The pace of convergence of population aging in Latin America: Opportunities and challenges.

Abstract

Some of the fastest demographic transitions in the world have been observed in Latin American countries. Fertility and mortality declines have occurred in less than half the time observed in industrialized countries. Population aging is also occurring rapidly in the region. However, its socioeconomic consequences take longer to happen. Socioeconomic disadvantages experienced by current cohorts of Latin American elderly are more resistant to change over time because of the persistence of cohort effects. The slower pace of population aging with respect to other demographic dynamics translates into both opportunities and threats. This paper intends to describe the differences in the population aging process across Latin American countries, and how these differences can show the path for institutional changes that can improve the welfare of Latin American nations. The paper will first explore how advanced are different Latin American countries in their population aging process. The paper will link this information with data about Social Security coverage among the labor force, labor force formalization, and availability of caretakers. The article concludes highlighting the need for reforms in terms of Social Security coverage, not only pension reform, for securing the well-being of Latin American elderly in the near future.

Demographic Transition Theory was posed based on population dynamics in industrialized countries, and it has been used to explain and understand the paths followed by developing countries (Notestein, 1945). A large part of the developing world reached advanced stages of the demographic transition during the 20th century and early 21st century, at a much faster pace than European or North American countries. Some Latin American countries have transited from high levels of fertility and mortality to levels similar to those reported in industrialized countries: life expectancies at birth above 75, Total Fertility Rates (TFR) below replacement, and infant mortality under 15 per thousand births (CELADE, 2007). Demographic Transition Theory –as

well as related frameworks, such as the Epidemiologic Transition Theory– assumes that demographic figures will converge to a similar scenario of low fertility and low mortality. This article will start with the argument that population aging indicators across Latin American countries will tend to converge, too, because the process of population aging is a necessary outcome of Demographic Transition; however, its pace in the region will be slower than the rhythm of fertility and mortality change. The presentation will follow with a discussion of what does population aging implies in terms of the needs of the elderly population and the availability of resources a nation has to fulfill such needs. I will conclude commenting about the opportunities and challenges that the slow pace of convergence in population aging has on policy decisions for different countries. The analysis relies on data produced by other Latin American researchers in the region, given that exhaustive documents of very good quality have been produced lately. I highlight Huenchuan's (2009) comparative analysis of aging in Latin America from a human rights perspective, the 2008 Social Panorama produced by CEPAL (2008), and data analysis by Carmelo Mesa-Lago (2008) and Rofman and Lucchetti (2006), renowned experts in Social Security in the region.

Population Aging in Latin America:

The process of population aging is defined as the increase in the relative importance of people aged 65 and over with respect to the total population. According to Figure 1, during the 1950-2050 period, the proportion of people aged 65 and over grew from 3.5% in 1950 to 6.7% in 2010, and will likely become 17.9% in 2050 (CELADE, 2007). In the following 40 years, the size of this population is expected to be 11.5 times than its size in 2010. It is expected that all Latin American countries will have an aging index of 40% by 2050. This figure means that there will be at least 40 persons aged 65 and over for every 100 person under age 15 (CELADE, 2007).

However, there is a large variation in aging indexes across Latin American countries. Uruguay reached this level in 1985 and Cuba in the early 1990's. Currently, the aging index in Uruguay is 60%. Figure 2 (left panel) shows the estimated time that several Latin American countries will need to reach Uruguay's level. Chile will have such a figure in around 10 years, and there is a

group of countries that will reach the 60% mark in less than 25 years (Costa Rica, Mexico, Brazil, Colombia, and Panama). Others will need between 25 and 35 years (Ecuador, Venezuela, Peru, Dominican Republic, El Salvador and Nicaragua), and there are others who will need 4 decades or more to reach the mark (Paraguay, Honduras, Bolivia, and Guatemala). A very similar ordering is observed if we graph the estimated time to reach a dependency ratio of 66% (second panel of Figure 2). Most of the countries at the top of the graph are usually classified under the labels "advanced" or "moderately advanced" in the process of population aging, whereas most of the countries at the other extreme are usually classified as countries with an "incipient aging process" (Huenchuan, 2009). The countries classified in the moderate category have a wide range of expected times to reach the mentioned marks. This shows that even in this group, there is ample variation in the pace of aging. Even though classifications of Latin American countries according to their demographic stage might imply a linear progression in the Demographic Transition that does not necessarily agrees with reality, this typology is useful to understand general patterns.

The consequences of biological aging and population aging

The biological process of aging translates into the onset of several conditions and chronic diseases that may produce functional limitations. According to the Epidemiologic Transition Theory (Omran, 1971), societies in early stages of the transition are characterized by high prevalence of infectious diseases, whereas at advanced stages –which temporally coincide with advanced stages in the Demographic Transition–, chronic and degenerative morbidity is the most prevalent. The process of population aging implies that there is a larger proportion of the population at a higher risk of developing such chronic and degenerative diseases and, therefore, of being in greater need of aid due to functional limitations. Physical frailty among the elderly also diminishes their ability to work. In absence of strong savings habits or structured welfare state institutions, economic dependence on others may also be a social and economic consequence of biological aging.

In Latin America, co-residence and support from kin –rather than hiring private nursing aid– has been the most common way of dealing with dependence due to functional limitations.

