

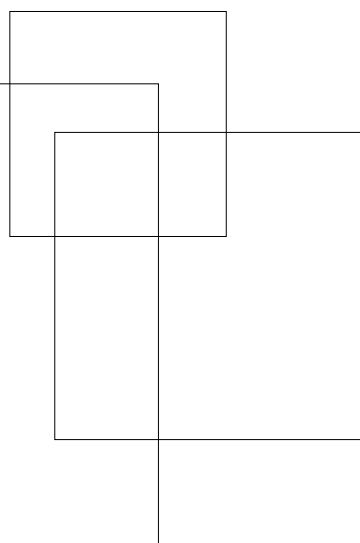


International
Labour
Office

RESEARCH DEPARTMENT ||||| WORKING PAPER NO. 53 ||||||

Gender equality and old-age income security: The case of Mexico

CARLA HENRY
FREDERICO FRAGA



DECEMBER 2019

**Gender inequality and old-age income security:
The case of Mexico**

Carla Henry* and Federico Fraga**

December 2019
International Labour Office

* Senior Technical Specialist, Research Department, ILO. Email: henryc@ilo.org

**Junior Research Consultant, ILO. Email: fragafederico@gmail.com

International Labour Organization, Research Department,

Abstract

Mexico is facing an ageing population, with those over the age of 65 set to constitute an increasing share of the population in the twenty-first century. Yet, the extent of the economic dependency that Mexico may encounter is unclear. This paper profiles various work-related dimensions of Mexico's ageing women and men and explores implications of existing policies and work characteristics on future dependency scenarios. Mexico remains dependent on informal work and low wages for maintaining high employment levels. Low labour participation of women also accounts for relatively high and growing levels of economic dependency for the country.

This study uncovers an ongoing economic reliance on old-age work, mainly carried out by men, and a high share of old-aged individuals who lack social security coverage. Evidence points to added vulnerability for a significant share of both old-age men and women who rely on very limited savings and assets for security. The analysis also uncovers roughly a quarter of retired workers who rely neither on pension nor on work, raising concerns for potentially dire income insecurity in the future.

Mexican women are over-represented in low productivity sectors and are largely engaged in informal work. More Mexican women than men work part-time. These gaps during working years feed significant gender gaps in old-age income security, in the form of far fewer being eligible for contributory pension payouts and earning substantially lower income from work late in life. Closing these gaps would significantly contribute to reducing future economic dependency.

Acknowledgments

This study is part of a larger research initiative within the ILO Research Department on old age income and security. Thanks go foremost to its Director, Damian Grimshaw, for supporting the initiative. This specific case study on Mexico benefits from technical inputs and advice from research colleagues Matias Golman, Stefan Kuehn and Clemente Pignatti, as well as a more detailed review by Helmut Schwarzer, senior social protection specialist based in the ILO Country Office for Mexico and Cuba. Additional thanks go to Sebastian Jenner for editing the paper and Louise Wares for formatting the final document.

Contents

Abstract iv

Acknowledgments	v
1. Introduction	8
Data and methodology	9
2. Dependency patterns	10
Old-age dependency ratio	10
Employment-based economic dependency	12
3. Gender, age and labour force participation	15
Gender differences in labour force participation	15
Gender differences in occupational characteristics of old-age work	16
Types of productive work	16
Unpaid household and care work.....	17
Working time	18
4. Pension security, non-work income and medical coverage	20
Contributory pensions	20
Non-contributory pensions.....	21
Medical coverage	22
Pension income	22
Earnings and work income.....	23
Savings, wealth and poverty	26
5. Projections of gender gaps in employment-based economic dependency	28
6. Policy implications	30
References	32

Tables:

Table 1. Old-age dependency ratio by sex and residence estimates for specific years and 2017-2100 expected variation.	12
Table 2. Work status and non-work circumstances, age 45 and over, by gender	19
Table 3. Sources of income as a share of total income, by age groups and sex	26
Table 4. Summary for bottom 40 percent	27
Table 5. EbEDR projected estimates for 2050 and expected 2017-2050 variation in percentage points (p.p.), by age groups and sex	30

Figures:

Figure 1. Population projections for Mexico to 2100	10
Figure 2. Old-age dependency ratio: male urban, female urban, male rural and female rural population aged 65 and older as a share of total working age population (2017-2100)	11
Figure 3. Distribution of economic dependency by sex and age groups, projected to 2050	14
Figure 4. Number of people working and not working (unemployed or inactive) by gender and age-groups, 2017 and 2050	14
Figure 5. Average labour force participation rates of urban women and men (left) and rural women and men (right) by age	15
Figure 6. Main activities and occupations performed by individuals aged 65 or above (as per cent of total individuals aged 65 and above that reported work activities)	17
Figure 7. Of those working aged 55-64 and 65 and over, the average number of weekly hours worked, by sex	18
Figure 8. Contributory pension programme coverage, by sex and residence	20
Figure 9. Non-contributory pensions and social transfers programme coverage, by sex and residence	21
Figure 10. Access to health services by residence (as per cent of total residents aged 65 and above)	22
Figure 11. Median non-work income by source, for those aged 65 and above	24
Figure 12. Decomposition of the gender gap in labour income (20-64 years old), 2013-2015	25
Figure 13. Median monthly work income by age group and sex (among those reporting any work income)	26
Figure 14. Distribution of the population by poverty indicators in different groups of the population (2016)	28
Figure 15a. No labour participation from age 70: Distribution of economic dependency by sex and age groups, projected to 2050	30
Figure 15b. Increased female labour participation: Distribution of economic dependency by sex and age groups, projected to 2050	30

1. Introduction

This study responds to a global need to better understand the multidimensional situation of ageing in specific countries and contexts. In the call for the implementation of the Sustainable Development Goals (SDGs), getting old is recognized as presenting a significant additional risk of becoming vulnerable to economic insecurity as well as poverty, with limited options for older persons to escape such a situation.¹

Ageing populations are generally considered as a looming economic burden that will drain on the social welfare of a country. Older people are assumed to exit productive work and to enter a prolonged period of dissaving. As a larger share of the population enters into old-age, there will be an increasing diversion of productive resources to address the needs of these older people.

This paper contributes to current thought on how to more broadly understand the economic dependency of ageing populations based on their employment and retirement situations. It focuses on the nature of work and dependency among Mexico's population of those aged 65 and over and incorporates analysis around age, sex and residence (rural/urban). These factors are considered in relation to the form and scale of employment activity and its interface with expectations of how other dimensions of old-age income security will be affected as Mexico's population ages.

Mexico provides a compelling country study, denoting an upper middle-income country with a large ageing population and a relatively weak employment situation. During the last few decades, a shortfall of secure job opportunities has been a major challenge, such that over half of the working population has relied on informal employment (ENOE/INEGI, 2018). Following the signing of the North American Free Trade Agreement (NAFTA) in 1993, the share of employment in maquiladora industries increased over the subsequent decade. Exports of relatively complex and labour-intensive goods, such as cars; vehicle parts; delivery trucks and computers expanded. Ros (2015) notes the declining wage share in manufacturing during this period accompanied by weak labour regulation and union intervention. Women in particular have worked on temporary contracts with limited access to non-wage benefits designated under Mexican legislation (Villalobos and Brown-Grossman, 2010).

Although unemployment has remained relatively low, the poor quality of informal work and stagnant real wage growth has translated into low incomes and job instability for many. Growing inequality is also evidenced as the share of wages in total income has decreased (Breach, 2014). According to the ILO, from 2005 to 2015 real average wages in Mexico declined by just over 10 per cent (ILO Panorama Laboral, 2017). Wages were held down in part due to fears of inflation and growing debt in fiscal accounts.

Given the current employment context, to what extent will Mexico need to support a growing share of retirement aged men and women? What form of support will likely be needed? Who will be particularly vulnerable? This paper considers possible future scenarios through an analysis of the current income security situation of Mexico's aged population, with particular attention to reliance on work. Productive work is one means of lowering economic dependency among the old, but it is also the form of dependence, many old persons dread having to rely upon for income security.

¹ United Nations Development Programme (UNDP) and United Nations Research Institute for Social Development, *Global Trends: Challenges and Opportunities in the Implementation of the Sustainable Development Goals* (2017).

This paper analyses multiple dimensions of old-age income security in Mexico to deepen insight into the main sources of dependency shifts as Mexico's population ages. Section two summarizes the demographic context of the ageing population and considers the projected dependencies related to ageing and labour force participation. Section three delves more deeply into employment patterns between men and women in Mexico. Section four reviews the gender disaggregated pension, income and health coverage situations of older individuals. Section five considers the outlook for economic dependency under different labour force participation scenarios. The final section draws conclusions from the analysis and points to the clear need to increase labour market participation of women today, to limit potentially negative effects linked to ageing.

Throughout the paper, special attention is given to gender gaps in old-age security. The results of the analysis and projections can shed light on policy trade-offs linked to old-age work, retirement and protection, with special consideration of how to close identified gender gaps in Mexico's old-age income security.

Data and methodology

The datasets used for this analysis are compiled from two main sources. The Mexican Health and Aging Study (MHAS) is a longitudinal, nationally representative survey of Mexicans at age 50 and older and their spouses.² The data contained in the MHAS datasets include demographic and family structure information; health status and functioning; employment status and pension; income and assets;³ and other related information about respondents.

The MHAS panel survey is a collaborative effort among researchers from the Universities of Pennsylvania, Maryland, and Wisconsin in the United States, and the Instituto Nacional de Estadística, Geografía e Informática (INEGI) in Mexico. The baseline survey was conducted in 2001, and a follow-up was fielded in 2003. Following the 2012 survey, a further wave was fielded in 2015 that surveyed nearly 18,000 individuals. Only data from the 2015 wave (published in 2017) is analysed, and all results are weighted using the frequency weights provided in the dataset to ensure national representativeness.

Employment-related analysis also draws from quarterly micro data from the Mexico's National Occupation and Employment Survey (ENOE in Spanish), corresponding to the 2005-2017 period.

