverage.
12. See Knox-Vydmanov and Palacios (2013).
13. See Rofman et al. (2013).
14. Even universal social pension schemes such as Bolivia's do not cover the entire elderly population because of a variety of implementation issues. See Rofman et al. (2013).
15. This is based on two key assumptions – first, that the real value of the benefit will remain constant throughout the projection and, second, that the same ratio of beneficiaries to elderly people will persist.
16. Data were not available for Suriname but it is likely to be among the countries with the highest scores.

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Chapter 2

Key demographic indicators

Although fertility rates in the majority of LAC countries are above the population replacement rate, they have been declining in the last 30 years. Together with increasing life expectancy, declining fertility rates are the main drivers of population ageing.

Fertility rates and how they have changed over time are explored in the first indicator in this chapter, along with a brief discussion of explanations for the trends. Changes in life expectancy – at birth and at age 65 – over time are shown. There is also a brief discussion of how life expectancy might change in the future.

Population ageing itself is addressed by the third indicator, i.e. the old-age support ratio equal to the number of people of working age relative to the number of pension age. The old-age support ratio is shown for a century: historical data back to 1960 and projections forward to 2060.

Key results

The total fertility rate is above the replacement level – the number of children needed to keep the total population constant – in 20 out of 26 LAC countries for 2005-10. The only exceptions are the Bahamas, Brazil, Chile and Costa Rica (at replacement level of 1.9) and Trinidad and Tobago and Barbados at 1.8. However, the fertility levels have declined in each ten-year period over the last 30 years, with the exception of Barbados between 1995 and 2005. Fertility rates have a profound implication for pension systems because they, along with life expectancy, are the drivers of population ageing.

The total fertility rates averaged 2.57 children per woman across LAC countries in the period 2005-10, well above the level that ensures population replacement. However there has been a trend since the early 1960s for fewer children, as a result of wider access to contraception and the inclusion of more women in labour markets. The fall in fertility rates is likely to reflect changes in both individuals' lifestyle preferences and in the social trends towards increasing female labour force participation, higher education levels and lower political or religious constraints to access secure contraceptive devices.

The recent decrease in fertility rates is predicted to continue, albeit at a slower rate. It is forecast to average 2.29 across LAC countries by 2015-20 and then fall below the stable population figure thereafter. By 2025-30 the fertility rate is projected to fall to 2.10, reaching 1.98 by 2035-40, 1.91 by 2045-50 and 1.87 by 2055-60.

By 2055-60 only Bolivia at 2.11 and Guatemala at 2.27 are expected to have fertility rates above the replacement level of 2.1.

Low fertility rates have wider social and economic consequences, due to the resulting population aging process. In the short term, the decline in fertility results in a "demographic bonus", as the relative weight of children and youth declines and the proportion of those in active age increases. However, this bonus last only a few decades, and after a while the sustained increase in the proportion of elderly more than compensates the decline in children. Also, in the medium to long term, as family size declines there are fewer family caregivers to help people in old age, which results in growing demand for old-age care services. Secondly, if no changes in retirement ages occur, there may be a growing burden on people of working age to finance pensions and health care for older people that would eventually force authorities to review the public pension systems' parameters to ensure sustainability. Thirdly, the workforce will also age and so might be less adaptable to technological change, which some authors have linked with declining productivity and economic growth. Finally, ageing may result in a smaller pool of savings to finance investment in the economy as older people use their savings to support their consumption.

Different authors have expressed their concern as fertility tends to decline faster among educated, high income urban families, hence resulting in a pattern where most children are born to poorer and more vulnerable households, with less access to opportunities during their early years. While most projections foresee that these gaps will decline overtime, this is a serious concern for those working to reduce the incidence of poverty and promoting the accumulation of human capital throughout society.

Definition and measurement

The total fertility rate is the number of children that would be born to each woman if she were to live to the end of her child-bearing years and if the likelihood of her giving birth to children at each age was the currently prevailing age-specific fertility rates. It is generally computed by summing up the age-specific fertility rates defined over a five-year interval. Given that the probability of giving birth to a boy is slightly higher than to a girl across all human populations, a total fertility rate of 2.1 children per women in a context of low and stable mortality levels ensures broad stability of the population, on the assumption of no significant net migration flows.

2.1. Total fertility rates, 1975-2050

	1975-80	1985-90	1995-00	2005-10	2015-20	2025-30	2035-40	2045-50	2055-60
Argentina	3.44	3.05	2.63	2.25	2.12	2.01	1.94	1.89	1.87
Bahamas	2.96	2.65	2.33	1.91	1.87	1.84	1.83	1.82	1.83
Barbados	2.16	1.77	1.74	1.83	1.86	1.88	1.90	1.91	1.92
Belize	6.20	4.70	3.85	2.94	2.52	2.24	2.05	1.93	1.85
Bolivia	5.80	5.00	4.32	3.50	3.04	2.70	2.46	2.27	2.11
Brazil	4.31	3.10	2.45	1.90	1.75	1.69	1.69	1.71	1.74
Chile	2.80	2.65	2.21	1.90	1.79	1.77	1.78	1.80	1.81
Colombia	4.34	3.24	2.75	2.45	2.17	1.97	1.86	1.80	1.80
Costa Rica	3.78	3.37	2.58	1.92	1.73	1.67	1.68	1.71	1.75
Dominican Republic	4.76	3.65	2.98	2.67	2.35	2.10	1.94	1.84	1.80
Ecuador	5.09	4.02	3.19	2.75	2.43	2.20	2.03	1.91	1.85
El Salvador	5.46	4.20	3.30	2.35	2.08	1.90	1.80	1.75	1.75
Guatemala	6.20	5.70	5.00	4.15	3.52	3.04	2.70	2.45	2.27
Guyana	4.42	2.52	2.53	2.77	2.40	2.19	2.06	1.99	1.94
Haiti	5.80	5.70	4.62	3.55	2.90	2.50	2.24	2.06	1.94
Honduras	6.60	5.37	4.30	3.31	2.80	2.46	2.22	2.04	1.92
Jamaica	4.00	3.10	2.67	2.40	2.16	2.00	1.90	1.85	1.84
Mexico	5.25	3.63	2.80	2.37	2.06	1.86	1.76	1.74	1.75
Nicaragua	6.35	5.00	3.60	2.76	2.33	2.08	1.91	1.82	1.78
Panama	4.19	3.24	2.87	2.62	2.36	2.17	2.02	1.94	1.89
Paraguay	5.20	4.77	3.88	3.08	2.72	2.46	2.26	2.10	1.99
Peru	5.38	4.10	3.10	2.60	2.29	2.07	1.92	1.83	1.80
Suriname	4.20	3.00	2.80	2.42	2.16	1.99	1.89	1.84	1.83
Trinidad and Tobago	3.24	2.75	1.82	1.80	1.79	1.79	1.80	1.81	1.82
Uruguay	2.89	2.53	2.30	2.12	2.00	1.93	1.88	1.86	1.86
Venezuela	4.47	3.65	2.94	2.55	2.28	2.07	1.94	1.86	1.82
LAC26	**4.59**	**3.71**	**3.06**	**2.57**	**2.29**	**2.10**	**1.98**	**1.91**	**1.87**
OECD countries									
Canada	1.73	1.62	1.56	1.63	1.70	1.76	1.80	1.83	1.85
France	1.86	1.81	1.76	1.97	1.98	1.99	1.99	1.99	1.99
Germany	1.51	1.43	1.35	1.36	1.46	1.54	1.59	1.64	1.68
Portugal	2.55	1.62	1.48	1.36	1.33	1.44	1.53	1.62	1.68
Spain	2.55	1.46	1.19	1.41	1.57	1.67	1.74	1.79	1.82
United Kingdom	1.73	1.84	1.74	1.88	1.89	1.89	1.90	1.90	1.90
United States	1.77	1.92	2.00	2.06	1.98	1.98	1.99	1.99	1.99

Source: United Nations, *World Population Prospects – 2012 Revision*.

StatLink http://dx.doi.org/10.1787/888933161889

Key results

The remarkable decline in mortality, as evidenced by the increase in life expectancy, is one of the greatest achievements of the last century. Lives continue to get longer, and this trend is predicted to continue. In 2010-15, life expectancy at birth averaged 70.7 years for men and 76.6 years for women. Among women, the figure was highest in Chile (82.6 years), followed by Costa Rica, Uruguay, Jamaica, Panama, Argentina, Mexico and Ecuador, all above 79.0 years. For men, life expectancy at birth was highest in Costa Rica (77.7 years) followed by Chile, Mexico and Panama.

Mortality declines started early in the twentieth century in most countries in Latin America and the Caribbean. By 1950, life expectancy at birth was slightly over 50 years in the region, an indicator that improved by more than 40% in the following 50 years.

While mortality declined at all ages, the main driver of the increase in life expectancy at birth was the reduction in infant mortality rate for several decades. Only by 2005 did the increases in life expectancy at birth become slower than those of life expectancy at age 65. This decline in old-age mortality is especially important for the finances of retirement-income systems, as older people are living ever longer. In 2010-15, on average in LAC countries, women aged 65 could expect to live an additional 18.6 years, which is forecast to increase to 22.0 years by 2050-55. Men of the same age could expect to live 16.1 more years in 2010-15, with a projected increase of 2.8 years by 2050-55 to reach 18.9 years. Gender gaps in the longevity of older people are expected to remain broadly constant in relative terms but increase in absolute terms (from 2.5 to 3.1 years on average in LAC countries). Paying pensions from age 65 would become around 15-20% more expensive under these forecasts.

There is considerable variation between LAC countries in life expectancy at older ages. Women in Chile are predicted to live another 25.8 years on reaching age 65 in 2050-55. In contrast, women in Guyana are expected to live an extra 15.9 years from age 65 in 2050-55. The figure for Chile is considerably higher than any other countries, with Belize and Costa Rica being the next highest at 25.0 and 24.8 years respectively.

For men there is less variation between countries than there is for women. Costa Rica has the longest life expectancy at age 65 of 22.0 years in 2050-55, followed by Chile at 21.8 years. Again, Guyana has the shortest life expectancy for 65-year-old: 13.3 years.

The gender life-expectancy gap at age 65 is predicted to be between two and five years in favour of women for every LAC country in 2050-55.

This is a worldwide trend, and as a result many countries have increased or plan to increase their pension ages. Others have introduced elements into their retirement-income provision that will automatically adjust the level of pensions as people live longer. Both of these options will have to be considered in the LAC region as life expectancy estimates continue to increase and with retirement ages being under 65 in many countries, meaning that retirement duration is in fact higher than the figures quoted above.

Overall, longevity gains are due to rising living standards, but also greater access to quality health services. While socioeconomic differences at all ages (and particularly among children) have been significant for many years, future declines in mortality are expected to reduce the gaps currently observed across social groups in most countries.

Definition and measurement

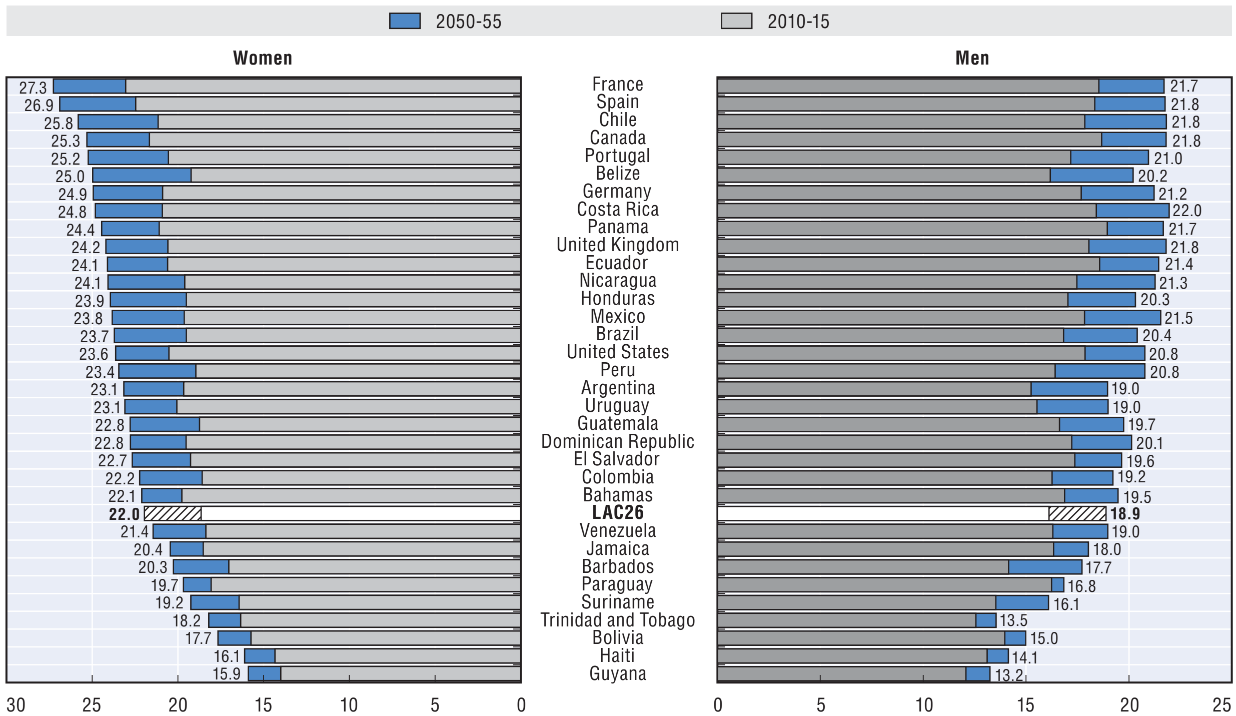
Life expectancy is defined as the average number of years that people of a particular age could expect to live if they experienced the age- and sex-specific mortality rates prevalent in a given country in a particular year. Since the determinants of longevity change slowly, life expectancy is best analysed over a long time horizon.

Sources and further reading

Whitehouse, E.R. (2007), "Life-Expectancy Risk and Pensions: Who Bears the Burden?", *OECD Social, Employment and Migration Working Paper No.* 60, OECD Publishing, Paris, *http://dx.doi.org/10.1787/060025254440*.

Whitehouse, E.R. and A. Zaidi (2008), "Socio-Economic Differences in Mortality: Implications for Pension Policy", *OECD Social, Employment and Migration Working Paper* No. 71, OECD Publishing, Paris, *http://dx.doi.org/10.1787/231747416062*.

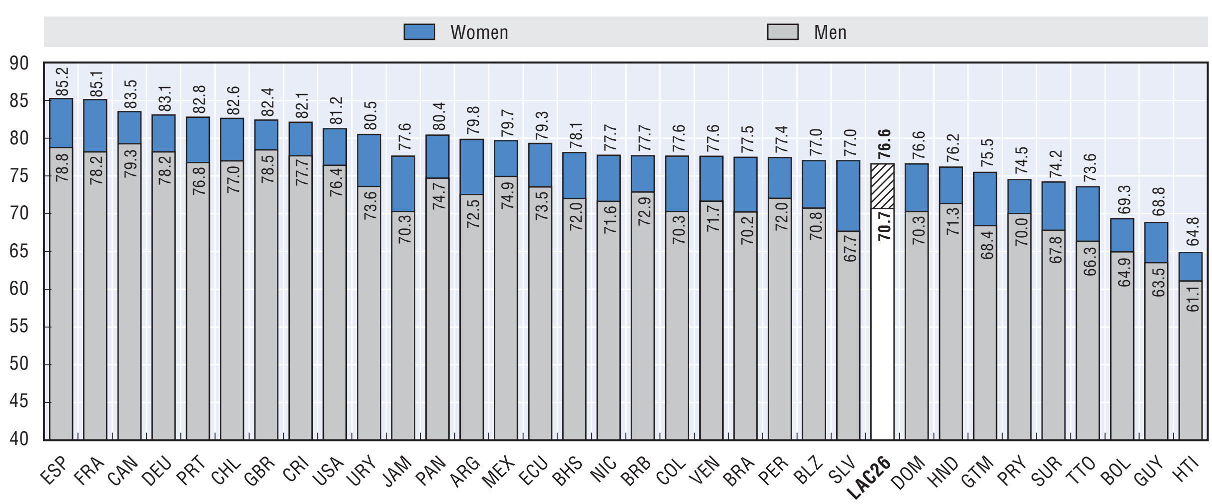
2.2. Additional life expectancy at age 65, in years, men and women, in 2010-15 and 2050-55



Source: United Nations, *World Population Prospects – 2012 Revision.*

StatLink http://dx.doi.org/10.1787/888933161434

2.3. Life expectancy at birth, in years, men and women, in 2010-15



Source: United Nations, *World Population Prospects – 2012 Revision.*

StatLink http://dx.doi.org/10.1787/888933161442

Key results

Population ageing is one of the main driving forces behind the wave of pension reforms across the world in recent years. The old-age support ratio is an important indicator of the pressures that demographics pose for pension systems. It measures how many people there are of working age (20-64) relative to the number of retirement age (65+). At the moment, there are just over eight people of working age for every one of pension age on average.

LAC countries have been ageing for some time, but generally at a slow rate: between 1950 and 1980, the average support ratio decreased from 13.4 to 10.2. However, the decline in the more recent period has been slower, with the fall from 10.2 to 8.4 taking 30 years. From 2010, population ageing is expected to accelerate. By 2030, the support ratio is projected to reach 5.0 and fall further to under 2.5 by 2060.

In 2010, the demographically oldest LAC country was Uruguay, with a support ratio of only 4.0. Argentina was next at 5.3, followed by Barbados at 6.1, with Chile and Jamaica being the only other countries under seven.

The youngest countries were Belize and Guyana, with support ratios of 12.8 and 15.4 respectively, followed by Haiti and Honduras, both around 11.0. Another three countries, namely Bolivia, Colombia and Nicaragua all have support ratios above 10.0.

The evolution of support ratios depends on mortality, fertility rates and migration. As shown in the previous two indicators, LAC countries have seen continual increases in life expectancy, which most analysts forecast to continue in the future (with particular impact on old-age mortality). This trend, together with the continuous decline in fertility will result in an increase of the percentage of older people and the number of pensioners.

There have also been substantial declines in fertility, which, of course, will reduce the relative size of cohorts of workers entering the labour market. Since the babies have already been born, we know the scale of the change in the number of people of working age for the next two decades. For example, fertility rates are already below the replacement level in countries like Costa Rica, Brazil or Chile, meaning that new generations will be smaller than those of their parents. In the future, however, there is a great deal of uncertainty over how fertility rates will evolve.

For the LAC region as a whole, the decline in the support ratio is forecast to continue at a reasonably steady rate in the future. There is, however, predicted to be a considerable convergence between LAC countries, with demographically younger countries ageing more rapidly. By far the most rapid population ageing among LAC countries will be in Guyana. The support ratio is projected to drop from the aforementioned 15.4 in 2010 to 8.9 by 2030 and 4.5 by 2060. Guyana will move from being the youngest country in the LAC region to the fourth youngest in 2060.

The other LAC countries that are currently demographically young – Belize, Haiti and Honduras – will also age relatively rapidly. Like Guyana, they will remain among the youngest LAC countries in 2060, with support ratios of 3.1 in Belize, 4.7 in Haiti and 3.4 in Honduras. Only Guatemala at 4.9 and Bolivia at 4.8 are projected to have a higher ratio by 2060.

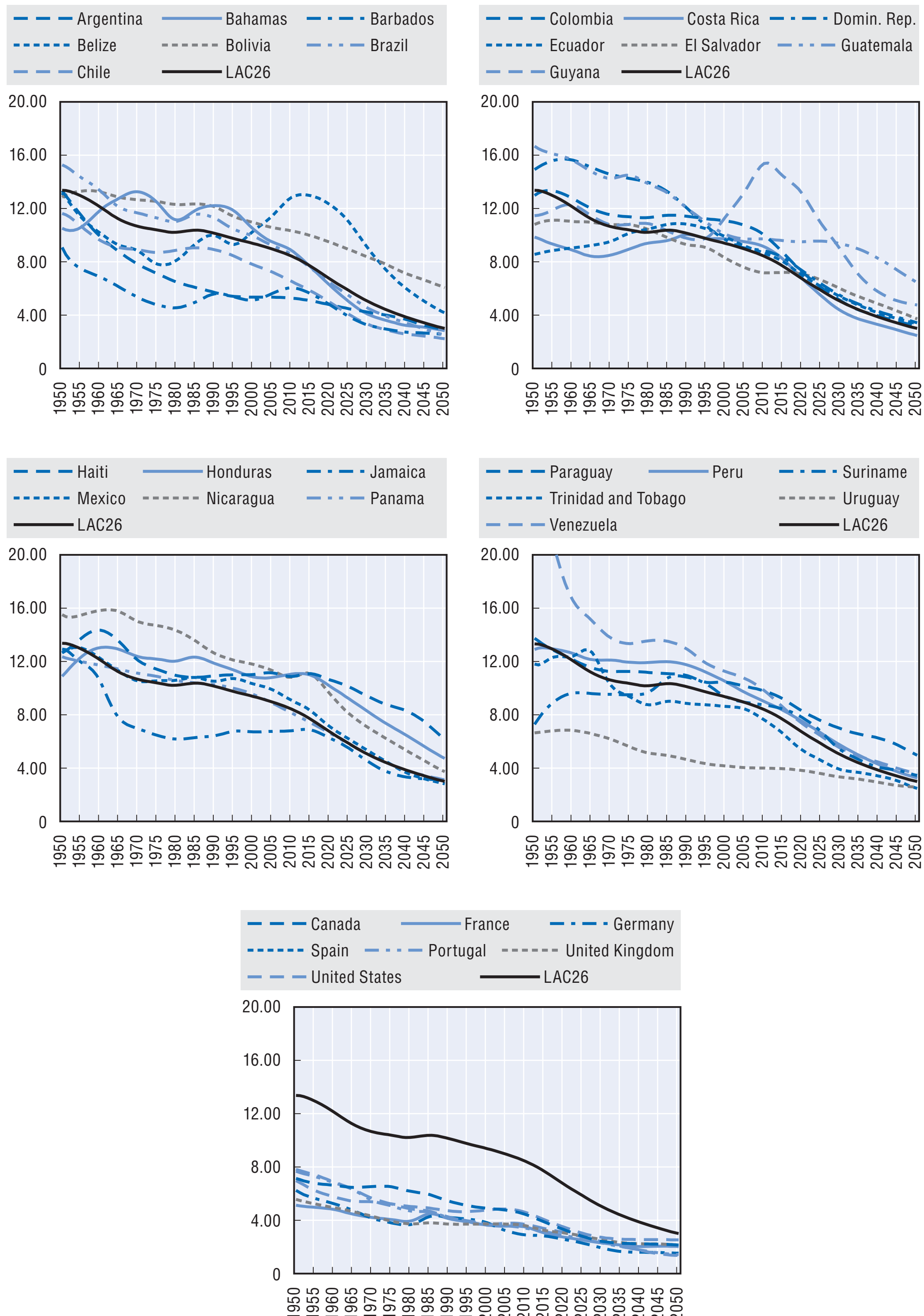
By 2060 18 of the countries in the region are forecast to have a support ratio of less than three with Chile lowest at 1.8, followed by Costa Rica at 1.9 and Brazil at 2.1.

This support ratio can be misleading for the LAC region. Not all individuals of retirement age are actually working, and in the region many countries allow for retirement benefits well below the 65-years-old threshold. Also, there are many elderly with no access to pensions, given the contributory nature of these programmes.

Definition and measurement

The projections for old-age support ratios used here are based on the most recent "medium-variant" population projections. They are drawn from the United Nation, *World Population Prospects – 2012 Revision*.

2.4. Old-age support ratios – historical and projected values, 1950-2050



Source: United Nations, *World Population Prospects – 2012 Revision.*

StatLink http://dx.doi.org/10.1787/888933161452

Chapter 3

Key pension policy indicators

Pension entitlements are calculated using the OECD pension models. The theoretical calculations are based on national parameters and rules applying in 2010 and assume workers entering the labour market in that year at age 20. The full impact of pension reforms that have already been legislated but are currently being phased in is taken into account in the calculations. The indicators are preceded by a note on the architecture of national pension systems followed by a note on methodology and assumptions.

The pension entitlements indicators begin with the familiar replacement rate: the ratio of pension to individual earnings. The first looks at gross (before tax) replacement rates from all mandatory and quasi-mandatory sources, for a single person. The second shows an analysis of the tax treatment of pensions and pensioners. The third indicators shows replacement rates in net terms, taking account of taxes and contributions paid on earnings and pensions.

There follow three indicators of "pension wealth": the lifetime value of the flow of retirement benefits. This is a more comprehensive measure than replacement rates because it takes account of pension ages, indexation and life expectancy. The first two indicators are gross and net pension wealth, the third is the change in gross pension wealth.

The balance between two policy goals – providing adequate old-age incomes and replacing a target share of earnings – is explored in the next pair of indicators. They summarise the progressivity of pension benefit formulae and the link between pensions and earnings.

The final two indicators of entitlements average across individuals with different earnings levels, and show pension levels, pension wealth and the role of each part of the retirement-income system.

Retirement-income systems are diverse and often involve a number of different programmes. Classifying pension systems and different retirement-income schemes is consequently difficult. The taxonomy of pensions used here consists of two mandatory "tiers": a redistributive part and a savings part. Voluntary provision, be it individual or employer-provided, makes up a third tier.

Programmes aimed to prevent poverty in old age – first-tier, redistributive schemes – are provided by the public sector and are of three main types.

Resource-tested or targeted plans pay a higher benefit to poorer pensioners and reduced benefits to better-off retirees. In these plans, the value of benefits depend either on income from other sources or on both income and assets. All countries have general social safety-nets of this type, but in some cases they only cover a few older people who had many career interruptions. Nine LAC countries are marked in this column. Full-career workers with low earnings would be entitled to resource-tested benefits in these countries.

Basic schemes pay either flat rate benefits (the same amount to every retiree) or their value depends only on years of work, not on past earnings. Additional retirement income does not change the entitlement. Some five LAC countries have a basic pension scheme or other provisions with a similar effect.

Minimum pensions, which share many features with resource-tested plans, are found in two LAC countries. The value of entitlements takes account only of pension income.

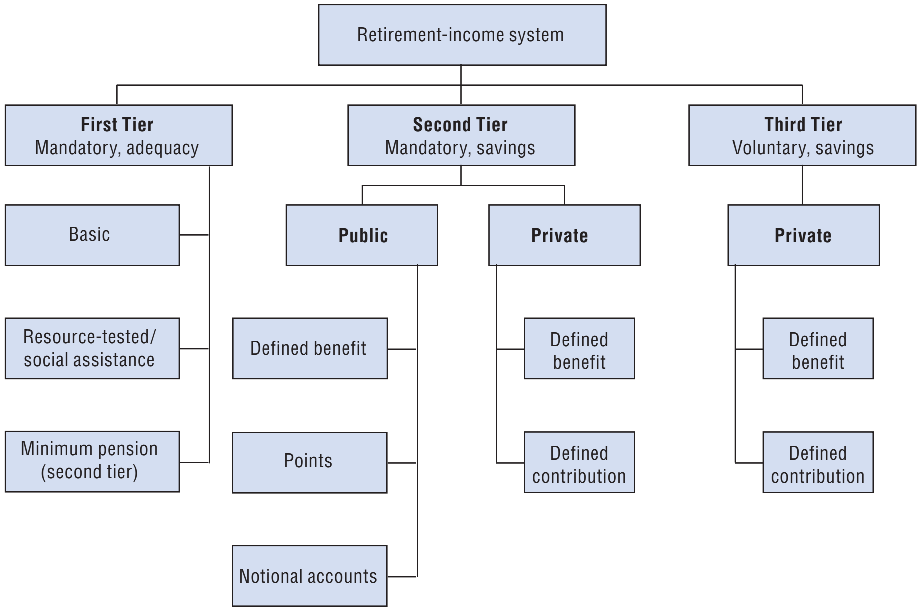
Among the LAC countries, only Suriname does not have mandatory, second-tier provision. In the other 25 countries, there are two kinds of scheme.

Defined-benefit (DB) plans are provided by the public sector in 21 LAC countries. Retirement income depends on the number of years of contributions and individual earnings.

Defined-contribution (DC) plans are compulsory in six LAC countries (in two additional countries, Colombia and Peru, it is possible to choose either a DB or a DC scheme). In these schemes, contributions flow into an individual account. The accumulation of contributions and investment returns is usually converted into a pension-income stream at retirement.

Notional-accounts schemes record contributions in an individual account and apply a rate of return to the balances. This return is typically based on the growth of the covered wage bill or average wage. The accounts are "notional" in that the balances exist only on the books of the managing institution. At retirement, the accumulated notional capital is converted into a stream of pension payments using a formula based on life expectancy. Designed to mimic DC schemes, they are often called notional defined-contribution plans (NDC). These are not presently found in the LAC region.

3.1. Taxonomy: Different types of retirement-income provision



3.2. Structure of retirement-income provision

	Public			Public	Private
	Resource-tested	Basic	Minimum	Type	Type
OECD members					
Argentina		✓		DB	
Bahamas	✓			DB	
Barbados	✓			DB	
Belize	✓			DB	
Bolivia		✓		DB	
Brazil				DB	
Chile	✓		✓		DC
Colombia				DB/DC	
Costa Rica	✓			DB	DC
Dominican Republic	✓			DC	
Ecuador	✓			DB	
El Salvador				DC	
Guatemala				DB	
Guyana	✓			DB	
Haiti	✓			DB	
Honduras				DB	
Jamaica		✓		DB	
Mexico		✓	✓		DC
Nicaragua				DB	
Panama				DB	
Paraguay				DB	
Peru				DB/DC	
Suriname		✓			
Trinidad and Tobago				DB	
Uruguay				DB	DC
Venezuela				DB	
OECD countries					
Canada	✓	✓		DB	
France			✓	DB + points	
Germany	✓			Points	
Portugal			✓	DB	
Spain			✓	DB	
United Kingdom	✓	✓	✓	DB	
United States				DB	

DB = Defined benefit; DC = Defined contribution; NDC = Notional accounts.
Source: See country profiles in Chapter 4 of this report.

StatLink http://dx.doi.org/10.1787/888933161899

Part of the analysis presented in Chapter 1, the indicators of pension entitlements that follow here in Chapter 3 and the results presented in Chapter 4 use the OECD pension models. The methodology and assumptions are common to the analysis of all countries, allowing the design of pension systems to be compared directly. Future entitlements are computed under today's parameter and rules.

The pension entitlements that are presented are those that were legislated in the LAC countries at the time of writing. Changes in rules that have already been legislated, but are being phased-in gradually, are assumed to be fully in place from the start. Reforms that have been legislated since 2010 are included where sufficient information is available.

The values of all pension-system parameters reflect the situation in the year 2010. Where reforms have taken place more recently, parameters have been re-calculated for 2010 values assuming that the changed rules were already in place.

The calculations show the pension entitlements of a worker who enters the system today and retires after a full career. The main results are shown for a single person.

Career length

A full career is defined here as entering the labour market at age 20 and working until the standard pension-eligibility age, which, of course, varies between countries. The implication is that the length of career varies with the statutory retirement age: 40 years for retirement at 60, 45 with retirement age at 65, 47 with retirement at 67, etc.

Coverage

The pension models presented here include all mandatory pension schemes for private-sector workers, regardless of whether they are public (i.e. they involve payments from government or from social security institutions, as defined in the System of National Accounts) or private. For each country, the main national scheme for private-sector employees is modelled. Schemes for civil servants, public-sector workers and special professional groups are excluded.

Resource-tested benefits for which retired people may be eligible are also modelled. These can be means-tested, where both assets and income are taken into account, purely income-tested or withdrawn only against pension income. The calculations assume that all entitled pensioners take up these benefits. Where there are broader means tests, taking account also of assets, the income test is taken as binding. It is assumed that the whole of income during retirement comes from the mandatory pension scheme (or from the mandatory plus voluntary pension schemes in those countries where the latter are modelled).

Pension entitlements are compared for workers with a range of different earnings levels: between 0.5 times and four times the economy-wide average. This range permits an analysis of future retirement benefits of both the poorest and richer workers.

Economic variables

The comparisons are based on a single set of economic assumptions for all countries and other major economies analysed. In practice, the level of pensions will be affected by economic growth, wage growth and inflation, and these will vary across countries. A single set of assumptions, however, ensures that the outcomes of the different pension regimes are not affected by different economic conditions. In this way, differences across countries in pension levels reflect differences in pension systems and policies alone. The baseline assumptions are set out below.

Price inflation is assumed to be 2.5% per year. In practice, this assumption has little effect on the results because of indexation.

Real earnings growth of 2% per year (given the assumption for price inflation, this implies nominal wage growth of 4.55%). **Individual earnings** are assumed to grow in line with the economy-wide average. This means that the individual is assumed to remain at the same point in the earnings distribution, earning the same percentage of average earnings in every year of the working life.

The *real rate of return* after administrative charges on funded, defined-contribution pensions is assumed to be 3.5% per year.

The discount rate (for actuarial calculations) is assumed to be 2% per year. The discount rate is set at the same rate as real earnings growth, which is a common finding of growth models and other dynamic economic models (see Queisser and Whitehouse, 2006 for a discussion of the discount rate).

The baseline modelling uses country-specific projections of *mortality rate* from the *United Nations population Database* for the year 2055.

The calculations assume that benefits from defined-contribution plans are paid in the form of a price-indexed life annuity at an actuarially fair price. This calculation is based on the mortality projections. If people withdraw the money in alternative ways, the capital sum at the time of retirement is the same: it is only the way that the benefits are spread that is changed.

Taxes and social security contributions

The modelling assumes that tax systems and social-security contributions remain unchanged in the future. This implicitly means that "value" parameters, such as tax allowances or contribution ceilings, are adjusted annually in line with average earnings, while "rate" parameters, such as the personal income tax schedule and social security contribution rates, remain unchanged.

Caveats and interpretation of indicators

A number of caveats are necessary when using the indicators presented below. First, these indicators are not meant to serve as projections. This is especially important to emphasize in LAC countries where the standardised assumptions clearly do not reflect the actual experience of many, if not most countries. Among the most important deviations are those related to coverage or contribution patterns. The empirical evidence (see Chapter 1) shows that the minority of workers would have the kind of complete contribution histories assumed in the modelling. Moreover, "contribution density" is positively correlated with income level. This reality should be kept in mind when referring to the replacement rate and pension wealth figure.

Another important caution in interpreting the data regards the mortality tables that are used. While there is little evidence, it is very likely that mortality rates of workers contributing to pension schemes and working in the formal sector are lower than those of agricultural workers or those that spend their careers in the informal sector. (Given the focus of this edition on coverage, simulations based on variants on the standard coverage assumption were provided in Chapter 1) This tends to understate pension wealth estimates and annuities in the case of defined-contribution schemes which use these tables to convert an accumulated balance to a stream of payments.

The prevalence of defined-contribution schemes in the region also means that the assumption regarding rates of return on individual accounts plays an important role in generating the indicator. The effect of compounding over forty years or more is powerful and small changes in this variable will have major effects on the pension levels in many LAC countries. The actual experience in some countries (e.g. Chile and Mexico) over relatively long periods of time has significantly exceeded the return assumed here even after taking into account costs. The experience is less positive in some countries or the extent of the experience to date is too short to assess.

It is also important to note that unlike most OECD countries, the non-contributory pension in LAC is the only source of pension income for the bottom part of the income distribution where there is often negligible coverage from the contributory scheme. This is especially true in the lower income countries. This should be taken into consideration when looking at the figures below and particularly, the lowest wage workers. In fact, many of them would not be eligible for any contributory pension income.

Finally, regardless of country or region, these indicators refer specifically to workers entering the labour force today. This allows the results to reflect reforms that are being phased in gradually but that will only have an impact in the long run. In a comprehensive analysis, the outcomes for different cohorts would be required.

The indicators presented here are meant to capture the implicit objectives of the pension system designs. They cannot, nor do they aspire, to predict the outcomes for workers.

Further reading

Queisser, M. and E.R. Whitehouse (2006), "Neutral or Fair? Actuarial Concepts and Pension-System Design", *OECD Social, Employment and Migration Working Papers*, No. 40, OECD Publishing, *http://dx.doi.org/10.1787/351382456457*.

Key results

The gross replacement rate shows the level of pensions in retirement relative to earnings when working. For workers with average earnings, the gross replacement rate averages 62% in the 26 LAC countries. But there is significant cross-country variation. At the bottom of the range, the Dominican Republic, Haiti, Mexico and Suriname offer future replacement rates of less than 30% for people starting work today with average earnings throughout their career. Ecuador, Nicaragua, Paraguay and Venezuela, at the top of the range, offer replacement rates of more than 90%. Other countries with high projected replacement rates (between 75% and 80%) are Argentina, Costa Rica and Panama.

Many countries attempt to protect low-income workers from old-age poverty by providing higher replacement rates for them than for average earners. For example, workers earning only half the average receive replacement rates averaging more than 73%, compared with 62% for average earners. However, replacement rates in 12 countries are the same at average and half-average pay.

At the top of the range, there are four countries that provide low earners with pensions equal to or higher than their earnings when working: Colombia (replacement rate of 103%), Jamaica (101%), Paraguay (104%) and Venezuela (138%). At the other end of the scale, the Dominican Republic and Haiti offer replacement rates of 23% and 30%, respectively. Some countries, such as El Salvador and less so Mexico and Suriname, pay relatively small benefits to average earners, but are towards the middle of the range for low-income workers. As Suriname pays a flat benefit the proportion obviously decreases proportionally as earnings increase.

On average in the 26 LAC countries, the gross replacement rate at twice average earnings is 55%, somewhat below the 62% figure for average earners. For these earners, country variations are again wide. Replacement rates exceed 90% in two countries: Ecuador and Paraguay. At the other end of the spectrum, the Dominican Republic, El Salvador, Haiti, Mexico and Suriname offer replacement rates of less than 30%.

For the higher earners, namely those with earnings of three times the average, the picture is again similar. The overall average for the region has fallen to 51% with Ecuador and Paraguay continuing to have the highest replacement rates, as in both countries there is no ceiling to contributions at this level. The Bahamas and Peru now join the Dominican Republic, El Salvador, Haiti, Mexico and Suriname as countries with replacement rates below 30%.

Gross pension replacement rates for women differ (due to a lower pension eligibility age for women than for men) in many countries. Differences between the sexes are substantial in Chile, with replacement rates around 10 to 13 percentage points lower for women than they are for men across the earnings range. In Argentina, Brazil, Colombia, El Salvador, Honduras, Panama and Venezuela, replacement rates for women are also lower than they are for men, but less so than in Chile. The value for women is also lower in Mexico, but this is due to a higher annuity rate rather than a difference in retirement age.

Definition and measurement

The gross replacement rate is defined as gross pension entitlement divided by gross pre-retirement earnings. Often, the replacement rate is expressed as the ratio of the pension to final earnings (just before retirement). Here, however, pension benefits are shown as a share of individual lifetime average earnings (revalued in line with economy-wide earnings growth). Under the baseline assumptions, workers earn the same percentage of economy-wide average earnings throughout their career. In this case, lifetime average revalued earnings and individual final earnings are identical. If people move up the earnings distribution as they get older, then their earnings just before retirement will be higher than they were on average over their lifetime and replacement rates calculated on individual final earnings would be lower.

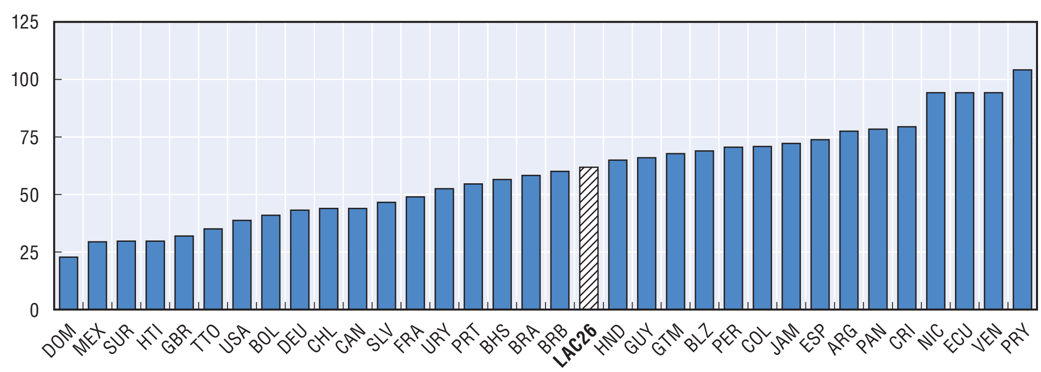
3.3. Gross pension replacement rates by earnings

	Individual earnings, multiple of mean for men (women where different)								
	0.5	1.0	2.0	3.0		0.5	1	2	3
Argentina	89.5 (82.2)	77.5 (70.3)	71.5 (64.3)	69.5 (62.3)	Nicaragua	94.2	94.2	75.3	75.3
Bahamas	56.5	56.5	33.6	22.4	Panama	78.4 *(72.8)*	78.4 *(72.8)*	78.4 *(72.8)*	78.4 *(72.8)*
Barbados	60.0	60.0	50.5	33.7	Paraguay	104.1	104.1	104.1	104.1
Belize	69.0	69.0	57.7	38.5	Peru (DB)	76.8	70.6	35.3	23.5
Bolivia	37.5	41.0	33.9	31.6	Suriname	59.3	29.7	14.8	9.9
Brazil	56.2 (51.2)	58.3 (53.2)	62.6 (57.1)	52.5 (47.9)	Trinidad and Tobago	66.3	35.1	36.6	36.6
Chile	60.2 (50.7)	43.9 (34.4)	39.2 (26.2)	39.2 (25.6)	Uruguay	52.5	52.5	63.3	73.8
Colombia (DB)	102.6	70.8 (64.1)	70.8 (64.1)	70.8 (64.1)	Venezuela	137.6 *(132.9)*	94.2 *(89.5)*	72.5 *(67.8)*	65.3 *(60.6)*
Costa Rica	87.7	79.4	79.4	79.4	**LAC26**	**72.6** ***(71.2)***	**61.9** ***(60.2)***	**55.4** ***(53.2)***	**51.4** ***(49.2)***
Dominican Republic	22.8	22.8	22.8	22.8					
Ecuador	94.2	94.2	94.2	94.2	**OECD countries**				
El Salvador	93.1	46.6	29.2 (23.3)	29.2 (21.9)	Canada	77.3	44.0	22.0	14.7
Guatemala	67.8	67.8	67.8	67.8	France	55.1	49.0	37.1	32.9
Guyana	68.2	66.0	66.0	52.0	Germany	43.2	43.2	33.6	22.4
Haiti	29.8	29.8	29.8	29.8	Portugal	61.2	54.6	53.6	52.6
Honduras	64.9 (60.9)	64.9 (60.9)	64.9 (60.9)	64.9 (60.9)	Spain	73.9	73.9	57.2	38.1
Jamaica	101.3	72.2	57.7	43.2	United Kingdom	56.6	31.9	16.8	11.2
Mexico	57.3	29.5 (28.6)	27.4 (24.9)	26.7 (24.3)	United States	50.3	38.7	28.8	20.6

Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161903

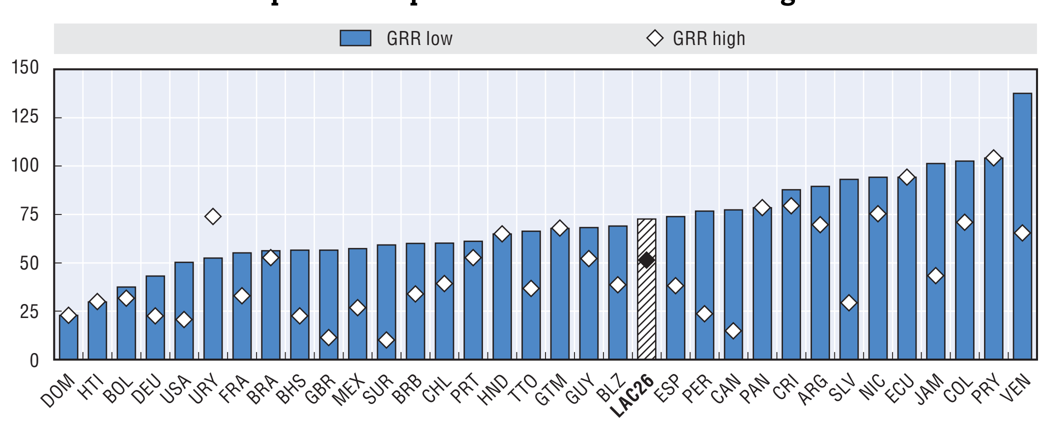
3.4. Gross pension replacement rates: Average earners



Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161464

3.5. Gross pension replacement rates: Low and high earners



Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161478

Key results

The personal tax system plays an important role in old-age support. Pensioners often do not pay social security contributions. Personal income taxes are progressive and pension entitlements are usually lower than earnings before retirement, so the average tax rate on pension income is typically less than the tax rate on earned income. In addition, most income tax systems give preferential treatment either to pension incomes or to pensioners, by giving additional allowances or credits to older people.