According to Saad (2003), Perez-Amador and Brenes (2006), and United Nations (2005), being disabled increases the probability of receiving informal transfers and the probability of residing in or moving into a multi-generational living arrangement rather than alone or only with couple in 7 cities of the SABE project . Similar results have been observed in two recent studies based on nationally representative samples: CRELES (Costa Rica) and MHAS (Mexico) (See Table 1). In Costa Rica, two-thirds of elderly with functional limitations have a household member (especially children and spouse) as their main helper. In Mexico, 92% of helpers live in the same household as the senior with functional limitations. Figures are very similar between more urban and less urban areas, which suggest that SABE figures (Saad, 2003) might reflect not only the patterns of help at major cities in the region, but also the patterns in rural zones. Additionally, it is worth mentioning that in Mexico, 13% of helpers are waged aids who are not relatives to the respondent; this figure is slightly higher in more urban settings (16%) than elsewhere (11%). The Costa Rican study did not collect such information.

Although Bongaarts and Zimmer (2002) suggest that this pattern of living arrangements and family support is uniform across the region, the data show differences across countries. Part of these differences might be explained by the degree of advancement of each country into the Demographic Transition. Complex living arrangements might be understood as a reflection of strength of social networks (Puga et al., 2007). Other authors stress on the importance of independent living for seniors. Regardless of the interpretation, availability of kin is a direct determinant of family support: declining fertility implies having on average fewer children to rely on at old age. The fast fertility decline in Latin America means that current generations of middle-age adults will have fewer available kin when becoming older. According to information based on representative samples of Latin American censuses at the IPUMS project web-site (Minnesota Population Center, 2009)[1], women who are currently aged 45-49 have on average 1

[1] The census datasets are available at the IPUMS website through collaboration with the data producers: Argentina's National Institute of Statistics and Censuses, Bolivia's National Institute of Statistics , Brazil's Institute of Geography and Statistics, Chile's National Institute of Statistics, Colombia's National Administrative Department of Statistics, Costa Rica's National Institute of Statistics and Censuses, Ecuador's National Institute of Statistics and Censuses, Mexico's National Institute of Statistics, Geography, and Informatics, Panama's Census and Statistics Directorate, and Bolivarian Republic of Venezuela's National Institute of Statistics.

or 2 fewer surviving children compared to women who are currently 65-69. Given the patterns observed in developed countries, we can expect that, 20 years from now when these women will become 65, they will have a smaller pool of children on whom to rely for formal support than comparable women who were 65 during the 2000 census cycle. The decrease in the number of children between cohorts is smaller in Chile, which is one of the most advanced countries in the population aging process. In Argentina and in Bolivia, the mean number of children has remained similar across these 5 cohorts. Argentina has one of the smallest averages even though the data refers to children ever born rather than to surviving children, which shows that fertility decline onset was earlier in Argentina. Within the list of countries represented in Table 2, the former is very advanced and the latter the least advanced in the population aging process. The rest of the countries show a similar decrement in number of surviving children.

Types of households where Latin American elderly live.

What is the alternative to less direct family support, given this diminishing availability of kin? The future Latin American elderly population will need to rely on non-family support. Non-family support has become more common in developed countries. In the United States (U.S.A.), in 1850, only 0.7% of elderly lived in institutions, while 70% of the elderly lived with children or children-in-law. By 1990, these figures were 15% and 7% (Ruggles, 2000). Residing in long-term care institutions, assisted-living facilities or functional elderly homes is an alternative to living with children or relatives. Fertility decline began in the U.S.A. earlier than in Latin America; therefore, the American society needed to start taking such institutions as plausible alternatives for elderly care. Latin American demography has not studied old-age institutionalization from a cross-country comparative perspective, especially because data sources are scarce.

A way to approach the topic of residence in specialized institutions is accounting for the prevalence of living in collective households according to the census, even though the census questions available to define a collective household are not strictly comparable across countries and the quality of the information is not good. I rely again on data from representative samples from the IPUMS project. Table 3 shows the distribution of the population aged 65 and over, by a

special classification of households. In almost all the countries, the prevalence of living in collective households is smaller than 2%. Within the group of countries with available information, it is higher in Chile, Panama, and Costa Rica and lowest in Brazil, Ecuador and Venezuela. None of these percentages is as high as the figure reported by Ruggles for the U.S.A in the 1990s, even though the definition used by Ruggles based on the U.S.A. census is more restrictive than the Latin American definitions[2]. Among disabled elderly, prevalence of residing in collective households is higher than the figure for the elderly population as a whole in every country, which suggests that the service of long-term care institutions is already in use in the region. Multi-generational living arrangements are also associated with elderly care. In the total samples, these households are more common in Ecuador, Panama and Venezuela, than in Brazil, Chile, and Costa Rica. The likelihood of residing in such households increases among the disabled elderly (except in Ecuador). The high prevalence of nuclear families among disabled elderly agrees with survey results that show that a large proportion of elderly with functional limitations are being taken care of by spouses or co-resident children (Table 1). I expected to find smaller prevalence of living in one-person households (someone residing alone) among disabled elderly than in the total population. However, the data show that the proportions are remarkably similar. It is not possible to elucidate whether these disabled elderly living alone reveal a problem of unmet needs of care. Given that the information generated with these census questions are not very reliable, I suggest that census planners should improve questionnaires and interviewer training to produce more and better information about this kind of facilities.

The economic status of Latin American elderly

Living arrangements at old age are linked to the degree of need of formal and informal transfers from the family and the State, as well as to the socio-economic status (SES) of the person through the life course. At younger ages, work is the typical main source of income. Physical frailty associated with biological aging reduces the likelihood of working among the elderly. Retirement pension systems and specialized health insurance systems were developed during the

[2] In the Latin American datasets available at the IPUMS project, it is not always possible to differentiate between long-term care institutions for the elderly (elderly homes) and other collective households, such as monasteries, prisons, etc.