Population projections are based on the 2017 *Revision of the Long Term Population Estimates and Projections* of Mexico, prepared by CELADE, the Population Division of the Economic Commission for Latin America and the Caribbean (ECLAC). This database includes population estimates and projections up to the year 2100, by age, sex and area of residence (rural or urban).⁴

² The MHAS (Mexican Health and Aging Study) is partly sponsored by the National Institutes of Health/National Institute on Aging (grant number NIH R01AG018016). Data files and documentation are public use and available at: www.MHASweb.org.

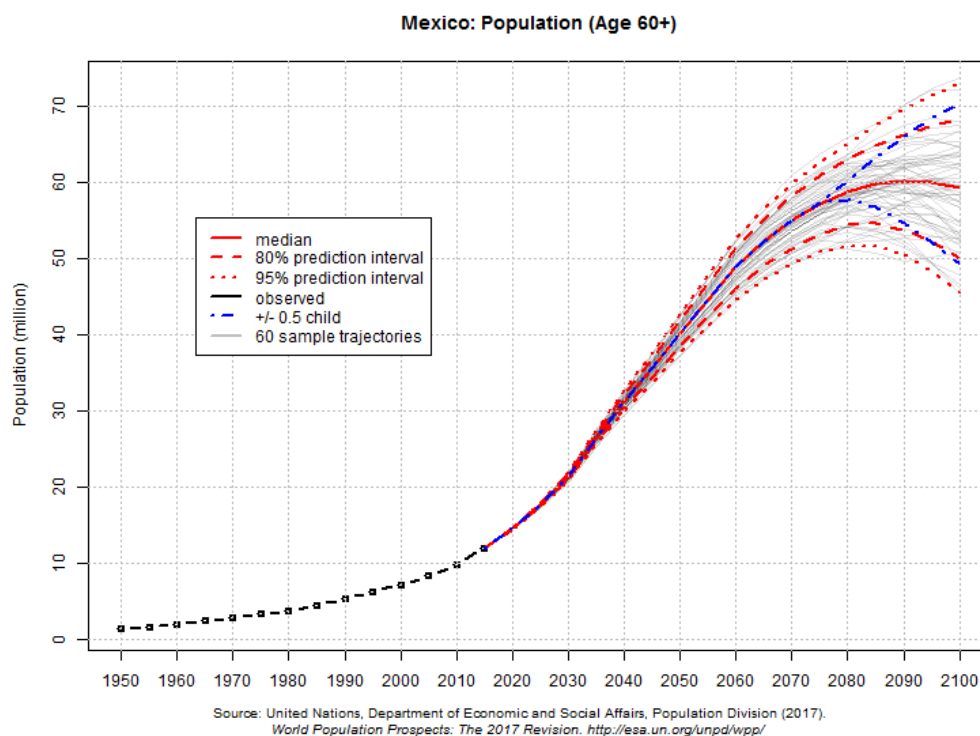
³ All of our analysis referring to income and asset variables is based on the *imputed* datasets

⁴ According to The National Institute of Geography and Statistics of Mexico (INEGI), a population area is considered rural when it has fewer than 2,500 inhabitants, and it is considered urban when the number of inhabitants is more than 2,500.

2. Dependency patterns

Mexico's population is still relatively young, with a median age of 27.5 as of 2015, but its demographic structure is poised to rapidly change in upcoming years. The proportion of people aged 65 or older is estimated to triple to 16.7 per cent by 2050 (UN DESA, 2017). Figure 1, below, details the population growth projections for those over the age of 60.

Figure 1. Population projections for Mexico to 2100



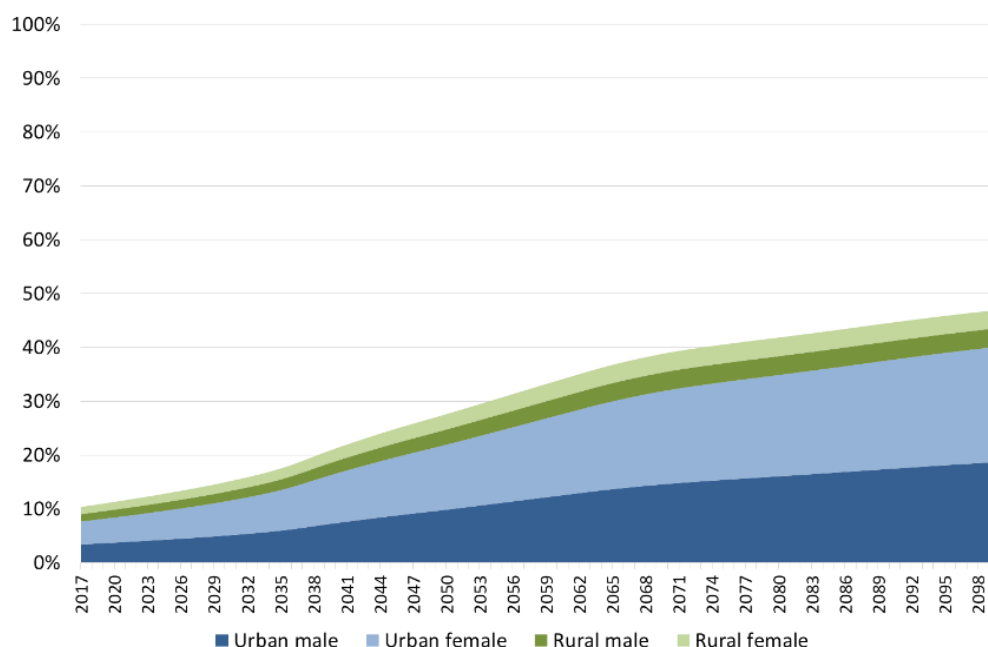
Estimates of old-age dependency indicate that by 2050, Mexico's old-age dependency ratio will rise to 28 adults over 65 per 100 working-age persons (ages 15-64) from 10.4 per 100 today (ECLAC, 2017). While this increased number of older adults could be seen as a "looming social and economic burden" (Angel et al., 2016, p. 154), these dependency ratios are based on the population structure alone, and do not take into account actual employment behaviour of those 65 and over and those of working age.

Old-age dependency ratio

The old-age dependency ratio (OADR) is a traditional approach to assess the economic "burden" of ageing. It is a demographic based method that usually divides the number of persons aged 65 and above by the number of individuals aged 15-64, and assumes that the former are economically dependent on the latter. Its main flaw is that it does not account for the employment behaviour of individuals 65 and over; in particular, that not everyone aged 15-64 is actually working, just as not everyone beyond the age of 65 is inactive (Loichinger et al., 2014; Loichinger and Skirbekk, 2016).

Figure 2 graphs Mexico's OADR corresponding to the period 2017-2100, disaggregated by sex and rural/urban locality.⁵ The OADR by definition mirrors changes in the underlying age demographics of the population. Figure 2 shows the share of old-age dependency by population segment.

Figure 2. Old-age dependency ratio: male urban, female urban, male rural and female rural population aged 65 and older as a share of total working age population (2017-2100)



Source: Own estimates based on ECLAC (2017)

⁵ The urban male OADR was calculated by dividing the total number of urban male individuals aged 65 or more, by the total population aged 15-64. Similarly, the female urban OADR was calculated by dividing the total number of urban female individuals aged 65 or above, by the total population aged 15-64, and we proceeded in identical way for rural male and rural female OADRs. The aggregation of these four (sex-residence) OADR estimates yields the OADR for the entire population.

Table 1. Old-age dependency ratio by sex and residence estimates for specific years and 2017-2100 expected variation

	2017	2030	2050	2075	2100	p.p. change 2017-2100
Urban	7.7%	11.4%	21.9%	33.5%	40.2%	32.5
Male	3.4%	5.0%	9.8%	15.4%	18.7%	15.3
Female	4.3%	6.3%	12.1%	18.2%	21.4%	17.2
Rural	2.7%	3.6%	5.7%	7.0%	6.8%	4.1
Male	1.4%	1.8%	2.8%	3.5%	3.4%	2.1
Female	1.3%	1.8%	2.8%	3.5%	3.4%	2.0
Total	10.4%	14.9%	27.6%	40.5%	47.0%	36.6

Source: Own elaboration based on ECLAC (2017)

As inferred from table 1, in 2017 there were approximately 10 adults aged at least 65 years per 100 persons aged 15-64, mostly explained by the large share of urban women and men (80 per cent of the current total population resides in urban areas). Looking ahead, the population projections suggest a steady increase in the old-age dependency ratio. By 2050, it is expected that there will be almost 28 persons aged 65 years or above for every 100 individuals aged 15-64. Most notably, towards 2100, this could increase to almost 50 aged 65 years or above per 100 persons within the 15-64 age group. The urban population share explains almost 90 per cent of this large expected variation between 2017 and 2100, in part due to estimated continued urbanization over the coming decades.

While at first glance these estimates may raise concerns about a growing burden of the elderly to the Mexican population, they are of limited use in understanding actual economic dependency trends and implications, and to design policies to cope with these. Consideration of economic behaviour and individual characteristics, such as the decision to be economically active irrespective of one's age, may bring insight into the form and nature of economic dependency within a country; and in particular, what is and will be the actual share of the old-age dependent population (Loichinger et al., 2014).

Employment-based economic dependency

An employment-based economic dependency ratio (EbEDR) is the share of individuals of working age (15 years or above) who are unemployed or inactive, to the total employed population. The equation below represents this estimate in reduced form:

$$EbEDR = \frac{\sum_{15}^{65+} N_u + \sum_{15}^{65+} N_i}{\sum_{15}^{65+} N_e}$$

Where N_u , N_i , N_e represent the number of persons aged 15 or above that are unemployed, inactive and employed, respectively. (EC, 2015)

In order to distinguish age effects and especially the contribution of those aged 65 or above to this estimate,⁶ we divide the working age population into two age groups: “15-64” and “65 and above”. To understand the different contributions of sex to this type of dependency, we also disaggregate the estimate accordingly.