Of the 26 LAC countries five of them provide additional basic relief under the personal income tax. Generally, this takes the form of an extra tax allowance or tax credit.

A significant number of countries offer tax relief for particular source of retirement income. Relief from income tax for public pensions, either full or partial, is available in 13 LAC countries. Overall, 17 LAC countries have some concession for older people or pension income under their personal income taxes. In only nine is the tax treatment of pensions and pensioners the same as it is for people of working age.

Virtually all LAC countries levy employee social security contributions on workers. However 16 of these countries do not levy social security contributions on pensioners. The rate of contributions in the ten countries that do levy social security contributions on retirees is always lower than the rate charged on workers. Typically, older people do not pay contributions for pensions or unemployment (for obvious reasons). However, pensioners can be subject to levies to pay for health or long-term care and, in some cases, are liable for "solidarity" contributions to finance a broad range of benefits.

Empirical results

The charts show the percentage of income paid in taxes and contribution by workers and pensioners.

Starting with pensioners, countries have been ranked by the proportion of income paid in tax at the replacement rate that an average earner would see in retirement (as set out in the indicator of "Gross pension replacement rates" above). In 16 of the LAC countries, such a pensioner would not pay any income tax in retirement. This is either because pensions are not taxable or the basic income-tax reliefs offered to older people are above the pension level. Pensioners with the gross replacement rate for an average earner would pay 3.8% of their income in taxes and contributions.

The other two bars in the charts aim to show directly the impact of different tax and contribution treatment of earnings and pensions. The longer bar shows the amount of taxes and contributions paid by a worker with average earnings. This averages 9.7% in LAC countries and 26.2% in the OECD countries listed.

The middle bar shows how much a pensioner would pay with the same income: that is, a pension worth the same as average earnings. This averages 4.1% in LAC countries, some 5.6 percentage points less than what a worker pays with the same level of income.

The difference between this 4.1% rate for pensioners with an income equal to average earnings and the 3.5% paid in taxes and contributions paid on incomes equal to the gross replacement rate for an average earner illustrates the impact of progressivity in income-tax systems.

References

Keenay, G. and E.R. Whitehouse (2003), "The Role of the Personal Tax System in Old-age Support: A Survey of 15 Countries", *Fiscal Studies*, Vol. 24, No. 1, pp. 1-21.

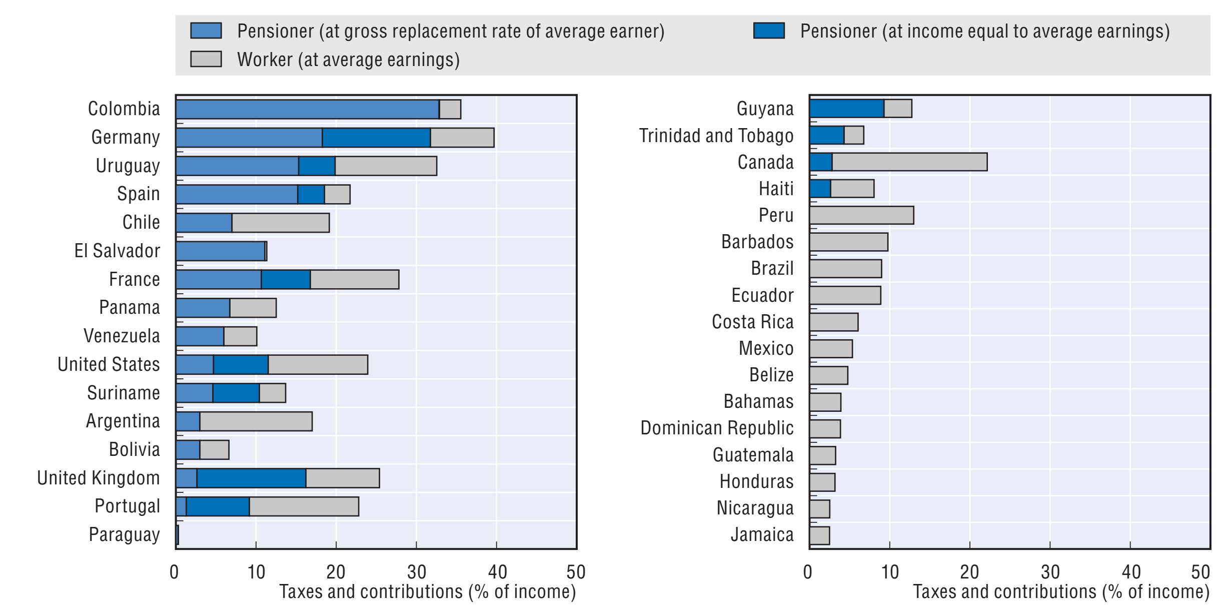
3.6. Treatment of pensions and pensioners under personal income tax and social security contributions

	Extra tax	Full or partial relief for pension income		Social security contributions		Extra tax	Full or partial relief for pension income		Social security contributions
	Allowance/ credit	Public scheme	Private scheme	Pensions		Allowance/ credit	Public scheme	Private scheme	Pensions
Argentina		✓		*Low*	Mexico	✓			*None*
Bahamas				*None*	Nicaragua		✓		*None*
Barbados	✓			*None*	Panama		✓		*Low*
Belize				*None*	Paraguay		✓		*Low*
Bolivia		✓		Low	Peru		✓		*None*
Brazil		✓		*None*	Suriname		✓		*Low*
Chile	✓			*Low*	Trinidad and Tobago				*Now*
Colombia				*Low*	Uruguay	✓			*Low*
Costa Rica				*None*	Venezuela		✓		*Low*
Dominican Republic		✓		*None*					
Ecuador		✓		*None*	Canada	✓	✓	✓	*None*
El Salvador				*Low*	France				*Low*
Guatemala				*None*	Germany		✓	✓	*Low*
Guyana		✓		*None*	Portugal	✓			*None*
Haiti				*None*	Spain		✓		*None*
Honduras				*None*	United Kingdom	✓			*None*
Jamaica	✓	✓		*None*	United States	✓	✓		*None*

Source: On-line country profiles available at *www.oecd.org/els/social/pensions/PAG*.

StatLink *http://dx.doi.org/10.1787/888933161919*

3.7. Personal income taxes and social security contributions paid by pensioners and workers



Source: OECD pension models; OECD tax and benefit models.

StatLink *http://dx.doi.org/10.1787/888933161483*

Key results

For average earners, the net replacement rate across the LAC averages 66%, which is 4 percentage points higher than the gross replacement rate. This reflects the higher taxes and contributions that people paid on their earnings when working than they pay on their pensions in retirement. Net replacement rates again vary across a large range, from under 24% in the Dominican Republic to well over 100% in Ecuador and Paraguay for average earners.

For low earners (with half of mean earnings), the average net replacement rate across LAC countries is 76%. For high earners (300% of mean earnings) the average net replacement rate is 57%, lower than for low earners. As with gross replacement rates, the differences with earnings reflect progressive features of pension systems, such as minimum benefits and ceilings on pensionable earnings.

The previous indicator of the "Tax treatment of pensions and pensioners" showed the important role that the personal tax and social security contribution systems play in old-age income support. Pensioners often do not pay social security contributions and receive preferential treatment under the income tax. Progressivity of income taxes coupled with gross replacement rates of less than 100% also mean that pensioners pay less in income tax than workers. As a result, net replacement rates are usually higher than gross replacement rates.

For average earners, the pattern of replacement rates across countries is very similar to that for the gross replacement rate. In many countries there is either no income tax liability at any earnings level or the threshold means that it does not apply to average earners. Also pensioners are even more unlikely to have to pay tax than those of working age. Therefore for those countries where replacement rates are relatively low, people tend to pay much less in income tax when retired than they did when working. The liability to social security contributions is also greatly reduced, if not removed entirely. Specifically pensioners are certainly not going to have to pay contributions from their income towards pensions and unemployment but other social security payments are also usually at a lower rate.

Within the LAC region there is considerable variation between countries at average earnings level, with Ecuador, Nicaragua, Paraguay and Venezuela either above or very close to a 100% replacement rate. Conversely the Dominican Republic, Haiti, Mexico and Suriname all have replacement rates under 33%.

For low-earners, the effect of taxes and contributions on net replacement rates is more muted than for workers higher up the earnings scale. This is because low-income workers typically pay less in taxes and contributions than those on average earnings. In many cases, their retirement incomes are below the level of the standard reliefs in the personal income tax (allowances, credits, etc.). Thus, they are often unable to benefit fully from additional concessions granted to pensions or pensioners under the personal income tax.

The difference between gross and net replacement rates for low earners is 4 percentage points on average. Argentina, Peru and Uruguay have much higher replacement rates for low earners measure on a net basis than in gross terms.

The net replacement rate for workers earning 200% of the average is highest in Ecuador and Paraguay, both still above 100%. The lowest replacement rates are found in the Dominican Republic, El Salvador and particularly Suriname. In all countries, workers earning 200% of the average will receive pensions that amount to well below one-third of their net earnings when working.

For the highest earners, at 300% of the average, the highest net replacement rates are again in Ecuador and Paraguay. The number of countries with replacement rates below one-third has increased compared to those earning 200% of the average. As well as the Dominican Republic, El Salvador and Suriname, as above, the Bahamas, Mexico and Peru can also be included, with Bolivia and Haiti just above this level.

Definition and measurement

The net replacement rate is defined as the individual net pension entitlement divided by net pre-retirement earnings, taking account of personal income taxes and social security contributions paid by workers and pensioners. Otherwise, the definition and measurement of the net replacement rates are the same as for the gross replacement rate (see the previous indicator).

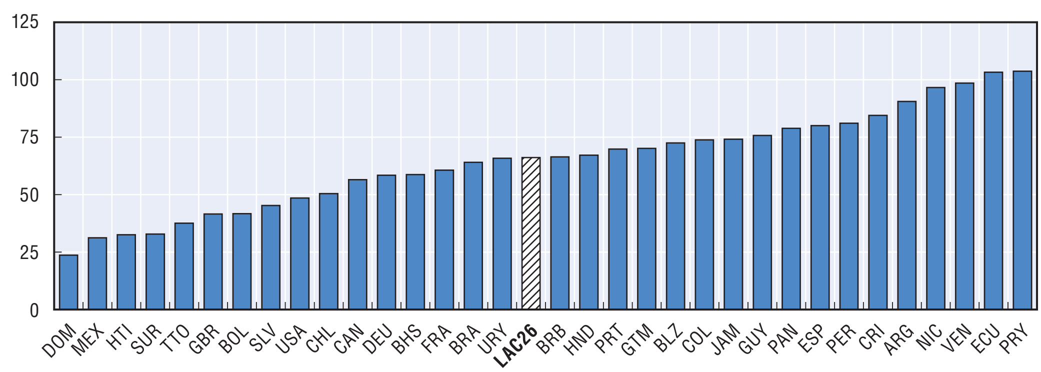
Details of the rules that national tax systems apply to pensioners can be found in the country profiles.

3.8. Net pension replacement rates by earning

	Individual earnings, multiple of mean for men (women where different)								
	0.5	1.0	2.0	3.0		0.5	1	2	3
Argentina	104.6 (96.1)	90.6 (82.1)	89.6 (81.4)	83.3 (76.1)	Nicaragua	94.2	96.6	76.7	77.8
Bahamas	58.8	58.8	34.5	22.8	Panama	79.1 *(73.4)*	78.8 *(73.2)*	84.1 *(78.1)*	89.1 *(82.7)*
Barbados	66.2	66.5	60.5	42.5	Paraguay	104.1	103.8	105.6	105.8
Belize	76.3	72.5	59.4	41.6	Peru (DB)	88.3	81.1	40.6	28.5
Bolivia	36.4	41.7	36.0	33.9	Suriname	62.6	32.8	18.6	13.3
Brazil	61.1 (55.7)	64.1 (58.4)	72.8 (66.4)	64.3 (58.7)	Trinidad and Tobago	68.3	37.6	43.8	42.5
Chile	69.2 (58.3)	50.5 (39.6)	46.3 (31)	47.3 (31)	Uruguay	67.7	65.9	75.2	86.2
Colombia (DB)	102.7	73.8 (66.8)	75.3 (68.2)	75.8 (68.6)	Venezuela	143.7 *(138.8)*	98.5 *(93.6)*	75.4 *(70.5)*	67.8 *(63.1)*
Costa Rica	90.3	84.5	86.0	87.4	**LAC26**	**76.4** ***(74.9)***	**66.2** ***(64.4)***	**60.9** ***(58.6)***	**57.3** ***(55)***
Dominican Republic	23.2	23.7	24.2	25.6					
Ecuador	102.8	103.3	103.6	105.3	**OECD countries**				
El Salvador	85.4	45.2	30.1 (23.9)	30.6 (23.4)	Canada	94.8	56.5	31.4	22.6
Guatemala	69.9	70.1	72.2	75.7	France	64.6	60.7	48.9	44.2
Guyana	72.0	75.7	74.4	59.4	Germany	56.3	58.5	45.3	30.6
Haiti	31.8	32.5	33.8	33.7	Portugal	71.0	69.8	71.8	69.4
Honduras	67.0 (62.8)	67.1 (62.9)	66.0 (61.9)	65.6 (61.5)	Spain	79.3	80.1	63.9	45.3
Jamaica	103.9	74.1	67.1	52.6	United Kingdom	70.2	41.6	23.7	16.6
Mexico	58.0	31.2 (30.3)	32.1 (29.2)	32.4 (29.4)	United States	59.7	48.5	38.9	28.9

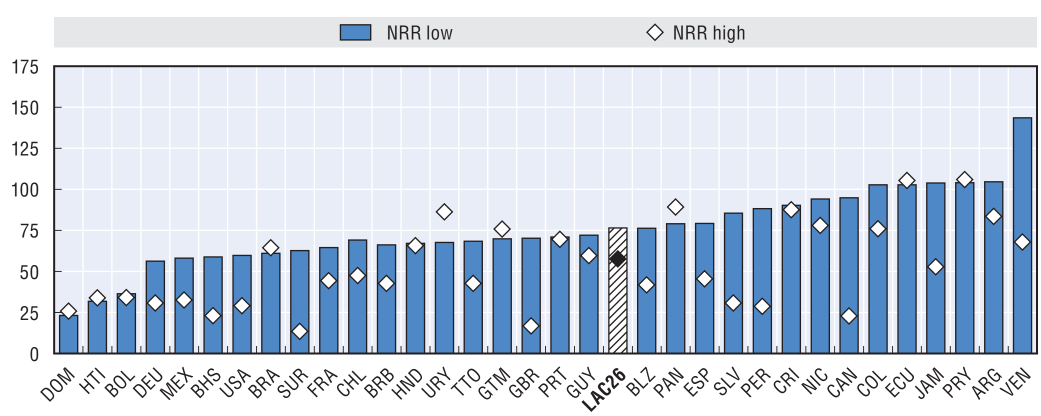
Source: OECD pension models. StatLink http://dx.doi.org/10.1787/888933161925

3.9. Net pension replacement rates: Average earners



Source: OECD pension models. StatLink http://dx.doi.org/10.1787/888933161491

3.10. Net pension replacement rates: Low and high earners



Source: OECD pension models. StatLink http://dx.doi.org/10.1787/888933161502

Key results

Pension wealth measures the total value of the lifetime flow of retirement incomes. For male average earners, pension wealth in the region is, on average, 12.0 times annual earnings. The figure is higher for women – 13.7 times individual earnings – because of their longer life expectancy.

Replacement rates give an indication of the pension promise, but they are not comprehensive measures; they look only at benefit level at the point of retirement. For a full picture, life expectancy, retirement age and indexation of pensions must also be taken into account. Together, these determine for how long the pension benefit is paid, and how its value evolves over time. Pension wealth – a measure of the stock of future flows of pension benefits – takes account of these factors. It can be thought of as the lump sum needed to buy an annuity giving the same flow of pension payments as that promised by mandatory retirement-income schemes.

Gross pension wealth for men is highest in Ecuador at average earnings level, followed by Nicaragua. Pension wealth in Ecuador averages 23.2 times earnings for average earners, nearly double the LAC26 figure of 12.0 times earnings. Pension wealth for average earners is lowest in the Dominican Republic and Mexico, due to relatively low replacement rates.

Higher replacement rates mean that pension wealth tends to be higher for low earners than for average earners. For men with half- average earnings, pension wealth is 13.9 times individual earnings on average, compared with 12.0 times for people with average earnings. Similarly, for women with low earnings, pension wealth of 16.1 compares with 13.7 times individual earnings for average earners. For men, in the three countries where pension wealth for low earners is highest (Ecuador, Nicaragua and Venezuela), its value is between 22 to 25 times individual earnings.

For the very high earners, at three times the average wage, the pension promise is naturally lower than for average earners, at 10.1 for men and 11.4 for women. There is even more variation at this earnings level as for men Ecuador is still highest at 23.2 reflecting the lack of a ceiling to pensions, whilst Suriname is at only 2.1 due to the flat rate benefit that is paid to all.

Impact of life expectancy

In countries with shorter life expectancies, such as Bolivia, Guyana and Haiti, the expected duration of retirement is shorter, and so, other things equal, the pension promise becomes more affordable. The effect is the reverse in Chile, Costa Rica and Uruguay, where life expectancies are high. Unlike measures of replacement rates, the link between affordability and life expectancy is captured by the pension-wealth indicator.

Similarly, since women's life expectancy is longer than men's, pension wealth for women is relatively higher in all countries. This is simply because pension benefits can be expected to be paid over a longer retirement period. Also, some countries still have lower retirement ages for women; this extends the payment period even further.

Impact of indexation

Pension wealth is also affected by indexation rules. If pensions are indexed to wage growth then the impact on pension wealth figures will generally be greater than if price indexation, or a combination of the two were used. This of course assumes that earnings tend to grow faster than prices, so that pension wealth is higher with these more generous indexation procedures than with price indexation.

Different indexation policies also affect the pension wealth of women relative to men. Women's longer life expectancy means that they tend to benefit more from more generous indexation procedures (above price inflation, for example).

Definition and measurement

The calculation of pension wealth uses a uniform discount rate of 2%. Since the comparisons refer to prospective pension entitlements, the calculations use country-specific mortality rates by age and sex projected for the year 2055. Pension wealth is expressed as a multiple of gross annual individual earnings.

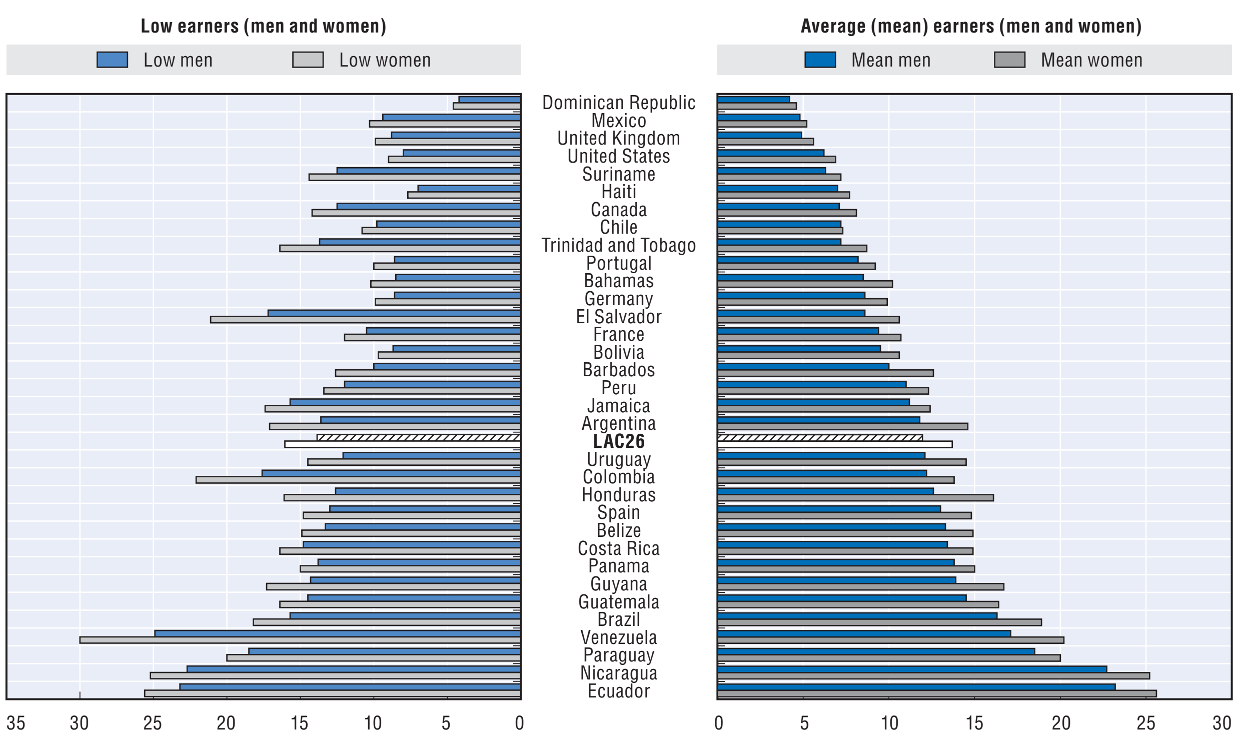
3.11. Gross pension wealth by earnings

	Individual earnings, multiple of mean									Individual earnings, multiple of mean							
	0.5	1.0	2.0	3.0	0.5	1.0	2.0	3.0		0.5	1.0	2.0	3.0	0.5	1.0	2.0	3.0
	Men				Women					Men				Women			
Argentina	13.6	11.8	10.8	10.5	17.1	14.6	13.4	13.0	Nicaragua	22.7	22.7	18.1	18.1	25.2	25.2	20.2	20.2
Bahamas	8.5	8.5	5.1	3.4	10.2	10.2	6.1	4.1	Panama	13.8	13.8	13.8	13.8	15.0	15.0	15.0	15.0
Barbados	10.0	10.0	8.4	5.6	12.6	12.6	10.6	7.0	Paraguay	18.5	18.5	18.5	18.5	20.0	20.0	20.0	20.0
Belize	13.3	13.3	11.2	7.4	14.9	14.9	12.4	8.3	Peru (DB)	12.0	11.0	5.5	3.7	13.4	12.3	6.2	4.1
Bolivia	8.7	9.5	7.9	7.3	9.7	10.6	8.8	8.2	Suriname	12.5	6.3	3.1	2.1	14.4	7.2	3.6	2.4
Brazil	15.7	16.3	17.5	14.7	18.2	18.9	20.3	17.0	Trinidad and Tobago	13.7	7.2	7.6	7.6	16.4	8.7	9.1	9.1
Chile	9.8	7.2	6.4	6.4	10.8	7.3	5.6	5.5	Uruguay	12.1	12.1	14.1	16.0	14.5	14.5	16.8	19.0
Colombia (DB)	17.6	12.2	12.2	12.2	22.1	13.8	13.8	13.8	Venezuela	24.9	17.1	13.1	11.8	30.0	20.2	15.3	13.7
Costa Rica	14.8	13.4	13.4	13.4	16.4	14.9	14.9	14.9	**LAC26**	**13.9**	**12.0**	**10.8**	**10.1**	**16.1**	**13.7**	**12.3**	**11.4**
Dominican Republic	4.2	4.2	4.2	4.2	4.6	4.6	4.6	4.6									
Ecuador	23.2	23.2	23.2	23.2	25.6	25.6	25.6	25.6	**OECD countries**								
El Salvador	17.2	8.6	5.4	5.4	21.1	10.6	5.3	5.0	Canada	12.5	7.1	3.6	2.4	14.2	8.1	4.1	2.7
Guatemala	14.5	14.5	14.5	14.5	16.4	16.4	16.4	16.4	France	10.5	9.4	7.1	6.3	12.0	10.7	8.1	7.2
Guyana	14.3	13.9	13.9	10.9	17.3	16.7	16.7	13.1	Germany	8.6	8.6	6.7	4.5	9.9	9.9	7.7	5.1
Haiti	7.0	7.0	7.0	7.0	7.7	7.7	7.7	7.7	Portugal	8.6	8.2	8.0	7.9	10.0	9.2	9.0	8.9
Honduras	12.6	12.6	12.6	12.6	16.1	16.1	16.1	16.1	Spain	13.0	13.0	10.1	6.7	14.8	14.8	11.5	7.6
Jamaica	15.7	11.2	9.0	6.7	17.4	12.4	9.9	7.4	United Kingdom	8.8	4.9	2.6	1.7	9.9	5.6	2.9	1.9
Mexico	9.4	4.8	4.5	4.4	10.3	5.2	4.5	4.4	United States	8.0	6.2	4.6	3.3	9.0	6.9	5.1	3.7

Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161934

3.12. Gross pension wealth by earnings and sex



Note: Countries are ranked in order of gross pension replacement rates (GRR) of average earners, i.e. mean GRR in the chart.
Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161517

Key results

Net pension wealth, like the equivalent indicator in gross terms, shows the present value of the lifetime flow of pension benefits. But it also takes account of taxes and contribution paid on retirement incomes. Both figures for pension wealth are expressed as a multiple of individual *gross* earnings.

For average earners, net pension wealth for LAC countries averages 11.6 times gross individual earnings for men and 13.3 for women. Values are higher for women than men, due mainly to differences in life expectancy between the sexes.

Because net pension wealth is expressed as a multiple of individual gross earnings, it is less than gross pension wealth (if there is some tax liability during retirement) or the same (if pensions are not taxed or pension income is below tax thresholds). This is clear in the two charts opposite. For example, pension wealth is the same, in both net and gross terms, in Brazil and Ecuador because pensions are not taxable. This is the case though in over half of the countries in the region.

Therefore the rankings of pension wealth do not really change when measured on a net rather than a gross basis. The main exception to this is Colombia which is ranked 16th for men and 17th for women for gross pension wealth but is 10th for men and 12th for women in net pension wealth rankings.

Impact of individual earnings

Low earners are not liable for taxes or contributions in 17 of the LAC countries covered. The same is also the case for average earners in the same 17 countries and in 15 of them for those at twice average earnings.

For high earners, those at three times the average, there are still twelve countries that are identical for gross and net figures. There is actually greater range in the results, with those in Ecuador with pension wealth around twelve times that of Suriname. Half of countries have net pension wealth in the range of seven to 13 times annual earnings. The main exceptions to this, along with Ecuador and Suriname mentioned above, are Nicaragua (at 18.1 times earnings for men), followed by Paraguay at 17.7 times. At the other end of the scale are the Bahamas at 3.4 and Peru at 3.7 times earnings.

For women the picture is virtually identical, but due to higher life expectancy and, in some cases, lower retirement ages the duration spent in retirement will be longer. Therefore the level of pension wealth is naturally going to be higher as a result. The largest difference across all earnings levels is in Honduras, where women have a net pension wealth about 28% higher than that for men. The exceptions to this trend are for women earning twice or three times average earnings in Chile or El Salvador, where in both cases the net pension wealth for women is slightly smaller than that for men. This is because women receive a lower replacement rate than men as they retire five years earlier and with the ceiling to contributions applying at these earnings levels the longer duration of retirement does not quite balance the picture.

It is important to note that these calculations look at the benefit side of the pension system only. The impact of taxes and contributions paid by people of working age on living standards during retirement relative to when working work are discussed above in the indicator of “Net pension replacement rates”.

Definition and measurement

Net pension wealth is the present value of the flow of pension benefits, taking account of the taxes and social security contributions that retirees have to pay on their pensions. It is measured and expressed as a multiple of gross annual individual earnings in the respective country. The reason for using gross earnings as the comparator is to isolate the effects of taxes and contribution paid in retirement from those paid when working. This definition means that gross and net pension wealth is the same where people are not liable for contributions and income taxes on their pensions.

Taxes and contributions paid by pensioners are calculated conditional on the mandatory pension benefit to which individuals at different levels of earnings. They calculations take account of all standard tax allowances and tax reliefs as well as concessions granted either to pension income or to people of pension age.

Details of the rules that national tax systems apply to pensioners can be found in country profiles.

3.13. Net pension wealth by earnings

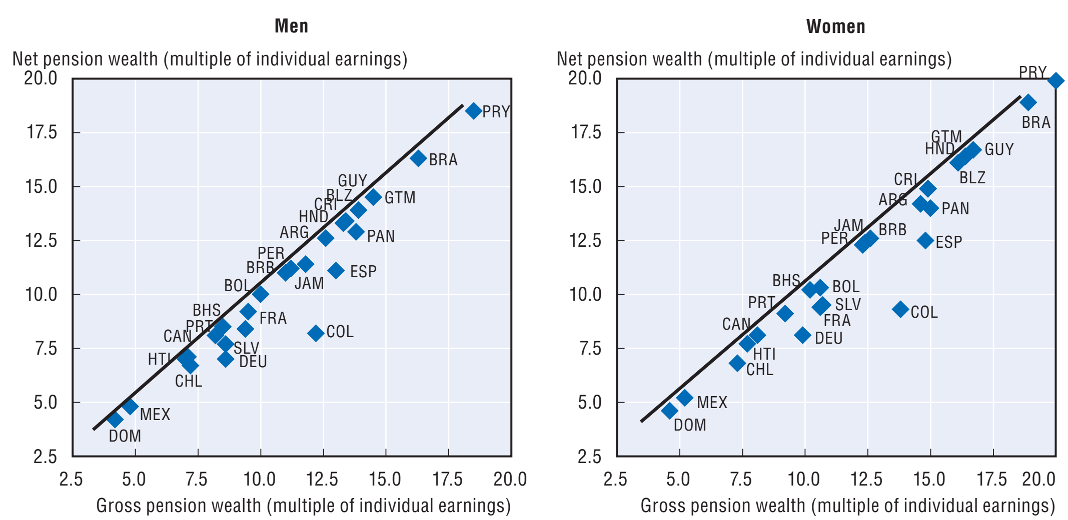
	Multiple of individual annual gross earnings							
	0.5	1.0	2.0	3.0	0.5	1.0	2.0	3.0
	Men				Women			
Argentina	13.2	11.4	10.3	9.4	16.6	14.2	12.9	11.8
Bahamas	8.5	8.5	5.1	3.4	10.2	10.2	6.1	4.1
Barbados	10.0	10.0	8.4	5.6	12.6	12.6	10.6	7.0
Belize	13.3	13.3	11.2	7.4	14.9	14.9	12.4	8.3
Bolivia	8.5	9.2	7.6	7.1	9.5	10.3	8.6	8.0
Brazil	15.7	16.3	17.5	14.7	18.2	18.9	20.3	17.0
Chile	9.1	6.7	5.9	5.9	10.1	6.8	5.2	5.1
Colombia (DB)	11.8	8.2	8.2	8.2	14.9	9.3	9.3	9.3
Costa Rica	14.8	13.4	13.4	13.1	16.4	14.9	14.9	14.6
Dominican Republic	4.2	4.2	4.2	4.2	4.6	4.6	4.6	4.6
Ecuador	23.2	23.2	23.2	23.2	25.6	25.6	25.6	25.6
El Salvador	15.3	7.7	4.8	4.8	18.8	9.4	4.7	4.5
Guatemala	14.5	14.5	14.5	14.5	16.4	16.4	16.4	16.4
Guyana	14.3	13.9	11.8	9.0	17.3	16.7	14.2	10.8
Haiti	7.0	7.0	7.0	6.8	7.7	7.7	7.7	7.5
Honduras	12.6	12.6	12.6	12.6	16.1	16.1	16.1	16.1
Jamaica	15.7	11.2	9.0	6.7	17.4	12.4	9.9	7.4
Mexico	9.4	4.8	4.5	4.4	10.3	5.2	4.5	4.4

	Multiple of individual annual gross earnings							
	0.5	1.0	2.0	3.0	0.5	1.0	2.0	3.0
	Men				Women			
Nicaragua	22.7	22.7	18.1	18.1	25.2	25.2	20.2	20.2
Panama	12.9	12.9	12.9	12.9	14.0	14.0	14.0	14.0
Paraguay	18.5	18.5	18.0	17.7	20.0	19.9	19.4	19.1
Peru (DB)	12.0	11.0	5.5	3.7	13.4	12.3	6.2	4.1
Suriname	11.9	6.0	3.0	2.0	13.7	6.9	3.4	2.3
Trinidad and Tobago	13.7	7.2	7.6	7.1	16.4	8.7	9.1	8.5
Uruguay	10.8	10.3	11.1	12.4	13.0	12.3	13.3	14.7
Venezuela	23.4	16.0	12.3	11.0	28.2	19.0	14.4	12.8
LAC26	**13.3**	**11.6**	**10.3**	**9.5**	**15.4**	**13.3**	**11.7**	**10.7**
OECD countries								
Canada	12.5	7.1	3.6	2.4	14.2	8.1	4.1	2.7
France	10.1	8.4	6.1	5.3	11.5	9.5	7.0	6.0
Germany	7.8	7.0	5.0	3.3	8.9	8.1	5.7	3.8
Portugal	8.6	8.1	7.2	6.6	10.0	9.1	8.1	7.4
Spain	12.2	11.1	8.1	5.4	13.9	12.5	9.2	6.1
United Kingdom	8.7	4.8	2.5	1.7	9.8	5.4	2.8	1.9
United States	7.9	5.9	4.2	3.0	8.8	6.6	4.7	3.4

Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161947

3.14. Gross versus net pension wealth by sex, average earner



Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161529

Key results

In some countries, such as Ecuador, Panama and Paraguay, there is a very strong link between pension entitlements and pre-retirement earnings. In contrast, flat-rate benefits in Suriname mean that there is no link between pension and earnings.

The charts show relative pension levels on the vertical axis and individual pre-retirement earnings on the horizontal. A flat curve in the charts shows no relationship between pension and earnings, while a linear increasing function means the link is strong.

Countries have been grouped by the degree to which pension benefits are related (or not) to individual pre-retirement earnings.

Panel A shows just one country where there is no link between pension entitlements and pre-retirement earnings. In Suriname there is a flat rate payment based on residency requirements rather than having any direct link to the past career. Therefore the graph is flat and is the same across all the earnings levels with no direct link.

At the other end of the spectrum for the LAC region lie about 14 countries with a very strong link between pension entitlements and pre-retirement earnings (Panels D and E). In all of the countries contained in these two charts there are no ceilings on pensionable earnings at twice the average. Therefore as the earnings increase the future pension entitlement increases proportionally. The difference in gradients represents the difference in accrual rate for each additional period of contribution in a defined-benefit scheme or the contribution for a defined-contribution scheme.

In some cases the lowest earners are entitled to a minimum pension but these tend to pass once earnings are slightly above the 50% of average level. In many of these countries the upward trend would continue as the earnings levels increase as again there is no ceiling that would apply. This can be seen more in the gross replacement rate indicator discussed previously.

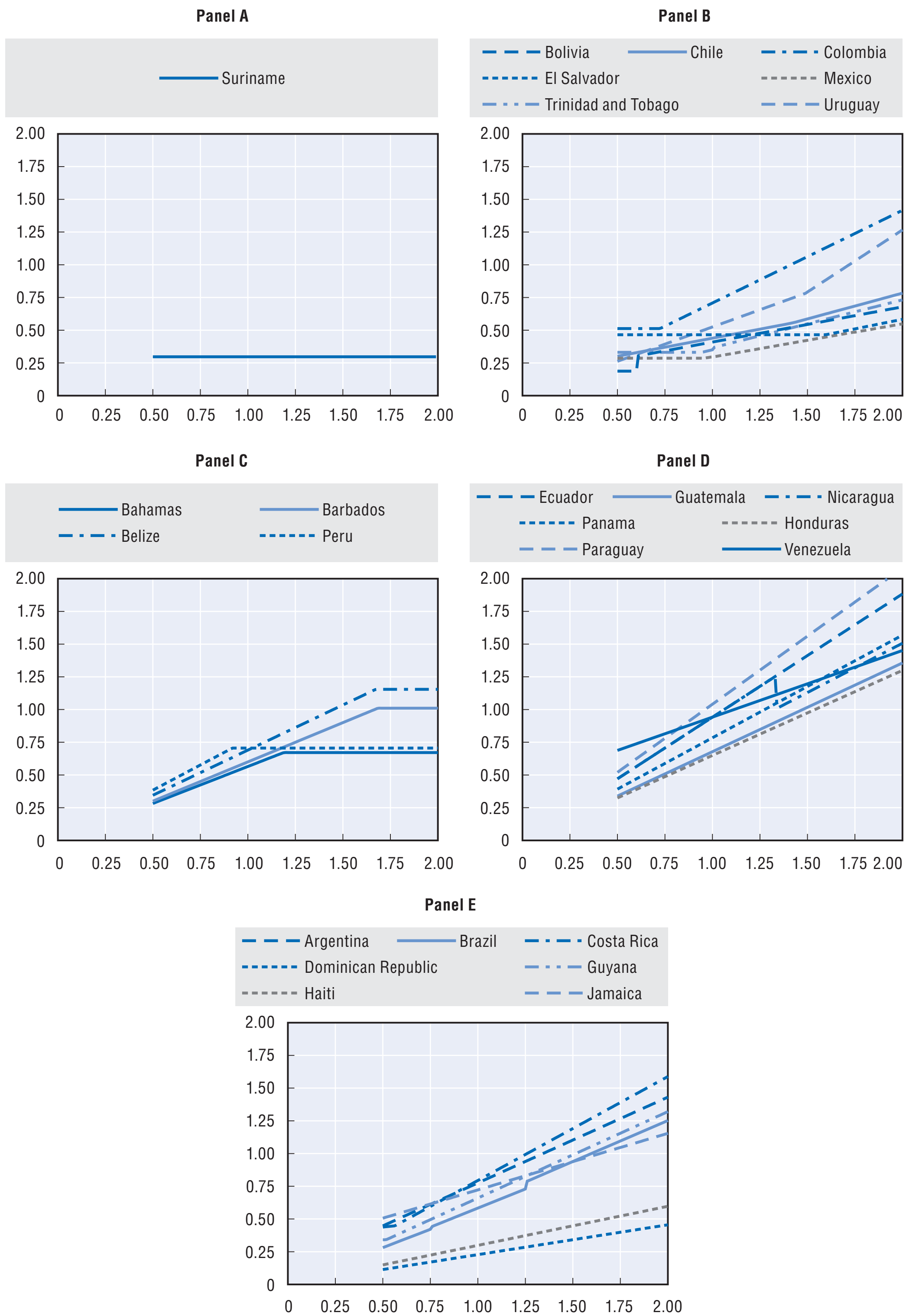
Perhaps the most interesting group of countries are covered in Panel B and Panel C. The countries have been split into two distinct groups depending on the structure of the pension system in place.

Panel B generally includes those countries that have a reasonably high level of minimum pension but thereafter there is a clear link between earnings and future pension entitlement. For example in El Salvador the minimum pension is at such a level relative to average earnings that those earning up to about 160% of the average are still entitled. After this level of earnings then the pension increases proportionally to the earnings level as the pension is defined contribution with a ceiling well above twice the average. At the other end of the spectrum in Colombia the minimum pension would be paid to those up to about 70% of average earnings under a defined-benefit approach. Above this earnings level there is a standard defined-benefit formula with additional accrual increases for each year of contribution.

The remaining countries in Panel C follow the reverse pattern to those included in Panel B. In this sense there is a clear link to earnings at the lower end of the pay scale but then there is a ceiling to contributions or there is a maximum pension in place. The value of this maximum pension in relation to earnings level clearly affects the point at which the graph flattens. More countries would be included here if we expanded the earnings level beyond two times the average as discussed above. In both Barbados and Belize the ceiling comes into effect at approximately 170% of average earnings whereas in the Bahamas it is at 120% of average earnings and at only 90% of average for Peru.

3.15. The link between pre-retirement earnings and pension entitlements

Gross pension entitlements as a proportion of economy-wide average earnings



Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161539

Key results

The indicators so far have shown replacement rates, relative pension levels and pension wealth for people at different levels of earnings. By taking a weighted average of these indicators over the earnings range, the measures presented here show the average for the pension level at the time of retirement and pension wealth, the lifetime value of pension payments.

The first of these is designed to show the level of the average retirement income, taking account of the different treatment of workers with different incomes. The average pension level is 64.1% of economy-wide average earnings for men and 62.2% for women across the LAC26 countries.

The second aims to summarise the total cost of providing old-age incomes. Weighted average pension wealth is an average of 12.2 times annual economy-wide average earnings for men and 14.0 for women.

The weighted average relative pension level combines data on the distribution of earnings with calculations of pension entitlements. This aggregate measure is then expressed as a percentage of economy-wide average (mean) earnings. Replacement rates are generally higher for low earners and vice versa. But there are many more low earners than there are high earners.

The results are shown in the first and second columns of the table for men and women respectively. At the top of the range, the weighted average pension level is above 90% in Ecuador, Nicaragua, Paraguay and Venezuela. In another three countries – Argentina, Costa Rica and Panama – the weighted average pension level is above 80% of the average earnings. At the other end of the scale, in four LAC countries (the Dominican Republic, Haiti, Mexico and Suriname) the weighted average pension level is less than 40% of average earnings.