19th century as a way of protecting older persons from catastrophic expenses due to illness or job loss (Gratton, 1996; Smeeding and Smith, 1998). Despite the first social security systems were founded in Latin America during the early 20th century, there are still large differences across countries in terms of coverage. Regarding retirement benefits[3], it is possible to study coverage from two perspectives: the proportion of the workforce entitled to a future pension and the proportion of the elderly receiving a retirement pension. From both perspectives, the highest coverage is found in the countries that Mesa-Lago (2008) calls the social security precursors: Uruguay, Argentina, Brazil, Chile, and Costa Rica –as well as Cuba, which is not in the graph (Figure 3). Their pension systems have several characteristics that allow them to be relatively effective in terms of providing protection to the elderly: high formalization (or proletarization) of their work force, mandatory or special contribution systems for informal workers, integration of pension and health insurance providers, good regulation of private providers, and non-contribution pension and health insurance for the destitute (Mesa-Lago, 2004). Other Latin American countries have recently established initiatives to improve social security coverage with varying degrees of success: Colombia, Mexico, Bolivia, Panama, Ecuador, Dominican Republic and Venezuela (Mesa-Lago, 2004).

Based on Figure 3, it is worth noticing that there are also differences between work force coverage and coverage to the elderly population. A first group of countries –Uruguay, Brazil, and Argentina– has higher elderly coverage than work force coverage. Given that these countries founded Social Security systems early in the 20th century, lower work force coverage suggests that recent factors –such as pension reform, economic crises, or an increase in the number of informal workers– might have induced a reduction in it (Mesa-Lago, 2008). The systems in Chile and Panama –a second group of countries– have similarly high figures in both indicators and this might indicate that these systems have been less affected by such factors. A third group of countries has higher work force coverage than elderly coverage: Costa Rica, Venezuela, Mexico, Ecuador, El Salvador, and Dominican Republic. In these countries, there seems to be recent factors that have increased work force coverage, such as more work force formalization or specific public policies aimed at achieving coverage among informal workers, but these recent factors have not benefitted current elderly cohorts thoroughly (Mesa-Lago,

[3] Figures are similar for health insurance coverage.

2008). Finally, there is a fourth group of countries with very low coverage in both areas. These latter countries commonly have very weak work force formalization and a Social Security system founded relatively late in the 20th century –at least compared to the precursors.

According to Figure 3, some countries in the third group have similar elderly coverage than the fourth group. As explained before, the difference between these two sets of nations is that the third group has higher work force coverage. The difference between work force coverage and elderly coverage can be explained by age and cohort effects. Figure 4 shows the proportion of coverage among occupied workers in 5 countries, based on results computed and analyzed by Rofman and Lucchetti (2006). According to these authors, these curves have an inverse-U shape because the youngest and the oldest cohorts are less likely to be working in jobs that entitle them to Social Security benefits. This pattern is most evident in the curves for Uruguay (at the top) and for Peru (at the bottom) that peak around age 40 or 50. These patterns might be due to age effects: younger and older workers are less likely to find jobs in the formal sector. However, the decline from middle ages to older ages might be due to cohort effects. These patterns are clearest in the countries from the third group: Mexico and El Salvador. Their current elderly population was typically employed before some of the Social Security institutions were founded or they were working in informal, traditional, or rural jobs –agriculture, self-employed retail or artisanship, etc– during their young adulthood. Therefore, they were less likely to be entitled to benefits. On the contrary, younger cohorts in these countries are more likely to be in the formal sector and have been contributing to the System since their early years, or their Governments have offered options to incorporate self-employed or traditional workers into the System (CEPAL, 2008; Mesa-Lago, 2008). Such cohort effects are not well defined in the countries in the fourth group (Peru and Paraguay), where work force coverage is as low among younger cohorts as among older ones.

When the distribution in Figure 3 is compared to the distribution in Figure 2, it is evident that the countries that are most advanced in population aging are the ones with the highest coverage, while the ones that are least advanced have also the lowest coverage (Huenchuan, 2008). The historical and sociological reasons of this association are difficult to explain in a short article, but they come from a combination of visionary public policies, cultural openness to extra-regional

influences (esp. from Europe and North America), and integration to the foreign trade market, among others. However, it is possible to pose the hypothesis that demographic change is also a factor of this process. In fact, pension reforms during the late 20th century and early 21st century were drawn by worries about whether existing pension systems would become non-sustainable due to growing elderly population, especially in aged societies, like Argentina, Chile, and Uruguay.

If the advanced stage of population aging has been driving countries like Argentina, Chile, and Uruguay to perform even better than what they have done historically in extending coverage, the countries in incipient stages (like Paraguay, Peru, or most of the Central American countries) should understand their demographic situation as a time frame during which their Governments (or the market) can establish policies to improve coverage directly (special programs for the informal sector) or indirectly (augmenting work force formalization). If such policies are carried on now, the 30 to 50 years during which these countries will reach Cuba´s and Uruguay's aged population situation can be used to develop relatively sustainable pension system based on capitalization.

