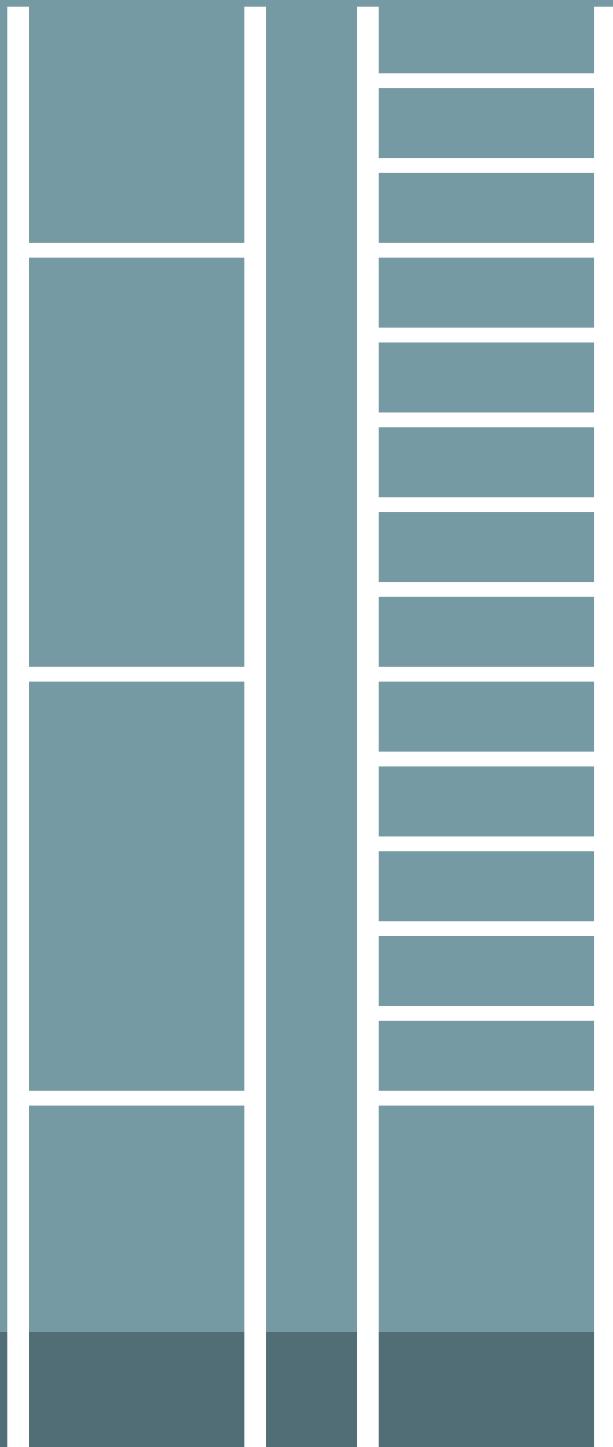


# Inequalities

in Mexico /2018





# Inequalities

in Mexico /2018

# El Colegio de México

Authorities and academic support departments

## Assembly of Associates

Secretaría de Educación Pública  
Universidad Nacional Autónoma de México  
Banco de México  
Fondo de Cultura Económica

## Board of Directors

Rebeca Barriga Villanueva  
María del Rosario Cárdenas  
Manuel Ángel Castillo  
Concepción Company Company  
Héctor Fix-Fierro  
Gonzalo Hernández Licona  
María Isabel Monroy

## Center Directors

### Center for Historical Studies

Erika Pani Bano

### Center for Linguistic and Literary Studies

Rafael Olea Franco

### Center for International Studies

Jean François Prud'homme

### Center for Asian and African Studies

Amaury García Rodríguez

### Center for Economic Studies

Alejandro I. Castañeda Sabido

### Center for Demographic, Urban and Environmental Studies

Luis Jaime Sobrino Figueroa

### Center for Sociological Studies

Karine Tinat

## President

Silvia Elena Giorguli Saucedo

## Secretary General

Gustavo Vega Cánovas

## General Academic Coordinator

Laura Flamand

## Academic Secretary

Vicente Ugalde

## Administrative Secretary

Adrián Rubio Rangel

## Academic Support

### Library

Micaela Chávez Villa

### Computer Services

Canek Ramírez Devars

### Publications

Gabriela Said Reyes

### Digital Education Program

León Ruiz Chávez

# BBVA Bancomer

Luis Robles Miaja

**President of the Board, General Director of Communications and International Relations**

Eduardo Osuna Osuna

**General Director, Grupo Financiero**

**BBVA Bancomer**

Adrián Otero Rosiles

**Corporate and Investment Banking**

Oscar Coppel Tirado

**Commercial Banking Network**

Álvaro Vaqueiro Ussel

**Global Markets**

Hugo Daniel Nájera Alva

**Business Development**

Luis Ignacio de la Luz Dávalos

**General Director, Finance**

Fernando Díaz Castañares

**General Director, Legal Services**

Francisco Xavier Leyva Rubio

**General Director, Engineering**

Natalia Ortega Gómez

**General Director, Internal Audit**

Blanca Cecilia Muñoz Martínez

**General Director, Global Risk Management**

Fernando Eguiluz Lozano

**General Director, Talent and Culture  
(Human Resources)**

## BBVA Research

Jorge Sicilia

**Economist, Head of Group**

Carlos Serrano Herrera

**Economist, Head for Mexico**

## Migration and Development

Juan José Li Ng

**Senior Economist**

David Cervantes Arenillas

**Senior Economist**



# Inequalities

in Mexico /2018

EL COLEGIO DE MÉXICO

305.09720804  
D4578

---

El Colegio de México  
Inequalities in Mexico 2018 / El Colegio de México – 1st ed. –  
Mexico City, Mexico: El Colegio de México, Red de Estudios sobre  
Desigualdades, 2018.

144 p.: il. Maps, tables; 28 cm.

ISBN: 978-607-628-497-1

1. Equality – Mexico – 21st Century. 2. Social Justice – Mexico – 21st  
Century. 3. Poverty – Governmental Policy – Mexico – 21st Century.  
I. Altamirano, Melina, coord. II. Flamand Gómez, Laura, coord.

First edition, 2018

D.R. © El Colegio de México, A. C.  
Carretera Picacho Ajusco núm. 20  
Ampliación Fuentes del Pedregal  
Delegación Tlalpan, 14110,  
Mexico City, Mexico  
[www.colmex.mx](http://www.colmex.mx)

ISBN: 978-607-628-497-1  
Printed in Mexico

The Colegio de México is solely responsible  
for contents in this volume and is grateful for  
the support of the Fundación Colmex, BBVA  
Bancomer, BBVA Research and the Ford  
Foundation.

# Index

Foreword	15
Contributors	16
Abbreviations and acronyms	17
Two life stories	18
Introduction	20
<b>Legacies of inequalities</b>	32
<b>1 Education</b>	33
Accessing middle-school education	34
Acquisition of quality learning proficiency by age 15	36
Completing high school	38
References	42
<b>T1 Educational infrastructure and regional inequality</b>	44
<b>G1 Higher education and gender inequality</b>	46
<b>2 Income and mobility</b>	48
The lack of social mobility in Mexico	48
Labor market participation as a lever for mobility	51
Labor income has not increased	52
References	54
<b>T2 Income and territorial inequality</b>	56

G2	Wages and gender inequality	58
3	<b>Work</b>	60
	Entering the labor market	60
	Accessing quality jobs	62
	Receiving adequate pay	63
	References	66
T3	Access to social security and territorial inequality	68
G3	Unpaid work and gender inequality	70
 <b>New challenges for equity</b>		72
4	<b>Return migration and inequality</b>	73
	Mexico-U.S. migration has changed	74
	Mexican returnees from the United States	75
	Destinations	76
	Economic integration opportunities	78
	The challenges to integrate migrants	81
	References	82
T4	Remittances and territorial inequality	84
G4	Return migration and gender inequality	86

<b>5</b>	<b>Climate change</b>	88
	Greenhouse gas emission trends and expected effects for Mexico	89
	Climate change and expected impacts	90
	New risks, new inequalities	92
	Reducing inequalities	96
	References	97
<b>T5</b>	Climate change and territorial inequality	100
<b>G5</b>	Environmental risks and gender inequality	102
 <b>Inequalities and the electoral agenda</b>		104
<b>6</b>	<b>Assessment of the 2018 electoral platforms</b>	105
	References to inequality in the electoral platforms	106
	Perspectives on inequality of parties and coalitions	107
	The <i>Forward for Mexico</i> coalition (PAN–PRD–MC)	107
	The <i>Everyone for Mexico</i> coalition (PRI–PVEM–Panal)	109
	The <i>Together We Will Make History</i> coalition (Morena–PT–PES)	110
	Proposals to tackle inequalities in Mexico	112
	References	115
 <b>Final notes on inequalities in Mexico in 2018</b>		116