The same type of weighting procedure can also be applied to the pension wealth measure. Pension wealth is the most comprehensive measure of the scale of the pension promise made to today's workers, as it allows for differences between countries in pension ages, life expectancy and indexation policies. Weighted average pension wealth is expressed as a multiple of economy-wide average earnings.

The results are shown in the third and fourth columns of the table. Values well above the average for weighted average pension wealth, between 18.2 and 23.2 for men and 20.0 and 25.6 of average earnings for women, are found in Ecuador, Nicaragua, Paraguay and Venezuela. Argentina, Belize, Colombia, Costa Rica, Guyana, Honduras, Panama and Uruguay are closely clustered with values of this indicator of around 12 to 14 times average earnings for men and around 14 to 17 times average earnings for women.

When converted to United States dollars (at market exchange rates) the average pension promise amount to USD 80 000 for men and USD 93 000 for women (fifth and sixth column of the table). These numbers represent the present value of the transfers that societies are promising on average to future retirees under the current pension system rules.

In the Bahamas and Venezuela the average pension wealth is very high while at the other end of the spectrum, in the Dominican Republic pension wealth is well below the average for LAC, at 4.2 times average earnings for men and 4.6 times average earnings for women. Pension wealth is also relatively low in countries with shorter life expectancy such as Haiti and Suriname.

Definition and measurement

The indicators build on the calculations of pension entitlements (pension levels and pension wealth) for people earning between 0.3 and 3 times the economy-wide average.

Each level of individual earnings is given a weight based on its importance in the distribution of earnings. The calculations use national data. The earnings distribution is skewed in all countries. The mode (or peak) of the distribution and the median (the earnings level both below and above which half of employees are situated) are significantly less than the mean. Thus, there are many people with low earnings, and fewer with high earnings, so low earners are given a larger weight in the calculation of the indicator than high earners.

3.16. Weighted averages: Pension levels and pension wealth

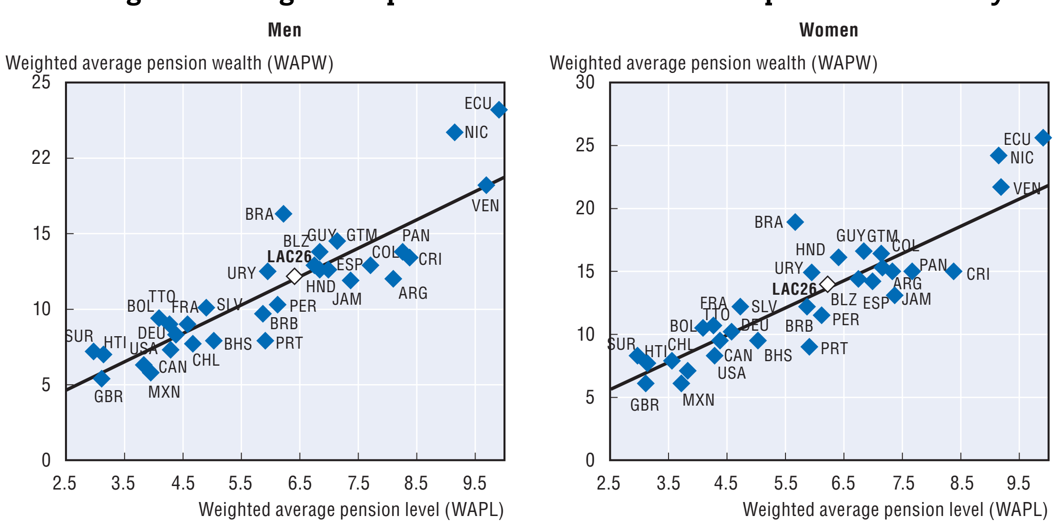
Percentage of economy-wide average earnings

	Weighted average pension level		Weighted average pension wealth		Average pension wealth (USD)	
	Men	Women	Men	Women	Men	Women
Argentina	81.0	73.3	12.0	15.0	162 000	203 000
Bahamas	50.3	50.3	7.9	9.5	173 000	208 000
Barbados	58.7	58.7	9.7	12.2	135 000	170 000
Belize	67.5	67.5	12.9	14.4	57 000	64 000
Bolivia	40.9	40.9	9.4	10.5	17 000	19 000
Brazil	62.2	56.7	16.3	18.9	162 000	188 000
Chile	46.7	35.6	7.7	7.9	91 000	93 000
Colombia	77.1	71.6	12.9	15.3	81 000	96 000
Costa Rica	83.8	83.8	13.4	15.0	103 000	115 000
Dominican Republic	24.0	24.0	4.2	4.6	21 000	23 000
Ecuador	99.1	99.1	23.2	25.6	102 000	112 000
El Salvador	49.0	47.3	10.1	12.2	4 000	5 000
Guatemala	71.4	71.4	14.5	16.4	40 000	45 000
Guyana	68.4	68.4	13.8	16.6	40 000	48 000
Haiti	31.4	31.4	7.0	7.7	5 000	5 000
Honduras	68.4	64.1	12.6	16.1	40 000	51 000
Jamaica	73.7	73.7	11.9	13.1	60 000	66 000
Mexico	39.5	37.2	5.8	6.1	40 000	42 000
Nicaragua	91.5	91.5	21.7	24.2	31 000	35 000
Panama	82.6	76.7	13.8	15.0	105 000	114 000
Paraguay	109.6	109.6	18.5	20.0	74 000	80 000
Peru	61.2	61.2	10.3	11.5	54 000	60 000
Suriname	29.7	29.7	7.2	8.3	56 000	65 000
Trinidad and Tobago	42.7	42.7	9.0	10.7	103 000	122 000
Uruguay	59.5	59.5	12.5	14.9	143 000	170 000
Venezuela	96.9	91.9	18.2	21.7	181 000	216 000
LAC26	**64.1**	**62.2**	**12.2**	**14.0**	**80 000**	**93 000**
OECD countries						
Canada	42.9	42.9	7.3	8.3	328 000	373 000
France	45.8	45.8	9.0	10.2	409 000	463 000
Germany	43.8	43.8	8.3	9.5	472 000	540 000
Portugal	59.1	59.1	7.9	9.0	184 000	209 000
Spain	69.9	69.9	12.6	14.2	419 000	472 000
United Kingdom	31.1	31.1	5.4	6.1	289 000	327 000
United States	38.3	38.3	6.3	7.1	288 000	324 000

Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161957

3.17. Weighted averages compared: Pension levels versus pension wealth by sex



Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933161548

Key results

The retirement-income package is divided into different components. The first is a redistributive part, designed to ensure pensioners achieve an absolute minimum standard of living. A savings part forms the second, with the aim of achieving a target income in retirement compared with earnings when working. This indicator, showing the division of national pension systems between these tiers and between public and private provision, again demonstrates substantial differences in national policies.

Starting with the first tier, it is important to note that the calculations cover full-career workers only. All of the first-tier programmes will be much more important for people with incomplete contribution histories. But it is hard to obtain information on the distribution of past contribution histories let alone predict them into the future.

There are basic schemes in five LAC countries. The value of these benefits does not depend on individual earnings or other pension entitlements. Mandatory pensions for full-career workers in Suriname are entirely from a basic scheme. In Bolivia and Jamaica basic pensions contribute 43-44% of the total pension promise. The levels in Argentina and Mexico are slightly lower at 17% and 12% respectively.

For full career workers there is a minimum pension in only one LAC country, Mexico, accounting for 15% of the total pension. Most LAC countries have a safety-net for low-income pensioners. But in most of them, full-career workers, even those with low earnings, will not be eligible. There is one exception, Chile, providing 17% of the pension promise.

The balance between first- and second-tier schemes in the retirement-income package is shown in the top chart. The second tier accounts for 82% or more in all but five LAC countries. In many cases, this reflects high target replacement rates in the second tier. In others, the benefit formula of the public scheme is progressive: redistribution done by the first tier in other countries is carried out by second-tier plans.

Second-tier schemes

The second tier of mandatory benefits is divided in the table between public and private providers and between defined-contribution (DC) and defined-benefit (DB) or earnings-related provision. There are public, earnings-related schemes in 23 LAC countries. The exceptions are Chile and Mexico which have private defined-contribution schemes and Suriname which only has a basic scheme. For the 23 countries they provide all of the benefits for full-career workers in 18 of the countries, with the exceptions being Argentina, Bolivia, Costa Rica, Jamaica and Uruguay.

Six countries – Chile, Costa Rica, Dominican Republic, El Salvador, Mexico and Uruguay – mandate participation in privately managed, defined-contribution schemes. In addition, a significant share of workers in Colombia and Peru exercise the option to contribute to privately managed, DC schemes, although they have the option to choose a public, DB scheme. The proportion of the benefits generated by the DC component of the system varies widely. For example, in Chile and Mexico, the simulation shows that 83 and 72% of the pension is generated by the DC component while the same figure for Costa Rica and Uruguay is 19 and 3%, respectively.

Definition and measurement

The structure of the pension package is illustrated using the indicator of weighted average pension wealth presented above, divided into different components. The weights derive from earnings-distribution data.

3.18. Structure of the retirement-income package

Percentage contribution of mandatory components of the pension system to weighted average pension wealth

	First tier			Second tier				Total
	Resource -tested	Basic	Minimum	Public ER	Public DC	Private DB	Private DC	
Argentina		17.4		82.6				100.0
Bahamas				100.0				100.0
Barbados				100.0				100.0
Belize				100.0				100.0
Bolivia		43.2		56.8				100.0
Brazil				100.0				100.0
Chile	17.1						82.9	100.0
Colombia				100.0				100.0
Costa Rica				80.7			19.3	100.0
Dominican Republic					100.0			100.0
Ecuador				100.0				100.0
El Salvador					100.0			100.0
Guatemala				100.0				100.0
Guyana				100.0				100.0
Haiti				100.0				100.0
Honduras				100.0				100.0
Jamaica		43.8		56.2				100.0
Mexico		12.3	15.3				72.4	100.0
Nicaragua				100.0				100.0
Panama				100.0				100.0
Paraguay				100.0				100.0
Peru				100.0				100.0
Suriname		100.0						100.0
Trinidad and Tobago				100.0				100.0
Uruguay				97.4			2.6	100.0
Venezuela				100.0				100.0
OECD countries								
Canada	15.8	32.9		51.3				100.0
France				100.0				100.0
Germany				100.0				100.0
Portugal			0.7	99.3				100.0
Spain				100.0				100.0
United Kingdom	1.7	47.5	38.3	12.5				100.0
United States				100.0				100.0

DB = defined benefit; DC = defined contribution; ER = earnings related.
Source: OECD pension models.

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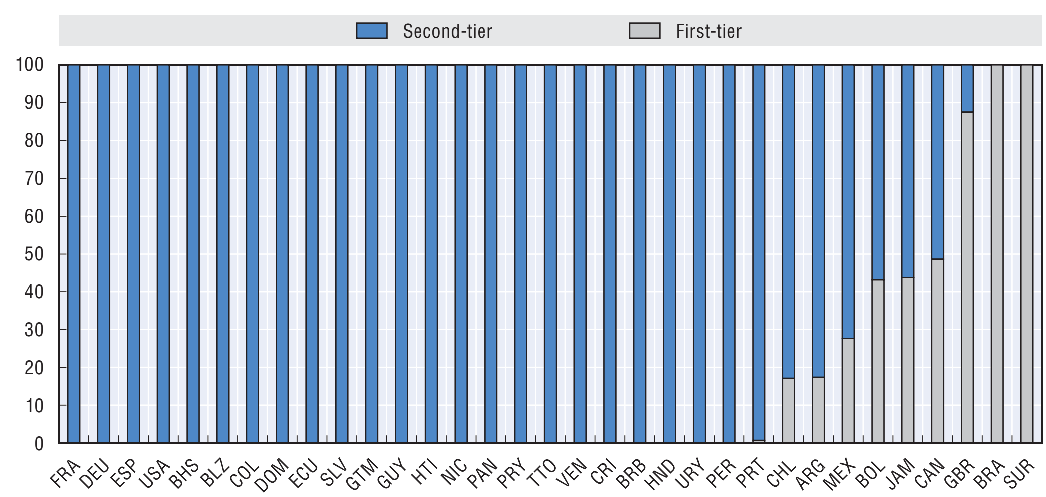
3.19. Balance between first-tier, redistributive programmes and mandatory, second-tier, income-replacement schemes

Percentage of weighted average pension wealth



Source: OECD pension models.

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Pensions at a Glance
Latin America and the Caribbean

Chapter 4

Pensions at a Glance/Latin America and the Carribean – Country profiles

Chapter 4 of Pensions at a Glance: Latin American and the Caribbean *presents profiles of national pension systems. Each country profile summarises the architecture of national schemes and provides key indicators on demographics, public pension spending and average earnings. It then goes on to provide the detailed parameters and rules of the pension system in 2010, explain the calculation of pension entitlements and show the main results. First though, there is a brief guide to the contents of the national profiles.*

Guide to the country profiles

The country profiles use a common framework. First, there is a brief summary of the national retirement-income system and a table of key indicators. This background table comprises average earnings, public pension expenditures, life expectancy and the dependency ratio (the number of pensioners for every 100 workers). Data both for the country in question and the average for the OECD as a whole are presented.

Secondly, there is a detailed description of the rules and parameters of the pension schemes that make up each country's retirement-income system. These are structured as follows.

- *Qualifying conditions:* Pension eligibility (or "retirement") age and years of contributions required to receive a pension.
- *Benefit calculation:* The rules for each schemes making up the pension system, such as basic, resource-tested and minimum pensions as well as public, earnings-related and mandatory private plans.
- Variant careers for early and late retirement.
- Personal income tax and social security contributions.
- Earnings valorisation.
- Social assistance programmes for old-age population.

The treatment of pensioners under the personal income tax and social security contributions, for reasons of space, is not described in this edition (for all OECD countries, taxes and social security contributions paid by workers are those in force in the year 2010). However, the on-line version of the country profiles, available at *www.oecd.org/els/social/pensions/PAG*, does include this information. For details on the taxes and social security contributions paid by workers, see OECD (2013), *Taxing Wages*.

Values of all pension parameters and other relevant figures such as minimum wages are given in national currencies and as a proportion of average earnings.

In each country profile, a table gives expected relative pension values, replacement rates and pension wealth at different individual levels of earnings for mandatory pension schemes. (See Chapter 3 of this report for definition and measurement of the different indicators.) These are given in both gross and net terms (the latter taking account of taxes and contributions paid when working and when drawing the pension).

Summary charts show the breakdown of the gross relative pension value into the different components of the pension scheme (the first row of the charts). As far as possible, the same, terminology is used to describe these schemes. The particular national scheme that is described can be found in the text of the country study. Some standard abbreviations are used in the legends of the charts:

- SA: Social assistance;
- Targeted: Separate resource-tested schemes for older people;
- Minimum: A minimum pension within an earnings related scheme;
- Basic: A pension based only on number of years of coverage or residency;
- Earnings-related: All public earnings-related programmes, including notional accounts and points schemes as well as traditional defined-benefit plans;
- DC: Defined-contribution, mandatory private plans;
- Occupational: Mandatory or quasi-mandatory pensions, which can be provided by employers, industry-wide schemes, profession-based schemes or publicly.

The second row of country charts shows the effect of personal income taxes and social security contributions on relative pension values and replacement rates, giving the gross and net values.

The charts use a standard scale to ease comparisons between countries: the scale for replacement rates runs to 125% while that for relative pension values runs to 2.5 times average earnings. The charts show pension entitlements for people earning between 50% and 200% of economy-wide average earnings.

Argentina

Argentina: Pension system in 2010

The pension system has two components: a basic component and an additional social insurance component. For those aged 70 and above there is also an age-related social insurance component and a social assistance component.

Key indicators

		Argentina	LAC26
Average earnings	ARS	53 600	27 700
	USD	13 500	7 000
Public pension spending	% of GDP	6.4	3.1
Life expectancy	At birth	76.2	73.6
	At age 65	17.4	17.4
Population over age 65	% of working-age population	19.2	12.3

Qualifying conditions

Retirement age for the basic pension is 65 for men and 60 for women with at least 30 years of service. To meet the contribution qualifying condition, the insured may substitute two years of age after the retirement age for one year of contributions.

Additional pension (social insurance): Age 65 (men) or age 60 (women) with at least 30 years of service.

Advanced old-age pension (social insurance): Aged 70 or older with at least ten years of service, with contributions paid while employed or self-employed, including at least five of the last eight years before leaving employment. A self-employed person must have been insured for at least five years.

Benefit calculation

Old-age pension (Basic Pension – PBU)

The amount of the monthly pension is ARS 494.38.

Additional pension (social insurance)

The monthly additional pension is equal to 1.5% of the insured's average adjusted monthly earnings (weighted average of the monthly amounts for self-employed workers) for each year of service. It is adjusted using an index equal to the estimated mobility granted to the benefits in effect.

The maximum monthly earnings for calculating the pension is ARS 11 829.21.

The monthly pension for the elderly is equivalent to 70% of the basic pension and the additional service benefit. The minimal old-age pension for the elderly is ARS 1 046.63 and ARS 1 091.50 for dependents of the National Institute of Social Services. The maximum monthly old-age pension (the sum of the basic pension and the social assistance pension) is ARS 7 666.38. Pensions are paid monthly with a 13th and 14th payment equal to half of a regular monthly payment paid in June and December.

Benefits are adjusted every March and September according to changes in the affected tax collection, specifically social insurance and the INDEC or RIPTE salary index of the SSS.

Variant careers

Early retirement

Early retirement is not possible under the general regime.

Late retirement

There is no limit to delaying the retirement age (the employer has the right to require an employee to retire), nor is there any advantage to delaying the pension. In any case, for every year beyond the 30 years of contributions (up to a maximum of 35 years of contributions), 1.5% of the base income will be recognised. For each year above the minimum age of benefit withdrawal, one year of service can be substituted for every two years over the minimum age.

Personal income tax and social security contributions

Taxation of workers

Individual income tax rate ranges from 9% to 35% with seven income brackets.

Amount	%
Up to ARS 10 800.00	0
From ARS 10 800.01 to ARS 20 800.00	9
From ARS 20 800.01 to ARS 30 800.00	14
From ARS 30 800.01 to ARS 40 800.00	19
From ARS 40 800.01 to ARS 70 800.00	23
From ARS 70 800.01 to ARS 100 800.00	27
From ARS 100 800.00 to ARS 130 800.00	31
From ARS 130 800.00 and above	35

Social security contributions paid by workers

Employee contributions equal 17%, out of which 11% is mandatory payment to the Argentine Integrated Social Insurance System (SIPA), 3% is a mandatory payment for social programmes and a mandatory 3% for the National Institute of Social Services for Retirees and Pensioners.

Employers contribute 23%, of which 10.17% are for benefits granted by SIPA and the remaining 12.83% is divided between the Sub-system of Family Allocations (4.44%), the National Employment Fund (0.89%), the National Institute of Social Services for Retirees and Pensioners (INSSJP) (1.5%), and other social programmes (6%).

Taxation of pension income

Pension income is taxed as income from work except where the pension is due to the death or disability of the insured.

Social security contributions paid by pensioners

Inactive pensioners contribute between 3% up to the value of the minimum payment and 6% over the amount exceeding that amount, depending on the amount of the payment to old-age social programmes. Working pensioners contribute 11% to the national employment fund.

Earnings valorisation

The adjustment to past contributions is made using an updating index. This index is equal to the projected mobility granted to the existing benefits. The formula that determines the projected mobility is:

The components of the formula are:

$$m = \begin{cases} A = 0.5 \times RT + 0.5 \times w & \text{if } a \leq b \\ B = 1.03 \times 4 & \text{if } a > b \end{cases}$$

Where:

"m" is the mobility of the period, which is a function defined by tax bracket.

"a" is the bracket of the mobility function prior to the application of the limit.

"RT" is the variation in tax resources per benefit (net of eventual contributions of the National Treasury to cover deficits of the National Social Security Administration) developed by the organisation. It compares identical semesters in consecutive years.

"w" is the variation of the general salary index published by the National Institute of Statistics and Census or the variation of the Average Taxable Payments of Permanent Workers (RIPTE) index, published by the Social Security Secretariat, whichever is greater. In both cases, consecutive semesters are compared.

"b" is the bracket of the mobility function that serves as an eventual limit.

"r" is the variation in total resources per benefit of ANSES (net of eventual contributions of the National Treasury to cover deficits of ANSES). It compares consecutive 12-month periods.

Social assistance programmes for old-age population

Moratorium

Self-employed workers who meet the age requirements for any of the benefits can sign up for the voluntary scheme in order to complete the required number of years of service with the remaining contributions. The regularisation scheme of debts is aimed at self-employed workers, whether or not they are registered in this scheme, for their contributions accrued up to September 1993. A moratorium exists for contributions debited before September 1993.

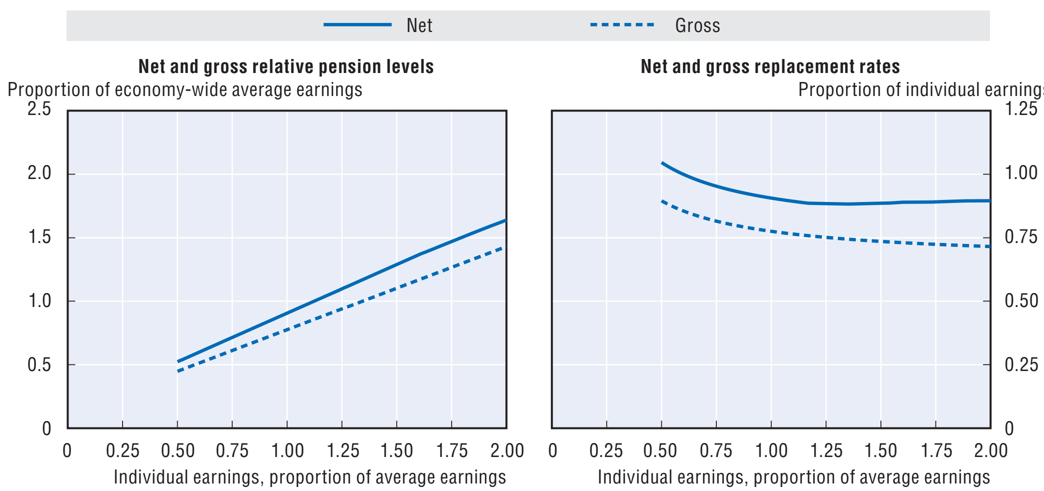
Social welfare pension (social assistance)

There is an Advanced Old-age pension (established in 2003) for women and men over 70 without fixed incomes sufficient for their subsistence. In order to receive this benefit, one must be a native or naturalised Argentine citizen residing in the country, a foreigner with a minimum of 20 years of continual residence in the country, not be receiving any other retirement or pension benefits, not have any relatives legally required to provide food, and not have goods, income, or resources that would enable them to subsist. The state provides a life-long pension equal to 70% of the minimum pension, or ARS 732.64/month in 2010. This benefit is incompatible with the receipt of any retirement or pension whether from the national, provincial or municipal civil service or the military. Additionally, pensioners with dependents will receive a family allowance.

Additional programmes

The aim of PAMI Geriatric Care is to provide institutional, integrated and personal assistance, either temporary or permanent, to insured persons over age 65, dependent or semi-dependent and/or with extreme psychological or physical deterioration that require intensive, specialised personal assistance that cannot be provided by the family or who have no other benefit options.

Pension modelling results: Argentina



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	65.1	44.8	61.1	77.5	110.3	143.1
(% average gross earnings)	59.2	41.1	55.7	70.3	99.4	128.5
Net relative pension level	76.1	52.3	71.5	90.6	128.9	163.9
(% net average earnings)	69.2	48.1	65.1	82.1	116.1	148.9
Gross replacement rate	80.3	89.5	81.5	77.5	73.5	71.5
(% individual gross earnings)	73.1	82.2	74.2	70.3	66.3	64.3
Net replacement rate	93.9	104.6	95.3	90.6	88.6	89.6
(% individual net earnings)	85.4	96.1	86.8	82.1	79.8	81.4
Gross pension wealth	12.2	13.6	12.4	11.8	11.1	10.8
(multiple of individual gross earnings)	15.2	17.1	15.5	14.6	13.8	13.4
Net pension wealth	11.8	13.2	12.0	11.4	10.8	10.3
(multiple of individual gross earnings)	14.8	16.6	15.0	14.2	13.4	12.9

StatLink http://dx.doi.org/10.1787/888933161569

Bahamas

Bahamas: Pension system in 2010

The pension system consists of an earnings-related component and an old-age grant for those with some but insufficient contributions. For those with inadequate income there is a non-contributory pension.

Key indicators

		Bahamas	LAC26
Average earnings	BSD	21 900	7 000
	USD	21 900	7 000
Public pension spending	% of GDP	2.4	3.1
Life expectancy	At birth	75.1	73.6
	At age 65	18.3	17.4
Population over age 65	% of working-age population	11.9	12.3

Qualifying conditions

Retirement age is 65 with at least 500 weeks of contributions.

Early retirement is possible from age 60 to 64. An insured person under age 65 cannot receive an old-age benefit if the earnings level is more than half the weekly wage ceiling.

Benefit calculation

Old-age pension

The pension benefit is equal to 30% of the covered wage with at least 500 weeks of contributions. The pension increases by 1% of the covered wage for each 50-week period of credited contributions exceeding 500 weeks, up to 60%.

The covered wage is equal to the best five average weekly earnings in the previous ten years prior to retirement. The minimum pension is equal to BSD 64.33 a week.

If an insured person has between 150 and 499 paid contributions, he or she is eligible to receive a pension benefit at the age of 65. The benefit is a function of the insured's average insurable wage and the number of contributions made.

Grant = 6 × number of complete sets of 50 contributions × Average weekly insurable wage

Benefits are increased in July and indexed with the increase in the Retail Price Index in the previous two calendar years.

Non-contributory old-age pension

Bahamian residents aged 65 years or older or who do not meet the contribution conditions for Retirement Benefit can receive a non-contributory old-age pension. The benefit is equal to BSD 59.18 a week.

Variant careers

Early retirement

Early retirement is possible and the benefit is reduced by 0.58% for each month the insured age is under the age of 65.

Late retirement

Pension deferral is possible at any age over 65. The benefit is increased by 0.58% for each month the insured age is above 65 up to a maximum of 35%.

Personal income tax and social security contributions

Taxation of workers

Work income is not taxed.

Social security contributions paid by workers

Workers contribute 3.9% of their covered earnings and employers contribute 5.9% of covered earnings. Self-employed persons contribute 8.8% of covered earnings. Voluntarily insured persons contribute 5% of weekly average wages or income, based on the insured's wages or income of the year before registration. The contribution ceiling increases in July and is connected to the change in the Retail Price Index in the two previous calendar years plus 2%.

All of the pension benefits are paid from a single fund. However, 2.45% is allocated to short-term benefits for sickness, maternity, unemployment or funeral expenses and 0.735% to industrial benefits with the remainder to pensions. The amounts transferred to short-term benefits and injury benefits are designed to be pay-as-you-go rates. The portion going to long-term benefits is simply the remainder.

The maximum annual earnings for contribution calculation purposes is BSD 31 200.

The insured person's mandatory contributions also finance cash sickness, maternity, unemployment and work injury benefits.

The contributions of the voluntarily insured finance old-age and invalidity and survivor pensions, as well as funeral and maternity grants.

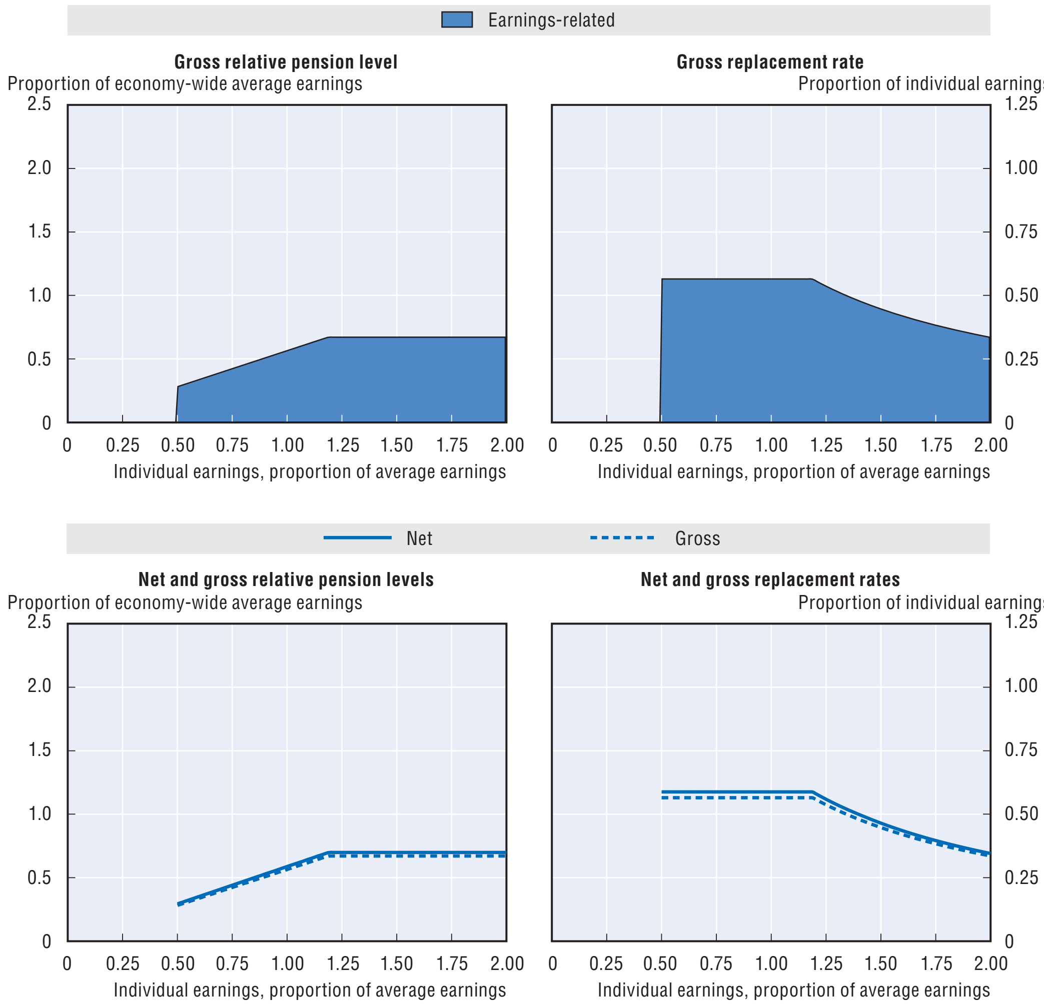
Taxation of pensioners

Pensions are not taxed.

Social security contributions paid by pensioners

If a pensioner is working and is between 60 and 64 years old he/she contributes 3.9% of covered earnings: If the pensioner is still working and 65 years or older they contribute 2% of covered earnings for work injury benefits only. No contributions are paid if the pensioner is not working.

Pension modelling results: Bahamas



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	45.8	28.2	42.4	56.5	67.1	67.1
(% average gross earnings)						
Net relative pension level	47.6	29.4	44.1	58.8	69.9	69.9
(% net average earnings)						
Gross replacement rate	56.5	56.5	56.5	56.5	44.8	33.6
(% individual gross earnings)						
Net replacement rate	58.8	58.8	58.8	58.8	46.5	34.5
(% individual net earnings)						
Gross pension wealth	8.5	8.5	8.5	8.5	6.8	5.1
(multiple of individual gross earnings)	*10.2*	*10.2*	*10.2*	*10.2*	*8.1*	*6.1*
Net pension wealth	8.5	8.5	8.5	8.5	6.8	5.1
(multiple of individual gross earnings)	*10.2*	*10.2*	*10.2*	*10.2*	*8.1*	*6.1*

StatLink http://dx.doi.org/10.1787/888933161572

Barbados

Barbados: Pension system in 2010

The pension system consists of an earnings-related defined-benefit component and an old-age grant. For those with inadequate income there is a non-contributory pension.

Key indicators

		Barbados	LAC26
Average earnings	BBD	27 800	13 900
	USD	13 900	7 000
Public pension spending	% of GDP	3.0	3.1
Life expectancy	At birth	75.3	73.6
	At age 65	15.6	17.4
Population over age 65	% of working-age population	16.7	12.3

Qualifying conditions

In 2010 the retirement age was 66 years for both men and women with at least 500 weeks of contributions, including at least 150 weeks of paid contributions.

An early pension is possible from age 60 if the insured person is no longer employed. Late retirement is possible and deferred pension benefit can be withdrawn up to the age of 70.

A retirement benefit (Old Age Contributory Grant) is paid from age 66 with at least 50 but not more than 499 contributions.

Pensionable ages in Barbados will be rise to 67 as of January 2018.

Prior to 1 January 2006	65 years
1 January 2006 to 31 December 2009	65.5 years
1 January 2010 to 31 December 2013	66 years
1 January 2014 to 31 December 2017	66.5 years
1 January 2018 and after	67 years[1]

1. The NIS retirement age is flexible so persons may retire at any age from 60 to 70.

Benefit calculation

Old-age pension

The pension is 2% of average annual earnings for the first 20 years of contributions. Each year thereafter adds 1.25% of the average annual earnings.

The average earnings are calculated as the best five years nominal earnings divided by five. If the number of years worked is less than 15 years, the average is based on total earnings.

The maximum earnings level for benefit calculation purposes is BBD 900 a week for employees paid weekly or BBD 3 900 a month for employees paid monthly.

The minimum weekly pension is BBD 155.

The maximum pension is equal to 60% of average insurable earnings.

The contributory pensions, maternity and funeral grants are increased by a formula which may be summarised as the lesser of the three-year average of wage and price increases obtained via the Central Bank of Barbados.

Old-age grant

A lump sum is paid for each 50-week period of contributions. The lump sum is equal to six weeks of average earnings.

The average insurable weekly earnings is calculated as the sum of the insurable earnings (on which contributions have been based), divided by the number of weeks of contributions.

Non-contributory old-age pension

The amount paid to a person who qualifies for non-contributory pension is BBD 127.00 per week. To qualify an insured individual must be of pensionable age and a citizen of Barbados or a permanent resident. Special rules apply for blind and deaf people.

An insured person is not entitled to a Non-Contributory Old Age Pension if that person: i) receives a pension in respect of the public service of Barbados; ii) receives a pension in respect of public service with another government; or with an international organisation of which the Government of Barbados is a member; iii) receives a pension under the National Insurance Scheme at a rate higher than the non-contributory old-age pension; iv) receives a pension by virtue of a National Insurance and Social Security Scheme operated by another government; v) receives an income in excess of BBD 30 per week and is blind or a deaf mute and under the age of 66 years; vi) is continuously absent from Barbados for any period in excess of six months; vii) is a full time in-patient at a health service institution maintained by the government such as a hospital or a home; viii) is detained at any prison.

Variant careers

Early retirement

It is possible to receive a pension from the age of 60 if the insured person is no longer employed or self-employed. The pension is reduced by 0.5% per month for each month of early withdrawal before the pensionable age. This reduction is permanent unless the person decides to work again.

Late retirement

The pension benefit withdrawal may be deferred until age 70. The pension benefit is increased by 0.5% per month for each month of deferral after the pensionable age.

Personal income tax and social security contributions

Taxation of workers

There is an individual tax allowance of BBD 25 000. The next BBD 35 000 of income is taxed at 17% tax rate, with income above this level taxed at 35%.

Social security contributions paid by workers

A private sector employee aged 16 to 66 contributes 6.75% to the National Insurance, while those self-employed contribute 13.5% of covered earnings.

The minimum earnings for contribution calculation purposes are BBD 21 a week for employees paid weekly or BBD 91 a month for employees paid monthly.

The maximum earnings for contribution calculation purposes are BBD 900 a week for employees paid weekly, BBD 3 900 a month for employees paid monthly.

Contributions also finance sickness and maternity benefits, work injury benefits, Unemployment Benefit, Invalidity Benefit/Grant, Disablement Benefit/Grant, Survivors Benefit/Grant, Funeral Grant and Death Benefit.

Social security contributions by type of worker

	Private sector employees – "R"			Over 66 and a half or Under 16 – "E" Private			Self-employed – "S"		
	Employee (%)	Employer (%)	Total (%)	Employee (%)	Employer (%)	Total (%)	Employee (%)	Employer (%)	Total (%)
National insurance	6.75	6.75	13.5	0.0	0.0	0.0	13.5	0.0	13.5
Non-contributory	2.0	2.0	4.0	0.0	0.0	0.0	2.0	0.0	2.0
Employment injury	0.0	0.75	0.75	0.0	0.75	0.75	0.0	0.0	0.0
Unemployment	0.75	0.75	1.5	0.0	0.0	0.0	0.0	0.0	0.0
Severance	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Training levy	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.0	0.5
Catastrophe fund	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Total	10.1	11.25	21.35	0.6	1.25	1.85	16.1	0.0	16.1

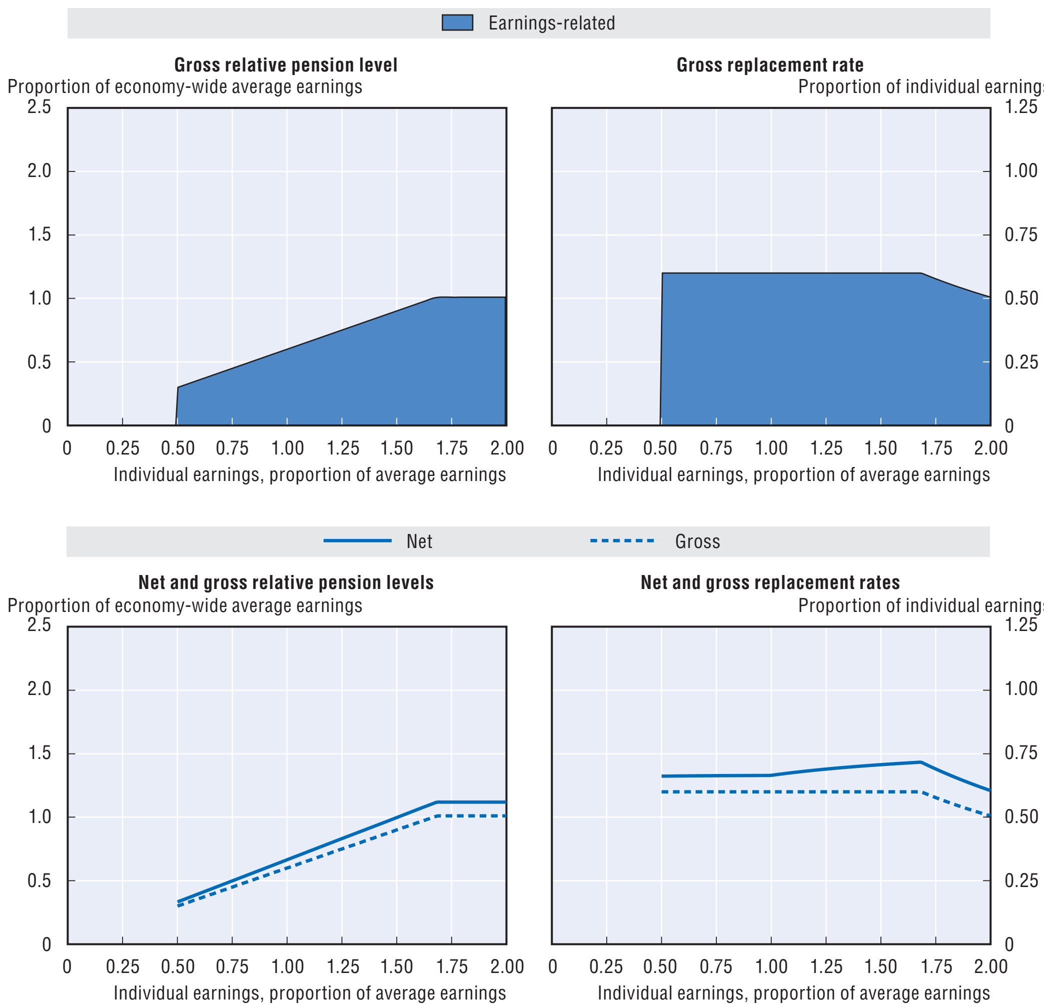
Taxation of pensioners

There is an additional allowance of BBD 15 000 for pensioners, raising the total tax allowance to BBD 40 000 per year for an individual who is 60 years or over and is in receipt of a pension.

Social security contributions paid by pensioners

Social security contributions are reduced for a pensioner who work and is equal to 0.6%.

Pension modelling results: Barbados



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	48.6	30.0	45.0	60.0	90.0	101.0
(% average gross earnings)						
Net relative pension level	53.9	33.2	49.9	66.5	99.7	111.9
(% net average earnings)						
Gross replacement rate	60.0	60.0	60.0	60.0	60.0	50.5
(% individual gross earnings)						
Net replacement rate	66.4	66.2	66.4	66.5	70.7	60.5
(% individual net earnings)						
Gross pension wealth	10.0	10.0	10.0	10.0	10.0	8.4
(multiple of individual gross earnings)	12.6	12.6	12.6	12.6	12.6	10.6
Net pension wealth	10.0	10.0	10.0	10.0	10.0	8.4
(multiple of individual gross earnings)	12.6	12.6	12.6	12.6	12.6	10.6

StatLink http://dx.doi.org/10.1787/888933161585

Belize

Belize: Pension system in 2010

The pension system consists of an earnings-related defined-benefit component and a retirement grant for those with some but insufficient contributions. For those with inadequate income there is a non-contributory pension.

Key indicators

		Belize	LAC26
Average earnings	BZD	8 700	13 700
	USD	4 400	7 000
Public pension spending	% of GDP	1.0	3.1
Life expectancy	At birth	73.9	73.6
	At age 65	17.7	17.4
Population over age 65	% of working-age population	7.7	12.3

Qualifying conditions

The legal retirement age is 65 years for both men and women with at least 500 weeks of accredited contributions, including at least 150 paid contributions. Early retirement due to unemployment or low earnings (earnings less than BZD 50 per week) is possible from the age of 60. There is a lump-sum payment (the retirement grant) for those with insufficient contributions. To receive the grant, the employee must meet the following requirements:

- be an insured contributor between 60 and 64 years old; or
- be an insured contributor 65 years or older (whether employed or not).
- Have at least 26 paid contributions.

Benefit calculation

Old-age pension

The weekly old-age pension benefit is calculated as 30% of the sum of the insurable earnings during the best three years in the contribution record. This is also supplemented by:

1. 2% of the average weekly insurable earnings for each unit of 50 paid or credited contributions in excess of the first 500, up to a total of 750 such contributions; and
2. 1% of the average weekly insurable earnings for each unit of 50 paid or credited contributions in excess of 750.