This idea is not new. It is the main message behind the analyses of the demographic dividend in Latin America. The 2008 Social Panorama (CEPAL, 2008) have made the same point about how the countries that are least advanced in the demographic transition have a "Demographic Window" during which they need to invest in order to have enough resources to sustain the future costs of population aging. The Social Panorama stresses on expanding education among young generations. The report shows the advantages of such investment in countries that still have above replacement fertility given that these cohorts would represent the majority of the work force while the proportion of the population at dependent ages would be at its lowest.

Improving education coverage would definitely benefit nations still going through the Demographic Transition because a better educated work force is more likely to get formal jobs, to diminish sources of socio-economic inequality, and to contribute to the Social Security System, and is less likely to earn income below the poverty line. However, the net future benefits of this kind of investments will not solve the problem of the vulnerability of the elderly

population during the "window period". Throughout this phase, these countries will show patterns similar to the ones that the third group has: elderly coverage that is lower than work force coverage and a declining curve similar to Mexico´s and El Salvador's graphs in Figure 4, which suggests cohort effects. What should be done to improve elderly coverage meanwhile? I will resort to Mesa-Lago's (2008) excellent advices: establish special programs for the destitute like the non-contribution pension regimes in the precursor countries, improve coverage of informal and rural workers who will become old without entitlement to a retirement pension, and a guaranteed universal package of minimum comprehensive health care for the whole population, regardless of income, age, risk or gender, among others (p.80). This kind of measures has proven to be beneficial not only in countries that are well-advanced in the population aging process, but also in countries with incipient aging. Bolivia and Ecuador, for example, still have relatively high above replacement Total Fertility Rates, but the BONOSOL (in Bolivia) and the Human Development Bonus (in Ecuador) have been successful subsidy programs that have improved their elderly well being (Rofman, 2005). Rofman (2005) highlights these measures but warns that a serious comprehensive actuarial analysis is needed to secure their sustainability.

Summary and concluding remarks

Even though fertility and mortality decline (and emigration in some countries) are the main forces driving population aging, the fast convergence in these demographic dynamics components will not immediately translate into a fast convergence in population aging indicators across Latin American countries. This result is obviously related to the time needed for a population to change its age structure from a pyramidal shape into a roughly rectangular shape (population momentum). As explained before this slow pace of convergence has its opportunities and threats.

Countries that are well-advanced in their population aging process are currently facing its costs: chronic morbidity and higher prevalence of disability, fewer children –on average– to take care of the elderly and thus greater need of non-family care providers, and more pressure on the sustainability of their Social Security systems. They have less chances of making the most from

the Demographic Dividend because their window period is shorter. However, these countries are also the ones with the most comprehensive system of social benefits, which have high coverage rates; regarding education, these are also the countries with the lowest drop-out rates from the education system. The challenges for these countries are related to keeping their Social Security systems, as well as other social benefits for the elderly, sustainable and as universal as possible. Mesa-Lago (2008) considers that the pension reforms carried out during the last quarter century have not increased work force coverage; therefore, these countries have the challenge to complement the reform with more measures that improve this coverage. Another challenge is to start considering the plausible expansion of non-family support networks for the elderly given that the availability of kin is decreasing very fast.

The least advanced countries in the population aging process have the challenge of improving Social Security coverage during the Demographic Window period, by formalizing the work force and making the affiliation to the system more flexible for current informal and rural workers. As CEPAL (2009) recommends, they also have the opportunity of expanding the coverage of the education system. They have the chance of studying the cases of the most aged Latin American societies; they can learn from their successes and from their missteps. The challenge is to overcome the historical conditions that hindered them in expanding Social Security benefits[4]. These historical conditions are different across Latin American countries. This means that the experience of successful neighboring countries should be studied, but there are no fixed recipes in achieving this kind of goals.

Finally, there is the group of countries that have been advancing rapidly into the Demographic Transition but are not as aged as Uruguay, Argentina, or Cuba. Some of these countries –such as Costa Rica, Panama, and Brazil– still have a not so short demographic dividend period to take advantage of and they have achieved relatively high Social Security coverage rates, too. These are the countries that are better situated for improving the human capital of their population by improving quantitatively and qualitatively their education system, without discarding more efforts to augment coverage rates in Social Security benefits.

[4] Sadly enough, the 2009 coup d'etat in Honduras shows that there are still many political, cultural, and economical constrains that affect the socio-economic improvement of several nations in the region.

These recommendations assume that Latin American countries will keep progressing linearly according to the theoretical pathway described by the Demographic Transition. This assumption will not necessarily hold for every case. Countries may experience mortality reversals, halts in fertility decline, or cyclical patterns in the number of births. Therefore, there is no single recipe or policy that every Latin American country has to follow in order to make the most from the Demographic Dividend or prevent the consequences of population aging on pension funds. Panama and Costa Rica are considered as two of the precursors in Social Security systems in the region, even though the pace of their Demographic Transition has been different to the pace of the other precursors, such as Argentina or Uruguay.

Another issue to take into account is that the causal mechanisms that link socio-economic development and population dynamics are not as straightforward as they appear to be. The recommendations that were explained above assume that countries that are lagging behind in their Demographic Transition have better chances of developing policies and institutions to deal with the Demographic Dividend and population aging, while those countries that have practically finished their Demographic Transition have fewer chances because their aging process is quite advanced too. However, these opportunities and challenges can be beneficial if a country has a political, economical, institutional, and cultural context that permits flexible changes in favor of the population. It is not a coincidence that the most advanced Latin American countries in the Demographic Transition are also more developed in terms of human development. Historically, the Demographic Transition leaders have had higher proportions of educated people, as well as proactive Governments that created welfare institutions that still benefit the population in most need. On the contrary, most of the countries that are still going through the transition have been characterized by income and wealth inequality and an absence of political disposition to advance human development policies. The countries that are still far away in their aging process will be able to avail of their demographic situation if their people and Governments can reach to a national consensus to develop policies and institutions that improve the human development of their populations.