# Index of figures and tables

## Figures

I.1.	Evolution of the Gini coefficient (2000–2015)	24
I.2.	Some key dimensions of inequality in Mexico	26
1.1.	Head start positions of privileged groups vis-à-vis completing the first year of middle-school. Youth ages 16-18 (2000-2014)	35
1.2.	Head start of the high income group regarding obtaining good or superior scores on the PISA test (2000-2015)	37
1.3.	Head start of males regarding obtaining good or superior scores on the PISA test (2000-2015)	39
1.4.	Head start of non-indigenous language speakers regarding obtaining good or superior scores on the PISA test (2000-2015)	39
1.5.	Head start of students from urban schools regarding obtaining good or superior scores on the PISA test (2006-2015)	41
1.6.	Head start for privileged groups to complete high school (2000-2014)	41
T1.1	Percentage of schools with sewage service by state (2013)	45
T1.2	Percentages of schools with a room for a library by state (2013)	45
G1.1	Distribution of women's and men's areas of study in undergraduate and technology programs (2015-2016 school year)	47
2.1.	Percentage of social mobility (2016)	49
2.2.	Intergenerational upward social mobility. Selected countries (latest year)	50
2.3.	Percentage of women and men who work (2000-2018)	52
2.4.	Percentage of working women by educational level (2000-2018)	53
2.5.	Real median monthly income (2000-2018)	54
T2.1	Median labor income by state (2002)	57
T2.2	Median labor income by state (2017)	57
G2.1	Ratio of women's labor income compared to men's by position held at work. Adults with university education (2015)	59
3.1.	Unemployment rate by sex and age (2000-2017)	61
3.2.	Employees' working conditions (2000-2017)	63
3.3.	Median hourly income by type of occupation (2000-2017)	64
3.4.	Median hourly income by top level of schooling (2000-2017)	65
3.5.	Median hourly income by employment status (2000-2017)	66

T3.1	Percentage distribution of the population with access to social security by state (2014)	69
G3.1	Ratio of weekly time spent on unpaid work, men and women with university education (2015)	71
4.1.	Distribution by age and sex and economic participation status of the return migrant and non-migrant populations (2015)	77
4.2.	Percentage of employed return migrants and non-migrants ages 15 to 64, by social gap level of the municipality (2000-2015)	79
4.3.	Activity and type of employment by migratory status (2000-2015)	80
4.4.	Average monthly wage income by migration status and sex (2000-2015)	81
T4.1	Percentage distribution of family remittances by state (2003)	85
T4.2	Percentage distribution of family remittances by state (2016)	85
G4.1	Percentage of return migrants who receive employee benefits (2015)	87
5.1.	Greenhouse gas emissions by sector (1990-2014)	90
5.2.	Number of hydrometeorological disasters and assistance declarations (1972-2016)	92
5.3.	Population growth (2010-2040) and maximum temperatures (2018)	93
5.4.	Days with extreme rainfall (2005-2014) and percentage of municipal poverty (2015)	95
T5.1	Vulnerability to climate change in Mexican municipalities (2013)	101
6.1.	The number of times "inequality" appears as a percentage of the total number of words in electoral platforms (2018)	106
6.2.	Frequency of words in the platform of the <i>Forward for Mexico</i> coalition (PAN-PRD-MC)	108
6.3.	Frequency of words in the platform of the <i>Everyone for Mexico</i> coalition (PRI-PVEM-Panal)	110
6.4.	Frequency of words in the platform of the <i>Together We Will Make History</i> coalition (Morena-PT-PES)	111

## Tables

G5.1	Gender and climate change effects	110
6.1.	Types of inequality and proposals by coalition in the 2018 federal election	113



# Foreword

**Inequalities** represent an issue of great social and political significance due not only to the way they impact the lives of each person, but also because of their serious consequences for communities' economic performance, social inclusion, and solidarity. Social and economic inequalities in Mexico have decreased since the second half of the 20th century; however, as shown in this document, they are still severe.

The study of inequalities in our country is a central focus of research at El Colegio de México. This agenda includes analyses of the origins and evolution of inequalities, of interactions among the various environments that produce inequalities, as well as of the political, economic, and institutional processes that shape them. As part of its efforts to support El Colegio's research, the Fundación Colmex established an alliance with BBVA Bancomer, which decided to foster the study of inequalities, consistent with its belief in providing truthful information, and its aim of working towards a better future for the people.

*Inequalities in Mexico 2018* is the first outcome of this alliance, presenting an independent and rigorous examination, the goal of which is to enhance public debate on the subject of inequalities during the 2018 electoral race. The document emphasizes the fact that inequalities overlap and inform one another, thus the need of interdisciplinary perspectives in order to develop novel and effective initiatives to address them.

We trust this collaboration will lead the way for future studies of other inequalities from both historical and contemporary perspectives, contributing to a deeper understanding of this fundamental challenge facing Mexican society.