The maximum old-age pension is equal to 60% of the average weekly covered earnings up to a weekly maximum of BZD 192. The minimum pension payable is equal to BZD 47 per week. The observed values averaged 40.8% in 2010.

Pensions are not indexed.

Retirement grant

If a person does not qualify for a Retirement Pension, they still might qualify for a Retirement Grant, which is a one-time lump-sum payment. The minimum grant is a one-time payment of BZD 800. Two formulas are used to calculate the size of the Retirement Grant, paying the higher amount of the two:

1. six times the sum of insurable earnings in the best three years of contributions, divided by 150 and multiplied by the number of 50-week contribution periods; or
2. 2.5 times the sum of weekly insurable earnings divided by the number of contributions and multiplied by the number of 50-week contribution periods.

Non-contributory old-age pension

The Non-Contributory Pension Programme covers men aged 67 and women aged 65 or older who have inadequate or no income and are a permanent resident or citizen of Belize. The monthly payment is BZD 100 for both men and women.

Variant careers

Early retirement

Early retirement is possible from the age of 60 if the insured person is unemployed or if his/her earnings are less than BZD 50 per week, with at least 500 weeks of credited contributions including at least 150 paid contributions.

Late retirement

It is not possible to delay retirement.

Personal income tax and social security contributions

Taxation of workers

There is a tax allowance equal to BZD 19 600 for single persons under the age of 65 in 2009/10. All income above this level is taxed at 25%.

In 1 January 2011 a new tier system for personal income tax was introduced. The allowances are now as follows:

- BZD 25 600 on income below BZD 26 000.
- BZD 24 600 on income above BZD 26 000 but not exceeding BZD 27 000.
- BZD 22 600 on income above BZD 27 000 but not exceeding BZD 29 000.

In the case of all other employed individuals the allowance is BZD 19 600.

Social security contributions paid by workers

All persons in insurable employment pay social security contributions. In 2010, 8% of a person's average weekly earnings up to a maximum of BZD 320.00 is payable to the social security system: 1.54%-points are diverted to short-term benefits; 4.50%-points long-term benefits; and 1.96%-points employment injury benefits.

Weekly contributions consist of an employees' and employers' part. The amount payable by each depends upon the employee's gross income.

Weekly contributions to the GSSS

Actual weekly earnings (BZD)	Weekly insurable earnings (BZD)	Amount of contribution (BZD)			Rate of contribution (%)	
		Employer	Employee	Total	Employer	Employee
Under 70.00	55.00	3.57	0.83	4.40	6.50	1.50
70.00 to 109.99	90.00	5.85	1.35	7.20	6.50	1.50
110.00 to 139.99	130.00	8.45	1.95	10.40	6.50	1.50
140.00 to 179.99	160.00	9.65	3.15	12.80	6.03	1.97
180.00 to 219.99	200.00	11.25	4.75	16.00	5.63	2.38
220.00 to 259.99	240.00	12.85	6.35	19.20	5.35	2.65
260.00 to 299.99	280.00	14.45	7.95	22.40	5.16	2.84
300.00 and over	320.00	16.05	9.55	25.60	5.02	2.98

Voluntary contributors pay weekly contributions based on the best 3 years of contributions paid. Voluntary weekly contributions range from BZD 1.76 to BZD 10.24.

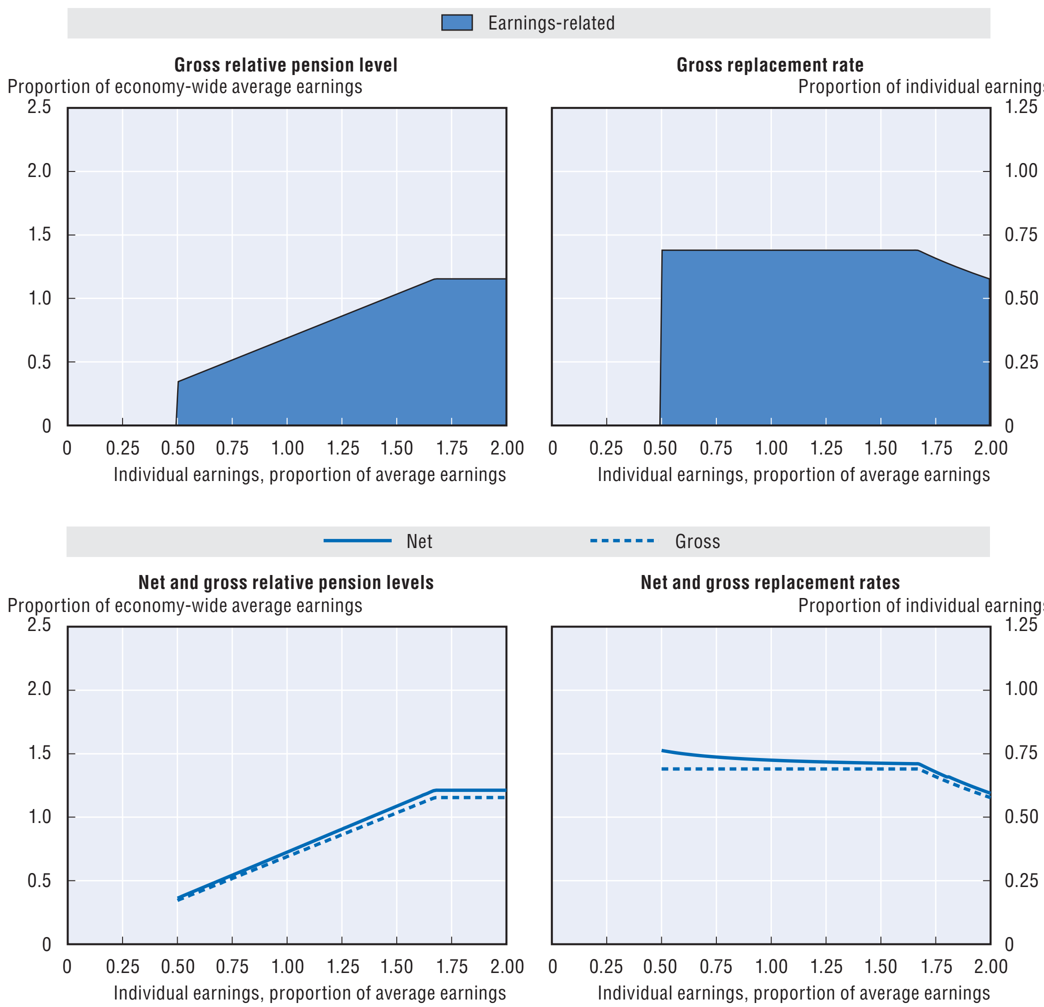
Taxation of pensioners

There are no additional tax allowances. Pensions are tax exempt.

Social security contributions paid by pensioners

For insured persons who work after retirement, the employer is responsible for 100% of the contributions, a standard BZD 2.60 per week, which covers the employment injury benefit only.

Pension modelling results: Belize



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	55.9	34.5	51.8	69.0	103.5	115.4
(% average gross earnings)						
Net relative pension level	58.7	36.2	54.3	72.5	108.7	121.2
(% net average earnings)						
Gross replacement rate	69.0	69.0	69.0	69.0	69.0	57.7
(% individual gross earnings)						
Net replacement rate	73.3	76.3	73.7	72.5	71.3	59.4
(% individual net earnings)						
Gross pension wealth	13.3	13.3	13.3	13.3	13.3	11.2
(multiple of individual gross earnings)	14.9	14.9	14.9	14.9	14.9	12.4
Net pension wealth	13.3	13.3	13.3	13.3	13.3	11.2
(multiple of individual gross earnings)	14.9	14.9	14.9	14.9	14.9	12.4

StatLink http://dx.doi.org/10.1787/888933161596

Bolivia

Bolivia: Pension system in 2010

The Integrated Pension System consists of a universal pension, a non-contributory scheme, which includes the *Renta Dignidad*, a mandatory scheme of individual accounts which include old age, disability and survival benefits, and a solidarity scheme and old-age and survival benefit.

Key indicators

		Bolivia	LAC26
Average earnings	BOB	12 800	48 500
	USD	1 800	7 000
Public pension spending	% of GDP	3.4	3.1
Life expectancy	At birth	67.1	73.6
	At age 65	14.9	17.4
Population over age 65	% of working-age population	9.8	12.3

Qualifying conditions

The minimum retirement age is 58 for both men and women. Women are allowed to retire up to three years earlier (retirement at 55), if they have had pension contributions for at least ten years. There is no maximum retirement age.

Insured people can retire before age 58 when, regardless of their age, if they can finance a replacement rate equal to at least 60% of the average salary, based on the previous 24 contributions.

If an insured person upon reaching the age of 58 and having contributed for at least ten years does not reach the target level of 60% a solidarity pension is granted according to the following scale:

Density of contributions in years	Minimum solidarity limit (BOB)	Maximum solidarity limit (BOB)	Referential percentage
10	476		
11	516		
12	557		
13	598		
14	639		
15	679		
16	721	851	56
17	763	1 024	57
18	806	1 196	58
19	848	1 368	59
20	890	1 540	60
21	932	1 672	61
22	974	1 804	62
23	1 016	1 016	63
24	1 058	1 058	64
25	1 100	1 100	65
26	1 120	1 120	66
27	1 140	1 140	67
28	1 160	1 160	68
29	1 180	1 180	69
30	1 200	1 200	70
31	1 220	1 220	70
32	1 240	1 240	70
33	1 260	1 260	70
34	1 280	1 280	70
35 or more	1 300	1 300	70

When the insured does not meet the requirements for a pension or payment they may withdraw the accumulated balance in the personal insurance account through minimal withdrawals equivalent to 60% of the average of the last 24 payments, or a final withdraw consisting of the return of the capital paid in and its respective earnings.

Benefit calculation

Defined contribution

The defined-contribution pension is a combination of the fraction of the accumulated balance in the individual account and a Monthly Payments Compensation (CCM), where applicable. The fraction of the accumulated balance is obtained through a calculation of the life-time fixed or variable interest income that an insured can earn on the accumulated balance in his/her personal insurance account. The CCM is the recognition by the state to its insured by the contributions made to the existing distribution system through 30 April 1997, which are financed with resources from the National Treasury and that have not generated benefits and payments in the system.

Old-age solidarity pension

The old-age solidarity pension is made up of a fraction of the accumulated balance, the CCM and the Solidarity Fraction. The Solidarity Fraction is calculated as the difference between the old-age solidarity pension, the fraction of the accumulated balance, and the CCM where appropriate to the density of contributions of the insured.

Universal pension (Renta Dignidad)

The pension is BOB 2 400 per year and it is paid as an annuity. The benefit is reduced by 25% if the person receives any other type of pension (that is, they would be entitled to 75% of the universal pension equivalent to BOB 150/month). The pension benefit is paid monthly, bimonthly, quarterly, or annually.

Pension benefits are adjusted every three years by the Central Bank and valorisation is based on the source of funds.

Variant careers

Early retirement

Pension benefits may be claimed before age 58, as long as the insured has not contributed to the pay-as-you-go system (before May 1997) and finances the accumulated balance in his/her personal account: and a pension equal to or greater than 60% of their earnings (average of the last 24 contributions), the amount necessary to finance funeral expenses, and a death pension for their dependents. There are no penalties for this type of retirement.

Late retirement

There is no mandatory retirement age.

Personal income tax and social security contributions

Taxation of workers

Contributions, additional solidarity contributions, benefits and all of the benefits of the integrated pension system, as well as the accumulated balance and return obtained by the managed funds, are not taxed.

Social security contributions paid by workers

Workers contribute 10% of the contribution base wage for old-age insurance, plus 1.71% of the contribution base wage for disability and survival from injury, 0.5% of the contribution base wage for administrative fees, and 0.5% of the contribution base wage for the Solidarity Fund. The minimum base wage for contributions to long-term social security is the same as the monthly legal minimum wage.

There is no maximum wage for calculating the pension. To this end, the insured with earnings more than or equal to BOB 13 000 make a periodic provisional declaration. They pay 1% for earnings above BOB 13 000, 5% for earnings above BOB 25 000 and 10% for earnings over BOB 35 000.

Short-term Social Security disability (for illness, maternity, or work-related injury) is financed by the employer on 10% of the total amount earned by the employees.

The employer's contribution is composed of 1.71% of the contribution base wage for disability insurance and workplace injury and 3% of the contribution base wage for the Solidarity Fund.

Taxation of pensioners

Pensions are not taxed.

Social security contributions paid by pensioners

There is a 3% mandatory discount on retirement income for health care (Short-term social security), for retirees and their beneficiaries.

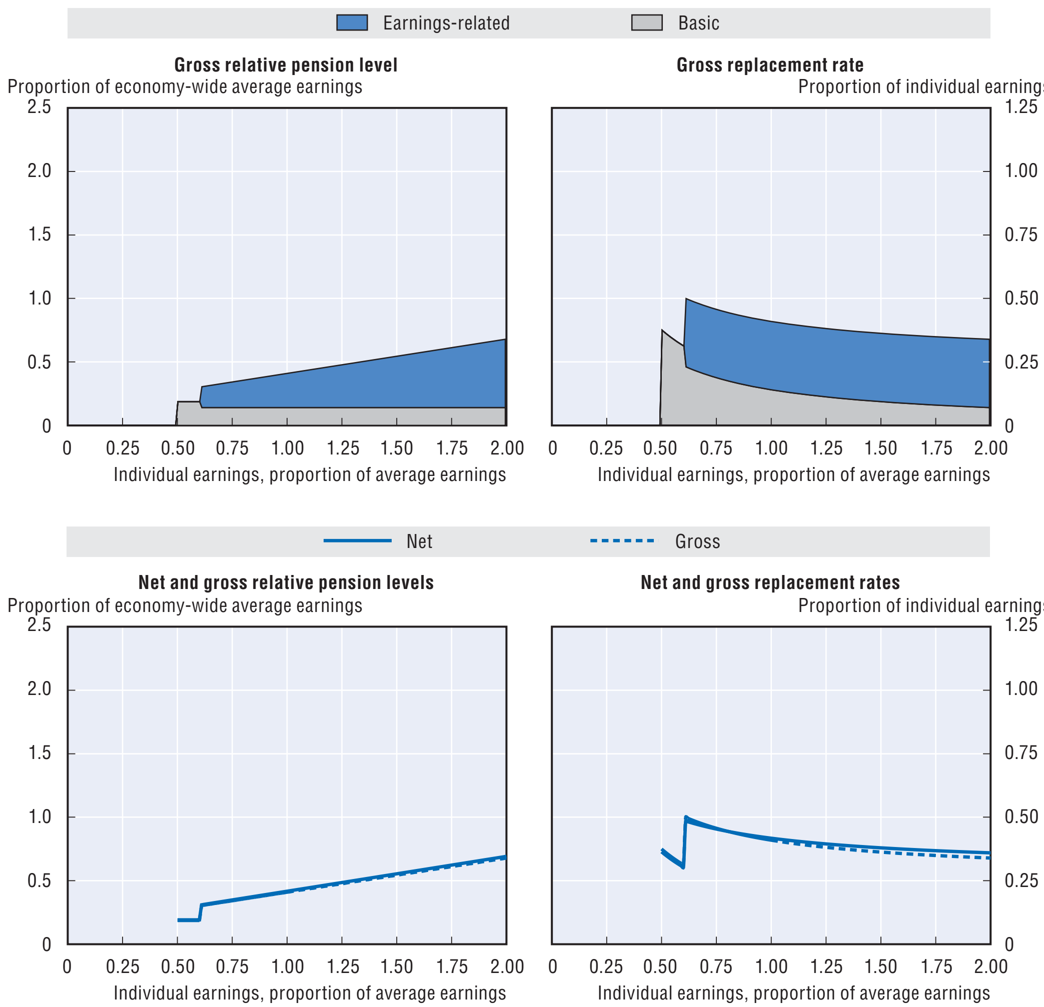
Indexation of benefits

Old-age pensions (expedited starting on 10 December 2010) are indexed as follows: The fraction of the accumulated balance is updated to the mortality of the group receiving an old-age pension, old-age solidarity pension, or pension for dependents, with a death pension, and the profitability of the old-age fund. The component of the Contribution Compensation is updated annually to the yearly variation of the UVF, determined by the Central Bank of Bolivia, in accordance with the consumer-price-index calculated by the National Institute of Statistics. The Fraction of the Accumulated Balance (FSA) is updated yearly in accordance with the mortality of the group of insured receiving an old-age pension, old-age solidarity pension and dependents receiving a death benefit on behalf of the insured. That is, upon the death of a retiree, 80% of the pension is provided to the pensions of the dependents or family of the deceased; the other 20% increases the fund for living retirees. The profitability earned by the Old-Age Fund is also updated. The values of the solidarity pension are updated every five years.

Social assistance for old-age population

The Health Insurance for Older Adults (SSPAM) was created in January 2006, and provides integrated health care free of charge to citizens older than 60 years of age who reside permanently in Bolivia.

Pension modelling results: Bolivia



Men / Women (where different)	Median earner	Individual earnings, multiple of average 0.5	0.75	1.0	1.5	2.0
Gross relative pension level	35.8	18.7	34.2	41.0	54.4	67.9
(% average gross earnings)						
Net relative pension level	36.5	19.1	34.9	41.7	55.4	69.1
(% net average earnings)						
Gross replacement rate	44.3	37.5	45.6	41.0	36.3	33.9
(% individual gross earnings)						
Net replacement rate	44.3	36.4	45.3	41.7	37.9	36.0
(% individual net earnings)						
Gross pension wealth	10.3	8.7	10.6	9.5	8.4	7.9
(multiple of individual gross earnings)	*11.5*	*9.7*	*11.9*	*10.6*	*9.4*	*8.8*
Net pension wealth	10.0	8.5	10.3	9.2	8.2	7.6
(multiple of individual gross earnings)	*11.2*	*9.5*	*11.5*	*10.3*	*9.1*	*8.6*

StatLink http://dx.doi.org/10.1787/888933161606

Brazil

Brazil: Pension system in 2010

The *Regime Geral de Previdência Social* (RGPS), covers the private sector workforce. It is financed through payroll taxes, shared by the employer and the employee, revenues from sales taxes and federal transfers that cover shortfalls of the system. It is a mandatory, pay-as-you-go financed single-pillar scheme, which is operated by the National Social Security Institute.

Key indicators

		Brazil	LAC26
Average earnings	BRL	16 500	11 600
	USD	10 000	7 000
Public pension spending	% of GDP	6.8	3.1
Life expectancy	At birth	73.8	73.6
	At age 65	18.2	17.4
Population over age 65	% of working-age population	12.2	12.3

Qualifying conditions

Private-sector employees are entitled to retire with a full pension at age 65 for men and 60 for women if they have a contribution record of at least 15 years. Alternatively, it is possible to retire after having contributed to social security for 35 years for men and 30 years for women, irrespective of the retiree's age. For the models we assume retirement for men at 55 and at 50 for women.

Benefit calculation

Old-age pension

For all workers the benefit is the average of 80% of the best monthly earnings from July 1994 up to the date of retirement. This average is multiplied by the Factor Previdenciario only if this factor is higher than 1.0. The Factor Previdenciario is an actuarial coefficient based on the insured's contribution rate, contribution period, age and life expectancy. The minimum monthly earnings for benefit calculation purposes are equal to the legal monthly minimum wage (BRL 510.0). The maximum monthly earnings for benefit calculation purposes are BRL 3 467.4. The minimum pension for minimum monthly contributions is equal to the legal monthly minimum wage.

There are 13 payments a year with benefits adjusted annually according to changes in the consumer price index. No benefit could be less than the minimum wage which is also annually adjusted.

Social assistance for old-age pension

There is a benefit for those who don't qualify for a retirement benefit. The BPC-LOAS was created to assist old-age people (65 years old and more, both male and female) or disabled people whose income per capita at home is under one-quarter on the minimum wage (floor). They received the amount equal to the minimum wage and their conditions are revised every two years. This benefit is exclusive: beneficiaries cannot receive another non-contributory benefit from the government. The logistics is made by the INSS (medical certification and means-test), but the responsibility for the benefit is given to the Ministry of Social Development and Fight Against Hunger (MDS).

There is another benefit called *Previdencia Rural* (Rural Pension) for those males aged 60 and females aged 55 or older, who have at least 180 months of work in rural areas. The benefit is equal to the minimum wage.

Variant careers

Early retirement

There is no minimum age to achieve the early retirement as long as the men have accomplished 35 years of contributions and the women have accomplished 30 years of contribution. Nevertheless, if the men are under 65 years old or the women that worked less than 30 years, the value of the benefit is diminished by a factor (*fator previdenciário*) which takes into consideration the age, the number of contributions and the life expectancy in that specific age in which the person was in the requisition date.

Late retirement

Pensions can be claimed along with employment, and there is therefore no incentive to delay payment.

Personal income tax and social security contributions

Taxation of workers

In 2010, individuals with monthly income above BRL 1 434.59 pay taxes according to the following:

Monthly earning from:	To	Tax (%)
BRL 1 434.60	BRL 2 246.75	7.5
BRL 2 246.76	BRL 2 995.70	15.0
BRL 2 995.71	BRL 3 743.19	22.5
BRL 3 743.2	Or more	27.5

Social security contributions paid by workers

There is no difference of contribution between the benefits. The contribution is valid for all benefits that the category of contributor qualifies the insured to receive.

Insured people	2010	
	Contribution base (BRL)	Rate (%)
Employee, household employee and detached worker	Up to 1 040.22	8.0
	From 1 040.23 to 1 733.70	9.0
	From 1 733.71 to 3 467.40	1.0
	Above 3 467.40	11.0 on the ceiling (3 467.40)

Taxation of pensioners

There are no special tax allowances or credits for pensioners.

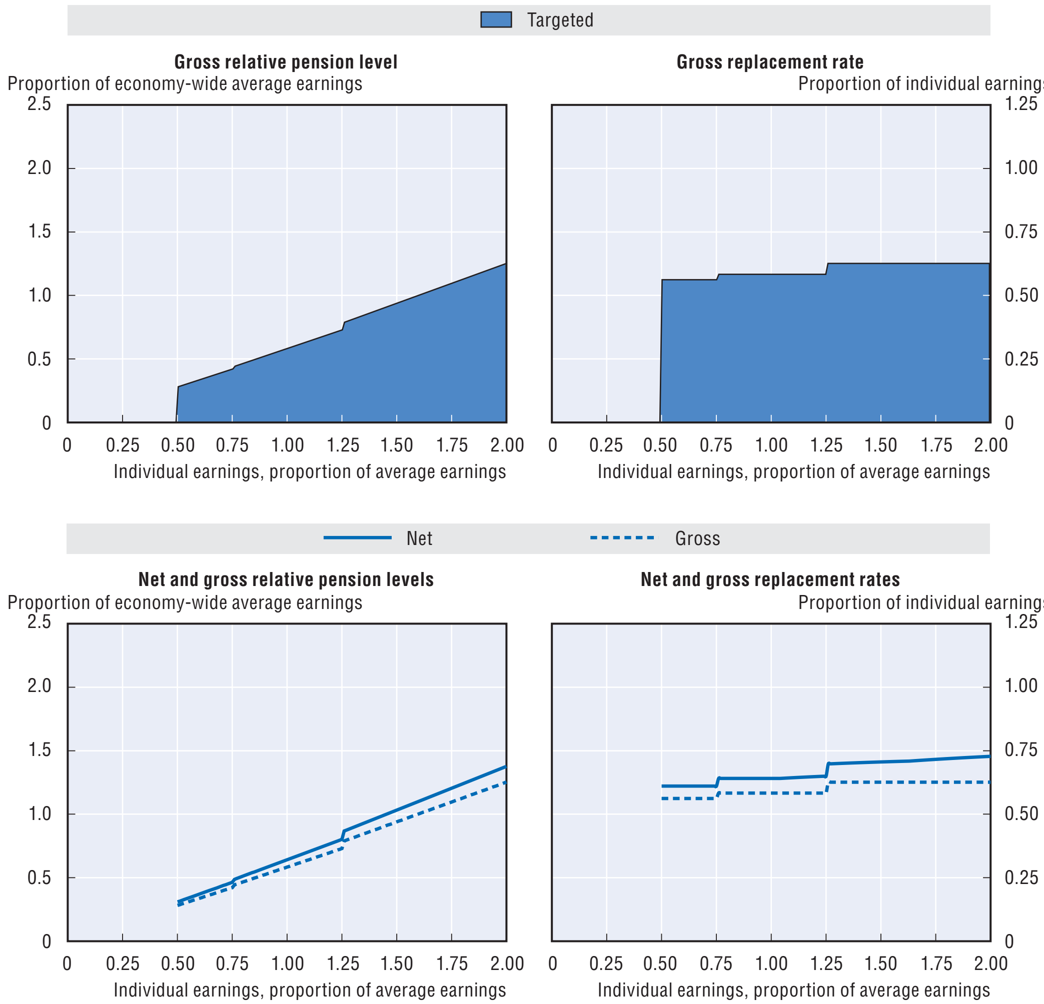
Taxation of pension income

Pensions are not taxed.

Social security contributions paid by pensioners

The beneficiaries do not pay social security contributions on their benefits, but if they work, social security contributions must be paid on the earnings of their work, in the same scale that other workers do. Beneficiaries only keep contributing to the social security if the value of their retirement is above the ceiling (BRL 3 467.40).

Pension modelling results: Brazil



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	47.2	28.1	42.1	58.3	93.9	125.2
(% average gross earnings)	*43.1*	*25.6*	*38.4*	*53.2*	*85.6*	*114.2*
Net relative pension level	51.9	30.9	46.3	64.1	103.2	137.6
(% net average earnings)	*47.3*	*28.2*	*42.2*	*58.4*	*94.1*	*125.5*
Gross replacement rate	58.3	56.2	56.2	58.3	62.6	62.6
(% individual gross earnings)	*53.2*	*51.2*	*51.2*	*53.2*	*57.1*	*57.1*
Net replacement rate	64.1	61.1	61.1	64.1	70.6	72.8
(% individual net earnings)	*58.4*	*55.7*	*55.7*	*58.4*	*64.4*	*66.4*
Gross pension wealth	16.3	15.7	15.7	16.3	17.5	17.5
(multiple of individual gross earnings)	*18.9*	*18.2*	*18.2*	*18.9*	*20.3*	*20.3*
Net pension wealth	16.3	15.7	15.7	16.3	17.5	17.5
(multiple of individual gross earnings)	*18.9*	*18.2*	*18.2*	*18.9*	*20.3*	*20.3*

StatLink http://dx.doi.org/10.1787/888933161616

Chile

Chile: Pension system in 2010

The pension system has three components: a redistributive first tier, a second tier of mandatory individual accounts and a voluntary third tier. The individual accounts of the defined-contribution type. The redistributive first tier was substantially extended in a pension reform in 2008.

Key indicators

		Chile	LAC26
Average earnings	CLP (million)	5.51	3.26
	USD	11 800	7 000
Public pension spending	% of GDP	3.4	3.1
Life expectancy	At birth	79.8	73.6
	At age 65	19.5	17.4
Population over age 65	% of working-age population	16.0	12.3

Qualifying conditions

Defined contribution

Normal retirement age is 65 for men and 60 for women. Pension benefits can be drawn at any point from that age. Individuals are not required to stop working to claim pension.

Basic and supplementary schemes

The Basic Solidarity Pension (PBS) is payable from age 65 to the 60% poorest population on condition that people have lived in the country for at least 20 years and at least four of the five years prior to the claim. The qualifying conditions for the supplementary welfare pension are the same.

Benefit calculation

Defined contribution

The contribution rate by workers for individual accounts is 10% of earnings. Administrative charges, averaging 1.55% of earnings, are levied on top of this contribution (not out of the mandatory contribution). In addition, workers contribute 1.49% of earnings to the disability and survival insurance premium.

There is a ceiling on contributions, which in December 2010 was set at 64.7 “unidad de fomento” (real, that is inflation adjusted, units), which was CLP 1 388 147 per month, equal to eight times the minimum wage in December 2010 (CLP 172 000) and 302% of average earnings. The ceiling is indexed to the real annual increase of average earnings (1 UF = CLP 21 455).

At retirement, the accumulated capital can be used to buy an immediate life annuity, to get a temporary income with a deferred life annuity, to take programmed withdrawals, or to buy an immediate life annuity with programmed withdrawals. A withdrawal of 15 UFs is made from the individual account to cover for funeral expenses. For comparison with other countries, replacement rates have been calculated assuming an actuarially fair annuity, using sex-specific annuity rates.

Basic

The basic pension (PBS) was CLP 75 840 in December 2010. The basic pension is indexed with changes in prices.

Supplementary

The 2008 reform also introduced a pension-income-tested supplement as a replacement for the previous minimum pension. This is payable to all individuals whose defined-contribution pension is less than a specified amount: the maximum welfare pension threshold (PMaS). This threshold increased over time as the new system was phased in:

	Maximum welfare pension (PMaS, CLP)	Target coverage of older people (%)
July 2008-June 2009	70 000	40
July-August 2009	120 000	45
September 2009-June 2010	150 000	50
July 2010-June 2001	200 000	55
July 2011 onwards	255 000	60

In general terms, the supplementary benefit is defined as the value of the basic pension (PBS) – the ratio of PBS to the value of the maximum welfare pension (PMaS) multiplied by the value of the defined-contribution pension. The key ratio of PBS to PMaS was 38% in 2010, and fell to just 29% from mid-2011 onwards, thus increasing the supplementary benefit.

The objective of this new supplementary pension is to improve the living standards of low-income workers when they move into retirement. The table above shows the new programme that was gradually phased-in, moving from coverage of 40% of the poorest pensioners in 2008-09 to 60% from mid-2011 onwards. The modelling of pension entitlements uses the parameters in place from 2011 (and so will be those applicable to a new labour-market entrant in 2010). In the modelling the value of the supplementary pension is indexed in line with prices from 2011 onwards.

Variant careers

Early retirement

Early retirement is allowed at any age in the defined-contribution scheme as long as the capital accumulated in the account is sufficient to finance a pension above particular thresholds. The first condition is that the benefit must be worth 150% of the minimum pension under the old system. From July 2012 onwards, this changed to 80% of the maximum welfare pension (PMaS). The second condition is that a 70% replacement rate is reached, relative to earnings in the ten years prior to drawing the pension.

The normal retirement age is reduced by one or two years for each five years of work under arduous conditions in specified occupations. The maximum reduction of the normal retirement age is ten years.

Late retirement

It is possible to defer pension claiming after normal retirement age.

Personal income tax and social security contributions

Taxation of pensioners

When claiming a pension individuals are allowed to obtain the "Free Purpose Surplus" if the remaining balance meets certain conditions. The first one is that the balance is enough to finance a pension that is at least 150% of the minimum pension under the old system. From July 2012 onwards, this will change to 100% of the maximum welfare pension (PMaS). The second condition is that a 70% replacement rate is reached, relative to earnings in the ten years prior to drawing the pension. The surplus can be obtained in tax-free annual instalments up to a maximum of 200 Monthly Taxing Monetary Units (UTM) per year and a total tax-free amount of 1 200 UTM. If obtained as a lump-sum, the maximum exempt amount is 800 UTM (1 UTM = CLP 37 605).

Taxation of pension income

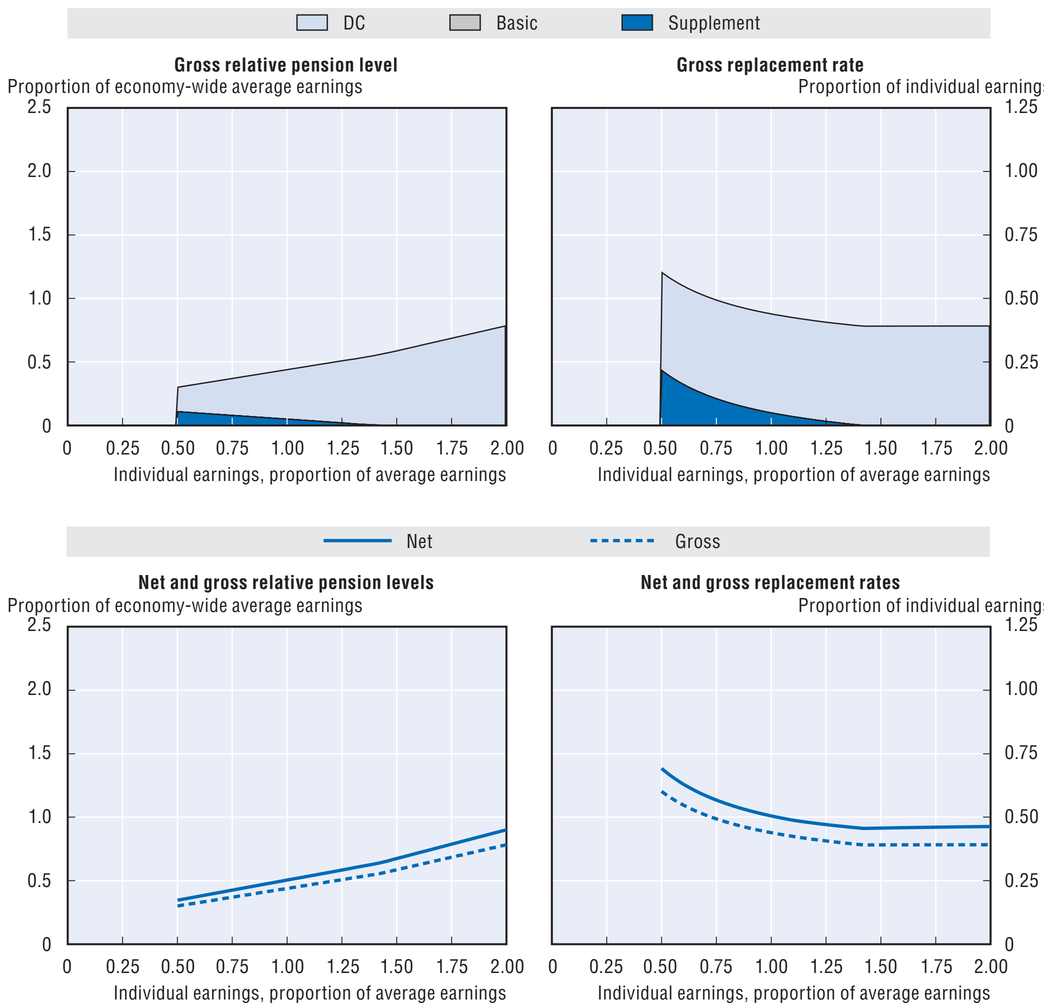
Same rates as general income tax rates apply. Structure of Income tax is progressive:

Income bracket (UTM)		Marginal tax rate (%)
From	To (inclusive)	
-	13.5	0
13.5	30	5
30	50	10
50	70	15
70	90	25
90	120	32
120	150	37
150+		40

Social security contributions paid by pensioners

By 2010, all pensioners paid 7% of pension income for health-care coverage. Since November 2011 pensioners who belong to the 60% poorest population and beneficiaries of the redistributive first tier (either of PNS or the pension-income-tested supplement) do not need to contribute for health coverage. From November 2012 onwards, pensioners belonging to the 4th earnings quintile will contribute 5% of pension income for health coverage. The remaining pensioners pay 7% of pension income for health coverage.

Pension modelling results: Chile



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	38.7	30.1	37.0	43.9	58.7	78.3
(% average gross earnings)	*31.0*	*25.4*	*29.9*	*34.4*	*43.4*	*52.5*
Net relative pension level	44.5	34.6	42.6	50.5	67.5	90.1
(% net average earnings)	*35.6*	*29.2*	*34.4*	*39.6*	*49.9*	*60.3*
Gross replacement rate	47.7	60.2	49.3	43.9	39.1	39.2
(% individual gross earnings)	*38.2*	*50.7*	*39.8*	*34.4*	*28.9*	*26.2*
Net replacement rate	54.9	69.2	56.7	50.5	45.7	46.3
(% individual net earnings)	*44.0*	*58.3*	*45.8*	*39.6*	*33.8*	*31.0*
Gross pension wealth	7.8	9.8	8.1	7.2	6.4	6.4
(multiple of individual gross earnings)	*8.1*	*10.8*	*8.5*	*7.3*	*6.2*	*5.6*
Net pension wealth	7.3	9.1	7.5	6.7	5.9	5.9
(multiple of individual gross earnings)	*7.6*	*10.1*	*7.9*	*6.8*	*5.7*	*5.2*

StatLink http://dx.doi.org/10.1787/888933161626

Colombia

Colombia: Pension system in 2010

The system allows people to choose between a defined-benefit system (*Regimen de Prima Media* – RPM) managed by a public sector entity, and the Individual Savings System with a welfare benefit (RAIS) managed by the private sector. For new affiliates, there is a Minimum Pension Guarantee Fund (MPGF).

Key indicators

		Colombia	LAC26
Average earnings	COP (million)	12.0	13.4
	USD	6 300	7 000
Public pension spending	% of GDP	3.5	3.1
Life expectancy	At birth	74.0	73.6
	At age 65	17.4	17.4
Population over age 65	% of working-age population	10.5	12.3

Qualifying conditions

Defined-benefit System of Average Premiums (Regimen de Prima Media – RPM)

The income-based scheme has gone through a number of changes since 2006. The retirement age has progressively increased: for those retiring before 2014, the retirement age is currently 60 for men and 55 for women; but starting on 1 January 2014, the retirement age will increase to 62 for men and 57 for women.

The number of weeks of contributions will increase each year by 25 until reaching 1 300 weeks in 2015:

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Weeks:	1 050	1 075	1 100	1 125	1 150	1 175	1 200	1 225	1 250	1 275	1 300

Men older than age 40 and women older than 35 and workers with at least 15 years of contributions when the individual accounts system went into effect can receive benefits in accordance with the previous system, or join the private system.

Affiliates of the RPM have the option of receiving alternative compensation, as long as, having reached the age of eligibility for an old-age pension, they have not contributed the minimum number of weeks required or they are unable to continue contributing.

System of Individual Savings with Welfare Benefit (Régimen de Ahorro Individual con Solidaridad – RAIS)

In either the system of individual savings or defined contribution, insured people can retire when they have a sufficient balance in their individual accounts to finance an annuity equal to 110% of the minimum pension.

The minimum age to draw a pension is 62 for men and 57 for women, with 1 150 weeks of contributions.

Insured people enrolled in the RAIS receive a return on their contributions with their respective earnings.

Benefit calculation

Earnings-related benefit

Pensions vary between 55% and 65% of the average contribution base wage in the last ten years, revaluated for inflation, plus 1.5% for each additional period of 50 weeks of contributions up to a maximum of 80%. (The formula for estimating the percentage of the pension is 65.5% of the average contribution base wage minus 0.5 percentage points for each minimum wage on which the person contributed.)

Minimum pension

The minimum pension is equal to the legal minimum wage. Pension benefits are paid 13 or 14 times a year. Pension the benefits are adjusted annually according to the consumer price index (IPC) and depending on the value of the benefit.

Defined contribution

The defined-contribution benefit can be paid under a phased withdrawn based, an annuity, or a combination of the two.

Workers can switch system every five years, up to ten years before reaching retirement age.

Alternative compensation

The alternative compensation is equal to an average weekly base settlement income multiplied by the number of weeks of contributions. A weighted average of the percentages on which the affiliate has contributed is then applied to this result.

Variant careers

Early retirement – RPM

Early retirement is generally not possible. There are two exceptions for individuals with disabilities or for women with caring responsibilities for disabled children.

Early retirement – RAIS

Pension withdrawal is flexible in RAIS and individuals have the right to an old-age pension at the age of their choosing given that the accumulated capital enables them to withdraw a monthly pension equal to or above 110% of the monthly legal minimum wage. RAIS pension benefits are adjusted annually according to the change of the consumer price index.

Late retirement – RPM

Late retirement is not possible under the public pension system.

Late retirement – RAIS

The employer is required to make the employer contributions until the worker reaches age 60 (women) or 62 (men).

Personal income tax and social security contributions

Taxation of workers

The income tax rate is calculated in brackets according to the Tax Value Unit (UVT). A personal deduction exists up to 1 090 UVT. The tax on income between 1 091 UVT and 1 700 UVT is 19%; it is 28% on UVTs between 1 701 and 4 100; and 33% on UVTs above 4 100. 1 UVT = COP 24 555.

Social security contributions paid by workers

Contributions to the pension system equal 16% of the base contribution income; the employer pays 12 percentage points and the worker pays the remaining 4 percentage points.

Under the RPM, the contribution rate to the pension system is comprised of: 13 percentage points for old-age pension and 3%points for administrative costs and insurance premiums.

In the RAIS, the contribution rate to the pension system is distributed as follows: 11.5 percentage points to the individual account, 3 percentage points for administrative costs and insurance premiums; 1.5 percentage points for the Minimum Pension Guarantee Fund, which provides the source of funds to complement the pensions of those who meet both the age and contribution requirements to receive a minimum pension but have not accumulated enough resources.

The RAIS workers with incomes greater than four times the minimum wage contribute an additional 1% of their base contribution rate. Workers with incomes greater than 16 times the minimum wage contribute an additional 0.2% and 1% on top of the abovementioned 1%, which are allocated to the Solidarity Fund.

The minimum contribution income is equal to the legal minimum wage in effect, and the maximum base contribution income for the purpose of calculation of benefits is 25 times the legal minimum wage in effect.

The legal monthly minimum wage for 2010 was COP 515 000.

The monthly contribution to the health system is 4% of the base contribution income.

Taxation of pensioners

Retirement, disability, and old-age pensions and survivor benefits for work-related injuries are taxed as income on the portion of the monthly payment above 1 000 UVT.

Social security contributions paid by pensioners

Pensioners contribute to the social insurance system for health care. If their pension is above ten times the minimum wage in effect, they also contribute to the Solidarity Pension Fund.