I would like to conclude this article commenting that Latin America as a whole is well suited for monitoring the development of these opportunities and challenges because there are recent efforts in constructing information systems and other sources of data about population aging. Some of these efforts are regional, like CELADE's SISE (Sistema Regional de Indicadores sobre Envejecimiento), and others are national, like the "Observatorio de Envejecimiento y Vejez" in Uruguay, "MONITOR-IDOSO Sistema de monitoramento da saúde e qualidade de vida dos idosos a nível federal e municipal" in Brazil, or "Informe de Situación de la Persona Adulta Mayor en Costa Rica". Other valuable efforts aimed at the same goal are recent surveys about Latin American elderly, like CRELES in Costa Rica, MHAS in Mexico, PREHCO in Puerto Rico, or the SABE Project. It would be advisable that this kind of projects should be sponsored by Governments and the private sector because having this information is useful in proposing and monitoring the policies for improving the well-being of our elderly population.

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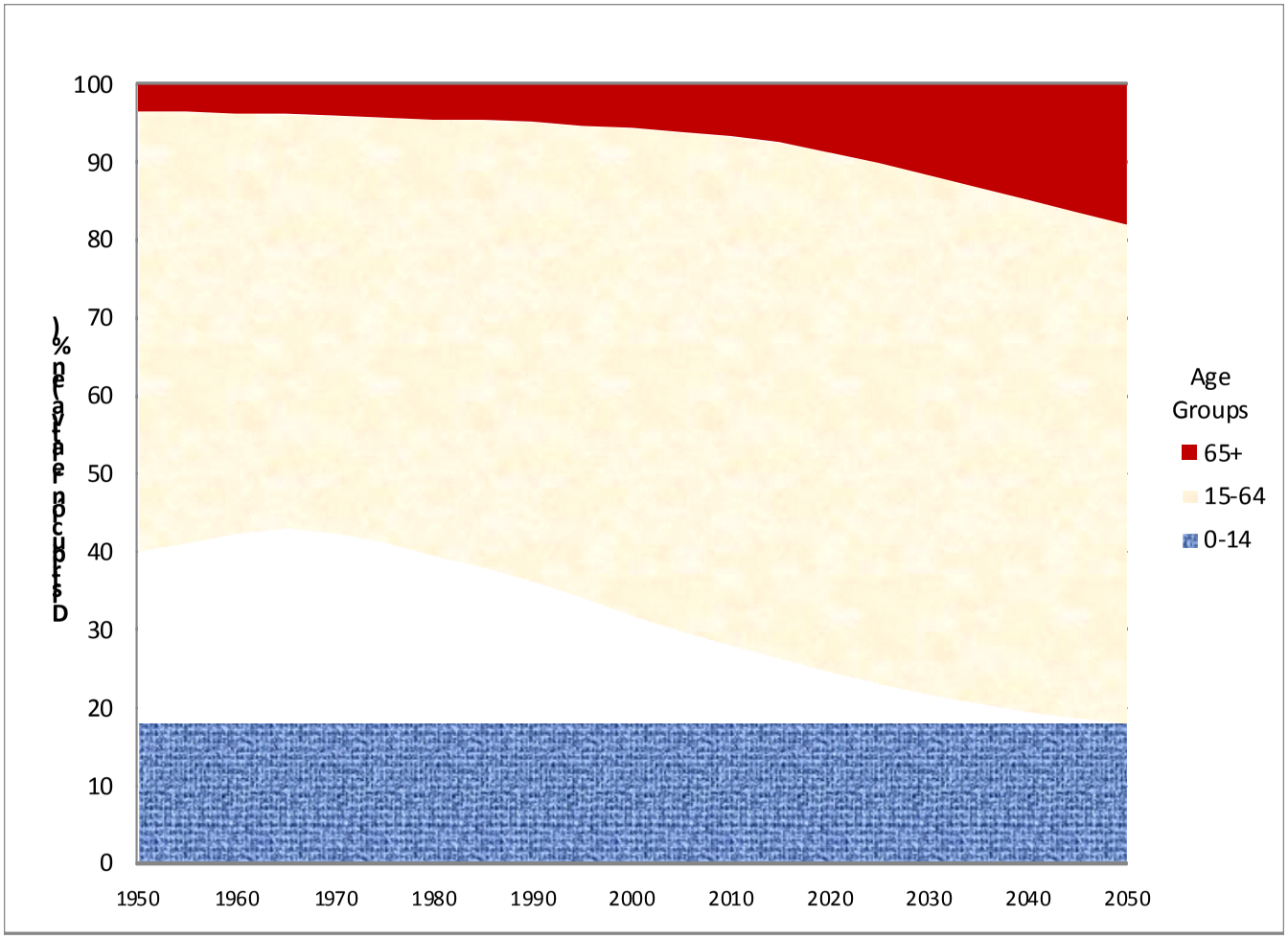
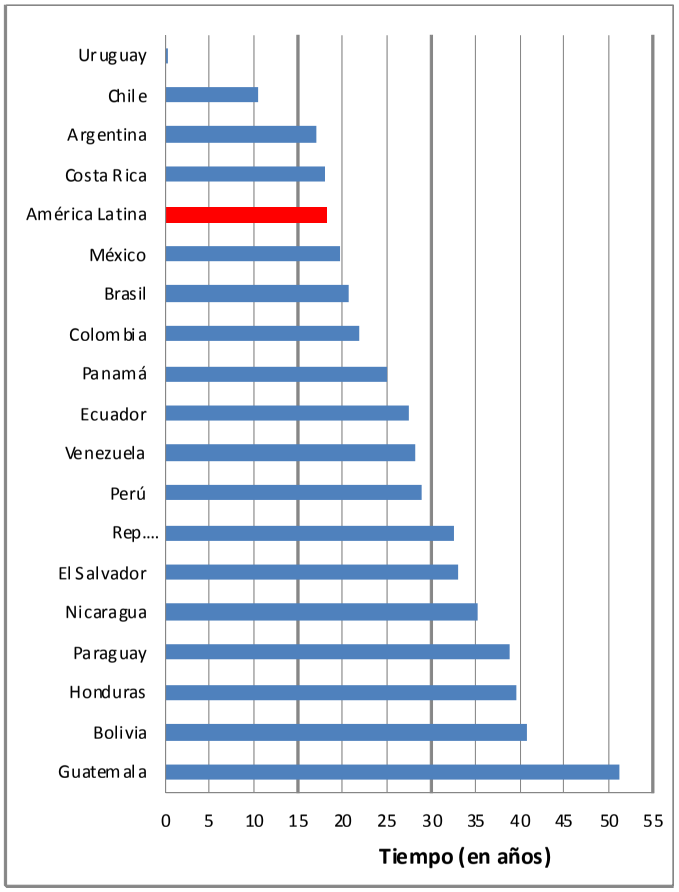
Figure 1. Latin America and the Caribbean. Relative distribution of total population by age groups.