Figure 3 shows EbEDR estimates for the period 2005 through 2050,⁷ combining age-group and sex. Based on these calculations, economic dependency has remained relatively stable over the last 12 years, averaging 75 per cent. This means that for every individual aged 15 and over who is unemployed or inactive, there are 1.3 individuals working. This relatively high rate is mostly driven by low female labour participation within the 15-64 age group. In fact, around 83 per cent of individuals who were unemployed or inactive in 2005-2017 were aged between 15 and 64; of these, three out of four were female. The remaining 17 per cent were age 65 or over.

EbEDR can also be calculated based on full-time equivalent employment and average hours worked per week. If a person works 40 hours per week this is equal to 1 person working; if a person works 20 hours per week, this is equal to 0.5 person working, and so on. Based on these calculations, economic dependency has remained relatively stable over the last 12 years, averaging 71 per cent. The drop in estimated dependency results are due, in part, to a high share of the adult male population working. Furthermore, many of whom do so well over 40 hours per week and well into old-age.

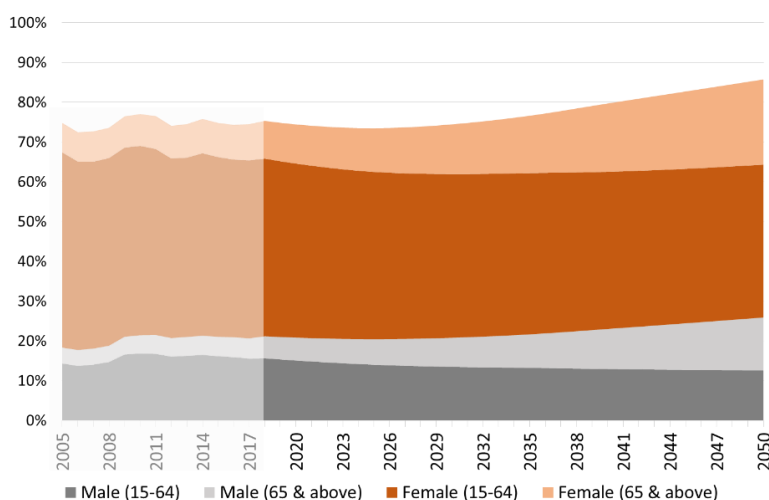
As shown in figure 3, the economic dependency ratio under the current employment configuration will steadily increase from an estimated 75 per cent in 2017 to a projected 85 per cent by 2050. This is due to the ageing of the overall population and projected low birth rates. For the projection, we assume that the share of population economically active, for a given age-cohort, remains at the same rate over time within the projected changes to the overall population share within a given age-cohort (provided by ECLAC). The share of inactive population is taken as the difference between the amount of total projected population and the amount of the projected economically active population (for every year; age-cohort; place of residence; and sex).

Within this, the relative share of economically dependent men and women will remain constant, but a steadily expanding share of these will become 65 years and older, as depicted. At the same time, a low birth rate will translate into a declining share of the population of prime working age.

⁶ In Mexico 65 is the age to retire from work with the right to receive a pension without penalty.

⁷ The calculation strongly depends on market-labour dynamics, we estimate EbEDR for every quarter within the full available period, instead of doing so for one specific year (e.g. 2017), so as to minimize any short-term effects of market labour on our results. In order to smooth the fluctuations in the estimates due to seasonality effects, we estimate EbEDR annual moving averages on a quarterly basis.

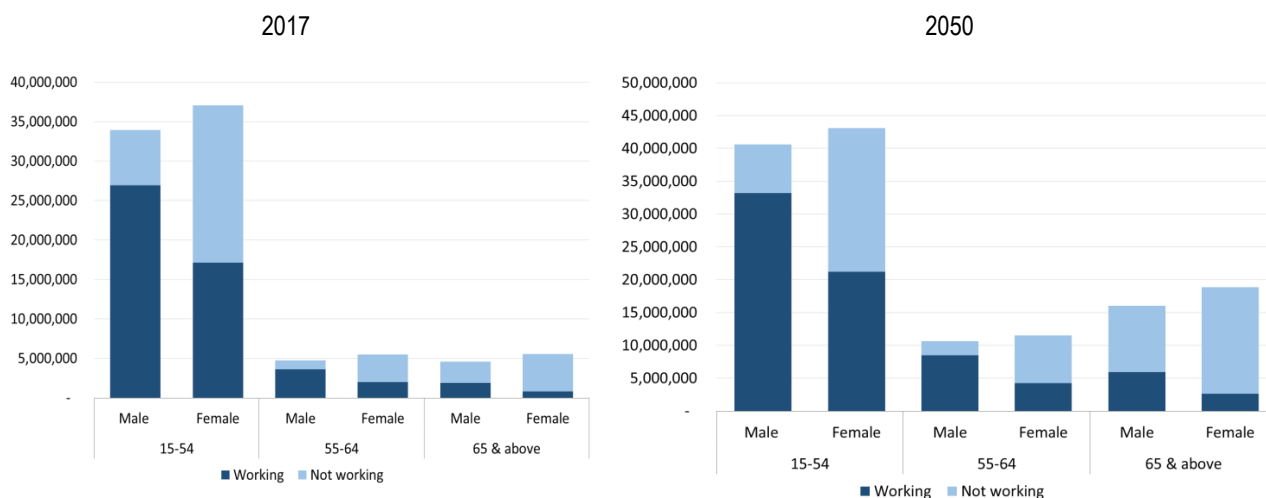
Figure 3. Distribution of economic dependency by sex and age groups, projected to 2050



Source: Own estimates based on ECLAC (2017) and ENOE

Figure 4, below, graphs the shares of working to not working within age bands and by sex. The analysis by residence defines the urban population as those individuals living in areas with 2,500 or more inhabitants. Based on this definition, roughly 80 per cent of the surveyed population is designated as urban. The 2017 data suggests a higher economic dependency of women in both urban and rural areas as well as among those in retirement ages. Although the employment rate of women aged 15-64 has increased slightly over the past 12 years in Mexico, the employment gender gap remains the second largest in the OECD and highest in Latin America (ILO Panorama, 2018; OECD, 2019). Mexico’s female labour participation rate increased from 33.46 in 1990 to 44.12 in 2017 (ILO estimate). This compares to 49.4 globally and 52.7 in the Latin America and Caribbean region. (ILO, 2017). Mexico’s relatively high EbEDR reflects the large share of women of prime working age who are outside of the labour market. By 2050, the number of men and women aged 15-64 who work will increase, but this will be offset by large numbers moving into old-age and ending work, particularly for women.

Figure 4. Number of people working and not working (unemployed or inactive) by gender and age-groups, 2017 and 2050



Source: Own estimates based on ECLAC (2017) and ENOE (2017)

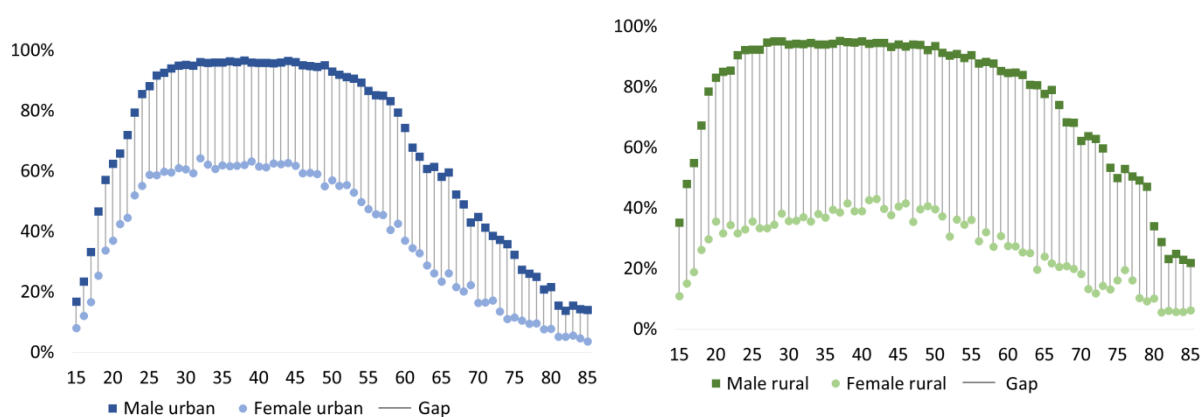
3. Gender, age and labour force participation

Gender differences in labour force participation

Many older persons in Mexico work past the retirement age, some doing so based on need and others on choice. Figure 5 shows the gender gap in labour force participation rates by age and rural or urban residence for the year 2017. As shown, the gender gap in labour participation is evident from early ages. From age 25 to age 55 roughly 60 per cent of urban women work, compared to only 40 per cent of those in rural areas. In contrast, from age 25 to 55 men's labour force participation registers 90 per cent for both urban and rural individuals. A much larger share of younger (15-24) women neither study, nor work, nor seek work (29.5 per cent compared to less than 8.1 per cent of young men). This coincides with a widening gender gap in labour force participation that appears for the same age range (56 per cent on average for young men compared to 31 per cent for young women aged 15-24).

Labour force participation starts to decline steadily from age 60 for both men and women, but with steeper declines among urban men and women. A relatively large share of the population remains in the labour force beyond the age of formal retirement, with participation averaging 35.5, 21.1, 9.5 and 7.3 per cent for 35.5 for rural men, 21.1 for urban men, 9.5 per cent for rural women and 7.3 for urban women for those aged 75 and over. According to OECD (2017), the average effective retirement age in Mexico is 72 for men and almost 68 years old for women, respectively, well above the formal age of retirement of 65 years old. This leaves the country as the second (after Republic of Korea) among OECD countries with the highest effective retirement age for male individuals, and the third (after Republic of Korea and Japan) with the highest effective retirement age for female individuals.