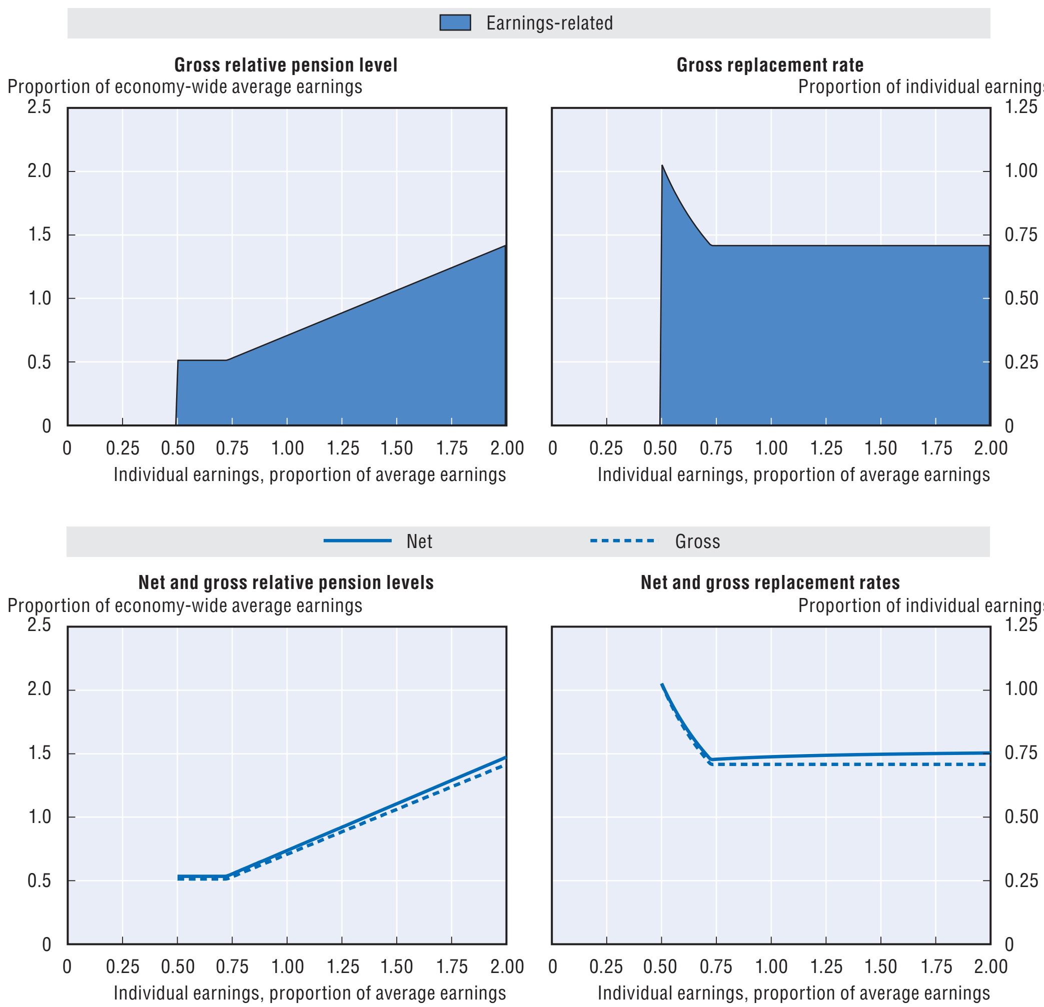
Pensioners' monthly contribution to the health care system is 12% of the income.

Social assistance

The Social Assistance Programme for Old-Age Population (PPSAM) is aimed at protecting the needy elderly against the economic risk of not earning incomes and against social exclusion. This programme provides an average monthly benefit of COP 62 000.

Additionally, there is a supplementary food benefit for the elderly (Juan Luis Londoño de la Cuesta) equivalent to 30% of the recommended daily caloric and nutritional intake. Currently, this food supplement is being converted to a cash transfer.

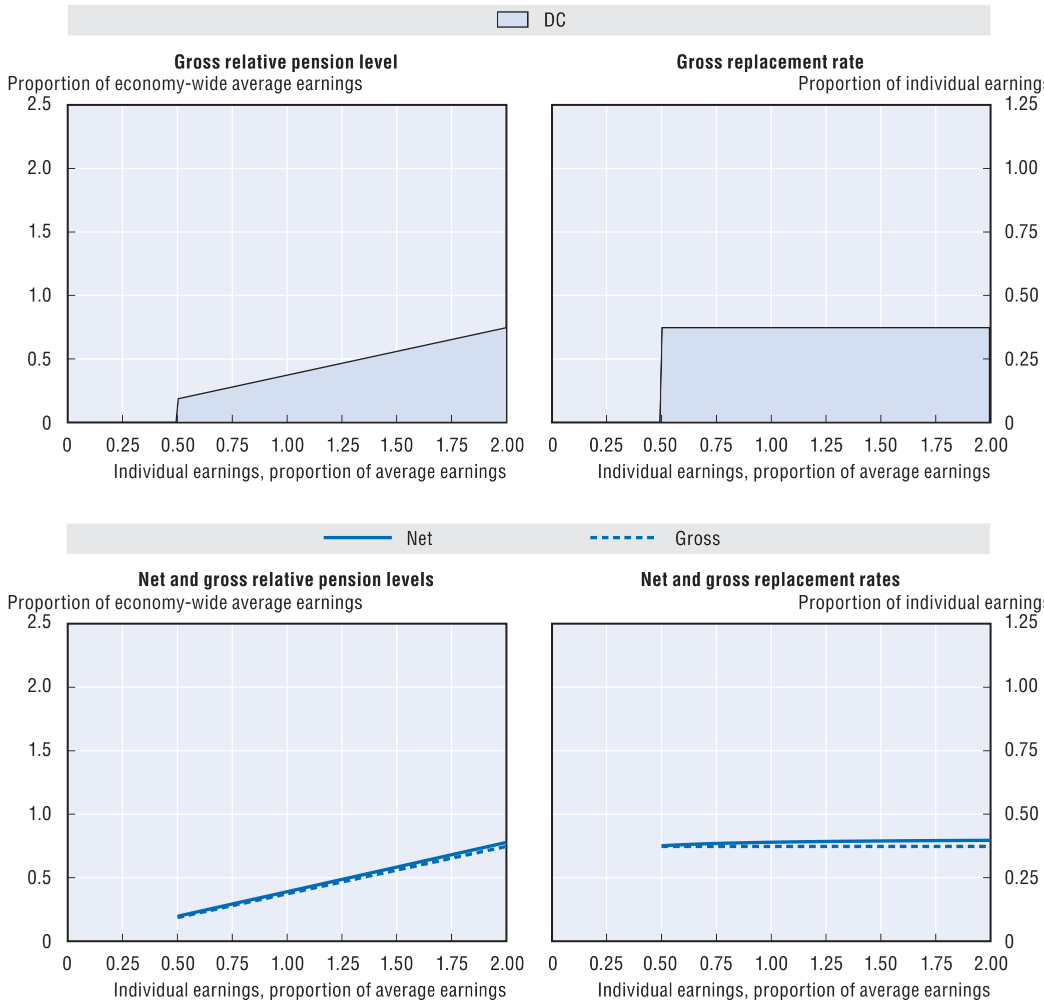
Pension modelling results: Colombia (Public pension system)



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	57.4	51.3	53.1	70.8	106.2	141.6
(% average gross earnings)	*51.9*		*51.3*	*64.1*	*96.1*	*128.2*
Net relative pension level	59.8	53.5	55.4	73.8	110.6	147.4
(% net average earnings)	*54.1*		*53.5*	*66.8*	*100.1*	*133.4*
Gross replacement rate	70.8	102.6	70.8	70.8	70.8	70.8
(% individual gross earnings)	*64.1*		*68.4*	*64.1*	*64.1*	*64.1*
Net replacement rate	73.1	102.7	72.8	73.8	74.8	75.3
(% individual net earnings)	*66.2*		*70.3*	*66.8*	*67.6*	*68.2*
Gross pension wealth	12.2	17.6	12.2	12.2	12.2	12.2
(multiple of individual gross earnings)	*13.8*	*22.1*	*14.8*	*13.8*	*13.8*	*13.8*
Net pension wealth	8.2	11.8	8.2	8.2	8.2	8.2
(multiple of individual gross earnings)	*9.3*	*14.9*	*9.9*	*9.3*	*9.3*	*9.3*

StatLink http://dx.doi.org/10.1787/888933161645

Pension modelling results: Colombia (Private pension system)



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	30.2	18.7	28.0	37.3	56.0	74.6
(% average gross earnings)	*22.4*	*13.8*	*20.7*	*27.6*	*41.4*	*55.3*
Net relative pension level	31.6	19.6	29.3	39.0	58.4	77.8
(% net average earnings)	*23.4*	*14.5*	*21.7*	*28.9*	*43.3*	*57.6*
Gross replacement rate	37.3	37.3	37.3	37.3	37.3	37.3
(% individual gross earnings)	*27.6*	*27.6*	*27.6*	*27.6*	*27.6*	*27.6*
Net replacement rate	38.6	37.6	38.5	39.0	39.5	39.7
(% individual net earnings)	*28.6*	*27.9*	*28.6*	*28.9*	*29.2*	*29.4*
Gross pension wealth	6.4	6.4	6.4	6.4	6.4	6.4
(multiple of individual gross earnings)	*6.0*	*6.0*	*6.0*	*6.0*	*6.0*	*6.0*
Net pension wealth	4.3	4.3	4.3	4.3	4.3	4.3
(multiple of individual gross earnings)	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*

StatLink http://dx.doi.org/10.1787/888933161634

Costa Rica

Costa Rica: Pension system in 2010

The system consists of a defined-benefit scheme, a capitalisation regime that finances a portion of the total pension, and a non-contributory pension system.

Key indicators

		Costa Rica	LAC26
Average earnings	CRC	3 871 800	3 508 100
	USD	7 700	7 000
Public pension spending	% GDP	3.3	3.1
Life expectancy	At birth	79.9	73.6
	At age 65	19.7	17.4
Population over age 65	% of working-age population	11.3	12.3

Qualifying conditions

Employees are entitled to retire with an old-age pension at age of 65 if they have at least 300 months of contributions.

Anyone who has not made 300 contributions can elect to receive a proportional pension, if they have made at least 180 contributions to the disability, old-age and survivors' pension system, and are at least 65 years of age. In this case, the amount of the proportional pension is calculated as the amount of the corresponding old-age pension multiplied by the number of contributions, divided by 300. For those who have made 300 contributions but have not reached the retirement age of 60 for women and 62 for men, the amount of the pension will be reduced proportionally according to the following table:

Retirement age	Required number of contributions	Per cent of reduction	
		Men	Women
64 years 9 months	300	2.0	1.5
64 years 6 months	300	3.8	3.3
64 years 3 months	300	5.5	5.0
64 years	300	7.3	6.8
63 years 9 months	300	9.0	8.5
63 years 6 months	300	10.8	10.3
63 years 3 months	300	12.5	12.0
63 years	300	14.3	13.8
62 years 9 months	300	16.0	15.5
62 years 6 months	300	17.8	17.3
62 years 3 months	300	19.5	19.0
62 years	300	21.3	20.8
61 years 9 months	300		22.5
61 years 6 months	300		24.3
61 years 3 months	300		26.0
61 years	300		27.8
60 years 9 months	300		29.5
60 years 6 months	300		31.3
60 years 3 months	300		33.0
60 years	300		34.8

A person can also be eligible for an early retirement pension with a greater number of contributions.

Years – months	Men	Women	Years – months	Men	Women	Years – months	Men	Women
59-11	-	450	61-08	-	444	63-05	391	385
60-00	-	450	61-09	-	444	63-06	387	381
60-01	-	450	61-10	-	444	63-07	383	377
60-02	-	450	61-11	462	444	63-08	379	373
60-03	-	450	62-00	456	444	63-09	375	369
60-04	-	449	62-01	453	443	63-10	371	365
60-05	-	449	62-02	450	442	63-11	367	361
60-06	-	448	62-03	447	441	64-00	363	357
60-07	-	448	62-04	443	437	64-01	359	353
60-08	-	448	62-05	439	433	64-02	355	349
60-09	-	448	62-06	435	429	64-03	351	345
60-10	-	447	62-07	431	425	64-04	347	341
60-11	0	447	62-08	427	421	64-05	343	337
61-00	0	446	62-09	423	417	64-06	339	333
61-01	0	446	62-10	419	413	64-07	333	327
61-02	0	446	62-11	415	409	64-08	327	321
61-03	0	446	63-00	411	405	64-09	321	315
61-04	0	445	63-01	407	401	64-10	314	310
61-05	0	445	63-02	403	397	64-11	307	305
61-06	0	444	63-03	399	393	65-00	300	300
61-07	0	444	63-04	395	389			

Benefit calculation

Income-based

The amount of the disability or old-age pension includes a basic amount representing a percentage of the average salary for the first 20 years of contributions (240 contributions). The earnings bracket of the insured (see the table below) is calculated as the average earnings in the last 60 months in which contributions were made, adjusted for inflation. A calculation is applied to this reference salary according to the replacement rate of the person's earnings level. The additional rate for each month contributed is 0.0833% after 240 months.

The minimum monthly base contribution wage for the IVM (disability, old age or death) benefits is CRC 110 000. There is no maximum base contribution wage for the purpose of calculating benefits.

Disability and survivor's benefits are paid by the public system. Benefits can be taken as indexed annuities or programmed retirement.

For 2010, the minimum pension in the first half of the year was CRC 104 054.16 and the maximum pension was CRC 1 226 194.29 (with no delay) and CRC 1 735 065 (for late retirement). For the second half of the year, the minimum pension was CRC 107 613 and the maximum pension was CRC 1 268 130 (with no delay) and CRC 1 794 404 (for late retirement). Payments are made 13 times a year.

Pensions are indexed to consumer prices.

Targeted

The minimum contributory pension is approximately 30% of the average base contribution wage, while the non-contributory pension is approximately 20% of the average wage.

Defined contribution

The value of the pension depends on the contributions made by the insured plus the accumulated interest. The insured can choose to receive the pension as an annuity or under a programmed retirement scheme.

Variant careers

Early retirement

Those insured that opt for early retirement must cover the missing contributions when they retire.

In order to draw a full pension and retire early, the insured must meet the requirements of both age and number of contributions, according to the following table:

Average salary	Basic amount (%)
Less than 2 minimum wages	52.5
From 2 to less than 3 minimum wages	51.0
From 3 to less than 4 minimum wages	49.4
From 4 to less than 5 minimum wages	47.8
From 5 to less than 6 minimum wages	46.2
From 6 to less than 8 minimum wages	44.6
8 minimum wages and above	43.0

Late retirement

Insured persons who meet the requirements for the old-age pension have the right to an additional pension if they delay retirement, starting from the date on which the legal and regulatory requirements were met, with no age limit. This additional pension consists of 0.1333% per month (1.6% annually) over the average reference wage. The amount of the additional pension for delaying retirement added to the amount of the calculated pension must not exceed 125% of the salary.

Personal income tax and social security contributions

Taxation of workers

There are income subsidies up to CRC 619 000 per month. Above this level of income, up to CRC 310 000 are taxed at 10%; incomes above this amount are taxed at 15%.

Social security contributions paid by workers

The contribution to the defined-benefit system is 8% of the base contribution wage; workers' pay 2.67%, employers pay 4.92%, and the state pays 0.41% of the base contribution wage.

There are additional payments for health and maternity insurance, IMAS and INA.

Item	Employer (%)	Worker (%)	State (%)	Total (%)
Pension (old age, disability)	4.92	2.67	0.41	8.00
Other social security contributions				
Health and maternity insurance	9.25	5.50	0.25	15.00
Instituto Mixto de Ayuda Social (IMAS)	0.50	-	-	0.50
Instituto Nacional de Aprendizaje (INA)	1.50	-	-	1.50

Contributions to individual accounts equal to 4.25% of wages, of which 1%point is contributed by the worker and the rest by the employer. Contributions to individual accounts are charged a commission, which is approximately 8% of returns or 4% of contributions.

Contributions to the defined benefit or individual capitalisation scheme are made to the Banco Popular Workers Pension Fund (FLC) and the ROP. The Banco Popular purchases the financing of supplementary pensions. The Workers Pension Fund is a savings fund comprising the 3% employer contribution of salaries reported to the CCSS on behalf of workers. This percentage is accredited to individual accounts, which are owned by the workers. Every March, 50% of the resources that have been contributed to this individual account are transferred to the ROP. If the worker desires, they can make a supplemental contribution to the ROP with resources of the FCL. This contribution is registered as a sub-account within the individual ROP account.

	Employer (%)	Worker (%)	Others (%)	Total (%)
Pillar 2 – Complementary	3.25	1.00		4.25
Banco Popular	0.25	1.00		1.25
Workers Pension Fund (Fondo de Capitalización Laboral-FCL)	1.5			1.5
Mandatory Pension System (Régimen Obligatorio de Pensiones – ROP)	1.5		50% of the FCL + interest (annual)	1.5% + (0.5 + *i*)FCL

Contributions to the IVM (disability, old age or death) will be increased until 2035 as follows:

	Total (%)	Employer (%)	Worker (%)	State (%)
Until 31 December 2009	7.50	4.75	2.50	0.25
From 1 January 2010 to 31 December 2014.	8.00	4.92	2.67	0.41
From 1 January 2015 to 31 December 2019.	8.50	5.08	2.84	0.58
From 1 January 2020 to 31 December 2024	9.00	5.25	3.00	0.75
From 1 January 2025 to 31 December 2029	9.50	5.42	3.17	0.91
From 1 January 2030 to 31 December 2034	10.00	5.58	3.33	1.09
From 1 January2035 and beyond	10.50	5.75	3.50	1.25

Taxation of pensioners

Pensions are taxable using the same scale that applies to workers' earnings.

Social security contributions paid by pensioners

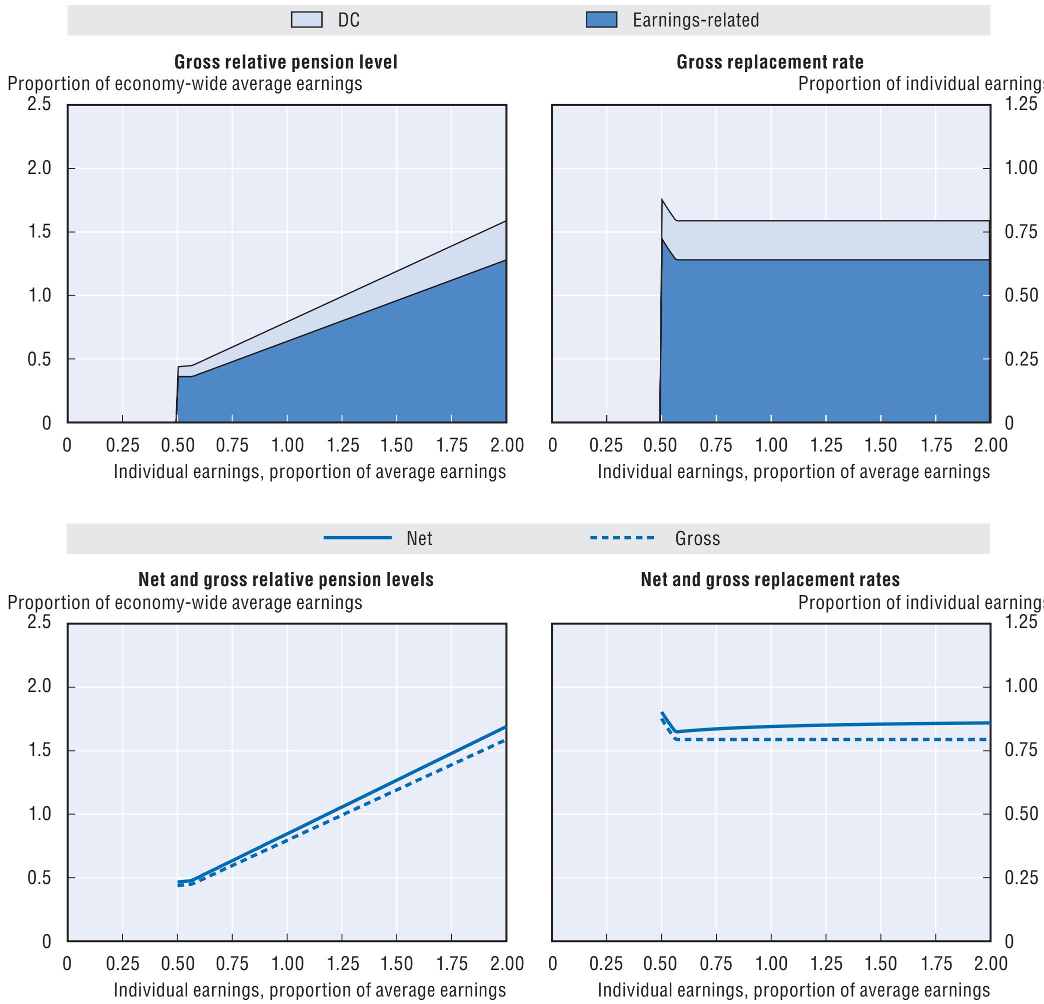
The cost of social security insurance for pensioners receiving disability, old age and death scheme is covered entirely by the Disability, Old and Death Pension Fund. Pensioners under this scheme do not contribute to social security.

Social assistance programmes for old-age population

Social welfare pension

There is a non-contributory basic pension (RNC) for people aged 65 and over for disability or survival that does not fall within the contributory regimes and is only for the needy. The amount of the benefit is CRC 70 125 per month. This programme is managed by the CCSS and financed with resources from the Social Development and Family Assistance Fund and certain specific taxes.

Pension modelling results: Costa Rica



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	64.3	43.8	59.6	79.4	119.1	158.8
(% average gross earnings)						
Net relative pension level	68.5	46.6	63.4	84.5	126.8	169.1
(% net average earnings)						
Gross replacement rate	79.4	87.7	79.4	79.4	79.4	79.4
(% individual gross earnings)						
Net replacement rate	83.9	90.3	83.6	84.5	85.5	86.0
(% individual net earnings)						
Gross pension wealth	13.4	14.8	13.4	13.4	13.4	13.4
(multiple of individual gross earnings)	*14.9*	*16.4*	*14.9*	*14.9*	*14.9*	*14.9*
Net pension wealth	13.4	14.8	13.4	13.4	13.4	13.4
(multiple of individual gross earnings)	*14.9*	*16.4*	*14.9*	*14.9*	*14.9*	*14.9*

StatLink http://dx.doi.org/10.1787/888933161658

Dominican Republic

Dominican Republic: Pension system 2010

The pension system is a contributory scheme, based on individual capitalisation accounts. All workers, both public and private, and their employers must contribute to their respective capitalisation accounts and must pay an insurance premium for disability and survivor coverage. A minimum pension is guaranteed.

Key indicators

		Dominican Republic	LAC26
Average earnings	DOP	188 900	259 400
	USD	5 100	7 000
Public pension spending	% GDP	4.6	3.1
Life expectancy	At birth	73.4	73.6
	At age 65	18.4	17.4
Population over age 65	% of working-age population	11.5	12.3

Qualifying conditions

Workers with at least 30 years of contributions can retire at the age of 60. Earlier retirement is also possible from age 55 regardless of the number of contributory years if the person has sufficient funds to withdraw an annuity greater than 50% of the minimum pension. Insured persons over age 65 who have contributed for a minimum of 25 years are eligible for a guaranteed minimum pension.

Individuals over 60 years of age who have been inactive in the system for the preceding three months upon reaching retirement age and who have not contributed for the required number of months, the accumulated balance in their individual capitalisation account will be returned to them.

Benefit calculation

Defined benefit

The defined-benefit schemes that cover public employees and a limited segment of formal workers in the private sector currently offer old-age insurance coverage to a closed group of affiliates aged 45 or older at the time that the law went into effect (this law enabled them to remain covered by these schemes).

New labour-market participants must enter into the mandatory scheme of the new Dominican Pension System, including those affiliated to the previous schemes and who were under age 45 when the reform went into effect.

Targeted

The minimum pension of the mandatory scheme is equivalent to the lowest legal minimum wage in the country, approximately 44% of the average monthly contribution base wage on 31 December 2010.

Defined contribution

Workers and employers contribute 2.87% and 7.10% of contribution base wages, respectively, for old-age, disability and survivors insurance. Of this amount, 8.0 percentage points are allocated to individual capitalisation accounts. Disability and survivor insurance premiums are established by law up to a maximum of 1.0% of the contributory wages, and administrative fees are established by law up to a maximum of 0.5% of wages, although the pension fund management companies also charge up to 30% of the returns on investments above a certain threshold. There is, also, a charge of 0.07% to finance the Superintendent of Pensions' operating costs, and a contribution of 0.4% for the Social Solidarity Fund. Benefits can be drawn as programmed retirement or annuities indexed to the consumer price index.

Variant careers

Early retirement

Early retirement is possible. Anyone who meets the age and contributory requirements for unemployment due to old age can claim a pension. It is also possible to retire at age 55 if the individual account balance is sufficient to enable an annuity of at least 150% of the minimum pension.

Late retirement

It is possible to defer pension claiming until after the retirement age of 60.

Personal income tax and social security contributions

Taxation of workers

Annual scale 2010 (DOP)	Rate
Up to 349 326.00	Exempt
349 326.01-523 988.00	15% above 349 326.01
523 988.01-727 761.01	26 199.00 plus 20% above 523 988.01
727 761.01 and above	466 954.00 plus 25% above 727 761.01

Social security contributions paid by workers

Insured individuals contribute 2.87% of their wages for old-age, disability and survivors insurance, insured persons and the employer contribute 7.10%. The minimum contributory wage for 2010 was DOP 5 635. The minimum contributory wage is derived from averaging private sector minimum wages. The legal monthly minimum wage for public-sector workers is DOP 2 600. For family health insurance under the defined-contribution scheme, the insured person contributes 3.04% and the employer 7.09%. The minimum contributory wage is equal to the legal minimum wage of the sector in which the insured worker belongs; the maximum contributory wage is 20 times the legal minimum wage.

Taxation of pensioners

Contributions to Social Security as well as reserves and interest generated by pension funds are exempt from taxes and direct or indirect charges; likewise, pensions that do not exceed five times the national minimum wage are exempt from taxes and direct or indirect charges.

Social security contributions paid by pensioners

Disabled pensioners must continue to pay old-age, disability, and survivor insurance and family health insurance at the following rates; 9.97% for old-age, disability and survivor insurance and 3.0% for family health insurance.

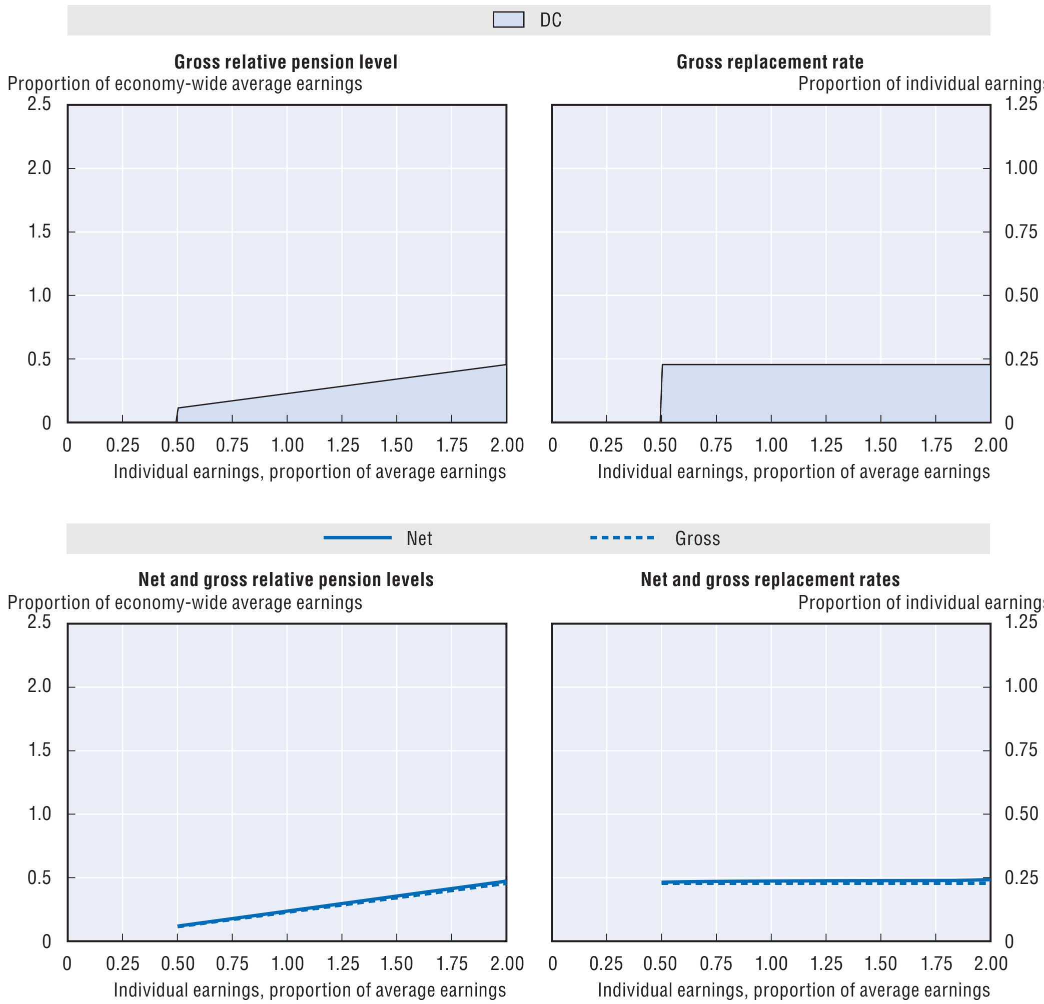
Pensioners receiving old-age pensions under the mandatory regime pay for family health insurance. The National Social Security Council establishes the contribution rates to the family health insurance by pensioners and retirees under both the mandatory and the subsidised mandatory regimes, in accordance with their social and economic condition, attempting to ensure the greatest possible welfare.

Social assistance programmes for old-age population

Social assistance pension

There is a non-contributory social assistance pension equivalent to 60% of the public sector minimum wage (DOP 5 117.50 in 2012), resulting in a social assistance pension benefit of DOP 3 070.50.

Pension modelling results: Dominican Republic



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	18.5	11.4	17.1	22.8	34.2	45.6
(% average gross earnings)						
Net relative pension level	19.2	11.8	17.8	23.7	35.5	47.4
(% net average earnings)						
Gross replacement rate	22.8	22.8	22.8	22.8	22.8	22.8
(% individual gross earnings)						
Net replacement rate	23.6	23.2	23.5	23.7	23.8	24.2
(% individual net earnings)						
Gross pension wealth	4.2	4.2	4.2	4.2	4.2	4.2
(multiple of individual gross earnings)	*4.6*	*4.6*	*4.6*	*4.6*	*4.6*	*4.6*
Net pension wealth	4.2	4.2	4.2	4.2	4.2	4.2
(multiple of individual gross earnings)	*4.6*	*4.6*	*4.6*	*4.6*	*4.6*	*4.6*

StatLink http://dx.doi.org/10.1787/888933161668

Ecuador

Ecuador: Pension system in 2010

The pension system is a defined-benefit system based on earnings. There is also a non-contributory system for the elderly in need.

Key indicators

		Ecuador	LAC26
Average income	USD	4 400	7 000
	USD	4 400	7 000
Public pension spending	% of GDP	1.3	3.1
Life expectancy	At birth	76.4	73.6
	At age 65	19.6	17.4
Population over 65	% of working-age population	11.9	12.3

Qualifying conditions

Pension benefits can be withdrawn at any age with at least 40 years of contributions. Old-age pension benefits can be withdrawn at age 60 for those with 30 years of contributions; at age 65 with 15 years; and at age 70 with 12 years of contributions. Special rules apply for the armed forces and the police who can retire after 25 years of service.

Benefit calculation

Old-age pension

The monthly old-age pension benefit is equal to a percentage of the average base income for contributions for the last five years that the insured worked. The percentage varies depending on the total number of years of contributions (50% for ten years, 75% for 30 years, 81.25% for 35 years and 100% for 40 years).

The minimum income for contribution calculation purposes for workers in microenterprises is USD 185, USD 200 for household workers, USD 218 for private-sector workers and USD 370 for public-sector workers.

There is no maximum income for contribution calculation purposes.

The minimum monthly pension established for January 2010 has a floor of 50% of the Unified Basic Salary (SBU), which was equal to USD 120.00 and a ceiling of USD 1 308.00. Pension benefits are increase discreetly by political decisions. Pensions between USD 120.00 and USD 500.00 were raised by USD 48.00, while those above USD 500.00 were raised by USD 40.15.

Minimum pension

Years of contributions	Minimum pension (%)
Up to10 years	50 SBU
11-20 years	60 SBU
21-30 years	70 SBU
31-35 years	80 SBU
30- 39 years	90 SBU
40 or more years	100 SBU

Maximum old-age pension

Years of contributions	Pension
10-14 years	2.5 SBU
15-19 years	3 SBU
20-24 years	3.5 SBU
25-29 years	4 SBU
30- 34 years	4.5 SBU
35-39 years	5 SBU
40 or more years	5.5 SBU

Old-age pensioners may continue to work after they begin pension benefit receipt. However it is not possible to receive a pension benefit and work for the same employer in the first year.

The pensions are paid monthly and there are two additional bonus payments.

Benefits are adjusted annually in line with earnings, and according to the progressive SBU scale. Old-age pensions are increased in January.

Ranges of pension by unified base salary (SBU)	Growth coefficient (%)
Up to 0.5 SBU	16.16
0.501 SBUM-1 SBU	12.14
1.01 SBUM-1.50 SBU	9.53
1.501 SBUM-2 SBU	7.31
2.01 SBUM-2.5 SBU	5.61
Greater than 2.501 SBU	4.31

Career variants

Early retirement

Early retirement is not possible until the contribution requirements are met. Early retirement is, however, possible for reasons of disability with at least two years of contributions to the system.

Late retirement

It is possible to defer pension's withdrawal beyond the age of 65.

Personal income tax and social security contributions

Taxation of workers

Individual income tax rate ranges from 5% to 35% with eight income brackets.

Income taxation, 2010

Basic fraction	Additional amount up to	Tax on basic fraction	Tax on excess of basic fraction (%)
0.00	8 910	0	0
8.910	11 350	0	5
11.350	14 190	122	10
14.190	17 030	406	12
17.030	34 060	747	15
34.060	51 080	3 301	20
51.080	68 110	6 705	25
68.110	90 810	10 963	30
90.810	And above	17 773	35

Social security contributions paid by workers

In 2010, private sector employees contributed 9.35% of their earnings. This includes health, work-related injury and unemployment benefits. The employer's contribution to social security is 11.15%.

Taxation of pensioners

Pensioners do not pay VAT (they are reimbursed for value-added taxes). Additionally, they are given a 50% discount on all basic services.

Social security contributions paid by pensioners

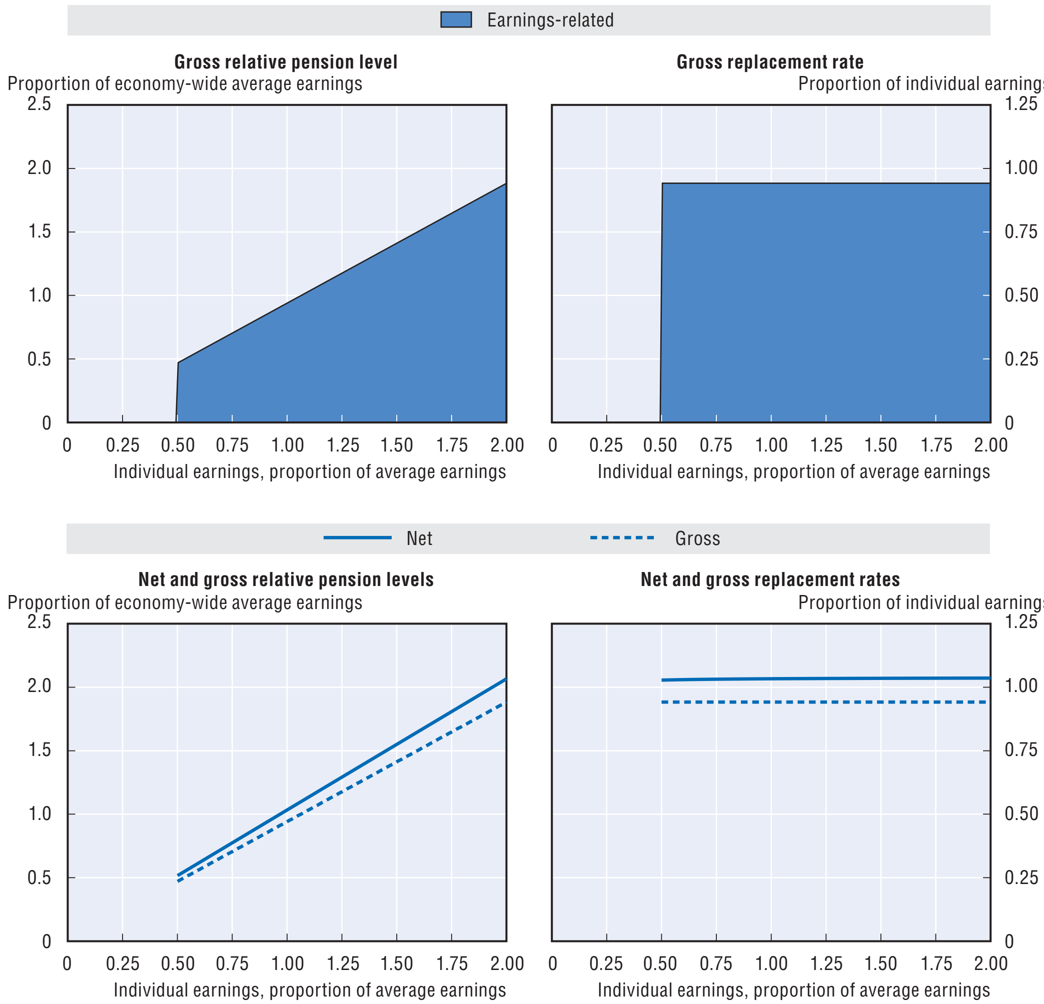
Pensioners do not contribute to social security. If a pensioner decides to return to work, his/her pension is suspended and he/she receives only a salary, with the corresponding deductions.

Social assistance programmes for old-age population

Social welfare pension

The Development Voucher (El Bono de Desarrollo) is granted to pensioners who are over 65, in extreme poverty, and disabled. They can choose to receive a monetary benefit of USD 35.00 per month per person. According to the results obtained by the Social Registry in establishing the poverty line, any person who falls under the poverty line is eligible for this benefit.

Pension modelling results: Ecuador



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	76.3	47.1	70.6	94.2	141.2	188.3
(% average gross earnings)						
Net relative pension level	83.7	51.7	77.5	103.3	155.0	206.6
(% net average earnings)						
Gross replacement rate	94.2	94.2	94.2	94.2	94.2	94.2
(% individual gross earnings)						
Net replacement rate	103.2	102.8	103.2	103.3	103.5	103.6
(% individual net earnings)						
Gross pension wealth	23.2	23.2	23.2	23.2	23.2	23.2
(multiple of individual gross earnings)	*25.6*	*25.6*	*25.6*	*25.6*	*25.6*	*25.6*
Net pension wealth	23.2	23.2	23.2	23.2	23.2	23.2
(multiple of individual gross earnings)	*25.6*	*25.6*	*25.6*	*25.6*	*25.6*	*25.6*

StatLink http://dx.doi.org/10.1787/888933161679

El Salvador

El Salvador: Pension system in 2010

The pension system in El Salvador consists of a privately managed defined-contribution scheme. A guaranteed minimum pension requires 25 years of contributions by the minimum retirement age.

Key indicators

		El Salvador	LAC26
Average income	USD	3 700	61 000
	USD	400	7 000
Public pension spending	% of GDP	1.7	3.1
Life expectancy	At birth	72.3	73.6
	At age 65	18.3	17.4
Population over age 65	% of working-age population	13.9	12.3

Qualifying conditions

The pensionable age is 60 for men and 55 for women with 25 years of contributions. Retirement is also permitted if an individual can claim an annuity equal to 60% of the base earnings for contribution purposes or 160% of the minimum pension. Twenty-five years of contributions are required to qualify for a minimum pension.

Benefit calculation

Defined contribution

Employees and employers contribute 6.25% and 6.75%, respectively, and, of these amounts, 10.3%points (increasing to 10.8% from April 2012) is allocated to individual savings accounts. A maximum of 2.7% (decreasing to 2.2% from April 2012) of earnings for benefit calculation purposes is used to finance disability and survivors insurance and the administrative costs. Benefits can be received as defined benefits, annuities, or a combination of the two.

In the individual savings account system, those who do not meet the minimum requirements to obtain a pension are refunded the balance in their individual accounts. They can elect to receive it in a lump sum or in six annual payments. In the latter case, they have the right to receive health insurance coverage, the cost of which is withheld from the payments.

Targeted

The minimum amount of an old-age and full disability pension in 2010 was USD 143.64, and for partial disability it was USD 100.55.

Variant careers

Early retirement

Early retirement is possible. Employees or self-employed, can claim a pension before reaching retirement age or without having the minimum of 25 years of contributions when the individual pension savings balance is sufficient to finance a pension of 60% or more than the base salary, which is equal to or above 160% of the minimum pension. These pensions are considered early retirement pensions, and the penalty is that they do not carry the government's minimum pension guarantee. There is no age restriction for claiming this pension.

Late retirement

Employees or self-employed persons, can delay claiming a pension after reaching retirement age since the pension is a right that can be exercised at the affiliate's will, and there is no penalty with respect to the old-age pension. If upon reaching retirement age the affiliate has not exercised his/her right and he/she becomes disabled or dies, he/she or their beneficiaries will receive the equivalent of the old-age pension at that moment, absolving the pension management company from any further responsibility. There are no incentives to delay the pension unless a person continues contributing, in which case the account continues to grow.

Personal income tax and social security contributions

Taxation of workers

No taxes are paid on incomes below USD 2 514.29. Income above that amount up to USD 6 628.57 pay a tax in the amount of USD 57.14 plus 10% above USD 2 514.29; between USD 6 628.57 and USD 20 342.85 the tax rate is 20%; and incomes above USD 20 342.85 are taxed at 30%.

Social security contributions paid by workers

The contribution for health, workmen's compensation and pension is 10.5% of earnings. For the first two, the worker contributes 3% on earnings up to USD 685.71, and for the pension, they pay 6.25% of the declared earnings up to a maximum of earnings for contribution purposes of USD 5 354.52.

Taxation of pensioners

Pensions as personal earnings are exempt from income tax or any other tax rate or municipal tax. Pensions of officials and public or municipal employees are constitutionally protected against taxation.

Social security contributions paid by pensioners

Contributions paid by pensioners are 7.8% for health insurance up to a maximum of USD 685.71.

Indexation of pensions

In the Pension Savings System – of individual accounts – only the minimum pensions are adjusted annually by the Ministry of Finance in the Law on the State Budget, taking into account the relative variation in the minimum wage for contribution calculation purposes and available resources of the central government.