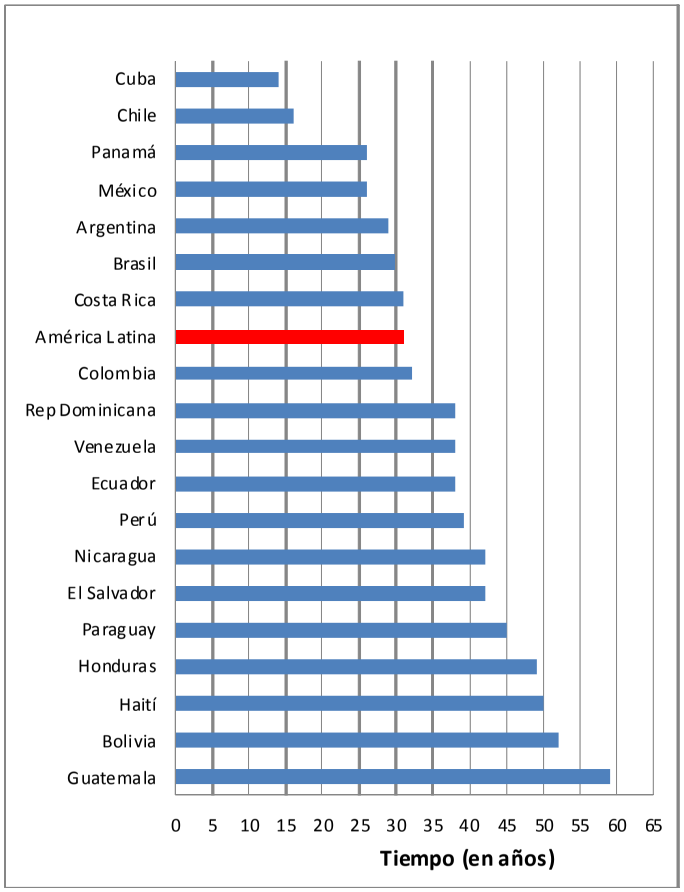
Source: CELADE (2007)

Figure 2. Years from 2010 to reach an aging index of 60% and a dependency ratio of 66% for selected Latin American countries. (Aging index= Population aged 65 and over divided by Population aged 0-14; Dependency ratio=[Population aged 65 and over + Population aged 0-14] divided by Population aged 15-64).

Aging Index



Dependency ratio



Source: Own computations based on CELADE (2007) for aging index and on CEPAL (2009). Population Projections.

Table 1. People aged 65 and over with limitations in Activities of Daily Living (ADL) or Instrumental Activities of Daily Living (IADL), by helpers' relation to respondent, according to urban residence, in Costa Rica (2004-2006) and Mexico (2001).

Country and relation of respondent to helper	Area of residence		
	Total	Urban [2/]	Rural
Costa Rica [1/]			
Total	100	100	100
-Spouse	21	19	25
-Co-resident child	31	33	28
-Non co-resident child	17	14	20
-Other household member	14	14	14
-Other non-household member	17	20	12
Mexico [1/]			
Total	100	100	100
-Spouse	27	25	29
-Co-resident child	41	44	40
-Non co-resident child	16	20	14
-Other household member	24	21	26
-Other non-household member	15	15	15

Source: Own computations based on data from CRELES (Costa Rica) and MHAS (Mexico), project.

Note: 1/ For Costa Rica, categories are mutually exclusive because they refer to main helper. For Mexico, categories are not mutually exclusive because they refer to all helpers, thus the sum of the percentages adds up to more than 100%.

2/ In Costa Rica, area of residence is categorized in urban or rural. In Mexico, area of residence is categorized as more urban (localities with more than 100,000 inhabitants) or less urban.