Figure 5. Average labour force participation rates of urban women and men (left) and rural women and men (right) by age



Source: own elaboration based on ENOE, 2017

Gender differences in occupational characteristics of old-age work

Types of productive work

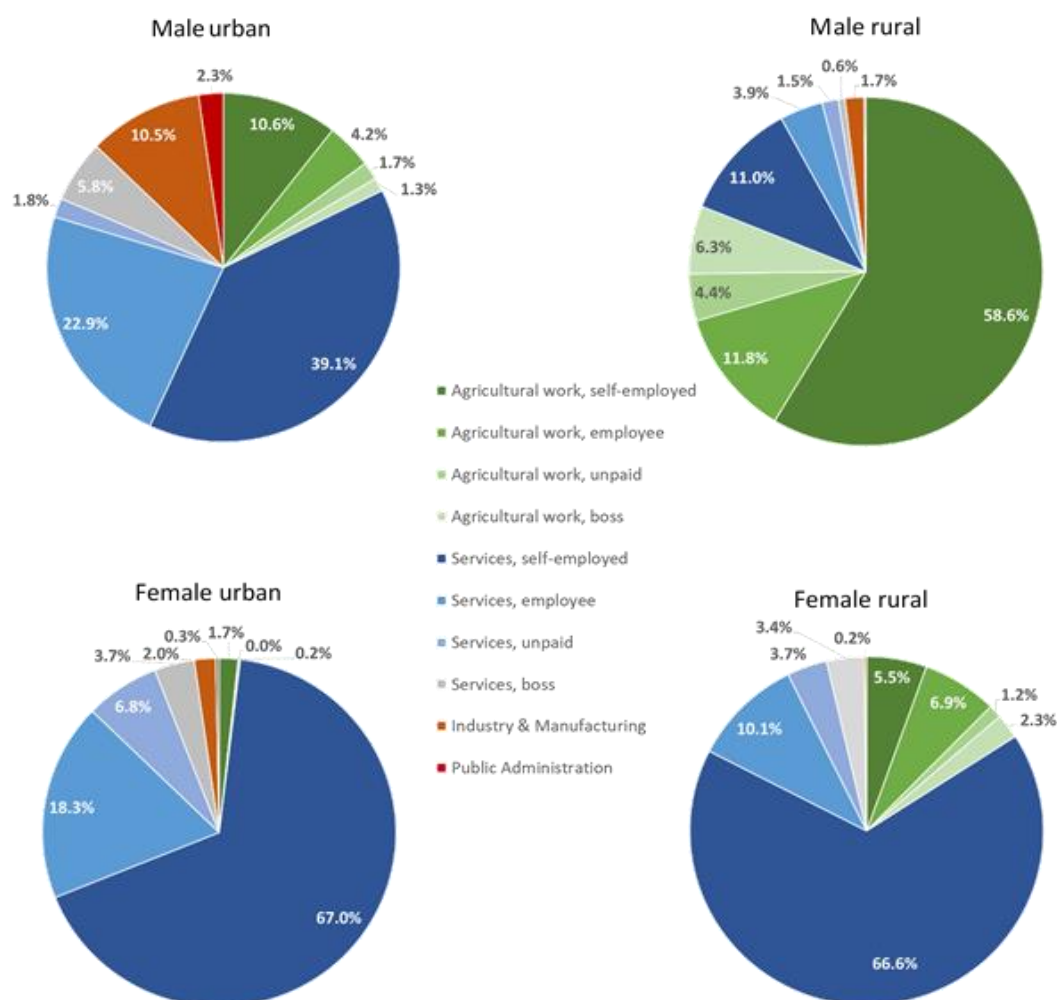
Over the past 50 years, Mexico has experienced a major employment transformation, largely encompassing a steady shift away from agriculture (from 45 per cent in the 1960s to 15 per cent by 2010). There has also been a shift away from manufacturing, though to a lesser extent, and a larger share of workers moving into services and construction. In 2017, services accounted for nearly 60 per cent of employment, though much of this constituting non-standard forms of work. Many women work in informal jobs with relatively low wages, with few protections and benefits accessible. Recent policy changes have worked to weaken job security and boost contract and fixed term jobs. In 2017, employment in the informal economy was estimated at 27 per cent (INEGI).

According to an ILO study, Mexico's growth in employment has been at the cost of salaries and has not improved the quality of work (Puyana, 2011). A fall in the real minimum wages characterizes the evolution of the Mexican labour market. The index of the real minimum wages fell from 130.83 in 1993 to 119.41 in 2018, deteriorating at an annual average rate of -0.4 per cent (INEGI).

The overall sectoral employment patterns are largely reflected in old-age work as well. In 2015, around 27 per cent of the Mexican individuals aged 65 and over were performing some work activity (nearly 2.4 million). Figure 6 represents, among those who report to be working, the shares corresponding to each type of activity and occupation.⁸ The results indicate that a majority of rural men work in agriculture while urban men predominantly work in services, either as self-employed or employees. Rural women also report agricultural work, however, 67 per cent of urban and rural women report being primarily self-employed in the services sector. An additional 4 per cent of rural women and 7 per cent of urban women report engaging in unpaid service work. Urban males also report working mainly in services, both as self-employed (39 per cent) and as an employee (23 per cent). These profiles suggest that old-aged individuals primarily work in less secure and low-skilled jobs, the vast majority of which are informal.

⁸ MHAS includes questions referring to the main position and occupation held by the respondents (whether they are a boss, an employee, self-employed or unpaid), as well as the main location where their activity is performed (19 categories, including cropland, commercial location, government offices, own home, and others). Based on the main location where the activity is reported to be performed, four broad sectoral clusters (agriculture, services, manufacturing and public administration) are denoted.

Figure 6. Main activities and occupations performed by individuals aged 65 or above (as per cent of total individuals aged 65 and above that reported work activities)



Source: own elaboration based on MHAS 2017

Unpaid household and care work

The vast majority of Mexican women aged 65 and above are not engaged in productive work. Survey responses indicate that this is because they perform domestic work, (see table 2). These results are in line with those reported by INMUJERES (2015), which suggests that for many women domestic work has been the main activity throughout their working-age years. This may also partially explain the aforementioned large gender gap in labour force participation rates. Among Latin American countries, Mexico has one of the largest discrepancies between the time women and men invest in unpaid household tasks. Indeed, women carry out three times the number of hours of unpaid domestic and care work compared to men.

Caregiving and paid employment frequently compete for older persons' time. Care needs can arise from ageing parents; siblings; spouses; children and grandchildren (ILO, 2018). In Mexico, 44 per cent of urban seniors report caring for children or grandchildren, with an average of 24 hours per week

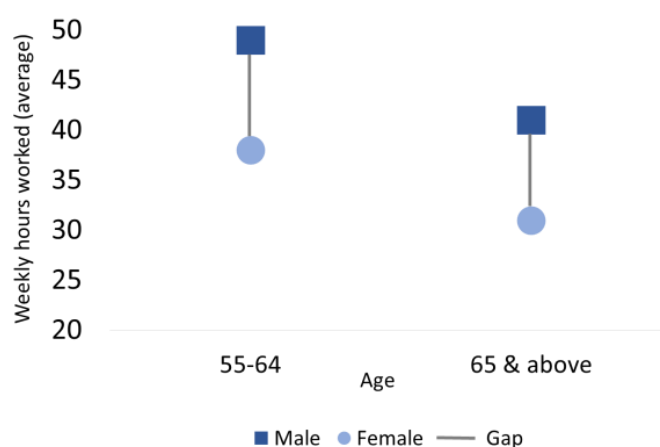
(MHAS). This compares with 32 per cent in rural areas, where seniors care for an average of 20 hours per week. Child and elder care facilities are particularly limited in Mexico and mostly unsubsidized, making these too expensive for most families to afford. Unpaid care work within the family provides important support, including the enabling of others to work.

A World Values Survey (2014) found negative bias towards women and work. Many non-working women perceive themselves to lack adequate qualifications or do not believe that there are opportunities for them. Other bias relate to a woman's civil status and the number of economic dependents she has. Particularly for mothers, societal attitudes suggesting that children suffer if mothers work persist. The gender imbalance with house and care work likely translate into large time commitments and increased responsibilities of women in the home, which in turn may preclude making employment commitments outside (ILO, 2018).

Working time

In addition to type of work, the average amount of weekly hours worked by those aged 65 and above differs depending on their sex. Men aged between 55-64 report working an average of 49 hours per week and over 40 hours after the age of 65. Women who report working outside the home, do so an average of 38 hours each week between the ages of 55 and 64, dropping to 32 hours after the age of 65 (figure 7).

Figure 7. Of those working aged 55-64 and 65 and over, the average number of weekly hours worked, by sex



Source: Own elaboration based on MHAS, 2017

Table 2. Work status and non-work circumstances, age 45 and over, by gender

	Age group				Total
	45-54	55-64	65-74	75 & above	
Male urban					
Working	82%	78%	49%	22%	62%
Not working	18%	22%	51%	78%	38%
Household chores	0%	0%	0%	0%	0%
Retired	3%	8%	29%	35%	17%
Old-age	0%	2%	7%	21%	6%
Sick/temporarily disabled	7%	3%	5%	11%	5%
Permanently unable	2%	3%	5%	8%	4%
Can't find work	3%	3%	3%	1%	3%
Other	2%	4%	2%	3%	3%
Female urban					
Working	56%	35%	18%	7%	30%
Not working	44%	65%	82%	93%	70%
Household chores	34%	41%	48%	31%	40%
Retired	5%	10%	13%	11%	10%
Old-age	0%	3%	8%	33%	8%
Sick/temporarily disabled	3%	3%	7%	11%	5%
Permanently unable	0%	2%	4%	6%	3%
Can't find work	0%	1%	0%	0%	1%
Other	1%	4%	2%	1%	3%
Male rural					
Working	86%	88%	71%	27%	68%
Not working	14%	12%	29%	73%	32%
Household chores	1%	1%	0%	2%	1%
Retired	2%	3%	5%	7%	4%
Old-age	0%	1%	5%	35%	10%
Sick/temporarily disabled	3%	3%	9%	18%	8%
Permanently unable	0%	2%	6%	9%	5%
Can't find work	6%	1%	3%	1%	2%
Other	3%	1%	1%	2%	2%
Female rural					
Working	37%	24%	12%	5%	18%
Not working	63%	76%	88%	95%	82%
Household chores	57%	63%	55%	39%	55%
Retired	1%	2%	1%	0%	1%
Old-age	0%	2%	16%	34%	12%
Sick/temporarily disabled	1%	4%	11%	13%	7%
Permanently unable	1%	2%	4%	8%	4%
Can't find work	1%	1%	0%	0%	0%
Other	3%	2%	2%	0%	2%