**Presidency,  
El Colegio de México**

**Fundación Colmex**

**Presidency, Board of Directors,  
BBVA Bancomer**

# Contributors

## **Faculty, El Colegio de México**

Melina Altamirano, coordinator

Laura Flamand, coordinator

Carlos Alba Vega

Emilio Blanco

Raymundo Campos Vázquez

Carlos Javier Echarri Cánovas

Claudia Masferrer

Reynaldo Yunuen Ortega Ortiz

Mauricio Rodríguez Abreu

Landy Sánchez Peña

María Fernanda Somuano Ventura

## **Research, design, and proof-reading team**

Rafael Arriaga Carrasco

Dulce Cano Romero

Rodolfo de la Torre López

Jenny Flores Ortega

René Macías Rodríguez

Sergio Maya Fernández

Ismael Segura Hernández

Cristian Solórzano Gómez

Nieves Dánae

Isabel Zapata Morales

## **Translation**

David Gaddis

## **Translation proof-reading**

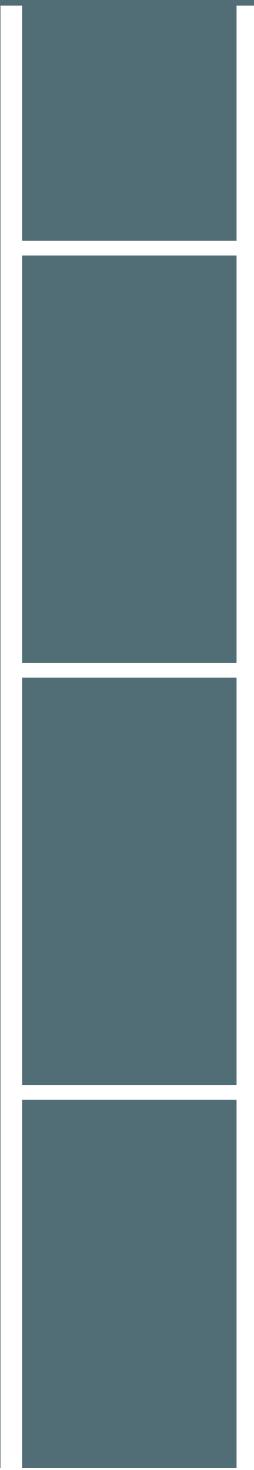
Lucía Rayas Velasco and Quentin Pope

## **Technical revision**

Melina Altamirano, Laura Flamand, Claudia Masferrer and Rafael Arriaga

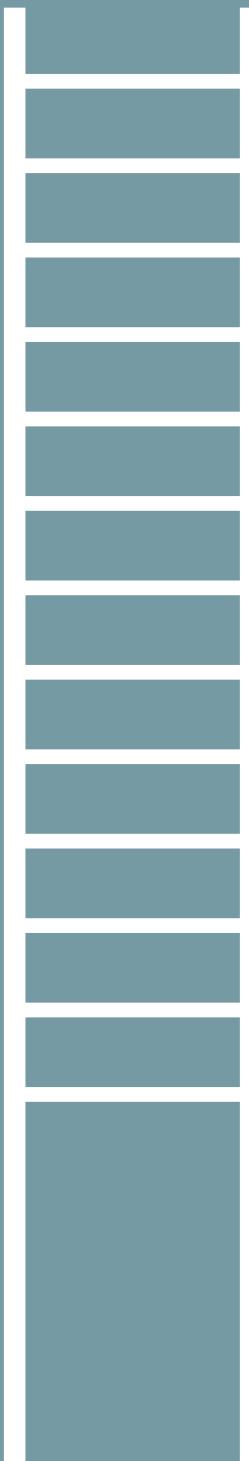
# Abbreviations and acronyms

Afore	Administradora de Fondos para el Retiro [Pension Funds Managing Administration]
Anuies	Asociación Nacional de Universidades e Instituciones de Educación Superior [National Association of Universities and Higher Education Institutions]
CAIT	Climate Data Explorer [Climate Analysis Indicators Tool]
CEMABE	Censo de Escuelas, Maestros y Alumnos de Educación Básica y Especial [Census of Schools, Teachers and Students of Basic and Special Education]
Cenapred	Centro Nacional de Prevención de Desastres [National Center for Disaster Prevention]
Conapo	Consejo Nacional de Población [National Population Council]
Coneval	Consejo Nacional de Evaluación de la Política de Desarrollo Social [National Council for the Evaluation of Social Development Policy]
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
ENE	Encuesta Nacional de Empleo [National Employment Survey]
ENIGH	Encuesta Nacional de Ingreso y Gasto de los Hogares [National Household Income and Expenditure Survey]
ENOE	Encuesta Nacional de Ocupación y Empleo [National Survey of Occupation and Employment]
GDP	Gross Domestic Product
ILO	International Labour Organization
IMSS	Instituto Mexicano del Seguro Social [Mexican Social Security Institute]
INE	Instituto Nacional Electoral [National Electoral Institute]
INEE	Instituto Nacional para la Evaluación de la Educación [National Institute for the Evaluation of Education]
INECC	Instituto Nacional de Ecología y Cambio Climático [National Institute of Ecology and Climate Change]
INEGI	Instituto Nacional de Estadística y Geografía [National Institute of Statistics and Geography]
IPCC	Intergovernmental Panel on Climate Change
KNMI	Royal Netherlands Meteorological Institute
MC	Movimiento Ciudadano [Citizens' Movement]
Morena	Movimiento de Regeneración Nacional [National Regeneration Movement]
NASEM	National Academies of Sciences, Engineering, and Medicine
OECD	Organization for Economic Co-operation and Development
PAN	Partido Acción Nacional [National Action Party]
Panal	Partido Nueva Alianza [New Alliance Party]
PEA	Población Económicamente Activa [Economically active population]
PISA	Programme for International Student Assessment
PECC	Programa Especial de Cambio Climático [Special Climate Change Program]
PES	Partido Encuentro Social [Social Encounter Party]
PNEA	Población No Económicamente Activa [Non-economically active population]
PRD	Partido de la Revolución Democrática [Party of the Democratic Revolution]
PRI	Partido Revolucionario Institucional [Institutional Revolutionary Party]
PT	Partido del Trabajo [Labor Party]
PVEM	Partido Verde Ecologista de México [Ecological Green Party]
RCP	Representative Concentration Pathways
SAR	Sistema de Ahorro para el Retiro [Pension Savings System]



**María Basilio** was born on April 4, 1970, in a Mixe indigenous rural community, near Matías Romero, Oaxaca, where there was no school. Her father always thought that for her to become a “good woman,” it was not necessary for her to attend school, but to perform, instead, those activities deemed adequate for women: housework and caregiving. María is illiterate, married a construction worker, and has four children who did not finish high school.

María Basilio migrated to Mexico City in 1985. After leaving Oaxaca, she has endured discrimination and abuse. María is a faultless and devoted worker. For over 20 years her work-day has lasted 10 hours doing household tasks. She earns 300 pesos a day, does not have health insurance, and does not have the right to a pension. After working several years in the United States, María’s husband returned to Mexico and has had a hard time finding a good job.



**Matilde Arriba** was born on April 4, 1970, in Ensenada, Baja California. Her parents, a doctor and a nurse who worked in a public hospital, always emphasized the importance of studying and encouraged her to learn English. Matilde studied law at the state university, married a lawyer, and has two daughters who attended bilingual schools.

Matilde Arriba has worked in the Federal Judicial Branch for over 20 years and receives a daily salary of 1,500 pesos; she is entitled to all benefits provided by law, plus a health insurance plan that covers major medical expenses. In Matilde's own words, this saved her life two years ago, when it was discovered she had breast cancer. She proudly states her two daughters finished a university degree, and that one of them is pursuing graduate education in the United States.

**María and Matilde** are Mexicans who are entitled to the same constitutional rights to education, to a gainful employment, and to health protection, among others. Nevertheless, fate favored Matilde from birth, and the gaps between them have widened throughout their lives. This comparison shows the deep-seated inequality of opportunities we find in Mexico every day ●

# Introduction

This report examines the way in which inequalities accumulate and interact throughout the lives of people in Mexico. A current and retrospective analysis going back to the year 2000 is developed, aiming at enhancing public debate as well as discussing the political platforms of the candidates in the 2018 presidential election. The experts who prepared this diagnostic study present it to the citizens and governments of all political parties to ponder existing deep inequalities. It does not include public policy recommendations because we consider policy proposals should arise from the joint efforts of society, government, and academia.

This study of inequalities draws on various fields of knowledge with an emphasis on the legacies of inequality and new challenges for equity. To highlight the interdependence and accumulation of these profound differences in Mexico, this analysis takes into account two dimensions that intersect both the legacies and the new challenges: gender and territory. Finally, this report analyzes how the electoral platforms of the three coalitions contending for the presidency identify and propose alleviating these stark asymmetries in our country.

In this examination, inequalities are understood broadly<sup>1</sup> as the unfair distributions of *outcomes and access to opportunities* among *individuals or groups*. These differences are unjust because they impact fundamental aspects of the lives of those who are in situations of disadvantage due to their social position: the handicapped, racial or ethnic minorities, and women, among many others (Braverman 2006, p. 183). Moreover, these inequalities are potentially avoidable through a series of public interventions such as fiscal measures or subsidies to redistribute income, gender quotas in legislative assemblies, and universal healthcare systems.

## 1. Why study inequalities? Beyond poverty

This report distinguishes the study of inequalities from the analysis of poverty levels. These concepts are often linked in academic undertakings and public policy documents; however, focusing on inequalities gives way to a deeper understanding of the specific social effects of the concentration of resources and access to opportunities.

### 1.1. Distinction between poverty and inequality

In general, the study of inequality and of poverty appear linked because both phenomena tend to come hand in hand in the real world. Nevertheless, there are profound differences between the two concepts and therefore, their implications are not necessarily the same.

---

<sup>1</sup> The disparities explored in this work touch upon three perspectives developed in the study of inequality in the social sciences: that of *opportunities*, widely used in economic analysis, its major concern being leveling the playing field for individuals to develop their potential; that of *outcomes*, its basic tenet works around the idea of different rewards for similar efforts (Atkinson 2015, p. 11); and finally, the study addresses inequality's *intersectional* character to explore how groups with different characteristics or situations of origin face gaps in outcomes and opportunities differently.

In more recent studies, poverty is defined as the lack of resources and of access to opportunities that excludes both individuals and groups from the minimum desirable levels of well-being (Townsend 1979, Nolan and Ive 2011).<sup>2</sup> The measurement of absolute poverty is very useful to monitor changes in the population segment under a given threshold, which in turn allows for the evaluation of efforts oriented towards modifying the living standard of populations with fundamental needs (Sen 1983). In contrast, an analysis of the patterns of inequality allows to examine these absolute changes from the vantage point of the distribution of opportunities and its associated outcomes among different persons.

This is key if we consider, for example, that countries can grow economically and, at the same time, maintain inequitable distributions. In these contexts, even if people with lower incomes increase their purchasing power, the well-off sectors will benefit more from growth (Ravaillon 2003, p. 742, Esquivel 2015, p. 28), perpetuating the gaps both in resources and in access to opportunities.

## 1.2. Equity and equality

There is no clear consensus, generally speaking, on the differences between the terms equity and equality (Braverman 2006, Whitehead 1985, and Whitehead and Dahlgren 2006). Here, by *equity* we refer to an ethical-normative principle associated to the idea of justice, aimed at addressing the needs and interests of people who are different, particularly those who are disadvantaged. Underpinning this definition we find the concept of justice, specifically redistributive justice, understood as the fair distribution of social resources (Rawls 1985). By *equality* we mean a human right protected by various national and international instruments, supported by the principle of nondiscrimination (ONU Mujeres 2015).

It is also convenient to mention the difference between formal and substantive equality. *Formal* or *de jure equality* implies human rights are common to all persons; in other words, it denotes an identical treatment for all in terms of access to goods and services, to freedom of speech, etc. *Substantive equality*, on the other hand, deals with the connections regarding outcomes as well as with guaranteeing disadvantages inherent to certain groups will cease to exist thanks to specific actions (ONU Mujeres 2015, p. 4). The stories of Matilde Arriba and María Basilio, which illustrate the overall analysis of inequalities presented in this report, indicate the extent of the efforts still needed in Mexico to attain substantive equality, so that a person's social and economic origins do not determine his or her fortune in adult life.