Table 2. Mean number of surviving children of women aged 45 to 69, by age groups, in selected Latin American countries, circa 2000.

Country	Year				
	45-49	50-54	55-59	60-64	65-69
Chile	2.8	3.0	3.2	3.7	4.0
Argentina	3.1	2.9	2.9	2.9	2.8
Colombia	3.6	3.9	4.4	5.0	5.5
Brazil	3.6	4.0	4.6	5.0	5.1
Costa Rica	3.7	3.9	4.5	5.3	5.9
Panama	3.7	4.1	4.6	5.0	5.3
Mexico	3.7	4.2	4.8	5.3	5.8
Venezuela	3.8	4.2	4.7	5.3	5.6
Ecuador	4.1	4.5	5.0	5.3	5.5
Bolivia	4.6	4.7	4.6	4.5	4.6

Source: Own computations based on IPUMS datasets (Minnesota Population Center, 2009).

Notes: The corresponding country samples are: for Argentina (2001), 1%; for Bolivia (2001), 1%; for Brazil (2000), 0.1%; for Chile (2002), 1%; for Colombia (2005), 1%; for Costa Rica (2000), 10%; for Ecuador (2001), 1%; for Mexico (2005), 0.1%; for Panama (2000), 10%: for Bolivarian Republic of Venezuela (2001), 1%

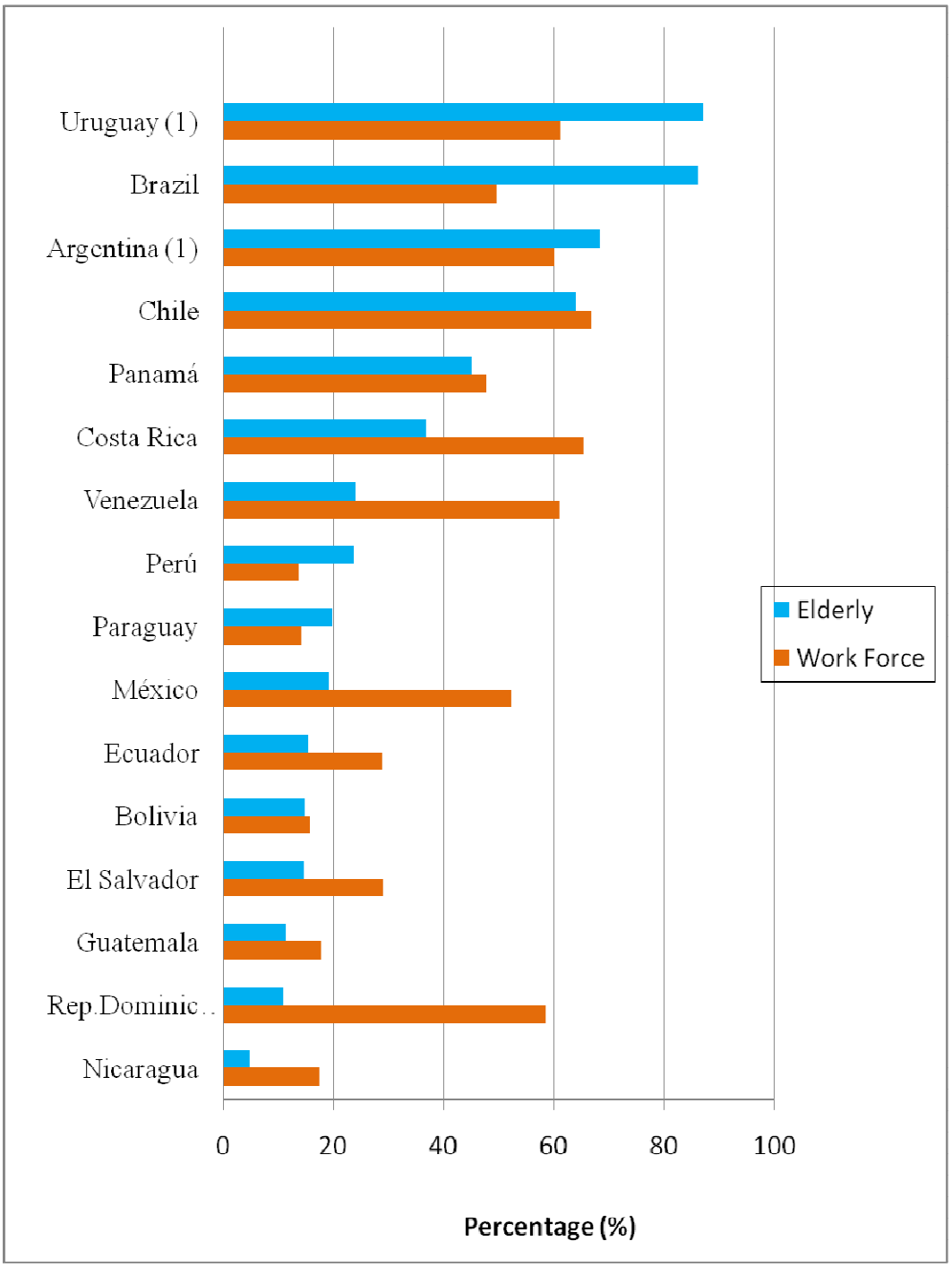
Table 3. Population aged 65 and over: Relative distribution by household type in selected Latin American countries, circa 2000.