Source: Own elaboration based on MHAS, 2017

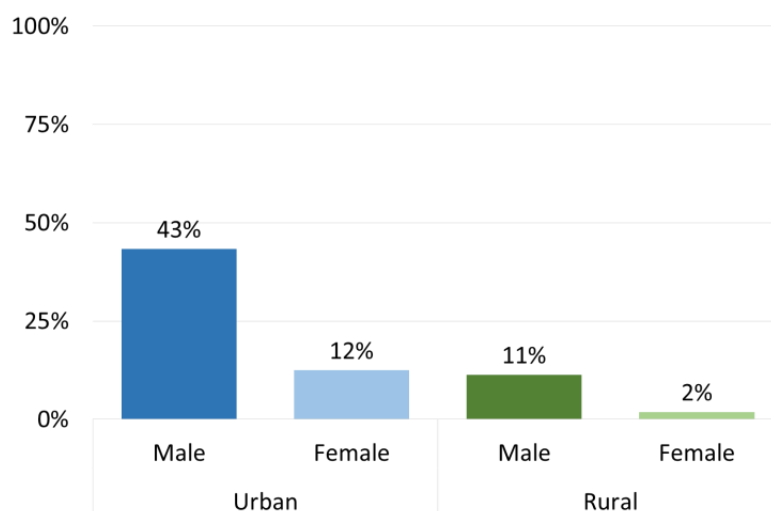
4. Pension security, non-work income and medical coverage

Contributory pensions

Mexico's public old-age social security system is centred primarily on private defined contribution schemes linked to formal employment. The Mexican Institute of Social Security (IMSS) is the largest public contributory scheme and collects contributions for health; employment injury; old-age pensions; survivors; and disability. Together with several smaller contributory schemes, it extends eligibility to 40 per cent of Mexico's economically active population (Alonso et al., 2014). As identified by INMUJERES (2015), the low coverage of the pension system derives from its focus on the employment status of people, which privileges work in the formal sector of the economy, leaving out the people who work in the informal sector of the economy, the underemployed and the unemployed.

Data from MHAS indicates that for those aged 65 and over in Mexico, approximately 9.1 million people, or 21 per cent, reported income through contributory pension schemes in 2015. Urban men benefit the most from contributory pensions (43 per cent are covered) in stark contrast to rural women, of whom only 2 per cent benefit (figure 8).

Figure 8. Contributory pension programme coverage, by sex and residence



Source: Own elaboration based on MHAS, 2017

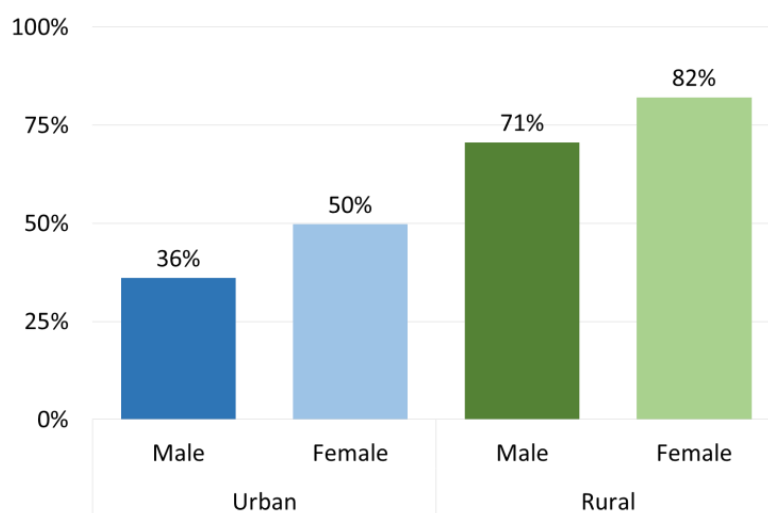
Non-contributory pensions

Several non-contributory pension schemes, mostly directed to individuals 65 years old or above, have been implemented in the last few years, some within specific states. Programa Pensión para Adultos Mayores (Pension Program for Older Adults) has been the most important scheme in terms of coverage and budget up to 2018. The programme sought to contribute to the social protection of the elderly, so that people aged 65 and above who do not receive a minimum income from contributory pensions can count on alternative income support. In 2018, this programme was replaced by a non-contributory universal social pension for those aged 68 and over, or 65 and over for indigenous people. Its main action consists of monetary support. As of January 2019, this amount was 1,275 Mexican peso (MXN) per month.

MHAS data indicates that in 2015 around 53 per cent of the population aged 65 or above (approximately 4.8 million people) were receiving income from non-contributory pensions or transfers from public institutions. Among those, 75 per cent reported to be unemployed or inactive, suggesting the importance of these programmes in at least partially meeting their daily basic needs.

As presented in figure 9, coverage of non-contributory pensions or transfers from public institutions is relatively concentrated in rural areas. These reach 82 per cent of total rural women and 71 per cent of total rural men age 65 and over; this compares to 50 per cent of urban women and 36 per cent of urban men.

Figure 9. Non-contributory pensions and social transfers programme coverage, by sex and residence

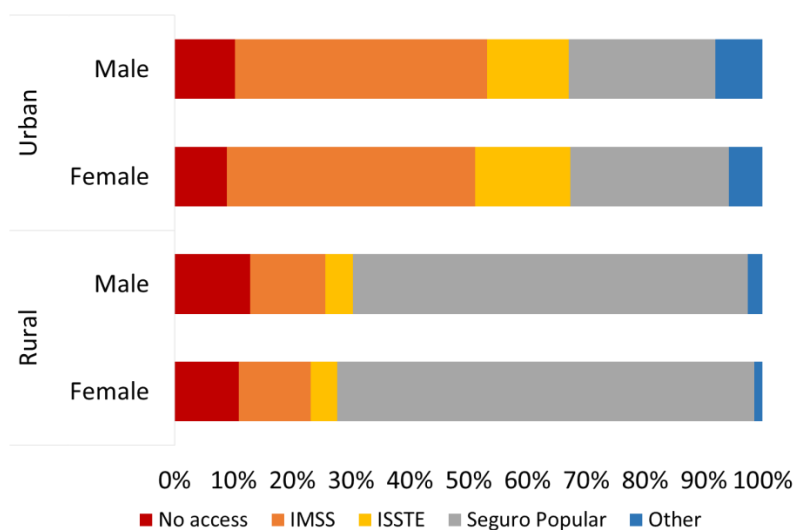


Source: Own elaboration based on MHAS, 2017

Medical coverage

Health challenges make access to affordable and quality health care important for old-age persons. Based on the results of MHAS, around 90 per cent of the total population aged 65 or above reported access to at least one medical institution in 2015, without differences by sex. Some qualify through contributory pensions (IMSS, ISSTE) while 38 per cent are covered by Seguro Popular, a public health insurance seeking to provide health coverage to the population not eligible for social security, particularly in rural areas. Excluding Seguro Popular, 64 per cent of the urban seniors had access to other medical institutions, while among the rural residents this share was only 19 per cent, with little difference between women and men (figure 10).

Figure 10. Access to health services by residence (as per cent of total residents aged 65 and above)