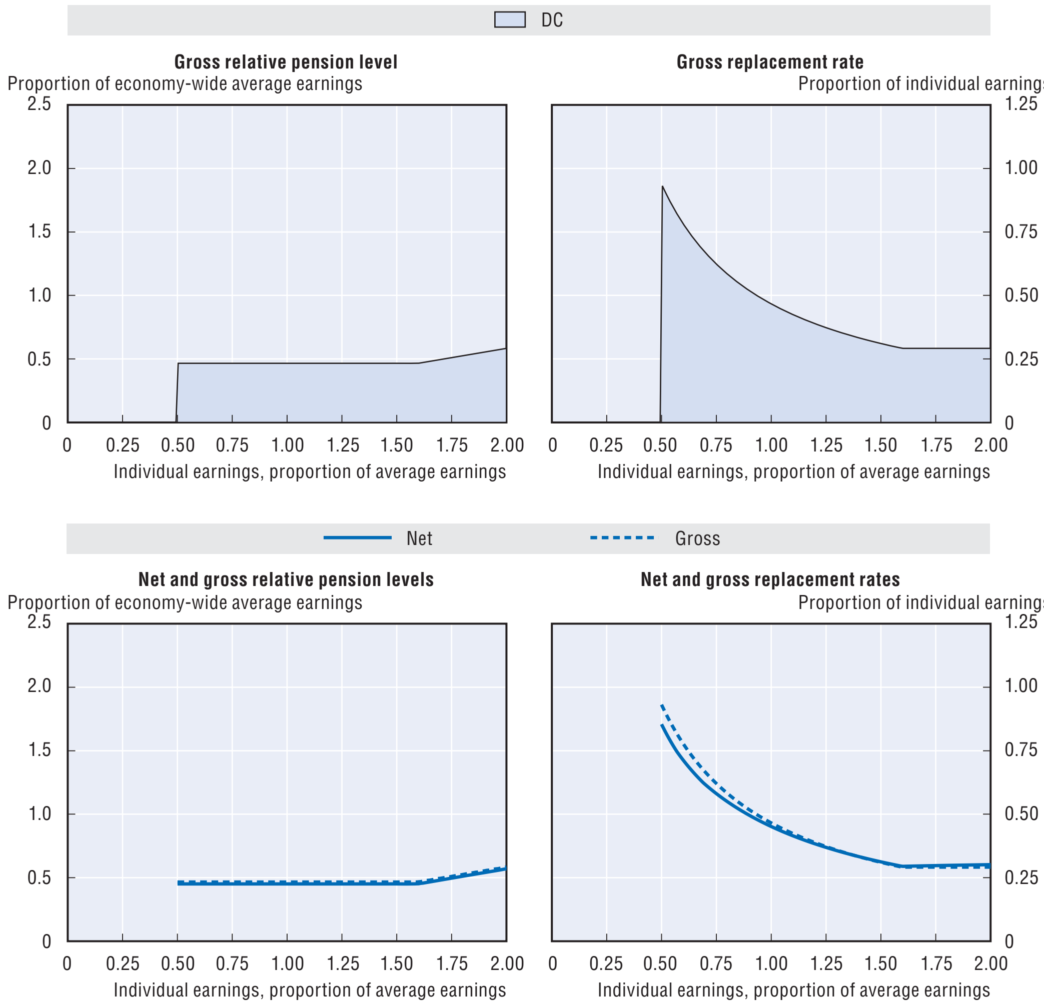
For the fiscal exercise of 2009, starting on 1 January, the monthly pensions of the Public Pension System – the pay-as-you-go system– between USD 130.58 to USD 300.00, were adjusted for inflation by 10%. Additionally, the minimum total old-age and disability pension was set at USD 143.64 per month, and the minimum partial disability pension was set at USD 100.55. These increases were also applied to the both the full and the partial minimum old-age and disability pensions in the Pension Savings System, that is, the defined-contribution system.

Social assistance programmes for old-age population

Social pension

The Rural Solidarity Communities programme assists residents of the country's 32 poorest municipalities. This programme includes a benefit called Universal Basic Pension, consisting of a payment of a pension in the amount of USD 50.00 for people over age 70 who have no other source of income, and who are covered by the Rural Solidarity Communities programme.

Pension modelling results: El Salvador



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	46.6	46.6	46.6	46.6	46.6	58.3
(% average gross earnings)						*46.6*
Net relative pension level	45.2	45.2	45.2	45.2	45.2	57.0
(% net average earnings)						*45.2*
Gross replacement rate	57.5	93.1	62.1	46.6	31.0	29.2
(% individual gross earnings)						*23.3*
Net replacement rate	54.4	85.4	58.1	45.2	31.2	30.1
(% individual net earnings)						*23.9*
Gross pension wealth	10.6	17.2	11.5	8.6	5.7	5.4
(multiple of individual gross earnings)	*13.0*	*21.1*	*14.1*	*10.6*	*7.0*	*5.3*
Net pension wealth	10.6	17.2	11.5	8.6	5.7	5.4
(multiple of individual gross earnings)	*11.6*	*18.8*	*12.5*	*9.4*	*6.3*	*4.7*

StatLink http://dx.doi.org/10.1787/888933161682

Guatemala

**Guatemala:
Pension system in 2010**

The pension system consists of a public defined-benefit scheme.

Key indicators

		Guatemala	LAC26
Average income	GTQ	21 900	55 900
	USD	2 700	7 000
Public pension spending	% of GDP	0.8	3.1
Life expectancy	At birth	71.9	73.6
	At age 65	17.7	17.4
Population over 65	% of the working-age population	10.3	12.3

Qualifying conditions

In 2010, the retirement age was 60 with at least 180 months (15 years) of contributions.

In 2011 and 2012, at least 192 months (16 years) of contributions will be required. Starting in 2013, the contribution requirement will be increased to 204 months, and starting in 2014, it will be increased to 216 months.

Benefit calculation

Old-age pension

The value of the old-age pension in 2010 was equal to 50% of the average wage in the preceding 60 months, plus 0.5% for every six months of contributions exceeding 120 months.

In 2010, an additional 10% of the amount of the pension for each of the insured's dependents was allocated and is paid to the wife or partner or disabled spouse, each minor child under 18 and disabled children over 18, or the dependent mother and dependent disabled father who are not themselves receiving a pension. In 2011 and until September 2012, this 10% was paid to the insured and calculated on the base earnings regardless of the existence of dependents.

The pension is paid in 12 payments a year plus an additional payment every December for the same amount as the monthly amount (that is, there are 13 payments per year), plus a voucher in December for GTQ 500, called the Annual Family Bonus.

The minimum monthly pension is GTQ 340. However, in view of the extra payment mentioned in the preceding paragraph, the average minimum monthly pension is GTQ 410 per month.

The minimum earnings for calculation purposes is GTQ 6 000. The maximum pension can reach 80% of the maximum earnings for calculation purposes, or GTQ 4 800.

The base compensation is calculated based on the average wage in the last five years, with a maximum amount of GTQ 6 000.

If an insured does not meet the minimum requirements of age and number of contributions, upon request, 70% of the contributions will be returned to him or her.

Benefits are adjusted periodically based on actuarial variations in the programme. If the actuarial evaluation includes a basic increase of 6%, this is not regulated. In practice, the increases have been between 2% and 4% every two years.

Variant careers

Early retirement

There is no early retirement before age 60.

Late retirement

Upon reaching age 60, the insured can apply for a pension from the Guatemalan Social Security Institute (IGSS) at any time, as long as they have made the required number of contributions. For each additional six months, the retirement pension is increased by 0.5% over what it would have been. This is an incentive to defer retirement.

Personal income tax and social security contributions

Taxation of workers

There is an income subsidy of up to GTQ 36 000 per year. For additional incomes up to GTQ 65 000 the tax is 15%; from GTQ 65 001 to GTQ 180 000 it is 20%; from GTQ 180 001 to GTQ 295 000 it is 25%, and for incomes above GTQ 295 000 it is 31%.

Social security contributions paid by workers

These contributions are equal to 1.83% of the base contribution wage. The minimum contribution income for contribution calculation purposes is equal to the daily minimum wage. There is no maximum income for contribution calculation purposes.

In Guatemala, minimum wages are paid to agricultural, non-agricultural, and factory workers.

	Agricultural and non-agricultural	Factory
2010	Q 56/ay	Q 51.75/day
2011	Q 63.7/day	Q 59.45/day
2012	Q 68/day	Q 62.5/day

In addition to contributing 1.83% of their earnings to the disability, old-age and survivors programme, employees contribute 1% for accident insurance and 2% for sickness and maternity, for a total of 4.83%.

The employer contributes 3.67% of employees' earnings to the disability, old-age and survivors programme.

The state is supposed to pay the equivalent of 25% of the benefits paid; however, it has never done so.

The employer contributes 7% of the workers' earnings to the health insurance, the sickness, maternity, and accidents programme. The state is supposed to contribute 25% of the earnings, but it has never done so.

Taxation of pensioners

Pensioners do not pay taxes on pensions.

Social security contributions paid by pensioners

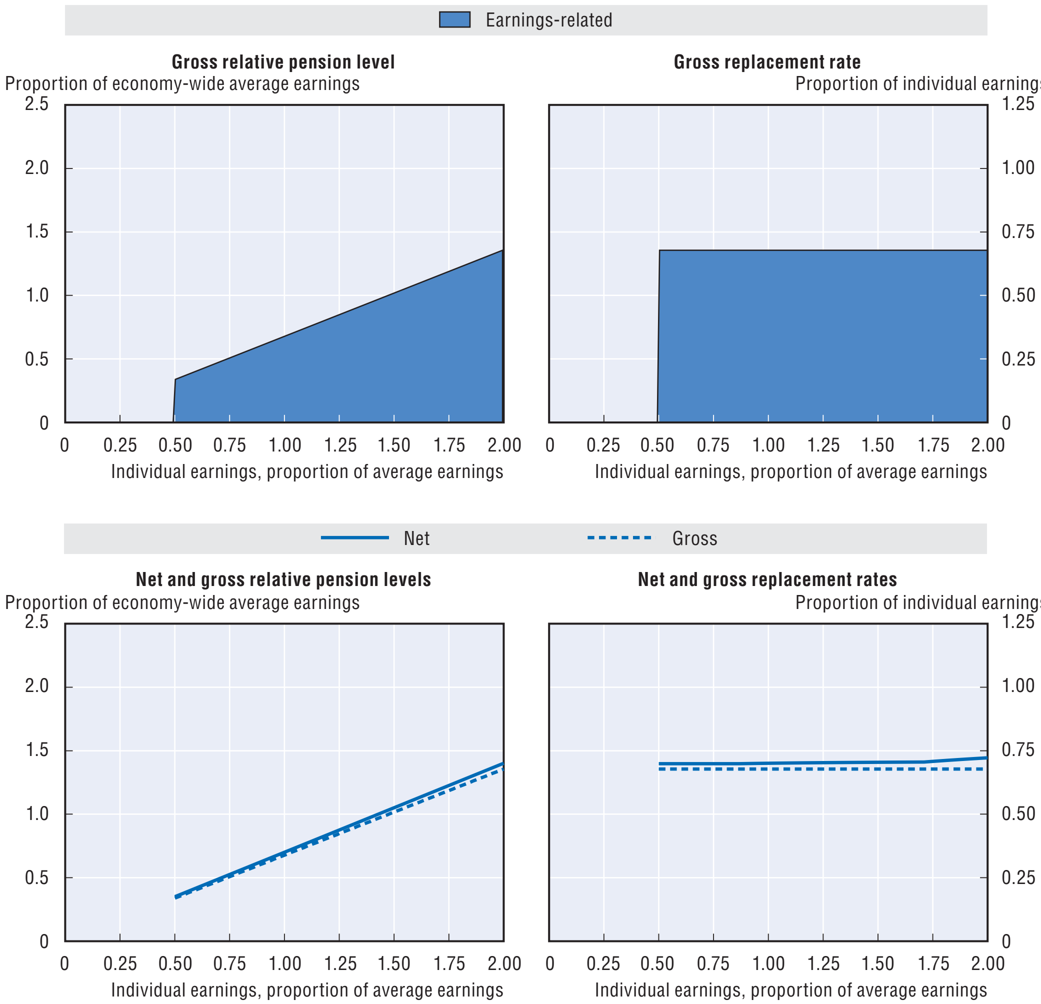
Pensioners do not contribute. If they choose to continue working, pensioners contribute only to sickness, maternity and accident insurance, which is 3% of their salary.

Social assistance programmes for old-age population

Social pension

There is a non-contributory pension for people over 65 years of age who are needy. The beneficiaries of this programme are Guatemalan, as defined in Article 144 of the Constitution, who can demonstrate, through a socioeconomic assessment conducted by a social worker, that they lack economic resources and are extremely poor. Since 2007, the payment to beneficiaries who have met these legal requirements is GTZ 400.00 per month.

Pension modelling results: Guatemala



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	54.9	33.9	50.8	67.8	101.7	135.6
(% average gross earnings)						
Net relative pension level	56.8	35.0	52.6	70.1	105.1	140.1
(% net average earnings)						
Gross replacement rate	67.8	67.8	67.8	67.8	67.8	67.8
(% individual gross earnings)						
Net replacement rate	69.9	69.9	69.9	70.1	70.5	72.2
(% individual net earnings)						
Gross pension wealth	14.5	14.5	14.5	14.5	14.5	14.5
(multiple of individual gross earnings)	*16.4*	*16.4*	*16.4*	*16.4*	*16.4*	*16.4*
Net pension wealth	14.5	14.5	14.5	14.5	14.5	14.5
(multiple of individual gross earnings)	*16.4*	*16.4*	*16.4*	*16.4*	*16.4*	*16.4*

StatLink http://dx.doi.org/10.1787/888933161696

Guyana

Guyana: Pension system in 2010

The pension system consists of an earnings-related component and an old-age grant for those with some but insufficient contributions.

Key indicators

		Guyana	LAC26
Average earnings	GYD	584 200	1 416 900
	USD	2 900	7 000
Public pension spending	% of GDP	0.1	3.1
Life expectancy	At birth	66.2	73.6
	At age 65	13.0	17.4
Population over age 65	% of working-age population	6.6	12.3

Qualifying conditions

Age 60 with at least 750 weeks of paid or credited contributions, including at least 150 weeks of paid contributions; 25 weeks of contributions are credited for each year that the insured was older than age 35 in 1969, up to 600 weeks. Retirement is not necessary. The old-age grant is paid if the insured does not satisfy the qualifying conditions for an old-age pension but had at least 50 weeks of contributions before age 60.

Benefit calculation

Old-age pension

The pension is 40% of the insured's average weekly covered earnings plus 1% of average weekly covered earnings for each 50-week period of contributions exceeding 750. Average weekly covered earnings are based on the insured's best three years of earnings in the last five years before age 60.

The maximum weekly earnings for benefit calculation purposes are GYD 29 193. The rate of pension however, must not be less than 50% of the existing Public Service Minimum Wage and not greater than 60% of the Average Weekly Insurable Earnings. The public sector monthly minimum wage is GYD 33 207. Average weekly insurance earnings were GYD 29 193.

In order to calculate the benefits, one needs to obtain the contribution record for the last five years worked before the age of 60 when the contributor paid at least 13 weeks (or three months) of annual contributions. Of those last five years, the best three years of contributions are picked to do the sum:

$$\frac{\text{Sum the Annual Insurable Earnings}}{\text{Sum the number of Contribution Weeks}} = \text{Average Weekly Insurance Earnings (a)}$$

Sum the number of Contribution Weeks

Weekly pension = (0.4a) + (0.01a) for each group of fifty – (50 contributions over 750)

One (1) year refers to twelve (12) months before the birth month of the Insured Person. "Best" year means the year with the highest Annual Insurable Earnings.

When the entitled pension is calculated, it is then compared to the minimum pension at the time the insured person turns 60. If the calculated pension is less, the pensioner is paid the minimum pension. Otherwise, the pensioner is paid the calculated pension.

Old-age pensions are adjustments to from time to time.

Old-age grant

An Old Age Grant is a single payment. The grant is equal to 8.3% of the insured's average annual covered earnings multiplied by the number of 50-week periods of paid or credited contributions, as follows:

- Obtain the total contribution record
- Obtain the annual insurable earnings for each year of contribution
- Sum the annual insurable earnings for all the years of contributions
- Sum the number of contribution weeks for all the years of contributions
- Divide item (c) by item (d) = Average weekly insurable earnings
- Multiply item (e) by 52 = Average annual insurable earnings
- Grant = 1/12 × item (f) × Number of groups of fifty- (50) Contributions (in total contribution record).

One (1) year refers to a calendar year.

Variant careers

Early retirement

Early retirement is possible from the age of 60.

Late retirement

Late retirement is possible and a person who qualifies for pension is entitled to 40% of his or her relevant wage for the first 750 contributions, and an additional 1% for each complete block of 50 contributions above 750. For example, a person with 1 222 contributions would be entitled to (40 + 9) = 49%. No person is entitled to more than 60% of his relevant wage.

Personal income tax and social security contributions

Taxation of workers

For the year of assessment in 2009 the, year of income equal 2008. The income tax is calculated on income in excess of GYD 35 000.00 per month or GYD 420 000 per year. The remainder in excess of the monthly and yearly threshold is taxed at 33.33%.

Social security contributions paid by workers

The NIS extends protection and social insurance coverage to all persons between the ages of 16 and 60 years who are engaged in insurable employment. This is done on a compulsory basis for employed and self-employed persons and can continue on a voluntary basis for those who cease such employment before reaching age 60 years. Persons younger and older than this and who are in insured are also covered but only for the Industrial benefit.

Both the employer and employee pay contributions. The total contribution equal 13% of paid wages to the employee but is derived by a 5.2% deduction from the employee's pay and the remaining 7.8% by the employer on behalf of the employee for National Insurance purposes.

The maximum weekly earnings for contribution calculation purposes are GYD 29 193 (adjusted annually).

Contributions are paid weekly or monthly depending on the nature of employment.

The insured's contributions also finance cash sickness, maternity and work injury benefits.

Taxation of pensioners

Guyana has a standard tax deduction of GYD 420 000 per year. The marginal tax-rate is then 33.3%.

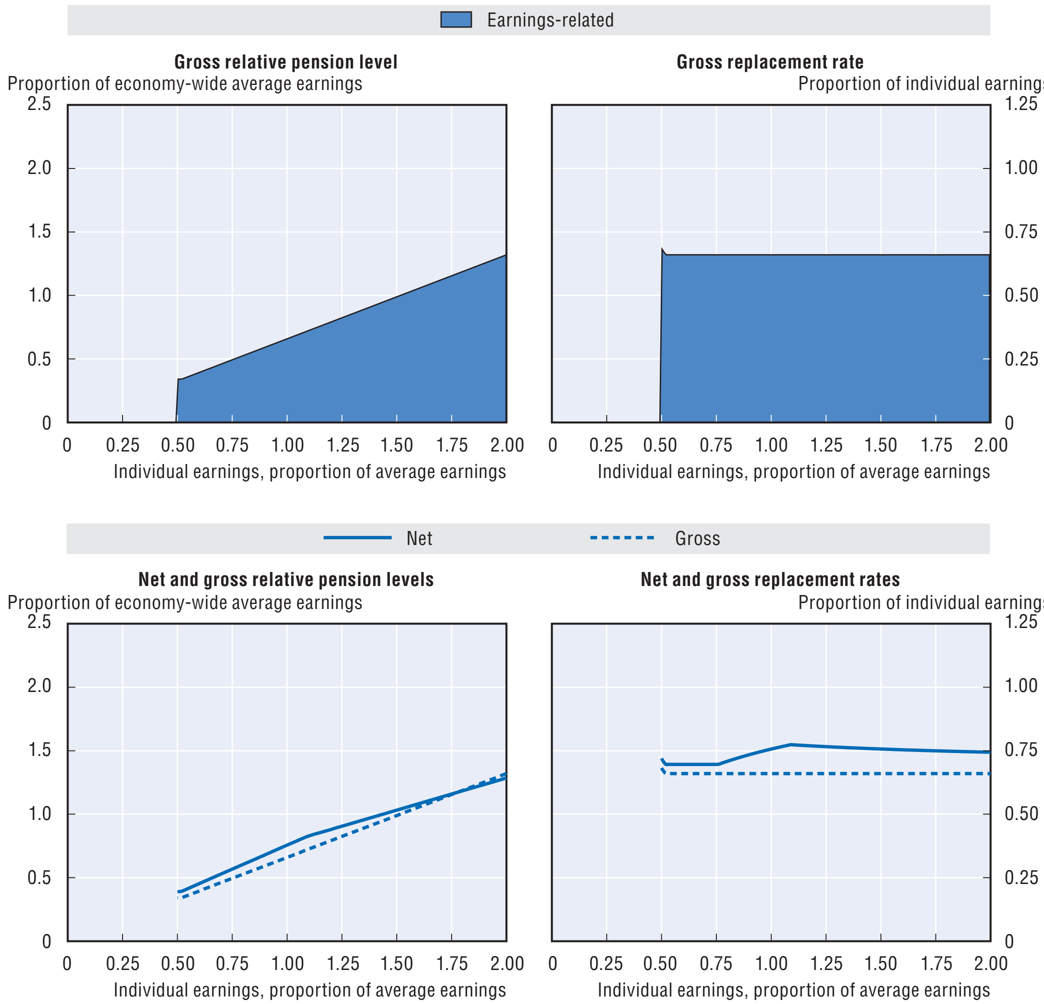
Taxation of pension income

Pensions are tax exempted.

Social security contributions paid by pensioners

Persons over the age of 60 and pensioners do not pay social security contributions. The employer is responsible for the social security payments for employed persons above 60and is equal to 1.5% to cover persons over 60 or under 16 years old for the Industrial benefit.

Pension modelling results: Guyana



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	53.5	34.1	49.5	66.0	99.0	132.0
(% average gross earnings)						
Net relative pension level	61.3	39.1	56.7	75.7	103.2	128.6
(% net average earnings)						
Gross replacement rate	66.0	68.2	66.0	66.0	66.0	66.0
(% individual gross earnings)						
Net replacement rate	71.1	72.0	69.6	75.7	75.7	74.4
(% individual net earnings)						
Gross pension wealth	13.9	14.3	13.9	13.9	13.9	13.9
(multiple of individual gross earnings)	*16.7*	*17.3*	*16.7*	*16.7*	*16.7*	*16.7*
Net pension wealth	13.9	14.3	13.9	13.9	12.6	11.8
(multiple of individual gross earnings)	*16.7*	*17.3*	*16.7*	*16.7*	*15.2*	*14.2*

StatLink http://dx.doi.org/10.1787/888933161709

Haiti

Haiti: Pension system in 2010

The pension system consists of an earnings-related component and an old-age settlement for those with some but insufficient contributions.

Key indicators

		Haiti	LAC26
Average earnings	HTG	27 200	277 200
	USD	700	7 000
Public pension spending	% of GDP	0.7	3.1
Life expectancy	At birth	63.0	73.6
	At age 65	13.7	17.4
Population over age 65	% of working-age population	9.1	12.3

Qualifying conditions

Employees in commercial, industrial or agricultural sectors are insured by the ONA insurance. The old-age pension age is equal to 55 with at least 25 years of contributions.

An old-age grant is paid if the insured does not satisfy the qualifying conditions for an old-age pension benefit.

Benefit calculation

Old-age pension

The ONA pension benefit equals one-third of the average wage of the insured person in the ten years preceding retirement. Past average earnings are not adjusted and benefits are not indexed.

Old-age settlement

Unemployed individuals above the age of 55 and with less than ten years of contributions are entitled to a refund of contributions for a maximum period of 12 months.

Variant careers

Early retirement

Early retirement is not possible.

Late retirement

For the ONA regime insured individuals with at least 20 years of service do not have a bonus in case of delayed departure beyond 55 years.

Personal income tax and social security contributions

Taxation of workers

From	To	Tax (%)
0	HTG 60 000	0
HTG 60 001	HTG 240 000	10
HTG 240 001	HTG 480 000	15
HTG 480 001	HTG 1 000 000	25
HTG 1 000 001	And above	30

Social security contributions paid by workers

The contributions of employers and the wage fund establishment of the National Old Age Insurance will be calculated as follows:

1. Those wages that do not exceed HTG 200 000, 2% paid by both the employee and employer
2. Wages from HTG 201.00 to HTG 500 000: 3% paid by both the employee and employer
3. Wages from HTG 501 00 to HTG 1 000.00: 4% paid by both the employee and employer
4. For wages above HTG 1 000.00: 6% to be paid by both the employee and employer.

A 1% tax on the salaries of public and private employees contributes towards the welfare fund (*Caisse d'Assistance Sociale*).

Disability and survivors are paid out of social contributions.

For public employees, the health care insurance is financed by levies on wages.

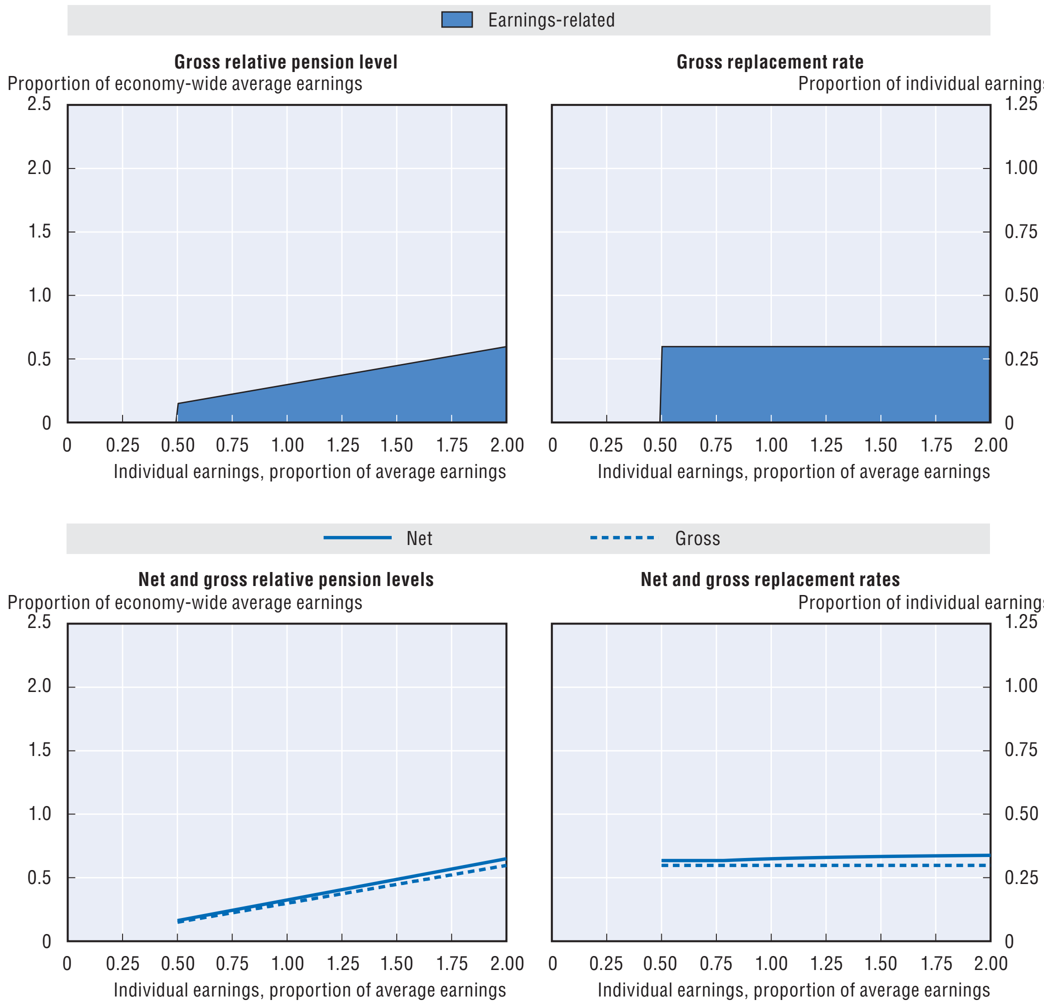
Taxation of pensioners

Pensions are exempted of taxes.

Social security contributions paid by pensioners

Old-age pension beneficiaries do not pay social security contributions.

Pension modelling results: Haiti



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	24.2	14.9	22.4	29.8	44.8	59.7
(% average gross earnings)						
Net relative pension level	26.3	16.2	24.3	32.5	48.7	64.9
(% net average earnings)						
Gross replacement rate	29.8	29.8	29.8	29.8	29.8	29.8
(% individual gross earnings)						
Net replacement rate	31.9	31.8	31.8	32.5	33.3	33.8
(% individual net earnings)						
Gross pension wealth	7.0	7.0	7.0	7.0	7.0	7.0
(multiple of individual gross earnings)	*7.7*	*7.7*	*7.7*	*7.7*	*7.7*	*7.7*
Net pension wealth	7.0	7.0	7.0	7.0	7.0	7.0
(multiple of individual gross earnings)	*7.7*	*7.7*	*7.7*	*7.7*	*7.7*	*7.7*

StatLink http://dx.doi.org/10.1787/888933161715

Honduras

Honduras: Pension system in 2010

The pension system in Honduras consists of a pay-as-you go defined-benefit scheme and an old-age settlement for those who do not have the required number of contributions.

Key indicators

		Honduras	LAC26
Average earnings	HNL	59 400	131 800
	USD	3 100	7 000
Public pension spending	% of GDP	5.1	3.1
Life expectancy	At birth	73.8	73.6
	At age 65	18.3	17.4
Population over age 65	% of working- age population	9.0	12.3

Qualifying conditions

The mandatory retirement age is 65 for men and 60 for women with 15 years of contributions. Individuals who do not qualify for an old-age pension will have their contributions refunded as a lump sum.

Benefit calculation

Old-age pension

For the Social Security Institute (IHSS) scheme, the pension must not be less than 50% or greater than 80% of the base monthly contribution wage.

The pension is based on the average of the last 180 monthly wages or earnings that were used as the base monthly contribution wage, indexed to the month in which the insured qualified for a pension. If the number of months of contributions is less than 180, the calculation will be based on earnings as of the date of the request based on the consumer price index, taking as the final date the last contribution and as the initial date the first contribution, and multiplying the basic monthly earnings by 40% plus 1% of earnings for every 12 months of contributions exceeding the first 60 months.

In 2010, the average minimum wage was HNL 4 949.70. IHSS pension benefits are changed by government decree.

Old-age settlement

If an individual does not qualify for an old-age pension the insured is reimbursed with the total amount contributed in a lump sum.

Variant careers

Early retirement

Early retirement is not possible.

Late retirement

Late retirement is possible and individuals who have met the qualifying age and contribution requirements and defer their pension withdrawal receive a benefit of 3% instead of 1% for every year and fraction of a year of contributions beyond the first 60 months.

Personal income tax and social security contributions

Taxation of workers

There is a personal income allowance of HNL 70 000.00. Additionally, HNL 20 000.00 are allowed for medical expenses, for a total of HNL 90 000.00.

Social security contributions paid by workers

Workers contribute 1% of their earnings to the IHSS, the private sector contributes 2%, and the state contributes 0.5%.

There are minimum and maximum monthly earnings amounts for the contribution calculation purposes. In 2010, the upper limit of contribution was HNL 4 800.00. In 2012, the upper limit was HNL 7 000.

	Health and maternity (%)	Old age (%)	Workmen's compensation (%)	Total
Employer	5.0	2.0	0.02	7.02
Worker	2.5	1.0		3.5
Government	0.5	0.5		1.0
Total	8.0	3.5	0.02	11.52

Taxation of pensioners

Pensions are exempt from taxation, regardless of where the insured worked.

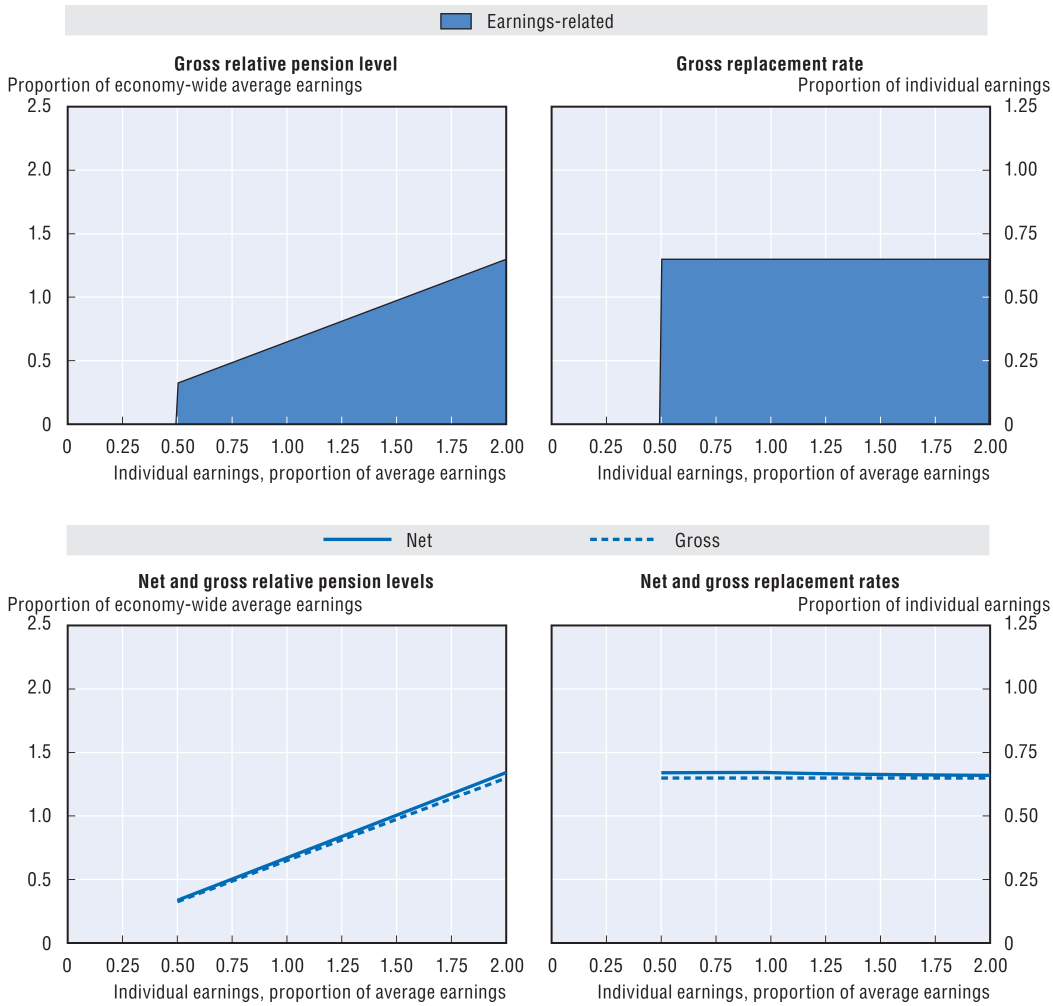
Social security contributions paid by pensioners

Old-age pension beneficiaries do not pay social security contributions.

Social assistance programmes

Honduran institutions grant an annual voucher valued at HNL 800.00. Approximately 300 000 families receive this benefit.

Pension modelling results: Honduras



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	52.6	32.5	48.7	64.9	97.4	129.9
(% average gross earnings)	*49.3*	*30.4*	*45.7*	*60.9*	*91.3*	*121.8*
Net relative pension level	54.3	33.5	50.3	67.1	100.6	134.2
(% net average earnings)	*50.9*	*31.4*	*47.2*	*62.9*	*94.3*	*125.8*
Gross replacement rate	64.9	64.9	64.9	64.9	64.9	64.9
(% individual gross earnings)	*60.9*	*60.9*	*60.9*	*60.9*	*60.9*	*60.9*
Net replacement rate	67.1	67.0	67.1	67.1	66.4	66.0
(% individual net earnings)	*62.9*	*62.8*	*62.9*	*62.9*	*62.2*	*61.9*
Gross pension wealth	12.6	12.6	12.6	12.6	12.6	12.6
(multiple of individual gross earnings)	*16.1*	*16.1*	*16.1*	*16.1*	*16.1*	*16.1*
Net pension wealth	12.6	12.6	12.6	12.6	12.6	12.6
(Multiple of individual gross earnings)	*16.1*	*16.1*	*16.1*	*16.1*	*16.1*	*16.1*

StatLink http://dx.doi.org/10.1787/888933161721

Jamaica

Jamaica: Pension system in 2010

The pension system has a basic component and an additional earnings-related component. For those ineligible for the basic pension there is a social assistance component.

Key indicators

		Jamaica	LAC26
Average earnings	JMD	429 900	590 600
	USD	5 100	7 000
Public pension spending	% of GDP	0.7	3.1
Life expectancy	At birth	74.0	73.6
	At age 65	17.4	17.4
Population over age 65	% of working-age population	14.5	12.3

Qualifying conditions

The retirement age is 65 for men and 60 for women with at least 1 716 weeks of paid contributions, including an annual average of 39 weeks of paid or accredited contributions. Women´s retirement age is set to increase to 61 in 2012, 62 in 2013, 63 in 2014, 64 in 2015 and 65 in 2016 to equalise it with men's retirement age. Retirement is compulsory from 70 for men or 65 for women (increasing to 70 by 2016). A reduced pension is paid for annual average contributions of between 10 and 38 weeks.

Benefit calculation

Old-age pension

A basic benefit of JMD 2 400 a week is paid with an annual average of 39 weeks of paid or credited contributions, plus an earnings-related benefit of JMD 0.06 a week for every JMD 13 of employer/employee contributions paid during the working lifetime.

A reduced pension of JMD 1 800 a week (with annual average contributions of 26 to 38 weeks) or JMD 1 200 a week (with 10 to 25 weeks) is paid, plus an earnings-related benefit of JMD 0.06 a week for every JMD 13 of employer/employee contributions paid during the working lifetime.

There is also a spousal supplement of JMD 800 a week.

In general since the system is quite redistributive, the pension consists of the basic benefit (or flat rate), which constitutes around 90% of the pension, and an earnings-related component for the remaining 10% of the benefit.

Benefits are not indexed but are reviewed every two years and actuarially adjusted. For the purpose of the modelling we assume price indexation.

Old-age grant

There is a social assistance programme under the conditional cash programme for poor families, children, elderly (60+), etc. The elderly, above the age of 60, who qualify for the programme, receive JMD 900 per month, paid every two months.

Variant careers

Early retirement

The pension cannot be claimed prior to the retirement age.

Late retirement

Men can continue to contribute to the system until they reach the age of 70, when the pension cannot be deferred any further. For women, this deferral is only possibly until the age of 65.This age will be gradually increased to age 70 by 2016.

It needs to be noted that the pension claim must be made no later than three years after the date of eligibility; failing which only a maximum of three years of arrears will be paid.

Personal income tax and social security contributions

Taxation of workers

There is a personal allowance of JMD 441 168. Additional income is taxed at 25%.

Social security contributions paid by workers

Both employees and employers contribute 2.5% of covered earnings, of which 2% is the contribution to the pension and 0.5% is the contribution to the National Health Fund. Household workers and voluntarily insured persons contribute a flat-rate JMD 50 a week. The maximum earnings for employee contribution calculation purposes are JMD 19 230.77 a week or JMD 1 000 000 a year (there are no maximum earnings for contribution calculation purposes for household workers). Workers also contribute to cash maternity benefits. Contributions are deducted weekly, fortnightly or monthly, depending on how the employee is paid.

Taxation of pensioners

Pension benefits are tax exempt. However if a pensioner continues to work beyond the retirement age some allowances exist depending on the total income. Pensioners have an additional tax allowance of JMD 80 000 with a further JMD 80 000 for those over age 65.

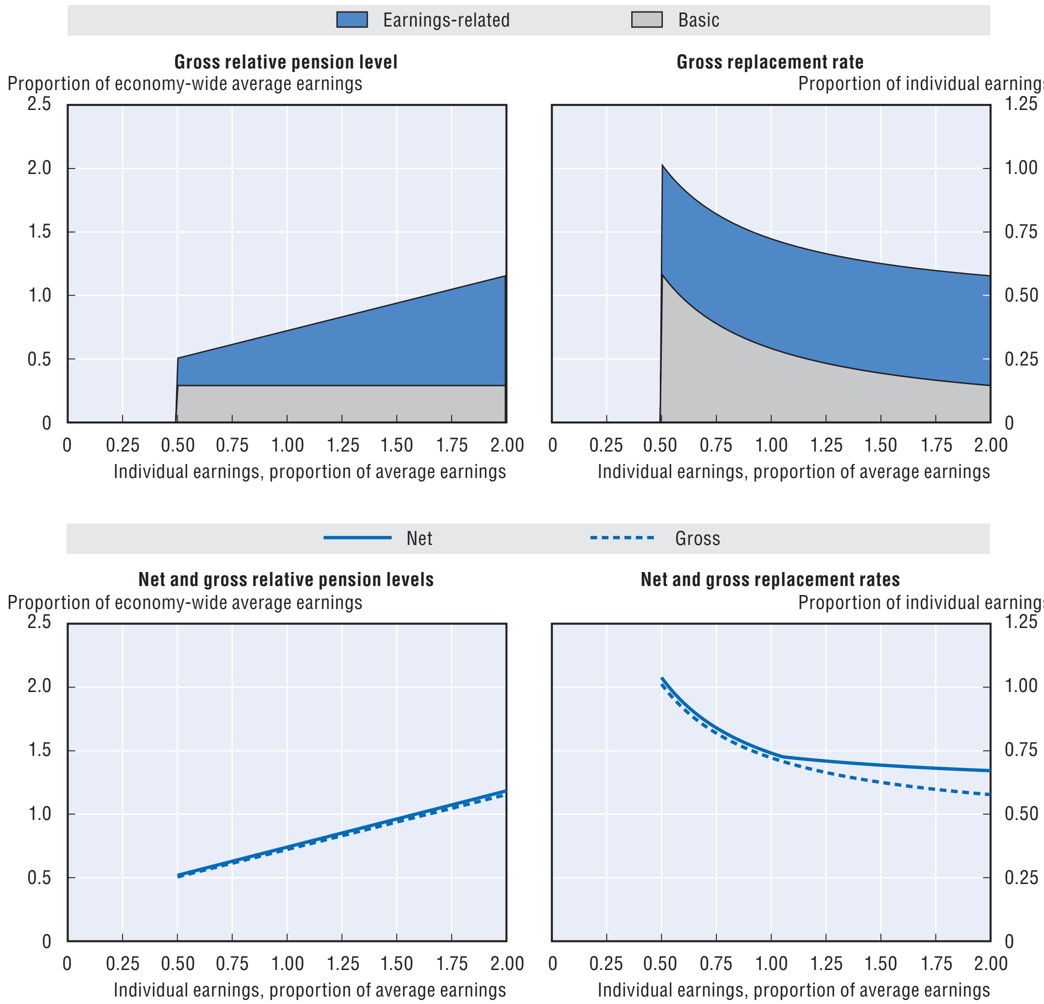
Taxation of pension income

Old-age pension benefits from the National Insurance Scheme are tax exempt.

Social security contributions paid by pensioners

Pensioners do not pay any social security contributions.