---

<sup>2</sup> It is possible to conceptualize poverty in absolute and relative terms. In principle, the measurements of absolute poverty are based on previously determined thresholds, usually established by the cost of a basic needs basket, while the relative thresholds consider the position of individuals and households with respect to the distribution of resources among the population (Ravaillon 2003, Foster 1998). The distinction presented here refers mainly to measurements of poverty closer to the *absolute* approach and how they contrast with the study of *relative* inequalities, understood in terms of gaps and disparities.

The determining factors of social position or income level can be divided into two parts: those that lie in circumstances beyond personal control, such as the characteristics of the family of origin, and those that fall within the orbit of the individual, such as personal effort. Equality of opportunities is achieved when circumstances at birth do not determine the social position acquired. In other words, equality of opportunities means everyone starts out from the same initial point, an *ex ante* concept, while equality of outcomes means that positions, income levels, and allocation mechanisms can be modified or redistributed, an *ex post* concept (Nieto 2001, Tilly 2005).

### 1.3. Social, economic, and political effects of inequalities

Alongside normative considerations that cause concern about social inequalities, several of academic papers have documented that their patterns lead to a series of severe social and economic problems.

A group of studies suggests that high levels of inequality can reduce a community's social capital as well as the levels of trust among citizens (Alesina and La Ferrara 2000 and 2002, Costa and Kahn 2003). The underlying mechanism supporting this claim is that extreme asymmetries aggravate the differences perceived by citizens of different socioeconomic groups, thus reducing the possibilities of socialization and coexistence that, in turn, promote solidarity (Neckerman and Torche 2007).

Inequality harms economic growth if it translates into barriers preventing certain sectors of society from accomplishing their productive potential (Blanco 2014, Milanovic 2015). This dynamics implies that society overlooks the abilities of certain groups, consequently losing talent, efficiency, and contributions to economic development. Thus, inequality results in inefficient investment in human capital (Esquivel 2015).<sup>3</sup> Also, as mentioned by Solís and Boado (2016), low social mobility propounds the existence of lasting differences in access to opportunities, whereby citizens remain in the same positions, whether disadvantaged or privileged, to later bequeath these positions to their offspring.

The study of inequalities is also important given its implications for democracy. The concentration of economic resources in privileged social groups may disproportionately increase their ability to influence government agendas and political parties (Gilens and Page 2014). Moreover, citizens who belong to disadvantaged sectors may find it difficult to have the time, abilities, and resources necessary to participate in associations and political campaigns, and to mobilize electorally (Verba, Schlozman and Brady 1995). In addition to these detrimental direct effects, some studies suggest inequality is detrimental to institutional stability and democratic consolidation in the long term (Karl 2000, Houle 2009).

## 2. The exploration of inequalities from different analytical perspectives

In the postwar period, there was a widespread assumption that social inequalities stemming from both, circumstances and opportunities, would decrease over time. The classic review by Kuznets (1955) showed that, even when differences in income increased at first, they would diminish with continued economic growth (Goldthorpe 2012). In sociology, it was proposed that stratification's rigidity was giving way to a relatively amorphous socioeconomic hierarchy, in which social positions corresponded less to the person's original background, and more

<sup>3</sup> While evidence about the relationship between inequality and economic growth continues to be mixed, it is possible to identify an emerging consensus in international institutions such as the World Bank and the International Monetary Fund, with respect to the adverse effects of extreme asymmetries for countries' *efficiency* and *sustained economic growth*. See Atkinson (2016, p. 12, on the 2012 speech of Christine Lagarde), World Bank (2016, pp. 2-3), Cingano (2014), and Milanovic (2015).

to educational and occupational achievements (Parsons 1971). Despite these expectations, inequalities in opportunities and of outcomes persist the world over, and are particularly serious in Latin America (Deaton 2015, Grusky and Szelényi 2011, Goldthorpe 2012, Piketty 2015).

Three dominant fields of knowledge can be identified in the study of inequalities: economics, sociology, and political science. The first has focused on studying the differences in monetary income, the second has examined inequality in social positions, while the third explores the institutions or rules of resource allocation, be they monetary or of positions, in addition to their effects (Kuznets 1955, Tilly 1998, Boix 2003).

## 2.1. Our perspective on the study of inequalities

As stated above, unequal income allocation is a common point of departure to review distributive asymmetries which also allows an initial approach to the Mexican situation. The most frequently used indicator to gauge income inequality is the Gini coefficient, which measures income concentration in a population; the higher the number, the greater the inequality.<sup>4</sup> Figure I.1 shows the evolution of this indicator in Mexico as well as in selected Latin American countries from 2000 to 2015.

The graph shows a reduction in inequality in our country beginning in 2000 and up to 2004. According to Lustig (2010), the drop in this period shows, on the one hand, the effect of the growth of programs to combat poverty (Alejo *et al.*, 2009) and, on the other, a decrease in the wage gap between higher-and lower-skilled workers (Esquivel 2009, Esquivel, Lustig and Scott 2009). The result is a stagnation of inequality since 2006, as the index has remained stable at 0.48 during the last decade. Comparatively, while Brazil has historically shown higher levels than our country, its Gini coefficient has consistently fallen in recent decades. The reduction is also noteworthy in the case of Argentina (0.53 in 2003 and 0.43 in 2014). Chile, in contrast, shows an evolution similar to Mexico's, with persistent levels of inequality.

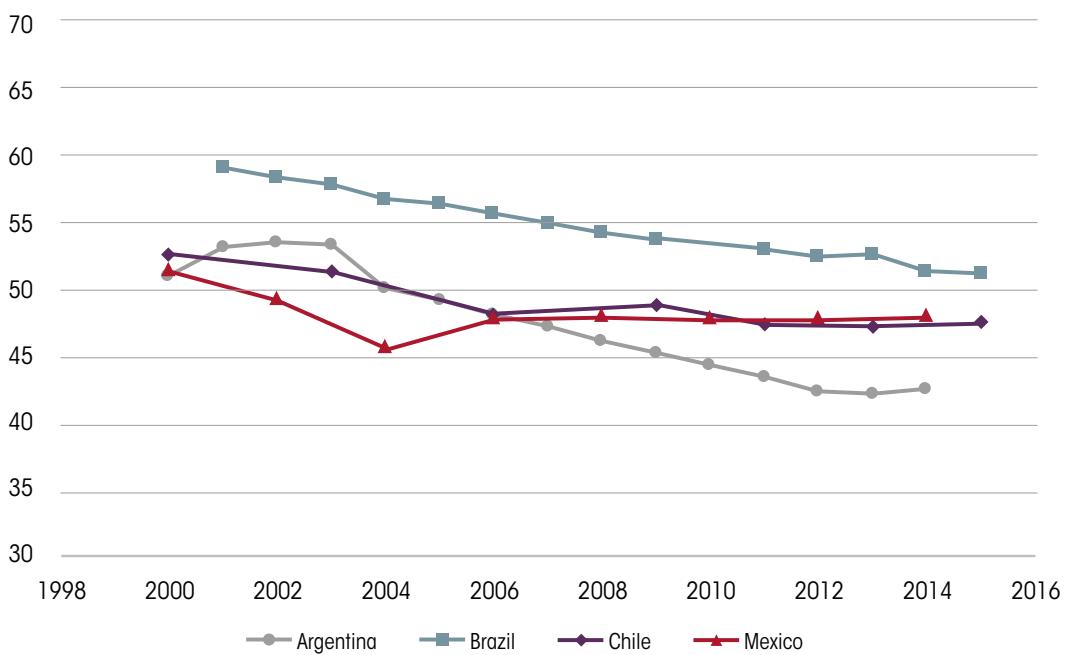
As will be seen in the following sections, income differences also mirror the accumulation of other kinds of inequality, such as disparities in access to education and social mobility, in addition to those associated with gender and territory.

The particular view of inequalities behind this report allows for a further exploration of the specific implications of the gaps in access to resources and opportunities in multiple arenas beyond income. In this document we develop four key inputs for the diagnosis of these severe asymmetries in Mexico: the relational character of inequality, the intersection of its different dimensions, their linkages throughout people's lifetime, and the new challenges for equity.