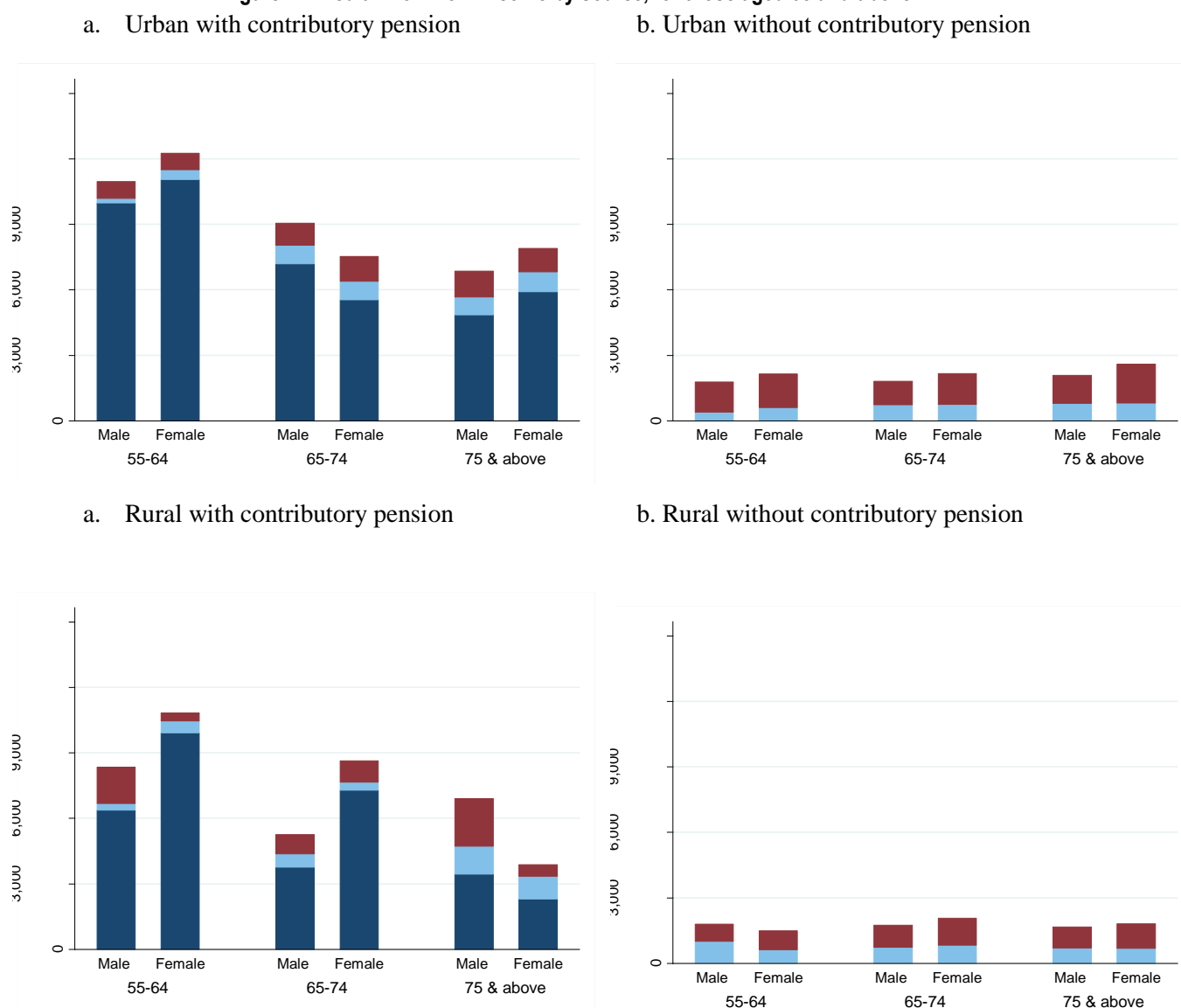


Source: Own elaboration based on MHAS, 2017

Pension income

Figure 11 shows the relative importance of the main sources of non-work income for senior adults who are unemployed or inactive (i.e. “economically dependent”) by area of residence. For those who are currently receiving contributory pensions (left graphs), the latter represents by far the largest share of total income, especially among the urban.

For those individuals who do not benefit from contributory pensions (graphs to the right), non-contributory pensions and social transfers provide basic support, however, family support appears an important means of living. In fact, 52 per cent of inactive senior urban residents who do not have any contributory pension report to receive support from their family, compared with 62 per cent among the rural residents.

Figure 11. Median non-work income by source, for those aged 65 and above

Source: Own elaboration based on MHAS, 2017

Earnings and work income

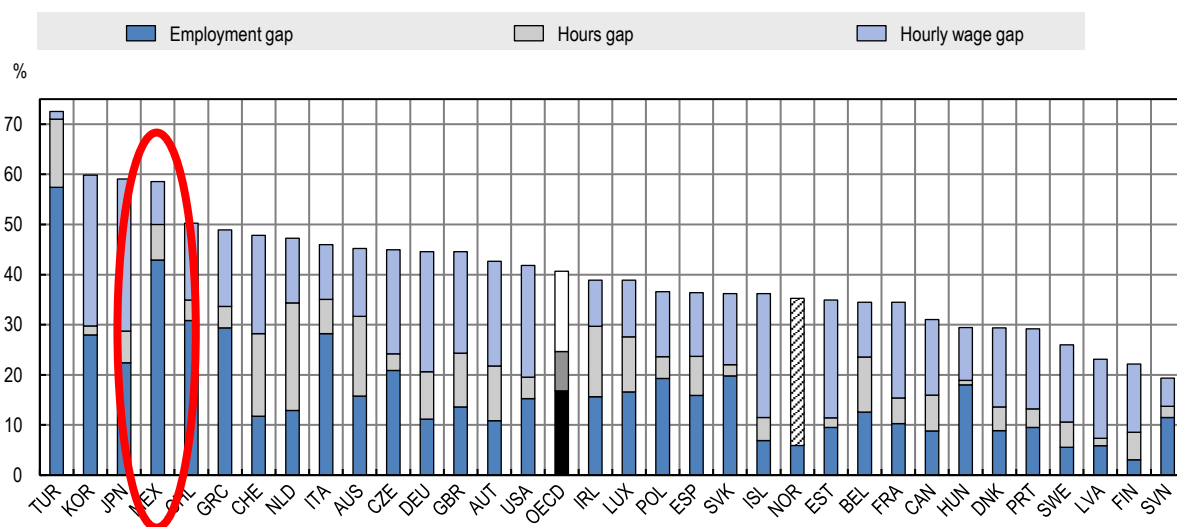
Beyond gaps in employment and hours worked, earnings for the same amount of hours of work represent a crucial difference between men and women's labour market success. Several studies have documented the considerable gender earnings disparities in Mexico (see figure 12 and 13) where women earn an estimated 72 per cent of what men do (ILO, Panorama #4, 2018).⁹ This gender earnings gap

⁹ The gender gap in labour income is defined as the difference between average annual earnings of men and women as a percentage of those of men. Average earnings are computed by considering the whole working age population, independently of whether effectively working or not during the year. A person with no labour income, therefore, contributes to the denominator of average earnings but not to the numerator (OECD).

does not narrow with age. In other words, many of the work-related gender income gaps that exist during earlier years follow through to retirement (OECD, 2018).

The major share of Mexico's gender gap in labour income comes from labour force participation differences, as shown in figure 12. Additional contributors to a gender gap in labour income are lower hourly wages and hours worked (17 per cent of working age men do so part-time compared to 33 per cent of women). The gender gap in earnings is also higher for less educated workers and increases among older-aged workers. Within age cohort groups, those older show larger gender earnings gaps (OECD, 2018).

Figure 12. Decomposition of the gender gap in labour income (20-64 years old), 2013-2015

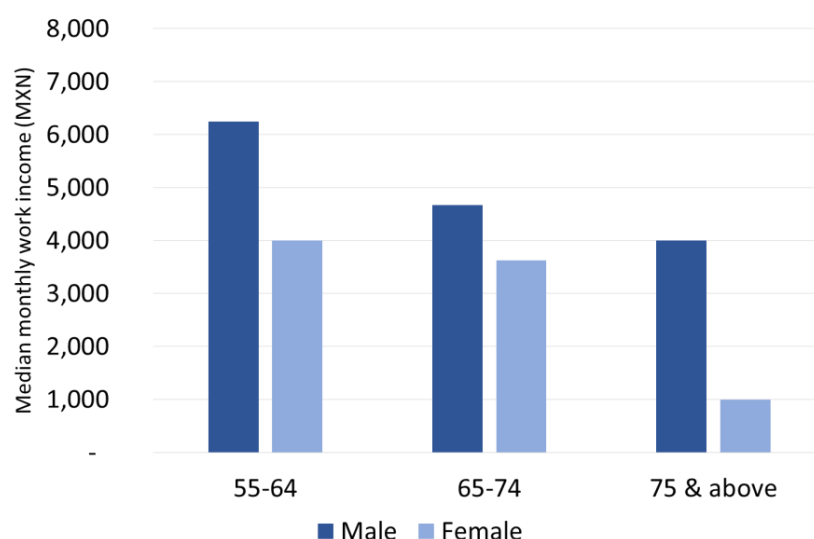


Note: For Canada and Turkey, data on earnings refer to wage and salary only. For Norway, the breakdown of hourly wage gap and hours gap is not available.

Source: (OECD, 2018[11]), OECD Employment Outlook 2018, https://doi.org/10.1787/empl_outlook-2018-en.

Figure 13 shows median monthly earnings from work for those reporting work income, broken down in different age groups (MHAS data). The results show that earnings from work decline with age. Many urban old-age workers report earnings above minimum monthly wages, however, women report earnings well below those of men for older-age cohort groups (for comparison purposes, in 2015, the minimum monthly wage in Mexico was approximately MXN2,000 (US\$126)).

Figure 13. Median monthly work income by age group and sex (among those reporting any work income)



Source: Own elaboration based on MHAS, 2017

Further analysis on the share of work income in total income (among those who report to be working) shows that for both men and women, work constitutes the main source of income until the age of 74. In particular, among men aged 65-74, work income represents 53 per cent of total income, declining to 22 per cent for the age group of 75 and above. From age 75, contributory pensions become the major contributors to the total income of men (30 per cent), although family support and non-contributory pensions and social transfers are also relevant (24.5 and 23.2 per cent, respectively).

Work-related earnings also constitutes the largest share of total income among working women aged 65-74 (45 per cent), decreasing to 5 per cent from age 75. Family support and non-contributory pensions and social transfers become the major sources of income security of this group (54 and 37 per cent, respectively), with limited reliance on contributory pensions (3.8 per cent).

Table 3. Sources of income as a share of total income, by age groups and sex

Male	Age group		
	55-64	65-74	75 & above
Work income	82.2%	52.7%	22.1%
Contributory pensions	10.4%	29.2%	30.1%
Family support	5.6%	8.2%	24.5%
Non-contributory pensions and social transfers	1.8%	9.9%	23.2%
Female			
Work income	84.9%	45.4%	5.0%
Contributory pensions	4.4%	11.8%	3.8%
Family support	8.8%	22.8%	54.3%
Non-contributory pensions and social transfers	1.9%	20.1%	36.9%

Source: Own elaboration based on MHAS, 2017

Savings, wealth and poverty

For some Mexican seniors, accumulated assets and savings are a major component of their income security. However, wealth inequality in Mexico – including among persons age 65 and over – is considerable. In 2015, Mexico was calculated to have a national Gini coefficient of 43.4 for income, which was one of the highest among OECD countries (World Bank). While some of Mexico's seniors can rely at least in part on accumulated wealth in old-age, the majority share cannot.