Pension modelling results: Jamaica



Men Women (where different)	Median earner	Individual earnings, multiple of average 0.5	0.75	1.0	1.5	2.0
Gross relative pension level	64.0	50.6	61.4	72.2	93.8	115.4
(% average gross earnings)						
Net relative pension level	65.7	51.9	63.0	74.1	96.2	118.4
(% net average earnings)						
Gross replacement rate	79.0	101.3	81.9	72.2	62.6	57.7
(% individual gross earnings)						
Net replacement rate	81.1	103.9	84.0	74.1	69.3	67.1
(% individual net earnings)						
Gross pension wealth	12.3	15.7	12.7	11.2	9.7	9.0
(multiple of individual gross earnings)	*13.6*	*17.4*	*14.1*	*12.4*	*10.8*	*9.9*
Net pension wealth	12.3	15.7	12.7	11.2	9.7	9.0
(Multiple of individual gross earnings)	*13.6*	*17.4*	*14.1*	*12.4*	*10.8*	*9.9*

StatLink http://dx.doi.org/10.1787/888933161731

Mexico

Mexico: Pension system in 2010

Private sector workers that entered after 1 April 2007 or opted for it are covered under a mandatory defined-contribution scheme, privately managed and funded. Contributions are made by workers, employers and government. A minimum pension for private sector workers. Transitional rules apply and for some generations.

Key indicators

		Mexico	LAC26
Average earnings	MXN	84 100	86 100
	USD	6 800	7 000
Public pension spending	% of GDP	1.4	3.1
Life expectancy	At birth	77.3	73.6
	At age 65	18.7	17.4
Population over age 65	% of working-age population	11.4	12.3

Qualifying conditions

Normal retirement age for private sector workers is 65 for men and women, subject to 1 250 weeks (around 24 years) of contribution.

Benefit calculation

Funded scheme

Private sector workers: Workers and employers contribute a total of 6.275% of earnings to an individual account, to which is added a government contribution equivalent to 0.225% of earnings. An additional 5% contribution is made to an individual housing account (a scheme known as Infonavit) which reverts to the retirement account when it is not used. Finally, the government contributes a fixed amount indexed quarterly to inflation into individual retirement accounts per day of contribution called *cuota social* or social fee. As of May 2009, the Social Security Law was amended in order to establish a progressive social fee, seeking to benefit workers who earn the lowest salaries. The social fees as of December 2010 are as follows: for workers who earn up to one minimum wage, the social fee is MXN 4.10647; for those who earn between 1.01 and four times the minimum wage, MXN 3.93537; for those in the 4.01 to seven times the minimum wage bracket, MXN 3.76427; for those in the 7.01 to ten times the minimum wage bracket, MXN 3.59316 and finally, for those who earn between 10.01 and 15 times the minimum wage, MXN 3.42206. For higher wage earners there is no social fee contribution. The social fee is indexed to inflation every three months.

There is a ceiling on contributions which is 25 times the minimum wage. The calculations of pension payments are realised by converting the accumulated account balance (discounting a survival insurance that must be bought to cover the survivors' benefits) into a price-indexed annuity at normal pension age. Annuity rates are sex-specific.

Minimum pension

Private sector workers: The minimum pension is equivalent to a 1997 minimum wage value indexed to inflation (MXN 24 092.91 in 2010). The minimum pension is effectively price indexed.

Variant careers

Early retirement

Early retirement is possible from age 60 for men and women. Conditions are that the worker is not employed and that at least 1 250 weekly contributions have been made. Members may retire at any age if the accumulated capital in their account allows them to buy an annuity that is at least 30% higher than the minimum guaranteed pension. In this case, the worker still has to complete the 1 250 weeks of contributions.

Late retirement

It is not mandatory to retire at 65. It is possible to defer the pension after age 65 for both private sector workers.

Personal income tax and social security contributions

Taxation of workers

No withholding will be made on the monthly earnings for people who perceive only the equivalent to the minimum wage in the corresponding geographic area.

Geographic area	Daily salary	Minimum wage per year	Five minimum wages per year
	MXN	MXN	MXN
"A"	57.46	20 972.90	104 864.50
"B"	55.84	20 381.60	101 908.00
"C"	54.47	19 881.55	99 407.75

For 2010, the annual earnings above the annual minimum wage are taxable according to the following:

Lower limit	Upper limit	Fixed lump sum	Percentage to be applied on the excess of the lower limit
MXN	MXN	MXN	%
0.01	5 952.84	0	1.92
5 952.85	50 524.92	1 14.24	6.4
50 524.93	88 793.04	2 966.76	10.88
88 793.05	103 218.00	7 130.88	16
103 218.01	123 580.20	9 438.6	17.92
123 580.21	249 243.48	13 087.44	21.36
249 243.49	392 841.96	39 929.04	23.52
392 841.97	Or more	73 703.40	30

Taxation of pensioners

The allowance for pensioners is set at 15 times the minimum wage.

Taxation of pension income

There is no special relief for pension income above the higher allowances.

Social security contributions paid by pensioners

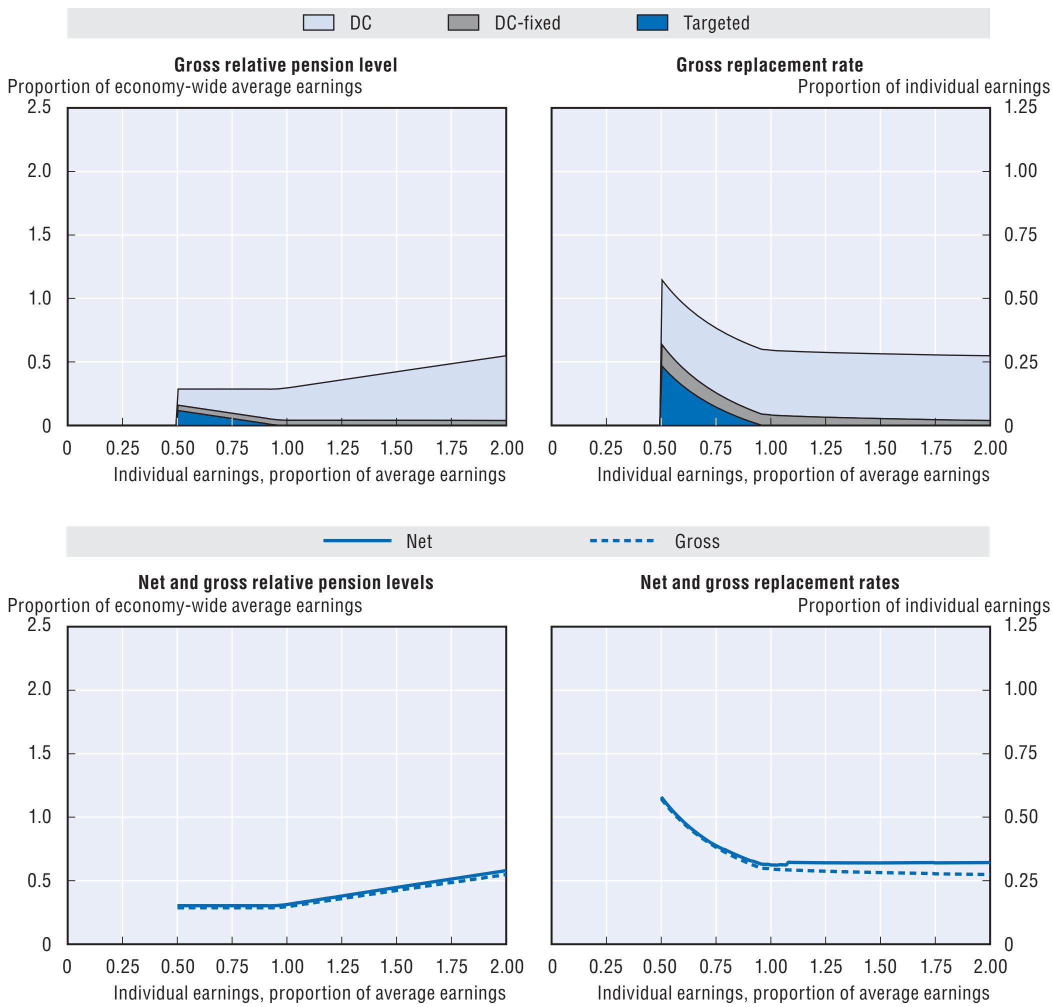
Pensioners do not pay social security contributions.

Non-Contributory Pensions

The *pension alimentaria* for adults 68 and older, residing in the Federal District (DF) are eligible for this benefit which is equal to at least 50% of the minimum wage for the DF (in 2010, the monthly "pension alimentaria" was MXN 897.30 per month).

Pension "70 y mas", MXN 500 per month, for the population aged 70 or older, living in a town with 30 000 or less inhabitants. Beneficiaries must not be recipient of any other government benefit.

Pension modelling results: Mexico



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	28.6	28.6	28.6	29.5	42.3	54.9
(% average gross earnings)				*28.6*	*38.4*	*49.8*
Net relative pension level	30.3	30.3	30.3	31.2	44.7	58.0
(% net average earnings)				*30.3*	*40.6*	*52.7*
Gross replacement rate	46.2	57.3	38.2	29.5	28.2	27.4
(% individual gross earnings)				*28.6*	*25.6*	*24.9*
Net replacement rate	46.8	58.0	38.8	31.2	32.0	32.1
(% individual net earnings)				*30.3*	*29.1*	*29.2*
Gross pension wealth	7.6	9.4	6.3	4.8	4.6	4.5
(multiple of individual gross earnings)	*8.3*	*10.3*	*6.9*	*5.2*	*4.6*	*4.5*
Net pension wealth	7.6	9.4	6.3	4.8	4.6	4.5
(multiple of individual gross earnings)	*8.3*	*10.3*	*6.9*	*5.2*	*4.6*	*4.5*

StatLink http://dx.doi.org/10.1787/888933161743

Nicaragua

Nicaragua: Pension system 2010

The pension system consists of a pay-as-you go scheme and an income-based defined-benefit scheme.

Key indicators

		Nicaragua	LAC26
Average income	NIO	31 700	152 500
	USD	1 400	7 000
Public pension spending	% of GDP	3.1	3.1
Life expectancy	At birth	74.7	73.6
	At age 65	18.5	17.4
Population over 65	% of working-age population	9.1	12.3

Qualifying conditions

The retirement age is 60 for men and women if they have a contribution record of at least 750 weeks. The number of years of contributions required to qualify are reduced for those who have enrolled in the social insurance system after age 45, who have contributed for half the time they have been in the system from enrolment to retirement age, and who have a record of at least 250 weeks of contributions.

There are two non-contributory pension programmes: a) for victims of war, paid to relatives of the fallen or those who were affected by war and b) special pensions, financed by the state, paid to distinguished citizens for diverse reasons.

Benefit calculation

Old-age pension

The benefit is 40% of the average earnings for benefit calculation purposes (or 45% of the average earnings if they are less than twice the minimum wage) plus 1.365% (or 1.59% if the average earnings are less than twice the minimum wage) for each additional 50 weeks of contributions exceeding 150 weeks. The maximum monthly old-age pension is 80% of the average earnings if the average earnings for benefit calculation purposes are greater than twice the minimum wage, and 100% if the average earnings for benefit calculation purposes are less than twice the minimum wage.

The insured's average earnings is equal to the average of the last 250 weeks of contributions or the 250 weeks before the last 250 weeks of earnings received (whichever is greater) multiplied by 4.33.

For insured people who have contributed to social security for between 1 000 and 1 250 weeks, the average earnings for benefit calculation purposes can be calculated based on the average of the last 200 weeks of contributions multiplied by 4.33; for those who have contributed for at least 1 250 weeks, the benefit is calculated on the average of the last 150 weeks of contributions multiplied by 4.33.

Pensions are paid monthly and an additional payment is made annually in December.

All pensions are pegged to the exchange rate of the USD as of 30 November of each year. In the last five years, pensions have been adjusted by 5%.

Pensions that are less than the minimum wage of the manufacturing industry are periodically adjusted according to changes in the minimum wage approved by the National Commission on the Minimum Wage and depending on the sustainability of the pension system.

Variant careers

Early retirement

There is no early retirement.

Late retirement

The pension can be postponed until age 65. A pensioner who continues to work can receive a pension and a salary but must make the required contributions to the system. The pension increases by 1% for each 50 weeks of contributions after age 60, up to a maximum of 5%.

Personal income tax and social security contributions.

Taxation of workers

Income tax tables are as follows:

Natural persons

Taxable income (brackets)		Base tax	Applicable percentage	On amounts above
From	To			
1.00	50 000.00	-	0	-
50 000.01	100 000.00	-	10	50 000
100 000.01	200 000.00	5 000.00	15	100 000
200 000.01	300 000.00	20 000.00	20	200 000
300 000.01	500 000.00	40 000.00	25	300 000
500 000.01	Or more	90 000.00	30	500 000

Wage earners

Taxable income (brackets)		Base tax	Applicable percentage	On amounts above
From	To			
1.00	75 000.00	-	0	-
75 000.01	100 000.00	-	10	75 000
100 000.01	200 000.00	2 500.00	15	100 000
200 000.01	300 000.00	17 500.00	20	200 000
300 000.01	500 000.00	37 500.00	25	300 000
500 000.01	Or more	87 500.00	30	500 000

Social security contributions paid by workers

There are two insurance schemes:

Integrated: Workers are insured to protect against disability, old age and death, particularly through pensions, in case of work-related accidents or illnesses, as well as health (sickness and maternity).

IVM-RP: Workers are insured to protect against disability, old age and death, particularly through pensions, in case of work-related accidents or illnesses. It applies in regions of the country where the Nicaraguan Social Security Institute cannot offer health care services.

Integrated system

Percentages

Category/Source of financing	Employer	Employee	State	Total
Disability, old age and survivors	7.0	4.0		11.0
Workmen's compensation	1.5			1.5
Sickness/Maternity	6.0	2.25	0.25	8.5
Victims of war	1.5			1.5
Total	16.0	6.25	0.25	22.5

IVM-RP scheme

Percentages

Category/Source of financing	Employer	Employee	State	Total
Disability, old age and survivors	7.0	4.0		11.0
Workmen's compensation	1.5			1.5
Victims of war	1.5	0.25		1.75
Total	10.0	4.25	0.0	14.25

For voluntary contributions, either 10% of declared income (for old-age, disability and survivors and dependents benefits), or 18.25% of declared income (for old-age, disability and survivors and dependents benefits, health and maternity benefits, and family allowances).

The minimum earnings for benefit calculation purposes are equal to the minimum wage. The legal monthly minimum wage is between NIO 1 767.57 and NIO 4 030.96, based on nine economic sectors.

The maximum earnings for benefit calculation purposes are NIO 37 518.

Contributions to social security finance family allowances.

Taxation of pension income

Pensions are not taxed.

Social security contributions paid by pensioners

Pensioners do not pay social contributions.

Social assistance programmes for old-age population

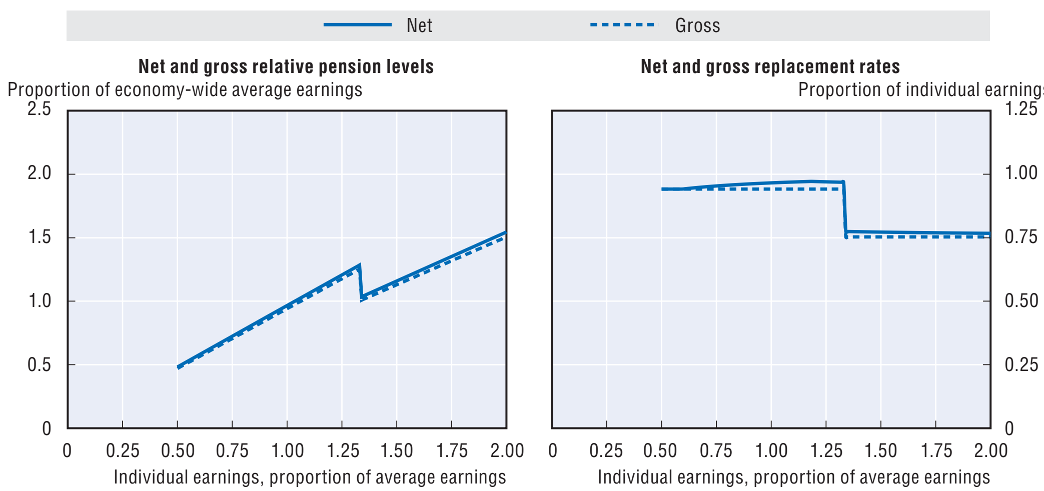
Social welfare pensions

There are pensions for victims of war and special pensions.

Additional programmes

Public sector programmes for the elderly. The government is currently encouraging programmes to protect the low-income or indigent population, especially the elderly, through bonds, credits, and other means.

Pension modelling results: Nicaragua



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	76.3	47.1	70.6	94.2	113.0	150.7
(% average gross earnings)						
Net relative pension level	78.2	48.3	72.5	96.6	115.9	154.6
(% net average earnings)						
Gross replacement rate	94.2	94.2	94.2	94.2	75.3	75.3
(% individual gross earnings)						
Net replacement rate	95.7	94.2	95.4	96.6	77.2	76.7
(% individual net earnings)						
Gross pension wealth	22.7	22.7	22.7	22.7	18.1	18.1
(multiple of individual gross earnings)	*25.2*	*25.2*	*25.2*	*25.2*	*20.2*	*20.2*
Net pension wealth	22.7	22.7	22.7	22.7	18.1	18.1
(multiple of individual gross earnings)	*25.2*	*25.2*	*25.2*	*25.2*	*20.2*	*20.2*

StatLink http://dx.doi.org/10.1787/888933161752

Panama

Panama: Pension system in 2010

The pension system is a mixed system, consisting of a pay-as-you-go defined-benefit scheme and a mandatory system based on individual savings accounts.

Key indicators

		Panama	LAC26
Average income	PAB	7 600	7 000
	USD	7 600	7 000
Public pension spending	% of GDP	4.9	3.1
Life expectancy	At birth	77.6	73.6
	At age 65	20.0	17.4
Population over age 65	% of working-age population	12.7	12.3

Qualifying conditions

The retirement age for men is 62 and 57 for women, if they have a contribution record of at least 18 years (20 years from 2013). Early retirement is possible from age 60 for men and 44 for women if they have a contribution record of at least 15 years.

A partial pension is paid at age 62 for men and 57 for women if they have a contribution record of between 180 and 215 months, or 239 months starting in 2013.

Under the defined-benefit scheme, there is an old-age settlement, paid at the regular retirement age when the insured does not meet the contribution requirement for an old-age pension.

If the insured is not able to meet the requirements for an old-age pension, he/she can request reimbursement of the entire amount saved in his account plus accrued interest, in a lump sum, upon reaching the reference age for retirement.

For the insured who retire when they have reached or exceeded the reference age without having made the required number of contributions, and who have at least 80 contributions, the following calculation will be applied to determine the replacement rate: 60% of the monthly earnings for benefit calculation purposes, to which the limits considered for the minimum and maximum pension amounts for an old-age pension will be applied. The result of this equation is multiplied by the factor resulting from the division of the number of contributions made by the number of contributions needed to qualify.

Benefit calculation

Old-age pension exclusively under the defined-benefit subsystem

The pension is 60% of the average of the best ten years of earnings (not adjusted), plus 1.25% of earnings for every 12 months of contributions beyond 216 months (240 months starting in 2013). Two percent of the monthly earnings for benefit calculation purposes is added for every 12 contributions, if they are contributed after having reached the reference age and exceed the reference number of contributions.

Partial pensions are equal to 60% of the average of the ten best years of earnings, multiplied by the number of months of contribution and divided by 216 (or 240 starting in 2013).

The average base salary corresponds to the seven best years of contributions up to 31 December 2009 or the ten best years of contributions from 1 January 2010.

The minimum monthly pension is PAB 185.

The maximum monthly pension is PAB 1 500.

There are some maximum monthly pensions of PAB 2 000.00 and PAB 2 500.00 if the insured meets some specific requirements:

For the insured who has at least 25 years of contributions and average monthly earnings of at least PAB 2 000.00 in the 15 best years in which he/she made contributions, the pension can be as much as PAB 2 000.00 per month.

For the insured who has at least 30 years of contributions and average monthly earnings of at least PAB 2 500.00 in the 20 best years in which he/she made contributions, the pension can be as much as PAB 2 500.00 per month.

Benefits are adjusted on an ad hoc basis depending on the economic situation in the country or as established by law. Beginning in 2013 the minimum pension (PAB 235) will be increased by PAB 10 per month every five years.

Old-age pension under the mixed subsystem

The defined-benefit component grants participating insured people benefits for disability, old age and death, under the same requirements established by the Exclusively Defined-Benefit Subsystem, up to the maximum amount established on monthly contributions of PAB 500.00.

The individual account component is for insured people whose earnings are greater than PAB 500.00 per month. Those contributions participate in the personal savings component, which grants a retirement pension contributed and capitalised in a savings account, as long as it complies with the contribution and age requirements established in the defined-benefit component. The amount is determined as a programmed old-age retirement pension, dividing the total amount saved and the accrued interest in the individual account at the time the pension begins by the actuarial life expectancy, considered according to the corresponding discount rate on that date. The payment of this pension is guaranteed through a collective annuity, whose cost is prorated among the participants in this component and deducted from the contributions to this subsystem.

Old-age settlement-Compensation (only the defined-benefit subsystem)

A lump sum equivalent to one month of old-age pension for every six months of contributions is granted.

Old-age settlement (mixed subsystem)

This is a lump-sum payment equivalent to the savings and interest accumulated in the individual account.

Variant careers

Early retirement

A reduced pension can be granted, equal to the old-age pension multiplied by 0.9128 one year before the normal retirement age or by 0.8342 two years before the normal retirement age.

Late retirement

Deferral gives an additional payment of 2% of earnings for every 12 months of contributions beyond the normal retirement age.

Personal income tax and social security contributions

Taxation of workers

There is personal allowance of PAB 9 500. Income up to PAB 2 500 is taxed at 20.5%; between PAB 2 500 and PAB 5 500 at 21.5%; between PAB 5 500 and PAB 10 500 at 23%; between PAB 10 500 and PAB 20 500 at 24%; and above PAB 20 500 at 27%.

Social security contributions paid by workers

Contributions of the first PAB 500.00 finance the annuity and defined-benefit scheme. The rest (above PAB 500.00) is accumulated in the individual savings account.

Contributions to the disability, old age and death scheme

Percentage

	Employee contributions	Employer contributions to the IVM (disability, old age or death)	Total to IVM
From 2008 to 2010	7.5	3.5	11.0
From 2011 to 2012	8.5	4.0	12.5
2013 and beyond	9.25	4.25	13.5

The minimum earnings for contribution calculation purposes is equal to the legal monthly minimum wage – PAB 235.00 – for household workers; PAB 300 for insured through voluntary contributions.

There is no maximum earnings for contribution calculation purposes.

In addition to the contributions to IVM (disability, old age or death), both the employer and the employee contribute to the sickness and maternity scheme, as shown in the following table:

Percentage contribution

Percentage

	2010	2011	2012	2013 →
Worker	**8.00**	**9.00**	**9.00**	**9.75**
IVM	7.50	8.50	8.50	9.25
Sickness and maternity	0.50	0.50	0.50	0.50
Employer	**11.75**	**12.00**	**12.00**	**12.25**
IVM	3.50	4.00	4.00	4.25
Sickness and maternity	8.25	8.00	8.00	8.00
Total	**19.75**	**21.00**	**21.00**	**22.00**
IVM	11.00	12.50	12.50	13.50
Sickness and maternity	8.75	8.50	8.50	8.50

The law requires the state to make a yearly deposit into a trust fund for the disability, old-age and death scheme (IVM), to contribute to the sustainability of the scheme, the amount of PAB 100 million each year (in 2010, 2011 and 2012) and PAB 140 million each year (starting in 2013 up to 2060).

Taxation of pensioners

Pensions are not taxed.

Social security contributions paid by pensioners

Pensioners contribute 6.75% of the gross monthly amount of their pensions to Sickness and Maternity Insurance.

Old-age pensioners receiving pensions from the Social Security Fund (CSS) who continue to work, contribute to disability, old-age and death insurance at the same contribution rates as the "active contributing insured". This contribution does not modify the amount of their pensions.

Social assistance programmes for old-age population

Social pension

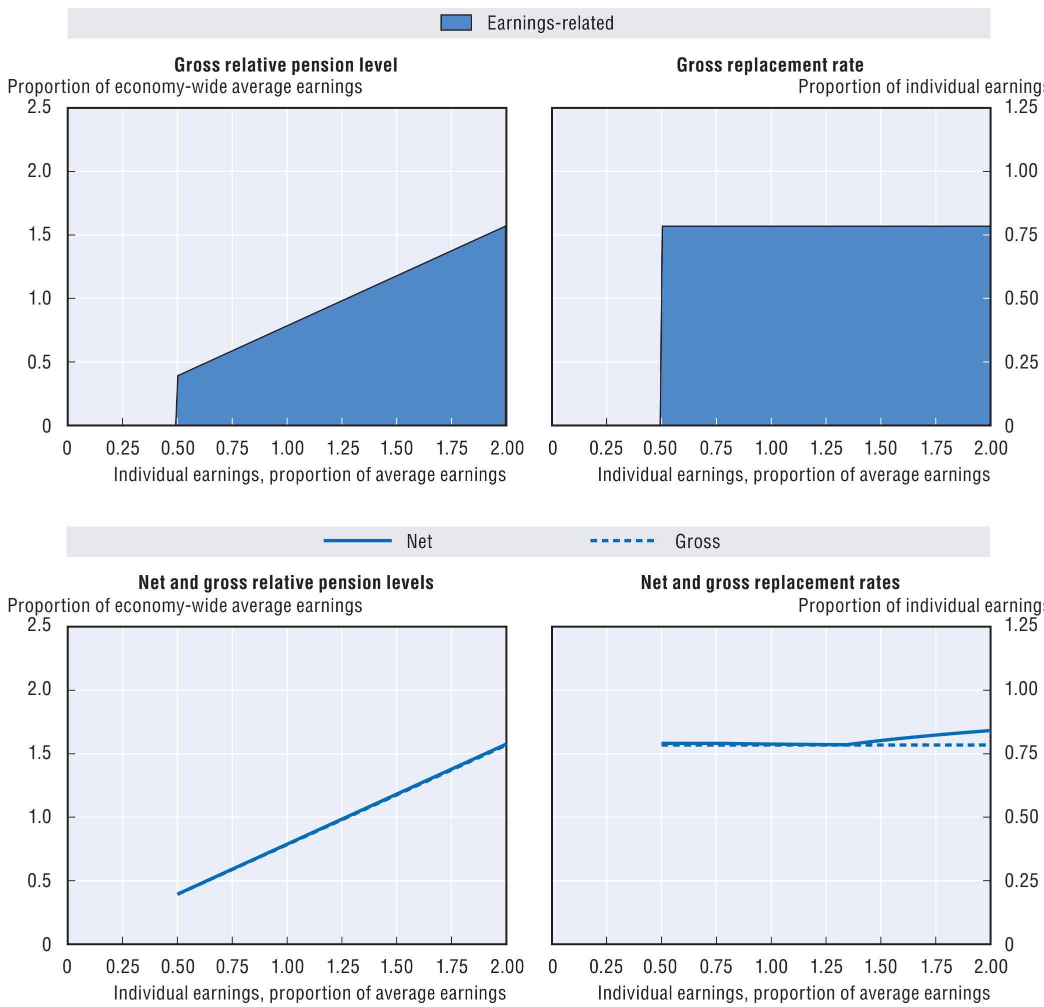
Beginning from 4 August 2009 people over age 70 who do not receive a pension from the CSS receive a monthly payment of PAB 100.00. This non-contributory allowance is known as "100 at 70".

Additional programmes

Pension for seasonal agricultural and construction workers: Starting in 2008, agricultural or construction workers , whose history of contributions to the CSS is low and who have, upon reaching the reference age have at least 120 contributions but who have not reached 180 contributions, can request that the sum total of earnings on which they made contributions be computed each year as if they had been contributed in a period of 12 months, as long as the total amount contributed does not exceed PAB 3 500.00 annually.

Once it has made the calculation described above, the CSS will recognise an old-age pension equal to 60% of the base earnings in effect when the worker retires, multiplied by a factor equal to all of the contributions divided by the reference contribution. This pension has no minimum amount.

Pension modelling results: Panama



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	63.5	39.2	58.8	78.4	117.6	156.9
(% average gross earnings)	*59.0*	*36.4*	*54.6*	*72.8*	*109.2*	*145.7*
Net relative pension level	63.8	39.4	59.1	78.8	118.2	157.6
(% net average earnings)	*59.3*	*36.6*	*54.9*	*73.2*	*109.8*	*146.3*
Gross replacement rate	78.4	78.4	78.4	78.4	78.4	78.4
(% individual gross earnings)	*72.8*	*72.8*	*72.8*	*72.8*	*72.8*	*72.8*
Net replacement rate	79.0	79.1	79.1	78.8	80.2	84.1
(% individual net earnings)	*73.4*	*73.4*	*73.4*	*73.2*	*74.5*	*78.1*
Gross pension wealth	13.8	13.8	13.8	13.8	13.8	13.8
(multiple of individual gross earnings)	*15.0*	*15.0*	*15.0*	*15.0*	*15.0*	*15.0*
Net pension wealth	13.8	13.8	13.8	13.8	13.8	13.8
(multiple of individual gross earnings)	*14.0*	*14.0*	*14.0*	*14.0*	*14.0*	*14.0*

StatLink http://dx.doi.org/10.1787/888933161763

Paraguay

Paraguay: Pension system in 2010

The pension system in Paraguay consists of a pay-as-you-go system and an earnings-related defined-benefit system.

Key indicators

		Paraguay	LAC26
Average annual income	PYG (million)	18.3	32.1
	USD	4 000	7 000
Public pension spending	% of GDP	2.8	3.1
Life expectancy	At birth	72.3	73.6
	At age 65	17.1	17.4
Population over age 65	% of working-age population	10.4	12.3

Qualifying conditions

The retirement age for both men and women is 60, with a record of at least 25 years of contributions.

Benefit calculation

Old-age pension

The monthly retirement pension is equal to 100% of the average earnings for contribution calculation purposes.

There is also a proportional retirement granted with 15 years of seniority and 65 years of age, with a substitution rate of 60%, which increases by 4% for each year of age beyond 15 years of seniority.

The average earnings for contribution calculation purposes is based on the last 36 months of earnings (excluding the last month) before retirement.

The minimum monthly pension is PGY 300 000, which was established by the General Budget Law (PGN) and was not an entitlement. In 2012, the minimum retirement pension amount was adjusted to 33% of the legal minimum wage: PYG 547 217.

The maximum monthly old-age retirement pension is 300 times the daily minimum wage. (The minimum monthly salary is equal to PYG 1 507 484 in 2010. In 2012, the minimum salary was PYG 1 658 232.)

All income-generating activity must cease after retirement age.

Pensions are paid monthly, plus a bonus (Annual Additional Benefit) in December equivalent to one month of retirement pension. This is not an entitlement, as the law states that it is subject to the financial and actuarial viability of the Retirement Fund.

Benefits are adjusted annually according to the consumer price index published by the Central Bank of Paraguay.

Variant careers

Early retirement

Early retirement can be claimed at 55 years of age (both men and women), with a record of at least 30 years of contributions.

The monthly early retirement pension is equal to 80% of the average earnings for contribution calculation purposes plus 4% of the annual earnings for every year over 55 up to 59.

Late retirement

Once an insured person has reached the age and seniority required to qualify for an ordinary pension, they will receive 100% of the average of the last 36 months. There is no advantage to contributing for more than the required amount of time.

Personal income tax and social security contributions

Taxation of workers

The personal income tax (IRP) was introduced in August 2012. Workers pay tax as well as make the contributions that all dependent workers are required to make to the social security system.

Starting in 2012, independent or self-employed workers who are not covered by the social security system will have to pay IRP and value-added taxes (VAT).

The IRP establish the following:

0 to 36 annual minimum wages	Exempt
More than 36 up to 120	8%
More than 120	10%
On 50% of the earnings paid to those who do not reside in the country but who earn income in Paraguay	20%

For the first year that this law is in effect, the range not affected will be up to 120 annual minimum wages and will diminish until it reaches 36 annual minimum wages.

In 2012, the only contributors will be those people whose gross earnings are above 120 minimum wages (PYG 198 million). For the second year that this law is in effect, (2013), only those persons whose gross earnings are above nine monthly minimum wages, or 108 per year, and so on.

2012	More than 120 minimum wages in the year
2013	More than 9 monthly minimum wages or 108/year
2014	More than 8 monthly minimum wages or 96/year
2015	More than 7 monthly minimum wages or 84/year
2016	More than 6 monthly minimum wages or 72/year
2017	More than 5 monthly minimum wages or 60/year
2018	More than 4 monthly minimum wages or 48/year
2019	More than 3 monthly minimum wages or 36/year

Social security contributions paid by workers

Contributions to social security are equal to 9% of gross earnings. The minimum monthly earnings for the purpose of calculating contributions is equal to the monthly minimum wage. The monthly minimum wage was PYG 1 507 474 in 2010, and was PYG 1 658 232 in 2012. There is no maximum level of earnings for contribution calculation purposes. The contributions to the insurance system described above cover health, maternity, workmen's compensation, and old-age benefits.

Employers contribute 14% of employees' earnings. The sum of the employer and employee contributions is 23%, of which 9 percentage points goes to health insurance, 12.5 percentage points to retirement, and an additional 1.5 percentage point to cover management and administration fees.

By law, the state must pay 1.5% of the payroll paid by employers to private sector workers.

Taxation of pensioners

Retirement income is not taxed.

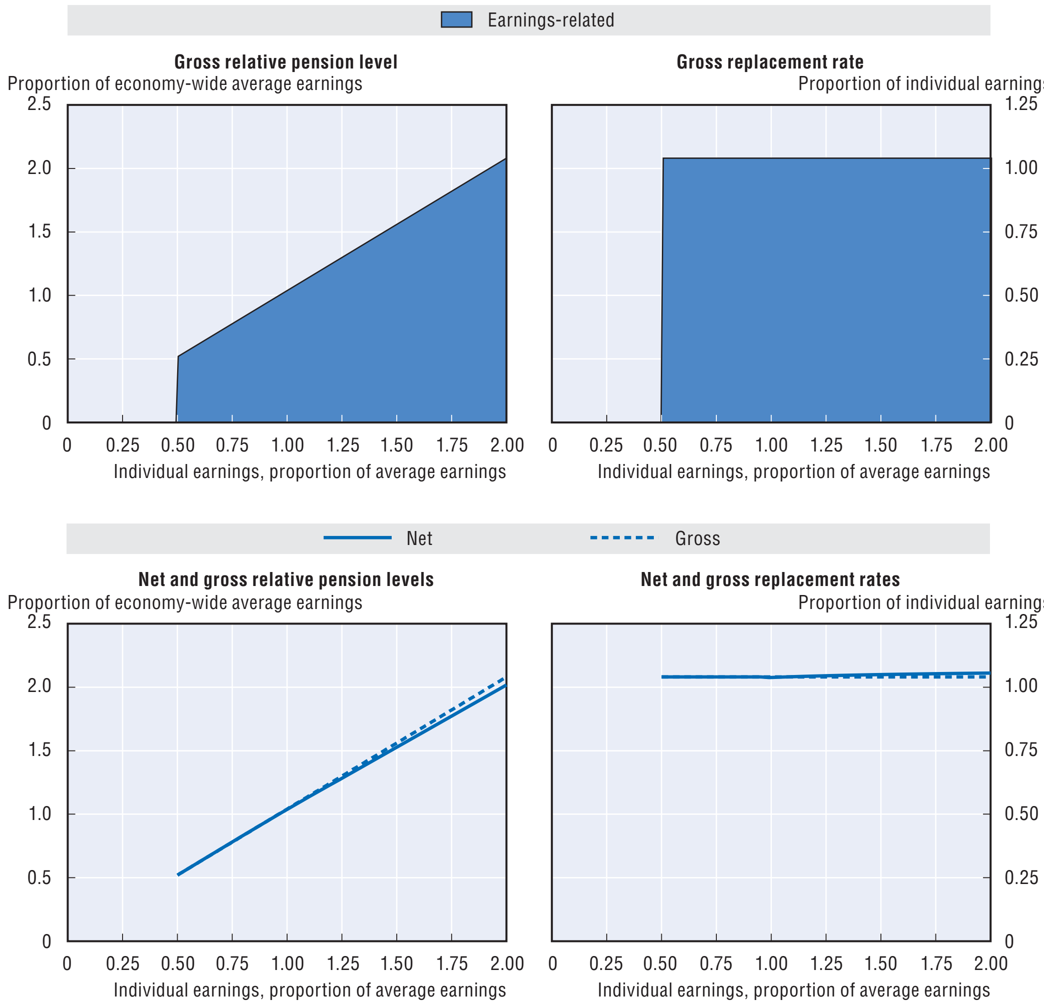
Social security contributions paid by pensioners

Pensioners contribute 6% of their pension income for health insurance in the IPS.

Social assistance programme for the old-age population

Elderly in need can receive a pension for food administered by the Ministry of Finance. This pension is not less than one-quarter of the minimum wage. All natural-born Paraguayans aged 65 or older who are poor and who reside in Paraguay are eligible to receive this assistance. The amount in 2010 was PGY 376 871. Those who have outstanding debts to the state, who receive payments from the public or private sectors including salaries, retirement, pension and/or social security, are not eligible for this benefit.

Pension modelling results: Paraguay



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	84.3	52.0	78.0	104.1	156.1	208.1
(% average gross earnings)						
Net relative pension level	84.4	52.1	78.1	103.8	152.8	201.7
(% net average earnings)						
Gross replacement rate	104.1	104.1	104.1	104.1	104.1	104.1
(% individual gross earnings)						
Net replacement rate	104.1	104.1	104.1	104.1	104.1	104.6
(% individual net earnings)						
Gross pension wealth	18.5	18.5	18.5	18.5	18.5	18.5
(multiple of individual gross earnings)	*20.0*	*20.0*	*20.0*	*20.0*	*20.0*	*20.0*
Net pension wealth	18.5	18.5	18.5	18.5	18.5	18.5
(multiple of individual gross earnings)	*20.0*	*20.0*	*20.0*	*19.9*	*19.5*	*19.4*

StatLink http://dx.doi.org/10.1787/888933161778

Peru

Peru: Pension system in 2010

The system allows people to choose either a public pay-as-you-go and defined-benefit scheme or a defined-contribution scheme managed by the private sector. The minimum pension only covers affiliates of the pay-as-you-go scheme; the pension fund option has not been established.

Key indicators

		Peru	LAC26
Average earnings	PEN	14 600	19 600
	USD	5 200	7 000
Public pension spending	% of GDP	1.7	3.1
Life expectancy	At birth	74.7	73.6
	At age 65	17.7	17.4
Population over age 65	% of working-age population	11.4	12.3

Qualifying conditions

Workers entering the public and private sectors can choose between the system of individual accounts (Private Pension System – SPP) and the public social insurance system (National Pension System – SNP). Those who do not elect either system will be affiliated with the private system. Affiliates to the public system can switch to the private system, but affiliates of the private system cannot return to the public system except under special circumstances.

The qualifying age for a pension for both men and women is 65, with a record of 20 years of contributions.

Benefit calculation

Old-age pension – public system

The reference wage for calculating pensions for those with between 20 and 25 years of contributions is the average earnings for the last five years; between 25 and 30 years, it is the average earnings for the last four years; and for those with more than 30 years of contributions, it is the average earnings for the last three years.

The amount of the future pension is determined by multiplying the current wage by the corresponding replacement rate (according to the table below). For this, there are five different replacement rates depending on the age range.

Age range	Replacement rates	
	% for 20 years of contributions	% for each additional year
0-36	30	2
37-46	35	2
47-56	40	2
57-61	45	2
62-110	50	4

The upper and lower limits are PEN 857.36 and PEN 415, respectively.

In addition to the future pension of the insured, a reserve is calculated which corresponds to the spouse's right to a survivor's pension (it is assumed that the marital status of all insured people is "married").

People born after 31 December 1946, receive from 30% to 45% of average earnings in the last 60 months, according to the insured's age on 14 June 2002 (30% if younger than age 31, 35% if aged 31 to 39, 40% if aged 40 to 49, or 45% if older than age 49) plus 2% for each additional year of contributions exceeding 20, up to 100%.

Defined contribution – Private sector

Individual Savings Accounts (*Cuentas Individuales de Capitalización* – CIC) are managed by the private sector.

Targeted

People who were born after 31 December 1945, who do not meet the qualifying conditions are entitled to a minimum pension. The minimum pension established by law is PEN 415 per month for those affiliates who have contributed for 20 years.

Variant careers

Early retirement

An insured person may draw a retirement pension before age 65 under the following conditions:

- When the balance of the CIC is sufficient to grant a pension equal to or greater than 50% of the average of the payments and declared earnings received in the preceding ten years before the date of the presentation of the retirement application, indexed to the consumer price index (CPI).
- Workers who, when they joined the SPP, had already met the requirements for early retirement under the SNP, for which their transfer to the SPP means a potential loss of well-being in terms of benefit calculation, because their date of entry to the SPP was before 2 January 2002.

Late retirement

Retirement can be delayed beyond age 65, and there are no penalties for doing so.

Under the public system, once the requirement of 20 years of contributions has been met, if the affiliate is 65 or older, they receive an increase of 4% of the replacement for each year, as long as the amount of the maximum pension does not exceed PER 857.

Personal income tax and social security contributions

Taxation of workers

Earnings up to 7 tax units (UIT) is taxed at 0%; between 7 and 27 UIT at 15%; between 27 and 54 UIT at 21%, and above 54 UIT at 30%. (In 2010: 1 UIT = PEN 3 600).

Social security contributions by workers

The employee contribution rate to the public scheme is 13%.

The contribution rate to the private scheme is 10%. Additionally, there are average contributions of 1.87% and 0.96% for administrative fees and for disability and survivors insurance, respectively, adding up to a total of 12.83%.

There is another contribution to social insurance, which is a voluntary payment for health insurance provided by a health care facility (EPS) for self-employed workers.

The maximum monthly earnings for the purpose of calculating contributions for disability and survivor benefits is PEN 7 306.96.

There is no maximum earnings level established for the purpose of calculating contributions for old-age benefits or administrative fees.

Taxation of pensioners

Pensions are not taxed.