- I. *Inequality's relational character.* In unequal societies, the disadvantages of some parallel the prerogatives that others enjoy in terms of positions of relative privilege and greater levels of well-being. This phenomenon is linked to patterns of exclusion by which certain social groups benefit greatly from resources, abilities, social relations, and even public goods, to which other groups have limited or no access (Tilly 1998).<sup>5</sup>
- II. As mentioned, examining these differences gives way to comprehending how people from certain social groups face extreme and diverse levels of exclusion. With this in mind, as explained below, the study incorporates consideration of the *intersectionality* of the disparities experienced by specific social groups.

<sup>4</sup> The Gini coefficient is 1 if only one person holds all the wealth in a given population (perfect inequality) and 0 if each person has the same amount of resources (perfect equality). The index is a transformation with 100 as its maximum value.

<sup>5</sup> In turn, these inequalities are reinforced through mechanisms of monopolization of opportunities if groups with higher status establish entry barriers in certain areas of social and economic life (Tilly 1998).

**Figure I.1** Evolution of the Gini coefficient (2000–2015)

Source: Compiled by the authors using World Bank data (2018).

- III. The analysis of inequalities also allows identification of the way gaps perpetuate throughout people's life cycles, including their intergenerational implications. Identifying how these asymmetries are *linked* together contributes to understand the mechanisms through which social disparities have a long-term impact on citizens' social development.
- IV. Our focus also reveals how certain social and economic transformations have differentiated effects on specific social groups that, in turn, generate new gaps involving resources and access to development opportunities. As discussed at the end of this introduction, one of the contributions of this study is its analysis of the *new challenges* for equity in the current context of adjustment in global markets and intensification of climate change.

## 2.2. Accumulation and interdependence of inequalities

This study emphasizes how different sources of inequality are linked and intertwined throughout people's lifetimes, that is, they accumulate and behave interdependently. To stress this fact, we use "inequalities", in plural, throughout this document.<sup>6</sup>

In Mexico, for example, evidence shows that women spend more hours on unpaid care work than men.<sup>7</sup> Indeed, this inequality is stressed among poor women, as other women, with medium

<sup>6</sup> An intersectional analysis such as ours is different from traditional studies that try to understand questions of diversity beginning with an identity category, such as gender, to which others are added. These analyses part from single categories based on a uniform set of experiences that may simply be added to one another to understand inequalities. The "additive approach" is very common, but makes it hard to understand the interrelationships between broader social differences and individual experiences of discrimination (Hankivsky and Cormier 2011). Generally, effective public interventions often pay attention to how initial interest phenomena—for example, the heterogeneous performance of girls in standardized achievement tests—intersect with other social markers such as belonging to an indigenous community or a low-income bracket.

<sup>7</sup> In 2015, working women in Mexico spent 36 hours of their workweek on unpaid work, while working men

and high incomes, subcontract them to do these chores, which enables these higher-income women to spend more time on paid work. Thus, the difference in income between the first group and the second becomes even greater (Oliveira and García, 2012).

In gender studies, intersectionality has proven useful to examine these interdependences as it allows to consider the mutual intertwining of several stratification arenas (Crenshaw 1991, Walby *et al.* 2012). With an intersectional perspective, gender, social class, or nationality are not analyzed as independent arenas of stratification; instead, attention is paid to the way these arenas shape one another. In other words, emphasis is placed on how inequalities articulate and connect with each other (Roth 2013).

The intersectionality approach shows that there are no universal formulas to solve complex inequalities. For example, young people who do not study or work are far from being a homogeneous group, as their levels of schooling and income vary (Maravilla 2013), thus, it is hard to imagine that a single type of public intervention could address their situation effectively. Furthermore, this approach holds that interventions are not neutral, as not everyone experiences them in the same way; relevant differences and common needs must be considered both in the design and implementation of any possible intervention. Finally, intersectionality makes it clear that focusing on only one area of stratification (such as gender or income) leads to false classifications that do not necessarily reflect the realities of people's lives (Hankivsky and Cormier 2011).

### 3. Inequalities in Mexico 2018

The differences between the life stories briefly described at the beginning of this report reflect the tangible inequalities in our country. Figure I.2 shows the gaps observed in indicators linked to key dimensions in the lives of María Basilio and Matilde Arriba.

María grew up in a rural community, where the proportion of students who achieve an adequate learning proficiency is lower than in urban public schools (7% versus 28% in reading tests). This hinders a successful participation in the labor market, in a context in which women's participation continues to be low, as only 45% of women have paid jobs.

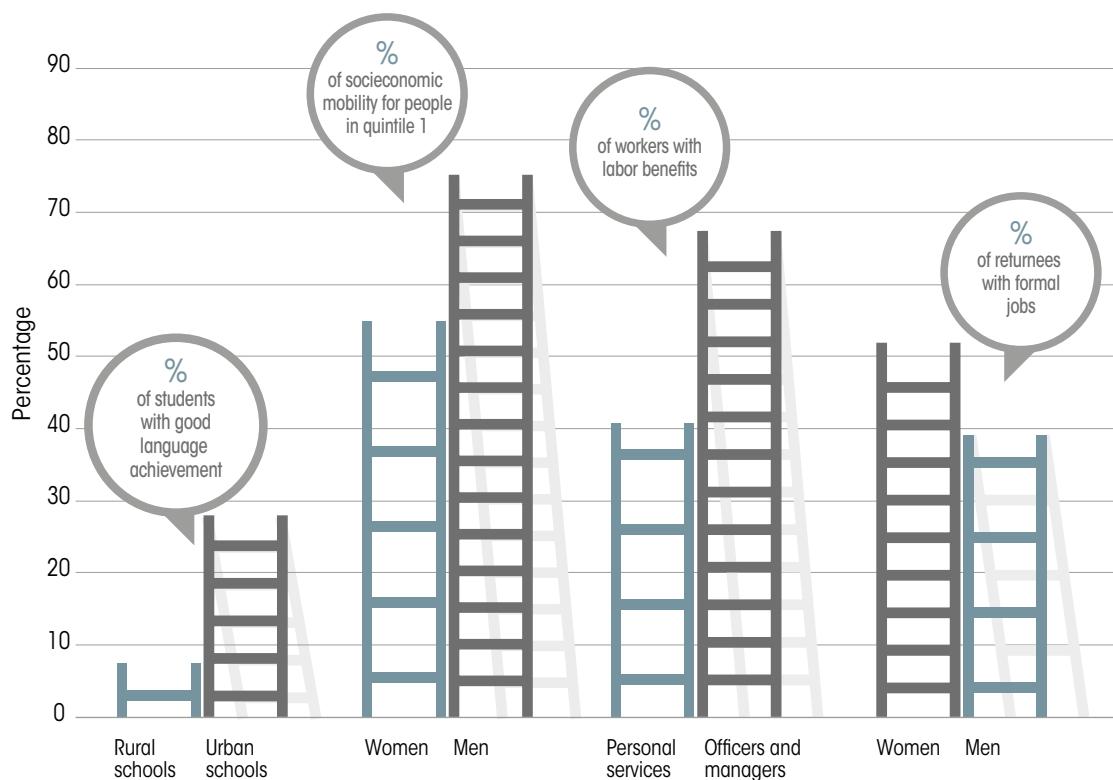
Access to quality employment is also differentiated: 67% of officers and managers, such as Matilde, enjoy comprehensive labor benefits in terms of health, housing, maternity leave, and retirement savings; in contrast, only 40% of the workers in personal services, which include domestic work, have benefits.<sup>8</sup>

Women who, like María, are born in less well-off strata, tend to remain in the same socioeconomic situation as their household of origin: 55% of women who are born in the lowest-income quintile succeed in moving up to the next stratum in their adult life, in comparison with 75% of men in the same situation. Because of the increase in return migration, men who previously sent remittances, such as María's husband, have returned to Mexico and face greater difficulties entering the formal labor market: among male returnees, only 39% who work in subordinate positions, enjoy labor benefits.

---

only spent 15 hours on these activities (see box G3 "Unpaid work and gender inequality," compiled by authors based on INEGI 2015).

<sup>8</sup> The picture is even more discouraging if we consider the specific characteristics of domestic work in Mexico. According to figures reported by the Ministry of Labor and Social Welfare (STPS), 98% of domestic workers do not have access to health services in the social security systems. This percentage is smaller in the case of men in the same field of work (83%), which shows that female domestic workers face an exacerbated level of exclusion (STPS 2016, p. 63). Estimates were made with data from the National Survey of Occupation and Employment (ENOE) for the second quarter of 2016.

**Figure I.2** Some key dimensions involving inequality in Mexico

**Source:** Compiled by the authors using data from OECD (2015), Campos Vázquez (2016), the ENOE 2017, Masferrer, Sánchez and Rodríguez Abreu (2017).