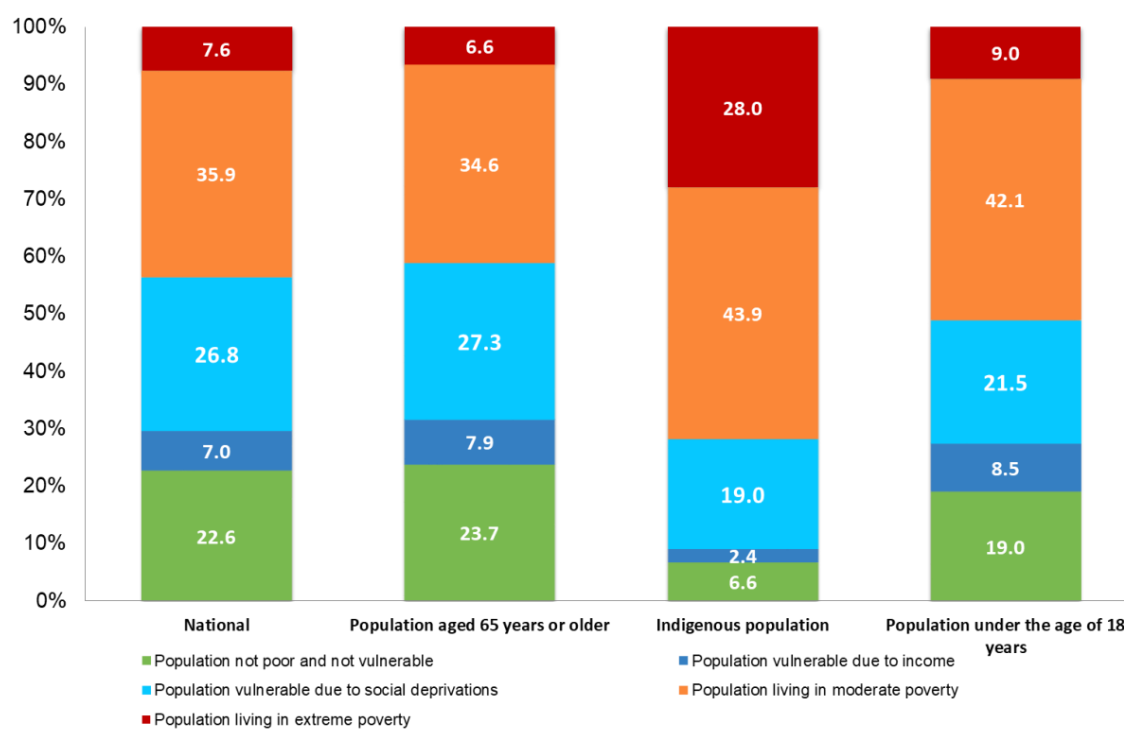
Data from MHAS evidences a very asymmetric, right-skewed distribution of net wealth for those age 65 and over. According to MHAS, the top 1 per cent holds approximately 15 per cent of value of the total household assets. Slightly more than 70 per cent of the older adults report a net value of assets lower than MXN1 million (approx. US\$64,000). Only 5 per cent report a net worth above MXN4 million (approx. US\$250,000).

In 2016, Mexico's government estimated that 35 per cent of Mexico's population aged 65 and over live in moderate poverty and 7 per cent live in extreme poverty (see figure 14), with no significant differences by sex. According to DeGraff et al. (2017), real incomes of older persons in Mexico have fallen since 2001 and those in vulnerable groups have lower incomes and asset values.

With respect to urban residents, 35 per cent (2.3 million people) reported net wealth in the lowest two quintiles compared to 52 per cent (1.4 million people) in rural areas. Of these, 25 per cent were not working, received neither contributory pension nor non-contributory pensions, nor social transfers from public institutions. Three out of four of these were women. Among rural elderly persons, the share was 8 per cent, in large part due to the wider coverage of non-contributory pensions or social transfers in rural areas.

In separate research the ILO found that 55.3 per cent of individuals aged 65 and above in Mexico had no income from pension and/or work (Panorama Laboral Tematico #4, 2018).

Figure 14. Distribution of the population by poverty indicators in different groups of the population (2016)



Source: Estimates by CONEVAL based on the MCS-ENIGH 2016

Table 4. Summary for bottom 40 percent

Within bottom 40 per cent	National	Urban	Rural
What share is not working, has no contributory pension and no non-contributory pensions and social transfers from public institutions?	19%	25%	8%
What share of these are women?	75%	76%	68%

Source: Own elaboration based on MHAS, 2017

5. Projections of gender gaps in employment-based economic dependency

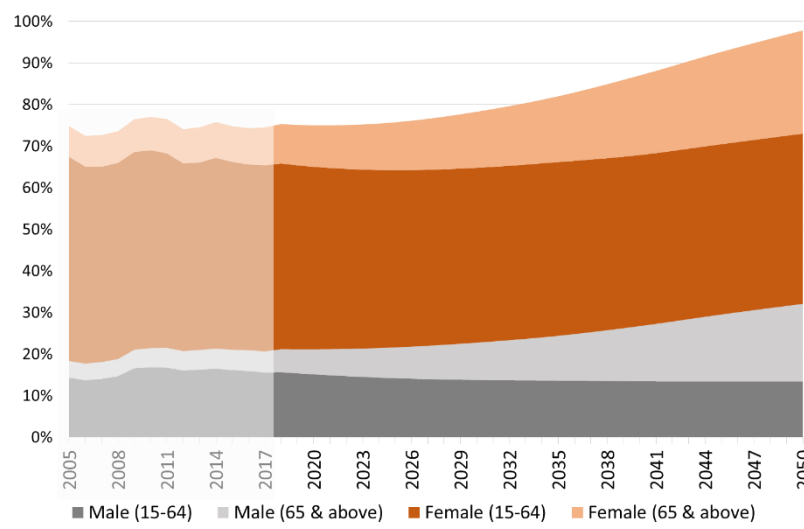
This study has thus far documented various dimensions of Mexico's gender gap in old-age work and income security. It has also considered the future demographic outlook, which predicts a steady ageing of the population resulting in a growing segment becoming over retirement age. We now consider the implications for the future direction of EbERD in Mexico. Two possible outcomes consider the gender composition of employment-based economic dependency to the year 2050.

The two projections outlined apply national estimates of population and labour force by (five-year) age-cohorts and sex to year 2050 (ECLAC, 2017), as follows. Given that the ageing of the population will continue toward the year 2100, it is noteworthy that the EbEDR will increase gradually under all scenarios, assuming demographic predictions hold.

- a. **Earlier exit of older men from labour participation.** The first scenario considers the extent to which old-age work, particularly among men, dampens the ageing effect on economic dependence. Mexico has the second oldest effective retirement age for men (71) among OECD, and while some of those working to advanced ages desire to do so, many will likely do so out of necessity. What would happen if, instead, income security could be extended such that individuals aged 70 and over no longer chose to work? For the projection we assume that by 2050 no one age 70 and over will participate in the labour market. For the period 2018-2050, a negative compound annual growth rate (CAGR) of labour force participation of men and women aged 70 and above is applied for the period 2018-2050. We assume a trajectory in which every year an equal share of the population aged 70 and above leaves the labour market.
- b. **Increasing female labour participation during prime working years.** The second scenario assumes that by 2050, the gender gap between labour force participation rates of men and women age 15-64 is halved through increases in female labour participation for every age-cohort up to the age 65. A CAGR of labour force participation of women is applied for the period 2018-2050 to estimate a gradual increase. Employment and unemployment rates of men are set equal to those of the baseline scenario, and the amount of inactive population is again calculated as the difference between projected population and the economically active population. Note that labour force participation, employment and unemployment among men remain unchanged from the baseline scenario.

Under the first scenario employment and unemployment rates of men and women remain the same as those for the baseline project up to age 70. As figure 15 suggests, without the continuation of a large share of older people, especially men, remaining active in the labour force until well into their seventies, the economic dependency projections could rise to 98 per cent.

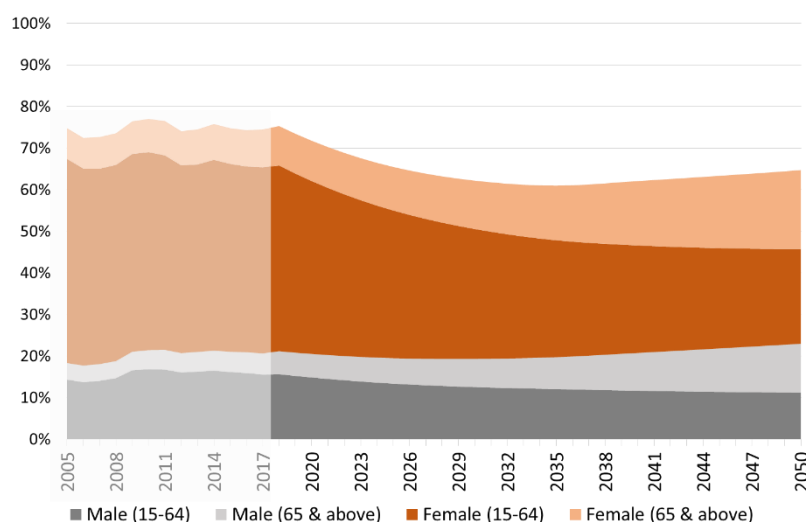
Figure 15a. No labour participation from age 70: Distribution of economic dependency by sex and age groups, projected to 2050



Source: Own estimates based on ECLAC (2017) and ENOE

Under the second scenario – as the gap between female and male labour participation for those between the ages of 15-64 progressively narrows – there is an immediate and steady decline in economic dependency to nearly 60 per cent as of 2030, stemming from an increasingly larger share of women aged 15-64 joining and staying in the labour force. As the share of older individuals in the population increases with time, the economic dependency estimate gradually increases from 2035 but reaches 65 per cent by 2050, well below current levels.