Discapacidad y País	(n)	Household type				
		One-person	Nuclear	Multi-generational	Collective	Total
Total sample						
Brazil	9,557	11.6	42.5	44.8	1.1	100.0
Chile	12,516	12.4	34.6	50.3	2.7	100.0
Costa Rica	21,433	10.9	40.4	47.1	1.7	100.0
Ecuador	8,315	8.8	26.5	63.8	1.0	100.0
Panamá	16,956	12.3	27.4	58.1	2.2	100.0
Venezuela	11,119	8.3	26.2	64.3	1.1	100.0
With disability						
Brazil	2,070	11.6	35.7	50.3	2.5	100.0
Chile	1,270	10.2	26.4	56.4	7.0	100.0
Costa Rica	5,170	11.2	35.4	50.1	3.3	100.0
Ecuador	1,754	9.9	27.1	60.8	2.2	100.0
Panamá	1,462	10.9	19.6	62.2	7.3	100.0
Venezuela	2,807	8.0	21.8	68.0	2.2	100.0

Source: Own computations based on IPUMS datasets (Minnesota Population Center, 2009).

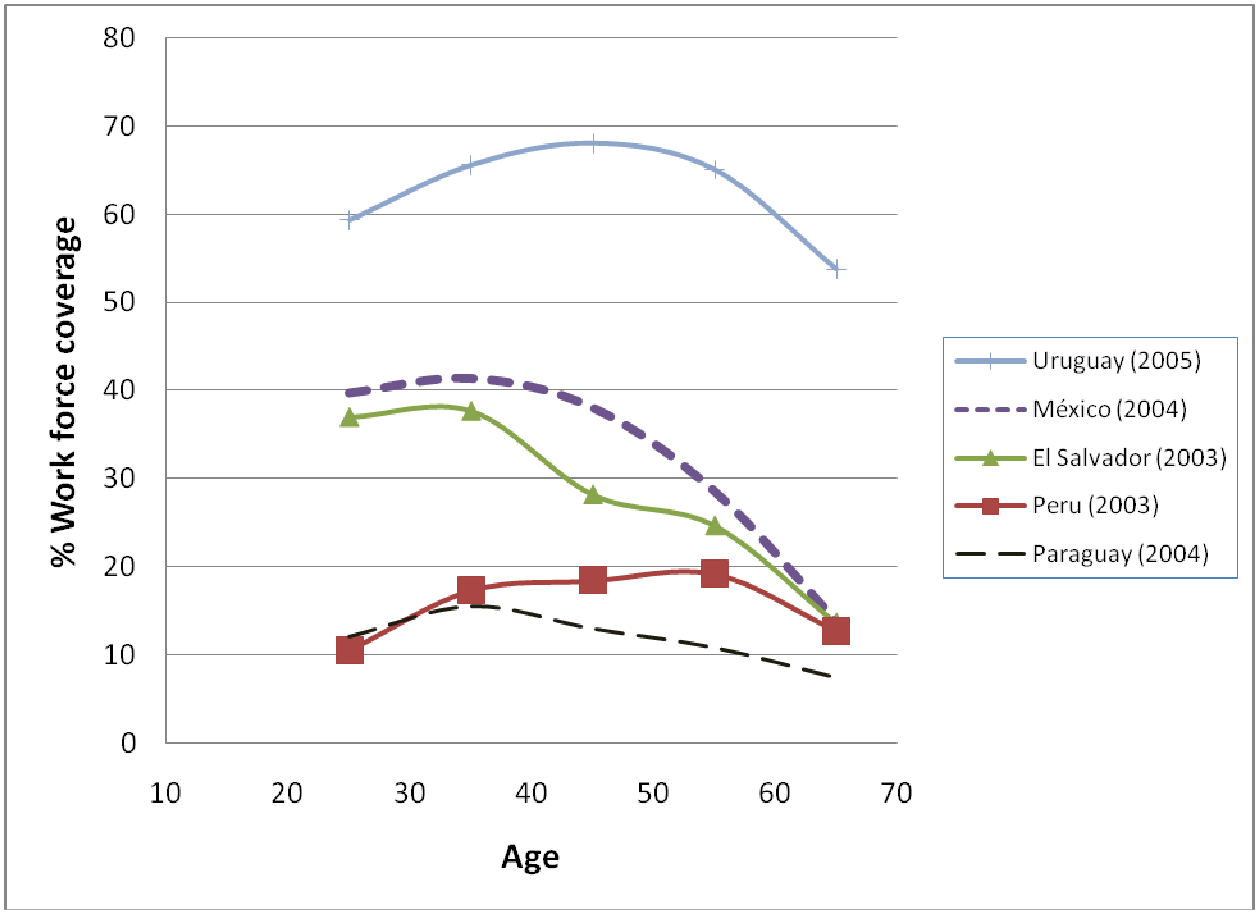
Notes: The corresponding country samples are: for Argentina (2001), 1%; for Bolivia (2001), 1%; for Brazil (2000), 0.1%; for Chile (2002), 1%; for Colombia (2005), 1%; for Costa Rica (2000), 10%; for Ecuador (2001), 1%; for Mexico (2005), 0.1%; for Panama (2000), 10%: for Bolivarian Republic of Venezuela (2001), 1%

Figure 3. Percentage of work force entitled to a retirement pension and percentage of people aged 65 receiving pension or retirement benefits, in selected Latin American countries.



Source: CEPAL (2008) for Work Force coverage, Rofman (2005) for elderly coverage.

Figure 4. Percentage of occupied population with pension entitlement coverage, by age, in selected Latin American countries.



Source: Rofman & Lucchetti (2006).