**Note:** Percentages of reading achievement are taken into account for language performance (those with Level 3 or higher in the PISA test). Percentages for mobility correspond to the proportion of people who are born in quintile 1, lowest income, who are able to climb to the next quintile.

### 3.1. Key dimensions of inequalities in 2018

As mentioned, this report is divided into three sections: legacies of inequality, new challenges for equity, and an analysis of this issue in the electoral agendas. The dimensions of analysis of each section is discussed below.

#### 3.1.1. Legacies of inequality

Several social science studies have allowed tracking the fluctuations and persistency in resources and opportunities distribution in Mexico. In this literature, three dimensions have acquired central importance: educational opportunities (Arnaut and Giorguili 2010, Blanco, Solís and Robles 2014, Gil Antón 2010), income disparities (Gollás 1979, Cortés 1996), and the various labor market conditions (Solís 2012, Escoto and García 2016, Mora 2007). Attention to these areas is based on the widespread and lasting nature of the effects of inequalities over these dimensions for a series of objectives considered desirable in a society. These include, among others, community trust and solidarity, sustained economic growth, and generalized political participation.

Given the importance of competences acquisition for a successful participation in labor markets and for social mobility, this report begins with an analysis of inequalities in

*education.* While there has been important progress in elementary education provision, Mexicans still face diverse challenges regarding learning proficiency and high school completion. Lags in educational achievement and school desertion are associated to resource disparities, different expectations around education, and the educational institutions characteristics, which is why identifying the most vulnerable sectors as well as the elements that perpetuate these inconsistencies is fundamental.

When speaking of *income and social mobility* inequality, we refer to the distribution of economic goods and services, taking labor income as point of departure. We also take into account the effects gender divisions have in the economic realm, to identify the specific challenges women face. Social mobility patterns are also examined since they are relevant to observe the extent of generational transfer of social inequalities in our country. This is important because the more these asymmetries intensify, the less social mobility there will be, and personal development will continue to be tied to a person's social stratum of origin.

The third legacy refers to the characteristics of *work* in Mexico. This issue is approached from the perspective of the quality of employment opportunities. We seek to explore to what extent the creation of jobs in Mexico has translated into better living conditions for working people and their families. The disparity of opportunities to access quality employment has a decisive impact on the reproduction of social differences. Therefore, this section analyzes how the dynamics of labor integration have evolved, emphasizing unemployment and discouragement, job characteristics, and wages.

### 3.1.2. New challenges for equity

The second section studies the new challenges the country faces in order to guarantee equity among its inhabitants. In the first place, this report explores the transformation of *return migration* flows from the United States to Mexico. This analysis focuses on the profile of people who return to the country, their destinations, and the conditions they find. The social and economic effects of migration interact with preexisting inequalities, besides intertwining with cross-cutting dimensions such as gender and territory. The section offers a detailed overview of the variation in return patterns and the challenges of successfully integrating return migrants.<sup>9</sup>

The second challenge deals with the consequences of *climate change*. It is likely that the environmental risks associated with this phenomenon will generate new inequalities and deepen other social disparities, such as those connected with gender and schooling. Therefore, it is imperative to recognize the sectors most vulnerable to environmental risks, the socio-environmental contexts of each case, and to design effective public policies that specifically address the differentiated challenges of climate change.<sup>10</sup>

### 3.1.3. Gender and territory

Our study looks at two dimensions, gender and territory, that intersect both, the legacies of inequality, and the new challenges for equity. It is important to emphasize how the situation we have described also reflects the interdependence and accumulation of disparities, suggesting differentiated scenarios for Mexicans, depending on their gender or place of origin.

---

<sup>9</sup> For a more in-depth look at the relationship between migration and equity, see Castillo (2008), Caicedo Riascos (2010), Puyana (2009), and Muñoz García, Oliveira and Stern (1977).

<sup>10</sup> To delve into the effect of climate change on various social dimensions from a local and international perspective, see Lezama (2018).

Following the numerous research efforts on the intersectionality of inequalities from a *gender* perspective (García 2004, Pacheco 2014, Szasz and Rojas 2008, Oliveira 2007 and Tepichín 2011), this report explores the disparities in opportunities and outcomes for men and women. To highlight our findings, there appear informational boxes at the end of each section. These show specific gaps and challenges women and men face to achieve key objectives during their lifetime.

The second cross-cutting dimension is associated with the characteristics of people's places of origin. *Territorial* disparities play out, first, in the variation of regional economic development which translate into different structural conditions that impact the achievement of desirable objectives. Second, citizens have differentiated access to public goods, as well as a different interaction with state institutions depending on the place where they live. The boxes about territorial inequalities at the end of the sections illustrate both mechanisms.<sup>11</sup>

### 3.1.4. Inequalities in the electoral agenda

Finally, the report analyzes the positions on equality shown by parties and coalitions contending in the 2018 federal elections. Our goal was to find out how the topic was covered in the electoral agenda. To this end, we explored the significance and treatment given to inequalities in the platforms of the three coalitions, contrasting them with the positions of the parties in each of the alliances. We close this section with a review of the proposals geared towards addressing the severe social asymmetries studied in this report.

---

## References

- Alba, F. (2003). Tendencias de la desigualdad regional en México ante el TLC. In N. Fuentes Flores *et al.* (eds.), *Crecimiento con convergencia o divergencia en las regiones de México: asimetría centro-periferia* (pp. 151-166). Mexico City: El Colegio de la Frontera Norte, Plaza y Valdés.
- Alejo, J. *et al.* (2009). "Cambios en la desigualdad del ingreso en América Latina. Contribución de sus principales determinantes: 1995-2006." Final report. Buenos Aires: CEDLAS and Universidad Nacional de La Plata. New York: United Nations Development Programme.
- Alesina, A. and La Ferrara, E. (2000). Participation in heterogeneous communities. *Quarterly Journal of Economics*, 115, 847-904
- Alesina, A. and La Ferrara, E. (2002). Who trusts others? *Journal of Public Economics*, 85, 207-234.
- Arnaut Salgado, A. and Giorguli, S. (eds.). (2010). *Los grandes problemas de México: Educación*, Vol. 7. Mexico City: El Colegio de México.
- Atkinson, A. (2015). *Inequality: What can be done?* Cambridge, MA: Harvard University Press.
- World Bank. (2016). *Poverty and Shared Prosperity 2016: Taking on Inequality*. International Bank for Reconstruction and Development/The World Bank.
- World Bank. (2018). "GINI Index (World Bank estimate)" [online database], <https://datos.bancomundial.org/indicador/SI.POV.GINI>
- Blanco, E. (2014). La desigualdad social en el nivel medio superior de educación de la Ciudad de México. *Papeles de población*, 20(80), 249-280.
- Blanco, E., Solís, P. and Robles, H. (eds.). (2014). *Caminos desiguales: trayectorias educativas y laborales de los jóvenes en la Ciudad de México*. Mexico City: El Colegio de México, INEE.
- Boix, C. (2003). *Democracy and redistribution*. Cambridge, UK: Cambridge University Press.
- Braverman, P. (2006). Health Disparities and Health Equity: Concepts and Measurement. *Annual Review of Public Health*, 27(1), 167-194.