Social security contributions paid by pensioners

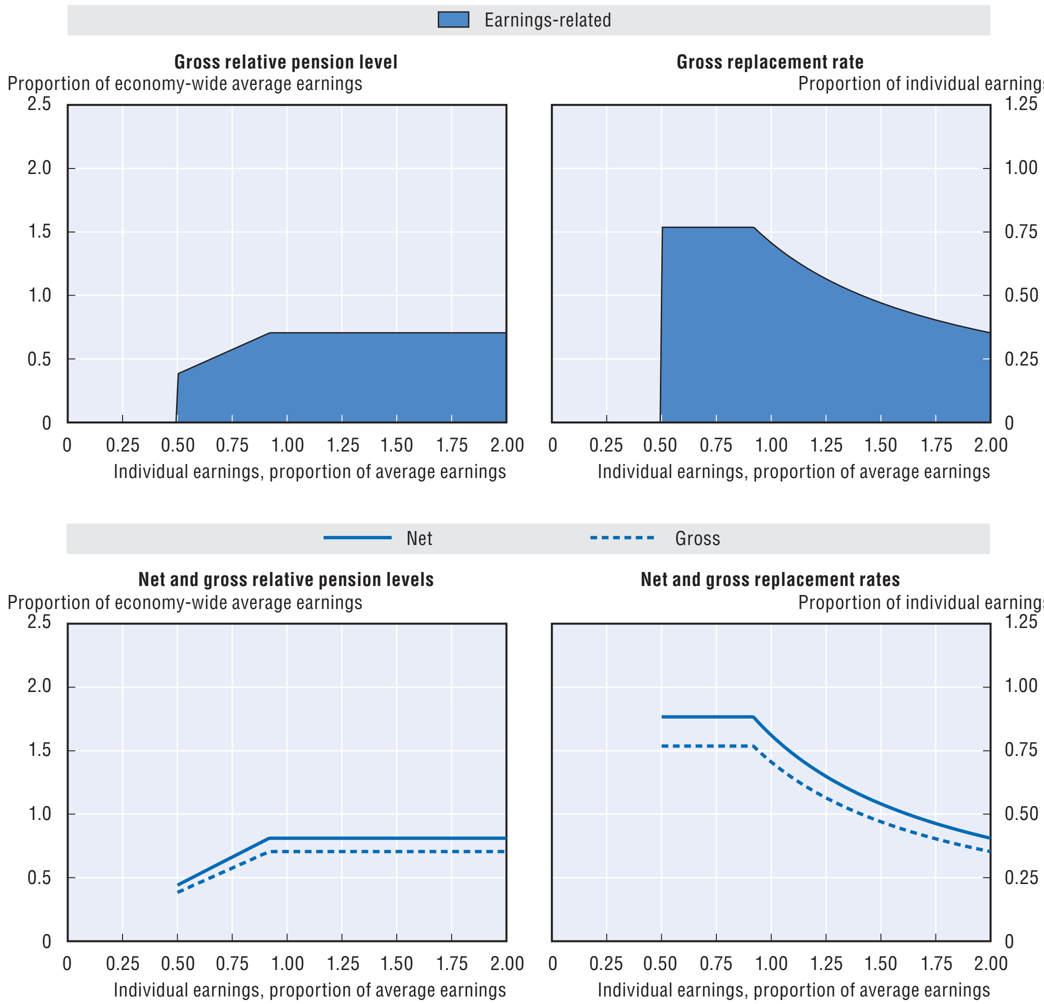
Pensioners do not contribute to social security.

Social assistance programmes

Social pension

The National Welfare Assistance programme, known as Pension 65, was created in October 2011 to protect vulnerable adults over age 65 that are unable to meet basic subsistence needs. Since its creation, this subsidy has been given progressively to the poorest districts in the country. It was established as an amount per person, PEN 125. By July 2012, more than 126 000 older adults had been benefiting from this programme.

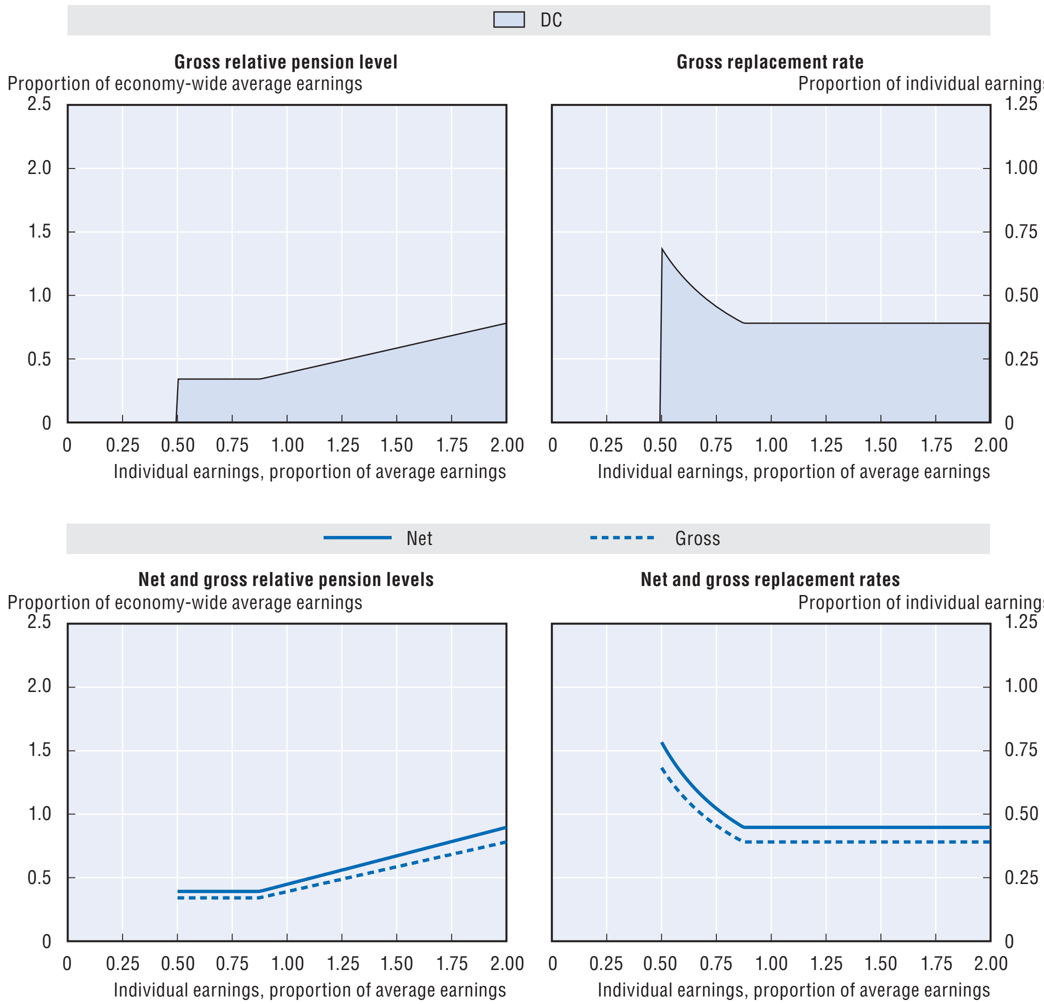
Pension modelling results: Peru (Public pension system)



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	62.2	38.4	57.6	70.6	70.6	70.6
(% average gross earnings)						
Net relative pension level	71.5	44.2	66.2	81.1	81.1	81.1
(% net average earnings)						
Gross replacement rate	76.8	76.8	76.8	70.6	47.0	35.3
(% individual gross earnings)						
Net replacement rate	88.3	88.3	88.3	81.1	54.1	40.6
(% individual net earnings)						
Gross pension wealth	12.0	12.0	12.0	11.0	7.3	5.5
(multiple of individual gross earnings)	*13.4*	*13.4*	*13.4*	*12.3*	*8.2*	*6.2*
Net pension wealth	12.0	12.0	12.0	11.0	7.3	5.5
(multiple of individual gross earnings)	*13.4*	*13.4*	*13.4*	*12.3*	*8.2*	*6.2*

StatLink http://dx.doi.org/10.1787/888933161795

Pension modelling results: Peru (Private pension system)



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	34.2	34.2	34.2	39.1	58.6	78.1
(% average gross earnings)						
Net relative pension level	39.2	39.2	39.2	44.8	67.2	89.6
(% net average earnings)						
Gross replacement rate	42.2	68.3	45.5	39.1	39.1	39.1
(% individual gross earnings)						
Net replacement rate	48.4	78.4	52.2	44.8	44.8	44.9
(% individual net earnings)						
Gross pension wealth	8.1	13.1	8.7	7.5	7.5	7.5
(multiple of individual gross earnings)	*9.3*	*15.0*	*10.0*	*8.6*	*8.6*	*8.6*
Net pension wealth	8.1	13.1	8.7	7.5	7.5	7.5
(multiple of individual gross earnings)	*9.3*	*15.0*	*10.0*	*8.6*	*8.6*	*8.6*

StatLink http://dx.doi.org/10.1787/888933161784

Suriname

Suriname: Pension system in 2010

The public pension is flat rate based on a residency test (General Old Age Pension Plan – AOV). It is a pay as you go system.

There are additional voluntary schemes, which are mainly defined benefit.

Key indicators

		Suriname	LAC26
Average earnings	SRD	221 200	18 900
	USD	7 800	7 000
Public pension spending	% of GDP	1.2	3.1
Life expectancy	At birth	71.0	73.6
	At age 65	15.0	17.4
Population over age 65	% of working-age population	11.5	12.3

Qualifying conditions

The General Old Age Pension Plan (AOV) provides all residents of Surinamese nationality with a flat old-age pension at the age of 60. Individuals with other nationalities can qualify if they have ten years of consecutive contributions.

Voluntary pension plans in the private sector

Pension plans are considered as part of the collective labour agreement or the labour contract between employer and employees. There is no obligation for employers to establish pension plans for their employees. Pension plans are established on a voluntary basis.

Most of the pension plans are defined-benefit plans targeting a certain replacement ratio between 60% and 70%. Employees' and employers' contributions to sustain the plan are always well defined as a certain percentage of basic salary or pensionable salary. In a few plans the employees' contributions together with the employers' contributions are a fixed percentage of the employees' basic salary or are used to purchase annuities with an insurance company. Only one defined-contribution scheme is in place. This plan has a very limited number of participants.

There are also private savings plans, with individual savings accounts, whereby at termination of service the balance of the savings account is paid in full or in instalments to the beneficiary. These plans are under administration of provident funds. For the purpose of the assessment at hand both the defined-contribution plan and the savings plans can be neglected.

Benefit calculation

Basic

The basic pension is equal to SRD 525 in 2012 and there has been a steady increase in the general old-age provision from SRD 175 per month in April 2005, to SRD 225 from October 2005, raised to SRD 425 in 2011.

Variant careers

Early retirement

There's no early retirement under the AOV.

Late retirement

There is no late retirement under the AOV pension.

Personal income tax and social security contributions

Taxation of workers

The personal allowance in Suriname is based on yearly income. All workers that earn a higher income than the personal allowance should pay income tax.

From	Up to	%
SRD 0.00	SRD 2 646.00	0
SRD 2 646.01	SRD 14 002.80	8
SRD 14 002.81	SRD 21 919.80	18
SRD 21 919.81	SRD 32 839.80	28
SRD 32 839.81	And beyond	38

Social security contributions paid by workers

The financing of the AOV scheme is provided for by:

4% from the salary as contributions (premiums) from residents of Suriname who are subject to paying income tax (private or government) and have not yet reached the age of 60;

While the government covers the deficit between contribution and payments. There contributions by the government from the general resources of the state.

The contributions are levied by the Income Tax Administration and should by virtue of the act, be transferred to the Fund, which however is not done. About 35% of the population aged between 20 and 60 years contribute to the system.

Contributions by employees of companies are withheld by the employer on the principles of pay as you go and have to be transferred monthly to the Income Tax Administration. Contributions of self-employed have to be paid quarterly on (self) assessment of taxable income.

The contributions of the government are not specified in the act. In practice the financing of the scheme functions as a pay-as-you-go system, as:

- the contributions are not sufficient to meet the pension benefits and,
- the contributions of the government are established to cover the shortfall.

In this situation there is no fund accumulation.

Personal income tax and social security contributions

There is no social security scheme in place. The coverage depends on the collective labour agreements. Therefore, the levels of the employers' contributions vary.

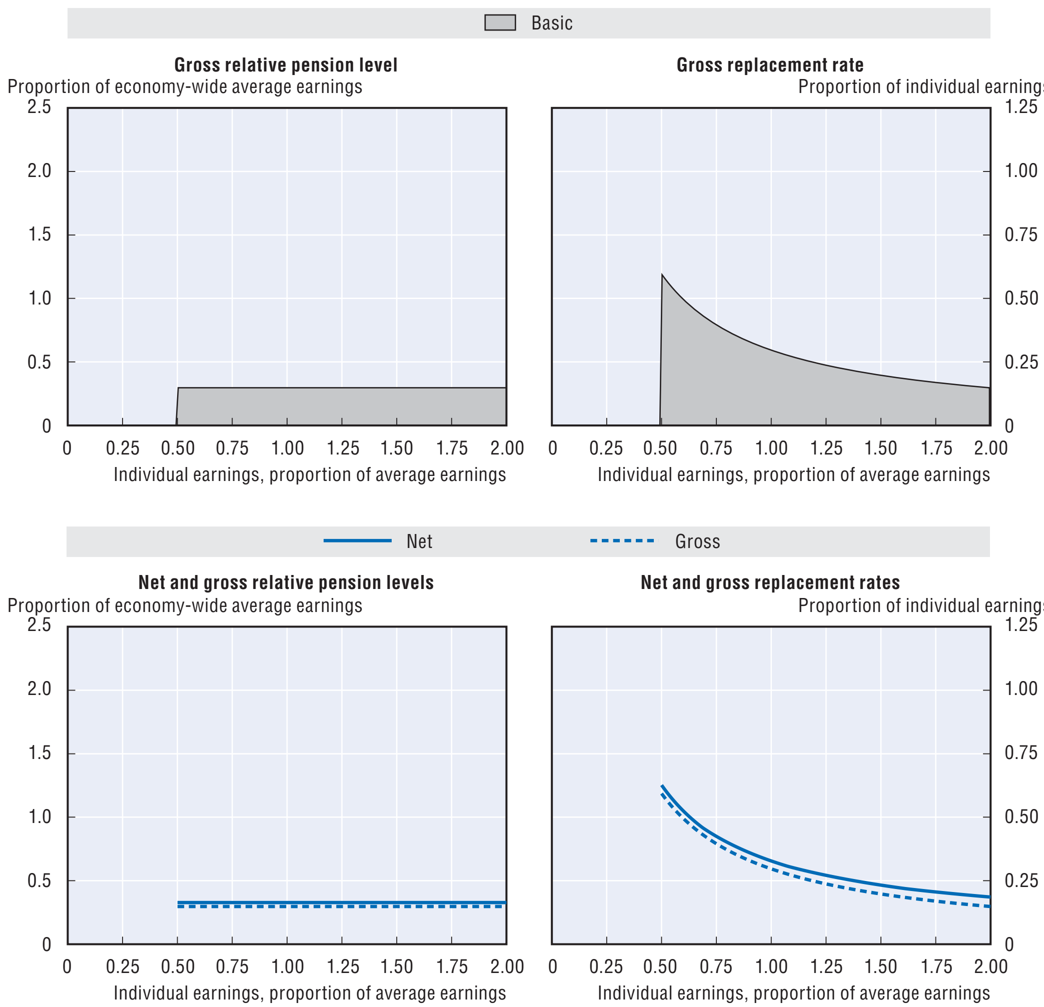
Taxation of pensioners

Pensioners are exempted from income taxes, unless they remain working.

Social security contributions paid by pensioners

It does not apply since there is no national social security scheme.

Pension modelling results: Suriname



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level (% average gross earnings)	29.7	29.7	29.7	29.7	29.7	29.7
Net relative pension level (% net average earnings)	32.8	32.8	32.8	32.8	32.8	32.8
Gross replacement rate (% individual gross earnings)	36.6	59.3	39.5	29.7	19.8	14.8
Net replacement rate (% individual net earnings)	39.6	62.6	42.5	32.8	23.3	18.6
Gross pension wealth	7.7	12.5	8.3	6.3	4.2	3.1
(multiple of individual gross earnings)	*8.9*	*14.4*	*9.6*	*7.2*	*4.8*	*3.6*
Net pension wealth	7.4	11.9	8.0	6.0	4.0	3.0
(multiple of individual gross earnings)	*8.5*	*13.7*	*9.1*	*6.9*	*4.6*	*3.4*

StatLink http://dx.doi.org/10.1787/888933161802

Trinidad and Tobago

Trinidad and Tobago: Pension system in 2010

The pension system consists of an earnings-related component, and an old-age settlement for those with some but insufficient contributions. For those with inadequate income there is also a means-tested old-age pension.

Key indicators

		Trinidad and Tobago	LAC26
Average earnings	TTD	72 400	44 200
	USD	11 400	7 000
Public pension spending	% of GDP	4.4	3.1
Life expectancy	At birth	70.0	73.6
	At age 65	14.4	17.4
Population over age 65	% of working-age population	13.8	12.3

Qualifying conditions

The retirement age is 60 years for men and women and an insured individual must have a minimum of 750 weeks of contributions paid or credited.

The insured between 60 and 65 receive a pension if the insured employee ceases to be, and continue to receive the benefit even if you return to employment secured before reaching age 65.

The agreement granted old age for those who do not qualify for a pension, who are between 60 and 65 and do not have 750 weekly contributions in the form of lump sum payments.

Benefit calculations

Old-age pension

The pension is set between 30% and 40%, the average weekly earnings, according to 16 wage classes, plus an amount between 0.56% and 0.71% of average weekly earnings for each period 25 weeks of contributions exceeding 750 weeks.

The average weekly earnings are based on career average salary, according to the 16 categories of wages.

The minimum pension is TTD 2 000.

An average rate of contribution is calculated considering all the contributions. The income category, corresponding to the average rate is the benchmark to be used for allocating the amount of the pension.

Convention age: A lump sum is paid to members who do not meet the 750 weeks of contributions. This amount is three times the total contributions of the insured and the employer.

Income category	Weekly income (TTD)	Average weekly earnings assumption	Monthly income (TTD)	Benefits week (first week) (TDD)	Increase (weekly) after the first week (TDD)
I	120.00-199.99	160.00	520.00-866.99	77.50	1.13
II	200.00-269.99	235.00	867.00-1 169.99	100.75	1.58
III	270.00-359.99	315.00	1 170.00-1 559.99	119.35	2.00
IV	360.00-449.99	405.00	1 560.00-1 949.99	137.95	2.42
V	450.00-549.99	500.00	1 950.00-2 382.99	155.00	2.85
VI	550.00-659.99	605.00	2 383.00-2 859.99	183.68	3.46
VII	660.00-769.99	715.00	2 860.00-3 336.99	216.23	4.05
VIII	770.00-879.99	825.00	3 337.00-3 812.99	248.78	4.68
IX	880.00-1 009.99	945.00	3 813.00-4 376.99	283.65	5.32
X	1 010.00-1 129.99	1 070.00	4 377.00-4 896.99	320.85	6.05
XI	1 130.00-1 259.99	1 195.00	4 897.00-5 459.99	358.05	6.73
XII	1 260.00-1 399.99	1 330.00	5 460.00-6 066.99	376.65	7.49
XIII	1 400.00-1 549.99	1 475.00	6 067.00-6 716.99	440.05	8.31
XIV	1 550.00-1 719.99	1 635.00	6 717.00-7 452.99	487.78	9.21
XV	1 720.00-1 914.99	1 818.00	7 453.00-8 299.99	542.23	10.24
XVI	1 915.00 and over	1 915.00	8 300.00 and over	571.31	10.79

Old-age social assistance

The "Guidelines for Older Adults", subject to means testing, is given at age 65 or older with at least 20 years of residence in Trinidad and Tobago and a monthly income not exceeding TTD 3 000. Monthly allowance of TTD 3 000 to TTD 1 000, is given to residents of 65 years or more, with monthly incomes below the TTD 3 000.

Social assistance is paid monthly and the amount of the benefit depends on income up to TTD 3 000.

Income (TDD)	Pension amount (TTD)
	From 9/1/2010
0-500	3 000
500-1 450	2 550
1 450-1 650	2 350
1 650-1 800	2 200
1 800-2 000	2 000
2 000-2 200	1 800
2 200-2 400	1 600
2 400-2 600	1 400
2 600-2 800	1 200
2 800-3 000	1 000

Variant careers

Early retirement

Early retirement is not possible.

Late retirement

There is no benefit in delaying pension benefit withdrawal.

Personal income tax and social contributions

Taxation of workers

There is a tax deduction of TTD 60 000. Income above this amount is taxed at 25%.

Social security contributions by workers

The payment of the tax is shared between the employee and the employer, in the ratio of 2:1. The employer is legally required to deduct the employee, at the latest, on the date of payment of wages.

The employee contributes 3.6% of income insured weekly or monthly (January 2010), according to the 16 categories of salary and the employer contributes 7.2%. The voluntary contributes 10.8% of insured weekly earnings (in January 2010) in accordance with 16 pay grades. To calculate the contribution, the minimum weekly income is TTD 120. The maximum weekly income for purposes of calculating the contribution is TTD 1 915. Additionally, to cover workers against accidents; employers pay a contribution class z, which varies from 1.17 to 8.72 week.

Contribution rates have been increasing, from 9.9% to 10.5%, in January 2008, to 10.8% in January 2010 and will increase to 11.4% in January 2012.

Income categories and contribution rate

Income categories (TTD)	Weekly income (TTD)	Average weekly earnings assumptions (TTD)	Weekly contributions of employees (TTD)	Employers weekly contribution (TTD)	Total contribution per week (TTD)	Class Z weekly (TTD)
I	120.00-199.99	160.00	5.76	11.52	17.28	1.17
II	200.00-269.99	235.00	8.46	16.92	25.38	1.72
III	270.00-359.99	315.00	11.34	22.68	34.02	2.30
IV	360.00-449.99	405.00	14.58	29.16	43.74	2.96
V	450.00-549.99	500.00	18.00	36.00	54.00	3.65
VI	550.00-659.99	605.00	21.78	43.56	65.34	4.42
VII	660.00-769.99	715.00	25.74	51.48	77.22	5.22
VIII	770.00-879.99	825.00	29.70	59.40	89.10	6.02
IX	880.00-1009.99	945.00	34.02	68.04	102.06	6.90
X	1010.00-1129.99	1.070.00	38.52	77.04	115.56	7.81
XI	1130.00-1259.99	1.195.00	43.02	86.04	129.06	8.72
XII	1260.00-1399.99	1.330.00	47.88	95.76	143.64	9.71
XIII	1400.00-1549.99	1.475.00	53.10	106.20	159.30	1.77
XIV	1550.00-1719.99	1.635.00	58.86	117.72	176.58	11.94
XV	1720.00-1914.99	1.818.00	65.43	130.86	196.29	13.27
XVI	1915.00 and over	1.915.00	68.94	137.88	206.82	13.98

Taxation of pensioners

Pension income is taxable at the same rate as a general workers, at a rate of 25% above TTD 60 000 per year.

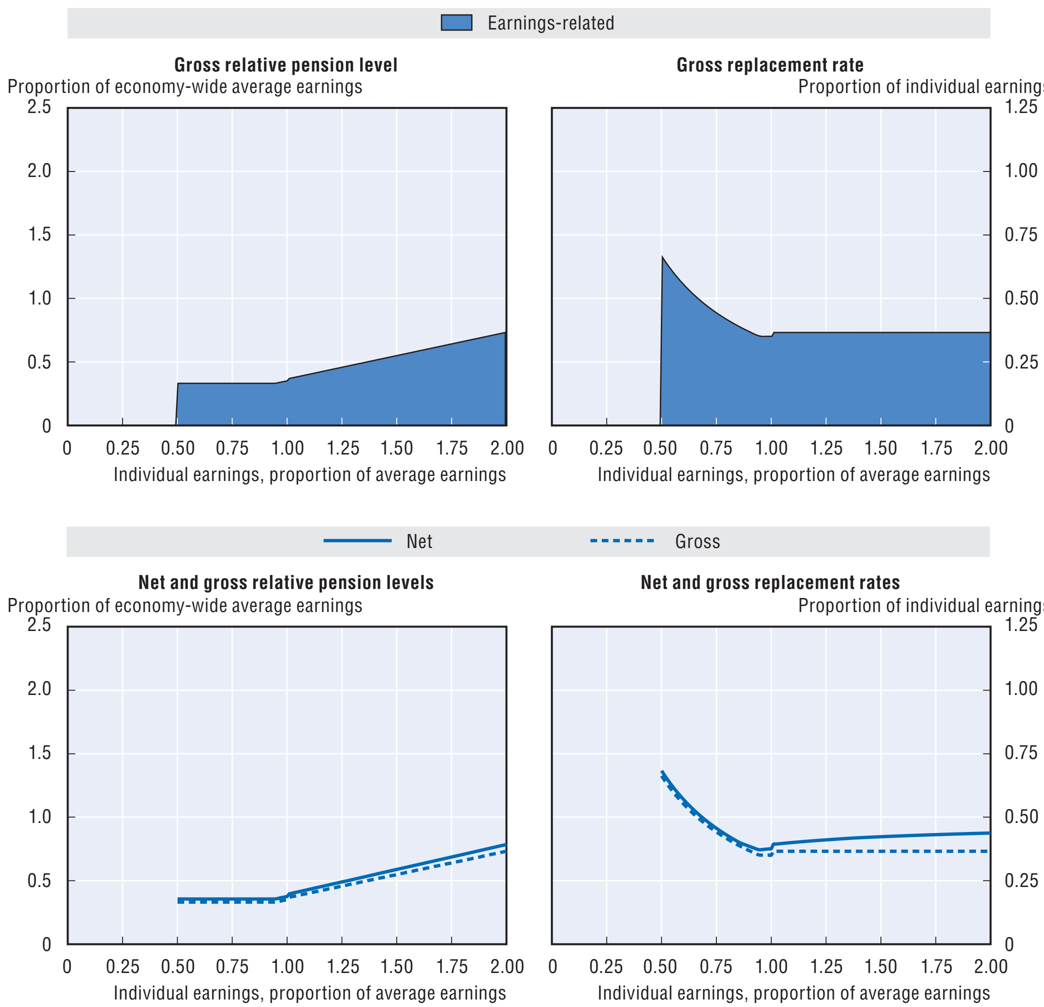
Social security contributions paid by pensioners

There are no contributions made by pensioners. If still working, no deductions are made from the pensioners' wages because employer pays the contribution. The employer pays a Class Z contribution, which insures the employee for the Injury Allowance only.

Social assistance programme for old-age population

They also have a list of programmes that may help the living conditions of a senior citizen such as clothing, public transport, medicines, etc.

Pension modelling results: Trinidad and Tobago



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	33.1	33.1	33.1	35.1	54.9	73.2
(% average gross earnings)						
Net relative pension level	35.5	35.5	35.5	37.6	58.9	78.5
(% net average earnings)						
Gross replacement rate	40.9	66.3	44.2	35.1	36.6	36.6
(% individual gross earnings)						
Net replacement rate	42.3	68.3	45.6	37.6	42.3	43.8
(% individual net earnings)						
Gross pension wealth	8.5	13.7	9.1	7.2	7.6	7.6
(multiple of individual gross earnings)	*10.1*	*16.4*	*10.9*	*8.7*	*9.1*	*9.1*
Net pension wealth	8.5	13.7	9.1	7.2	7.6	7.6
(multiple of individual gross earnings)	*10.1*	*16.4*	*10.9*	*8.7*	*9.1*	*9.1*

StatLink http://dx.doi.org/10.1787/888933161811

Uruguay

Uruguay: Pension system in 2010

The insurance system is based on a mixed scheme that receives contributions and grants benefits in combined form, according to earnings brackets. One part is an inter-generational solidarity retirement (defined-benefit) scheme, and the other is a mandatory individual retirement savings (defined-contribution) scheme. Low-income workers can opt to divide their contributions equally between the two components of the scheme. There is a non-contributory scheme for people who earn less than the minimum wage and who are elderly.

Key indicators

		Uruguay	LAC26
Average earnings	UYU	226 200	138 100
	USD	11 400	7 000
Public pension spending	% of GDP	8.2	3.1
Life expectancy	At birth	77.0	73.6
	At age 65	17.8	17.4
Population over age 65	% of working-age population	25.0	12.3

Qualifying conditions

The retirement age is 60 for both men and women with 30 years of contributions.

Benefit calculation

Defined benefit

The retirement pension benefit is equal to 45% of earnings for contribution calculation purposes, plus 1% for each year of contributions beyond 30 up to 35 years. Another 0.5% is added for each year of contributions beyond 35 (up to 2.5%). The pension is increased by 3% for each year that retirement is deferred beyond age 60 (up to 30%).

Earnings for contribution calculation purposes are equal to the monthly average of eligible earnings in the last ten years from the individuals registered work history, limited by the monthly average of the best 20 years earnings uprated with the median salary increased by 5%.

If it is more favourable to the employee, the base calculation is the average of the 20 years of the highest earnings.

Low-income affiliates who opt to distribute their contributions between the two pillars of the insurance scheme are benefited in the public scheme (inter-generational solidarity), with an increase of 50% of eligible allocations.

The maximum pension in 2010 was UYU 18 399.

Pension benefits are indexed according to the Median Salary Index (IMS). In 2010, the IMS was 11.16% and in 2011, it was 12.94%.

Targeted

The minimum retirement pension was equal to 1.75 BPC in December 2010 (1 BPC = UYU 2 061 in 2010; 1 BPC = UYU 2 417 in 2012). This amount represented 59% of the national minimum wage (national minimum wage = UYU 7 200 in 2012).

Variant careers

Early retirement

It is possible to qualify for early retirement if a person is fully and permanently disabled and if the disability has been work-related.

Late retirement

Pensions benefits are granted to individual who are 70 years of age with 15 years of contributions, or 69 years old with 17 years of contributions, or 68 years old with 19 years of contributions, or 67 years of age with 21 years of contributions, or 66 years of age with 23 years of contributions, or 65 years of age with 25 years of contributions. The benefit increases if the individual postpones retirement. As previously mentioned, at age 60 and with 30 years of contributions, the replacement rate is 45%, while at age 80 and with 40 years of contributions, the replacement rate is 82.5% of earnings for contribution calculation purposes.

Personal income tax and social security contributions

Taxation of workers

Earnings (of both employees and self-employed people) are subject to individual income tax (IRPF). This tax is annual and payments are made monthly, it is personal (although taxes can be paid by the family unit) and direct, at progressive rates. Contributions to social insurance (pensions and health) can be deducted.

The monthly income scale is as follows:

BPC ranges	From	To	Rate (%)
To 7 BPC	0	14 427	0
More than 7 to 10 BPC	14 427	20 610	10
More than 10 to 15 BPC	20 610	30 915	15
More than 15 to 50 BPC	30 915	103 050	20
More than 50 to 100 BPC	103 050	206 100	22
More than 100 BPC	206 100		25

1 BPC = UYU 2 061 in 2010; for 2012, UYU 2 417.

Social security contributions paid by workers

Social security contributions equal 15% of gross monthly earnings. There is a ceiling of UYU 28 067 in the pay-as-you-go system.

There is a mandatory contribution under the individual retirement savings scheme of 15% of gross monthly earnings for the bracket of UYU 28 068 to UYU 84 202 (individual savings account scheme). The affiliate may contribute voluntarily in the income bracket that exceeds UYU 84 203.

Contributions to the mandatory individual retirement scheme include an average of 1.065% of earnings for contribution calculation purposes for disability and survivors' insurance and an average of 2.516% of these same earnings for administrative fees.

These amounts are adjusted according to the Median Salary Index, at the same time that the increases in the remuneration of central government public officials are made.

The intergenerational solidarity retirement scheme is financed, additionally, by employer contributions (7.5% of aggregate salaries), taxes (7% of value-added tax and collection of the Social Security Assistance Tax) and, if necessary, with assistance from the government.

Taxation of pension income

Retirement and pensions are taxed by the Social Insurance Assistance Tax (IASS). This is an annual tax (paid monthly) and liabilities are taxed progressively.

The monthly income scale in effect is the following:

BPC ranges	From	To	Rate (%)
To 8 BPC	0	19 336	0
More than 8 to 15 BPC	19 337	36 255	10
More than 15 to 50 BPC	36 256	120 850	20
More than 50 BPC	120 851		25

Social security contributions paid by pensioners

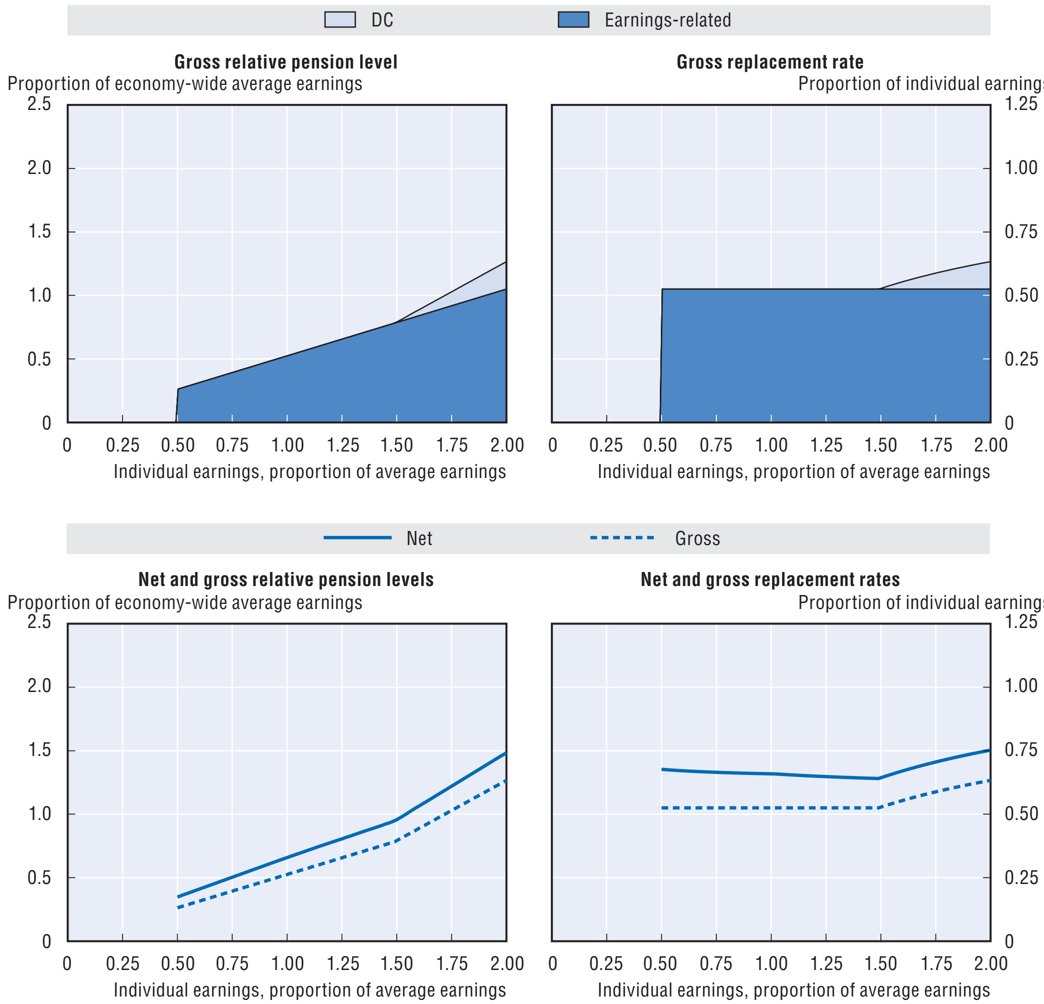
Pensioners (retirees and pensioners), with the exception of the IASS, do not contribute to social security.

Social assistance programmes for old-age population

Social pension

In addition to the benefits granted by the contributory insurance scheme, there are two non-contributory benefits for those who do not meet the minimum requirements in the amount of UYU 5 000 per month. The first, known as old-age assistance, is for people aged 65 or older and younger than 70 who do not have the resources to cover their basic needs, live in homes that present substandard living conditions. The second, known as old-age or disability pension, is aimed at all inhabitants of the Republic who do not have enough resources to cover their basic needs and who are 70 years or older or who, at any age, are fully disabled and cannot perform any remunerated work.

Pension modelling results: Uruguay



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	42.5	26.2	39.4	52.5	79.2	126.6
(% average gross earnings)						
Net relative pension level	54.1	34.8	50.3	65.9	95.7	148.4
(% net average earnings)						
Gross replacement rate	52.5	52.5	52.5	52.5	52.8	63.3
(% individual gross earnings)						
Net replacement rate	66.3	67.7	66.5	65.9	64.4	75.2
(% individual net earnings)						
Gross pension wealth	12.1	12.1	12.1	12.1	12.2	14.1
(multiple of individual gross earnings)	*14.5*	*14.5*	*14.5*	*14.5*	*14.6*	*16.8*
Net pension wealth	12.1	12.1	12.1	12.1	12.2	14.1
(multiple of individual gross earnings)	*12.5*	*13.0*	*12.5*	*12.3*	*11.9*	*13.3*

StatLink http://dx.doi.org/10.1787/888933161821

Venezuela

Venezuela: Pension system in 2010

The pension system has a basic component and an income-related, defined-benefit component. Those who are not eligible for a basic pension receive a social assistance benefit.

Key indicators

		Venezuela	LAC26
Average earnings	VEF	42 800	30 000
	USD	10 000	7 000
Public pension spending	% of GDP	4.8	3.1
Life expectancy	At birth	74.6	73.6
	At age 65	17.3	17.4
Population over age 65	% of working-age population	10.7	12.3

Qualifying conditions

The retirement age is 60 for men and 55 for women with a contribution record of at least 750 weeks. The retirement age is lower for those who work in arduous jobs. Working beyond retirement age is permitted. The insured that do not qualify for an old-age pension may if they choose, wait until they qualify or else receive a one-time payment equivalent to 10% of the sum previous contributions.

Benefit calculation

Old-age pension

The old-age pension benefit is equal to the national minimum wage. In 2010 the minimum wage was VEF 1 223.89 and in 2012 VEF 1 780.45, and in September 2012 it was increased to VEF 2 047.52. The pension is increased annually along with increases in the national minimum wage.

The survivors' pension benefit is also equal to the current minimum wage.

Old-age allowance

An old-age allowance is given to individuals of retirement age, but who have not met the contribution conditions. The pension guarantee is equal to 10% of the sum of previous contribution. Benefits are adjusted with wage and price changes.

Variant careers

Early retirement

Early retirement is not possible unless the insured works in hazardous environments or environments that may lead to premature old age. The age limit may be reduced up to one year for every four years worked in such conditions, not to exceed five years. If these conditions are not met, the pension is not granted until the qualifying requirements are met.

Late retirement

Pensions are paid from the date of eligibility, when the application is submitted within the year following that date. If the application is made later than that, the pension will begin to be paid starting on the date that the pension is requested.

There is an additional payment of 5% of the pension for each year that it is postponed after the insured reaches retirement age. Even though the law provides for this, in reality it is not applied and payment begins on the date that the pension is requested.

Personal income tax and social security contributions

Taxation of workers

Employees pay income tax when they receive net annual earnings above 1 000 tax units (TUs). People engaged in agricultural, livestock, fishing, and fish farming work at the primary level pay taxes on gross earnings above 2 524 TUs.

Net earnings above the minimum wage up to 1 000 TUs are taxed at 6%, between 1 001 TU and 1 500 TU at 9%, between 1 501 TU and 2 000 TU at 12%, between 2 001 TU and 2 500 TU at 16%, between 2 501 TU and 3 000 TU at 20%, between 3 001 TU and 4 000 TU at 24%, between 4 001 TU and 6 000 TU at 29% and above 6 000 TU at 34%.

For 2010, the tax unit was VEF 65 (1 TU = 65 VEF). In 2012 the tax unit was equal to VEF 90.

Social security contributions paid by workers

Private sector workers contribute 4% of their earnings to social security and up to a ceiling equal to five minimum wages. This contribution earns them the right to long-term benefits from old-age, invalidity, survivors' and disability, and short-term benefits related to compensation for medical leave or maternity leave. The contributions of the insured also finance health, maternity and marriage benefits.

The employer pays contributions that depend on the level of the work entity: minimum risk, 9%, medium risk, 10%, and maximum risk, 11%, of the workers' wages.

Taxation of pensioners

Pensions are not taxed.

Social security contributions paid by pensioners

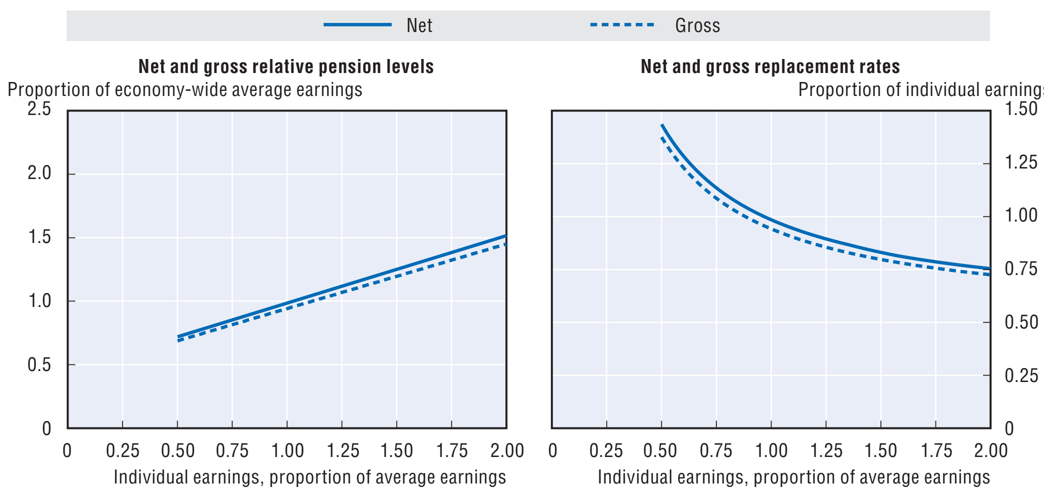
Retirees and pensioners are exempt from social contributions. If they continue to work and receive remuneration, they contribute 4%.

Social assistance programmes for old-age population

Social pension

The social pension programme known as *Gran Misión en Amor Mayor* guarantees an old-age pension from the age of 55 for women and age 60 for men, who never contributed to the Venezuelan Social Security Institute (IVSS), and who live in families with incomes below the minimum wage.

Pension modelling results: Venezuela



Men Women (where different)	Median earner	Individual earnings, multiple of average				
		0.5	0.75	1.0	1.5	2.0
Gross relative pension level	84.6	68.8	81.5	94.2	119.6	145.1
(% average gross earnings)	*80.7*	*66.4*	*78.0*	*89.5*	*112.6*	*135.6*
Net relative pension level	88.4	71.9	85.2	98.5	125.1	151.7
(% net average earnings)	*84.4*	*69.5*	*81.5*	*93.6*	*117.7*	*141.8*
Gross replacement rate	104.4	137.6	108.7	94.2	79.8	72.5
(% individual gross earnings)	*99.7*	*132.9*	*104.0*	*89.5*	*75.1*	*67.8*
Net replacement rate	109.1	143.7	113.6	98.5	83.1	75.4
(% individual net earnings)	*104.2*	*138.8*	*108.7*	*93.6*	*78.2*	*70.5*
Gross pension wealth	18.9	24.9	19.7	17.1	14.4	13.1
(multiple of individual gross earnings)	*22.5*	*30.0*	*23.5*	*20.2*	*17.0*	*15.3*
Net pension wealth	17.8	23.4	18.5	16.0	13.6	12.3
(multiple of individual gross earnings)	*21.2*	*28.2*	*22.1*	*19.0*	*15.9*	*14.4*

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