Figure 15b. Increased female labour participation: Distribution of economic dependency by sex and age groups, projected to 2050



Source: Own estimates based on ECLAC (2017) and ENOE

Table 5. EbEDR projected estimates for 2050 and expected 2017-2050 variation in percentage points (p.p.), by age groups and sex

2017	Baseline (i)		WP positive scenario (ii)		WP negative scenario (iii)		
	2050	p.p. change	2050	p.p. change	2050	p.p. change	
Male							
15-64	15.5%	12.6%	-2.9	11.2%	-4.4	13.4%	-2.1
65 & above	5.1%	13.3%	8.2	11.8%	6.7	18.6%	13.5
Female							
15-64	44.7%	38.4%	-6.3	22.8%	-22.0	40.9%	-3.8
65 & above	9.1%	21.4%	12.3	19.0%	9.9	24.8%	15.7
TEDR	74.5%	85.7%	11.2	64.7%	-9.8	97.8%	23.3

Source: Own estimates based on ECLAC (2017) and ENOE

The two scenarios shed light on the dangers of doing nothing to reign in EbEDR, of the added difficulty associated with a decline in old-age work, particularly among older men, and the potential alleviation of economic dependency if a growing share of women of prime working-age enter and stay in formal work.

6. Policy implications

Although Mexico is facing an increasing share of its population reaching above the age of 65 during the twenty-first century, it is not clear to what extent or in what form economic dependency will increase. This paper has profiled various work related dimensions of Mexico's ageing women and men and has considered the implications that existing work characteristics could bring if policies do not evolve to better address the need for higher and gender-balanced labour force participation, combined with improved opportunities for formal employment. Mexico remains dependent on informal work and low wages for maintaining high employment levels. Low labour participation of women also accounts for relatively high and growing levels of economic dependency for the country.

This study has uncovered an ongoing economic reliance on old-age work, many of whom also lack social security coverage. Evidence also points to added vulnerability for a significant share of both old-age men and women who can rely on only very limited savings and assets for security. One clear benefit to both, however, is health coverage with Seguro Popular minimal income transfers through Programa Pensión para Adultos Mayores for those 65 and over. The analysis has also uncovered a small share of retired workers who rely neither on pension nor work, raising concern about the sustainability of their source of income security.

More Mexican women than men work part-time. Mexican women are over-represented in low productivity sectors and are largely engaged in informal work. These gaps during working years feed significant gender gaps in old-age income security, notably in the form of far fewer being eligible for or receiving contributory pension payouts and earning substantially lower income from work late in life. Closing these gaps would significantly contribute to reducing future economic dependency.

Meeting the needs of a large elderly population requires rethinking the economic and social policies needed to simultaneously realize growth; employment; income security; as well as adequate health and care services for an ageing society.

There is potential and need to change employment practices in Mexico to better equip ageing men and women with adequate post-retirement income security. To boost women's labour force participation, inequalities in the household and care burdens will need rectifying, as will raising the skills and facilitating school to work transitions for girls and young women. Finally, to promote convergence in labour force participation, policy actions will be needed to curb the various forms of discrimination against women in the world of work and to advance their employability and opportunities for decent jobs.

With regard to social protection, Mexico is overdue in advancing policies on day care and pre-school for poor children, in strengthening legislation and standards of protection for maternity and paternity, and in supporting working mothers from the poorest sections of the population.

Non-contributory cash transfer systems can also be promoted in the context of Mexico's social protection floor,¹⁰ but coverage of contributory pension schemes are likely to reduce the need for paying benefits under tax-financed universal schemes. Contributory schemes can extend eligibility to other types of workers, in particular for people with fragmented careers; women; self-employed workers; and those in the informal economy.

¹⁰ The Social Protection Floors Recommendation, 2012 (No. 202) provides guidance to member States in building comprehensive social security systems and extending social security coverage by prioritizing the establishment of national floors of social protection accessible to all in need. Recommendation No. 202 includes a guarantee of basic income security for older persons as part of national social protection floors (Paragraph 6(d)).

References

- Angel, J. L.; Vega, W.; López-Ortega, M. 2016. “Aging in Mexico: Population trends and emerging issues”, in *Gerontologist*, Vol. 57, No. 2, pp. 153–162.
- Bloom, D.E.; Canning, D.; Fink, G. 2011. *Implications of population aging for economic growth*, Working Paper No. 16705, NBER Working Paper Series: 1–38 (NBER, Cambridge, MA).
- Breach, N.S. 2014. “La participación del trabajo en el ingreso nacional: el regreso a un tema olvidado”, in *Economía UNAM*, Vol. 11, No. 33, pp. 52–77.
- Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL), *Multidimensional measurement of poverty in Mexico : An economic wellbeing and social rights approach* (Mexico City).
- Cortés, F. 2013. “Medio siglo de desigualdad en el ingreso en México”, in *Economía UNAM*, Vol. 10, No. 29, pp. 12–34.
- Domínguez-Villalobos, L.; Brown-Grossman, F. 2010. “Trade liberalization and gender wage inequality in Mexico”, in *Feminist Economics*, Vol. 16, No. 4, pp. 53–79.
- Economic Commission for Latin America and the Caribbean (ECLAC). 2017. *Long term population estimates and projections, 1950-2100. The 2017 Revision*, CELADE, Population Division of the Economic Commission for Latin America and the Caribbean. Available at: <https://www.cepal.org/es/temas/proyecciones-demograficas/estimaciones-proyecciones-poblacion-total-urbana-rural-economicamente-activa>.
- European Commission (EC). 2015. *The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013-2060)*, European Economy Main Series, (European Commission Economic and Financial Affairs, Brussels).
- González-Baltazar, R.; Contreras-Estrada, M.I.; León-Cortés, S.G.; Hidalgo-González, B.J.; Hidalgo-Santacruz, G. 2019. “Quality of Labor Life in Workers of the Informal Economy in Guadalajara, Mexico” in Goossens, R.; Murata, A. (eds): *Advances in Social and Occupational Ergonomics*. (Cham, Springer), pp. 266-276.
- INEGI, Encuesta Nacional de Ocupación y Empleo (ENOE). Microdata available at: <https://www.inegi.org.mx/programas/enoe/15ymas/>.
- INMUJERES. 2015. “Situación de las personas adultas mayores en México”. Instituto Nacional de las Mujeres, Dirección de Estadística, Gobierno de la República.
- International Labour Organization (ILO). 2017. *World Employment and Social Outlook: Trends 2017* (Geneva).
- . 2017. *Panorama Laboral 2017. América Latina y el Caribe* (Lima).
- . 2018. *Care Work and Care Jobs for the Future of Decent Work* (Geneva).
- . 2018. *Panorama Laboral 2018. América Latina y el Caribe* (Lima).
- . 2018. *Panorama Laboral Tematico #4: Presente y futuro de la protección social en América Latina y el Caribe* (Lima).

- Lee, R. 2000. "A Cross-Cultural perspective on intergenerational transfers and the economic life cycle", in Mason, A.; Tapinos, G. (eds): *Sharing the Wealth: Demographic Change and Economic Transfers between Generations* (Oxford: Oxford University Press), pp. 17–56.
- . 2012. *Macroeconomic implications of demographic changes: A global perspective*, IMES Discussion Paper Series 12-E-11, (Institute for Monetary and Economic Studies, Bank of Japan, Tokyo).
- Loichinger, E.; Hammer, B.; Prskawetz, A.; Freiberger, M.; Sambt, J. 2014. *Economic Dependency Ratios: Present situation and future scenarios*, Work package 103, MS13 Policy paper on implications of population ageing for transfer systems, Working paper No. 74, (WWWforEurope, Vienna).
- Loichinger, E.; Skirbekk, V. 2016. "International variation in ageing and economic dependency: A cohort perspective", in *Comparative Population Studies*, Vol. 41, No. 2, pp. 121–144.
- Mason, A. 2013. *Reformulating the support ratio to reflect asset income and transfers* paper presented at the PAA 2013 Annual Meeting in New Orleans, LA, 11–13 April.
- Mexican Health and Aging Study (MHAS). 2015. Data files and documentation (public use). Available at: www.MHASweb.org [10 May 2018].
- Michaels-Obregon, A.; Lin, A.; Phillips, D.; Wilkens, J.; Wong, R.; Lee, J. 2017. *Harmonized MHAS Documentation*, (USC Dornsife Center for Economic and Social Research, Los Angeles).
- Murillo-López, S; Venegas-Martínez, F. 2011. "Cobertura de los sistemas de pensiones y factores asociados al acceso a una pensión de jubilación en México", in *Papeles de Población*, Vol. 17, No. 67, pp. 209–250. Available at: www.redalyc.org/articulo.oa?id=11219005007.
- Navarrete, E.L.; Sánchez, Y.G.R. 2016. "Young People Not in Education, Employment or Training in Mexico, 2005 and 2012", in *International Journal of Business and Social Science*, Vol. 7, No. 4, pp. 65–75.
- Oishimaya, S.N. 2019. "Largest Imports and Exports of Mexico", *WorldAtlas*. Available at: worldatlas.com/articles/mexico-exports-and-imports.html.
- Organisation for Economic Co-operation (OECD). 2017. *Pensions at a Glance 2017: OECD and G20 Indicators* (Paris). Available at: http://dx.doi.org/10.1787/pension_glance-2017-en
- . 2019. "The gender gap in labour income", in *Labour Market Inclusiveness* (Paris). Available at: <https://doi.org/10.1787/9789264308817-graph26-en>.
- Pekarek, S. 2018. "Population ageing and economic dependency ratio: comparative study of the Czech Republic and Slovakia", in *Ecoforum*, Vol. 7, No. 14, pp. 69–78.
- Puyana, A. 2011. *Economic growth, employment and poverty reduction: A comparative analysis of Chile and Mexico*, Employment Working Paper No. 78, (Geneva, ILO).
- Ros, J. 2015. ¿Por qué cae la participación de los salarios en el ingreso total en México?, in *Economía UNAM*, Vol. 12, No. 36, pp. 3–15.
- Spijker, J. 2015. *Alternative indicators of population ageing: An inventory*, Working Paper No. 4/2015, (Vienna, Vienna Institute of Demography). Available at: <http://hdl.handle.net/10419/110984>

United Nations Department of Economic and Social Affairs (UN DESA). *World Population Prospects* 2017. Available at: <https://esa.un.org/unpd/wpp/>.

Weil, D.N. 2006. *Population Aging*, Working Paper No. 12147, National Bureau of Economic Research. Available at: <http://www.nber.org/papers/w12147.pdf> .