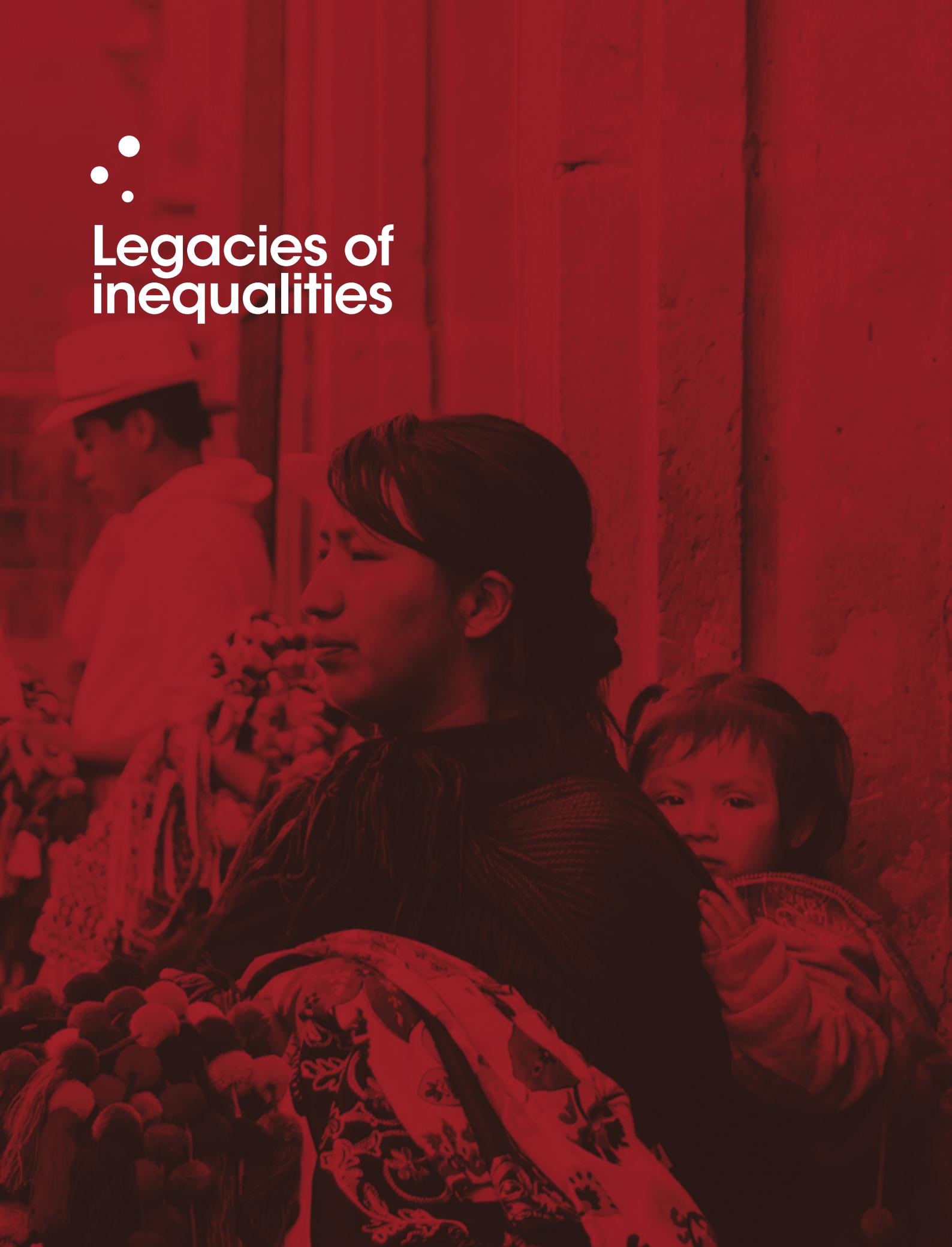
---

<sup>11</sup> For more information about territorial inequalities, see Alba (2003), Esquivel (2005), Sobrino (1999), Fuentes Flores *et al.* (2003), Garza (2000) and Sobrino (2004).

- Caicedo Riascos, M. (2010). *Migración, trabajo y desigualdad: Los inmigrantes latinoamericanos y caribeños en Estados Unidos*. Mexico City: El Colegio de México.
- Campos Vázquez, R. M. (2016). *Promoviendo la Movilidad Social en México: Informe de Movilidad Social 2015*. Mexico City: El Colegio de México.
- Castillo, M.A. (2008). La frontera México-Guatemala: Un entorno de asimetrías, desigualdades sociales y movilidad poblacional: proyecto: desarrollo de propuestas de política pública en asuntos de migración. In Sin Fronteras, IAP (eds.), *Cambiando perspectivas: de la gestión de flujos hacia la construcción de políticas de migración con enfoque de desarrollo* (pp. 73-112). Mexico City: Universidad Autónoma de Zacatecas, Sin Fronteras, INCIDE Social, Miguel Ángel Porruá.
- Cingano, F. (2014). "Trends in Income Inequality and its Impact on Economic Growth." *OECD Social, Employment and Migration Working Papers* No. 163.
- Cortés, F. (1996). La evolución en la desigualdad del ingreso familiar, durante la década de los ochenta. In M.D.L.P. López (ed.), *Hogares, Familias: Desigualdad, Conflicto, Redes Solidarias y Parentales* (pp. 77-89). Mexico City: Sociedad Mexicana de Demografía.
- Costa, D. and Kahn, M. (2003). Understanding the American Decline in Social Capital, 1952-1998. *Kyklos*, 56(1), 17-46.
- Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review*, 43(6), 1241-1299.
- Deaton, A. (2015). *El gran escape. Salud, riqueza y los orígenes de la desigualdad*. Mexico City: Fondo de Cultura Económica.
- Escoto, R. and García, B. (2016). Condiciones laborales y comercio exterior en México. En *Trabajo global y desigualdades en el mercado laboral*. Toluca: Flacso, Universidad Autónoma del Estado de México.
- Esquivel, G. (2005). *Crecimiento económico, desarrollo humano y desigualdad regional en México, 1950-2000*. Mexico City: Sedesol.
- Esquivel, G. (2009). "The Dynamics of Income Inequality in Mexico Since NAFTA." Document prepared for Markets, the State and the Dynamics of Inequality: How to Advance Inclusive Growth, a project coordinated by L. F. López-Calva and N. Lustig. New York: United Nations Development Programme.
- Esquivel, G., Lustig, N. and Scott, J. (2009). "A Decade of Falling Inequality in Mexico: Market Forces or State Action?" Prepared for Markets, the State and the Dynamics of Inequality: How to Advance Inclusive Growth, a project coordinated by L. F. López-Calva and N. Lustig. New York: United Nations Development Programme.
- Esquivel, G. (2015). *Desigualdad extrema en México. Concentración del poder económico y político*. Mexico City: Oxfam.
- Foster, J. E. (1998). Absolute Versus Relative Poverty. *The American Economic Review*, 88(2), 335-341.
- Fuentes Flores, N. et al. (eds.) (2003). *Crecimiento con convergencia o divergencia en las regiones de México: asimetría centro-periferia*. Mexico City: El Colegio de la Frontera Norte, Plaza y Valdés.
- García, B. (2004). Las uniones conyugales en América Latina: transformaciones en un marco de desigualdad social y de género. In O. Rojas Martínez (ed.), *La fecundidad en América Latina: ¿transición o revolución?* Santiago, Chile: CEPAL, 213-230.
- Garza, G. (2000). Tendencias de las desigualdades urbanas y regionales en México, 1970-1996. *Estudios demográficos y Urbanos*, 15(3), 489-532.
- Gil Antón, M. (2010). Acceso a la educación superior: caminos, veredas, barrancos y vías rápidas. In F. Cortés and O. de Oliveira (eds.), *Los grandes problemas de México: Desigualdad Social*, Vol. 5 (pp. 263-308). Mexico City: El Colegio de México.
- Gilens, M. and Page, B. (2014). Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens. *Perspectives on Politics*, 12(3), 564-581.
- Goldthorpe, J. H. (2012). De vuelta a la clase y el estatus: por qué debe reivindicarse una perspectiva sociológica de la desigualdad social [Back to Class and Status: Or Why a Sociological View of Social Inequality Should Be Reasserted]. *Reis*, 137, 43-58.
- Gollás, M. (1979). *Orígenes de la desigualdad en la distribución del ingreso familiar en México*. Mexico City: El Colegio de México.
- Grusky, D. B. and Szelényi, S. (2011). *The Inequality Reader: Contemporary and Foundational Readings in Race, Class, and Gender*. Boulder, CO: Westview Press.
- Hankivsky, O. and Cormier, R. (2011). Intersectionality and Public Policy: Some Lessons from Existing Models. *Political Research Quarterly*, 64(1), 217-229.
- Houle, C., (2009). Inequality and Democracy: Why Inequality Harms Consolidation but Does Not Affect Democratization. *World politics*, 61(4), 589-622.
- INEGI. (2015). Encuesta Intercensal 2015. *Encuesta en hogares*. <http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/>
- INEGI. Encuesta Nacional de Ocupación y Empleo (ENOE), población de 15 años y más de edad. <http://www.beta.inegi.org.mx/proyectos/enchogares/regulares/enoe/>

- Karl, T. (2000). Economic Inequality and Democratic Instability. *Journal of Democracy*, 11(1), 149-56. Kuznets, S. (1955). Economic growth and Income Inequality. *The American Economic Review*, 45(1), 1-28. Lezama, J. L. (2018). *Cambio climático, ciudad y gestión ambiental: los ámbitos nacional e internacional*. Mexico City: El Colegio de México.
- Lustig, N. (2010). El impacto de 25 años de reformas sobre la pobreza y la desigualdad. In N. Lustig, A. Yúñez Naude and A. Castañeda Sabido (eds.), *Los grandes problemas de México: Crecimiento económico y equidad, Vol. 9* (pp. 291-324). Mexico City: El Colegio de México.
- Maravilla, D. (2013). *La exclusión social de los jóvenes mexicanos, diagnóstico y evaluación de las respuestas gubernamentales sub nacionales* (Bachelor's thesis in politics and public administration). Mexico City: El Colegio de México.
- Masferrer, C., Sánchez, L. and Rodríguez Abreu, M. (2017). "Condiciones laborales de los migrantes de retorno de Estados Unidos." *Apuntes para la equidad 2*. Mexico City: El Colegio de México.
- Milanovic, B. (2015). Global Inequality of Opportunity: How Much of Our Income Is Determined by Where We Live? *Review of Economics and Statistics*, 97(2), 452-460.
- Mora, M. (2007). Notas para el análisis de la persistencia y la reconstitución de las desigualdades sociales en América Latina: una mirada desde el mercado de trabajo. *Estudios Sociológicos*, 25(74), 517-525.
- Muñoz García, H., Oliveira, O. and Stern, C. (eds.) (1977). *Migración y desigualdad social en la Ciudad de México*. Mexico City: El Colegio de México.
- Neckerman, K. M. and Torche, F. (2007). Inequality: Causes and Consequences. *Annual Review of Sociology*, 33, 335-357.
- Nieto, S. (2001). Notas sobre igualdad, feminismo y derecho. *Boletín Mexicano de Derecho Comparado*, 34(102), 841-856.
- Nolan, B. and Ive, M. (2011). Economic Inequality, Poverty, and Social Exclusion. In *The Oxford Handbook of Economic Inequality*. Oxford, UK: Oxford University Press
- OECD. (2015). *PISA Database*. <http://www.oecd.org/pisa/data/>
- Oliveira, O. and García, B. (2012). Familia y trabajo: un recorrido por las diversas perspectivas de análisis. *Estudios Sociológicos*, 30(número extraordinario), 191-211.
- Oliveira, O. (2007). Reflexiones acerca de las desigualdades sociales y el género. *Estudios Sociológicos*, 25(75), 805-812.
- ONU Mujeres [UN Women]. (2015). "La Igualdad de Género." Mexico City: ONU Mujeres (UN organization dedicated to gender equality and the empowerment of women).
- Pacheco, E. (2003). Desigualdad de las remuneraciones de hombres y mujeres. In R. Cordera (ed.). *La cuestión social: superación de la pobreza y política social a 7 años de Copenhague*. Mexico City: Instituto Nacional de Desarrollo Social, UNAM, Instituto para la Transición Democrática.
- Pacheco, E. and Florez, N. (2014). Entre lo rural y lo urbano: tiempo y desigualdades de género. In B. García and E. Pacheco (eds.), *Uso del tiempo y trabajo no remunerado en México* (pp. 263-324). Mexico City: El Colegio de México.
- Parsons, T. (1971). *The System of Modern Societies*. Englewood Cliffs, NJ: Prentice-Hall.

- Piketty, T. (2015). *El capital en el siglo XXI*. Mexico City: Fondo de Cultura Económica.
- Puyana, A. (2009). El sector agropecuario mexicano bajo el Tratado de Libre Comercio de América del Norte: la pobreza y la desigualdad se intensifican, crece la migración. In *Retos para la integración social de los pobres en América Latina*. Buenos Aires: CLACSO, 187-213.
- Ravallion, M. (2003). The Debate on Globalization, Poverty and Inequality: Why Measurement Matters. *International Affairs*, 79(4), 739-753.
- Rawls, J. (1985). Justice as Fairness: Political Not Metaphysical. *Philosophy and Public Affairs*, 14(3), 223-251.
- Roth, R. (2013). "Entangled Inequalities as Intersectionalities: Towards an Epistemic Sensibilization." Working Paper No. 43. Berlin: Research Network on Interdependent Inequalities in Latin America.
- Sen, A. (1983). Poor, Relatively Speaking. *Oxford Economic Papers*, 35(2), 153-169.
- Sobarzo, H. (1999). *Estructura hacendaria y desigualdad regional en México* (Documentos de trabajo 1999-11). Mexico City: El Colegio de México.
- Sobrino, J. (2004). Desigualdades regionales en México al final del siglo XX. In R. García Ortega (ed.). *Contradicciones entre planeación y realidades regionales metropolitanas y socioambientales: los casos del norte de México, Puebla y Valle de México*. Mexico City: El Colegio de la Frontera Norte.
- Solís, P. (2012). Desigualdad social y transición de la escuela al trabajo en la Ciudad de México. *Estudios Sociológicos*, 30(90), 641-680.
- Solís, P. and Boado, M. (eds.) (2016). *Y sin embargo se mueve... Estratificación social y movilidad intergeneracional de clase en América Latina*. Mexico City: El Colegio de México and Centro de Estudios Espinosa Yglesias.
- STPS (2016). *El trabajo doméstico en México: la gran deuda social*. Ignacio Rubí Salazar (ed.). Secretaría de Trabajo y Previsión Social. Mexico City: Gobierno de la República.
- Szasz, I. and Rojas, O. (2008). Desigualdad de género en las relaciones conyugales y prácticas sexuales de los hombres mexicanos. *Estudios Demográficos y Urbanos*, 2(68), 205-232.
- Tepichín, A. M. (2011). Desigualdades de género y pobreza femenina. In Tepichín, A. M. (ed.) *Género en contextos de pobreza*. Mexico City: El Colegio de México.
- Tilly, C. (1998). *Durable Inequality*. Berkeley: University of California.
- Tilly, C. (2005). Rethinking Inequality. *Polish Sociological Review*, 151, 207-219.
- Townsend, P. (1979). *Poverty in the United Kingdom: A Survey of Household Resources and Standards of Living*. Berkeley: University of California Press.
- Verba, S., Schlozman, K. L. and Brady, H. E. (1995). *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, MA: Harvard University Press.
- Walby, S. et al. (2012). Intersectionality: Multiple Inequalities in Social Theory. *Sociology*, 46(2) 224-240.
- Whitehead, M. and Dahlgren, G. (2006). *Concepts and Principles for Tackling Social Inequities in Health*. Copenhagen: World Health Organization Regional Office for Europe.
- Whitehead, M. (1985). *The Concepts and Principles of Equity and Health*. Copenhagen: World Health Organization Regional Office for Europe.

A woman with dark hair tied back is seen from the side, looking down at a young child she is holding. She is wearing a patterned shawl. The child has dark hair and is looking towards the camera. They are standing in front of a weathered wooden wall. The entire image has a strong red tint.

# Legacies of inequalities

The differentiated challenges that people face in Mexico today reveal persistent legacies of inequality that hinder the achievement of an inclusive level of well-being for all. This section covers an overview of prevailing inequalities in three fundamental areas: education, income and social mobility, and work. It begins with the analysis of disparities in the acquisition of skills, to later explore the patterns of labor market participation, with an emphasis on the gaps in wage income and access to quality jobs. The study shows that women, people with the lowest income, and indigenous population continue to face greater difficulties than other groups to achieve key objectives throughout their lifetime. We also found that closing the gaps in learning and labor income has not necessarily meant a substantial improvement for the groups that lag the most. These findings uncover a troubling scenario of low social mobility and work precariousness.

---

## 1 Education

Education plays an essential role in social mobility and equal opportunity as educational credentials are basic to gain access to most skilled labor positions. The development of complex learnings and abilities is essential for improving personal opportunities in an increasingly globalized world marked by technological innovation. In addition to its economic returns, education plays a very relevant role in matters related to health, fertility, gender equity, and democratic citizenship, among others.

In recent years, almost every nation has sought to enhance their basic educational system to include increasing quantities of children and young people. Mexico has been no exception. Throughout the 20th century, access to education has broadened such that it represents an “educational revolution,” like never before. Just as in developed countries, education has become an important means of access to income, power and status, thus, the object of the population’s growing aspirations.

Education is seen as a meritocratic institution that offers equal opportunities to express and develop individual talent, separating a person’s social destiny from his or her origins, so that success depends solely on effort

and ability. Nevertheless, it is a “double-edged sword,” as individuals’ social backgrounds and the living conditions of their families restrict education’s potential to equalize opportunities. That is, the social structure itself that education should help make more flexible, limits its capacity to even out opportunities (Blossfeld and Shavit 1993, Shavit, Yaish and Bar-Heim 2007). Schooling has not been able to ward off social inequality, despite its growing expansion.

This problem exists in developed countries, but also in nations such as Mexico, marked by sharp and multiple inequalities. Gaining access to education, achieving meaningful learning, and completing important educational levels are processes seriously affected by the material and symbolic inequalities in living conditions (Blanco 2011, Bracho 1995 and 2002, Fernández 2004, Muñoz Izquierdo 1998, Solís 2010, Solís, Rodríguez Rocha and Brunet 2013). Children and young men and women in homes with scarce economic and cultural resources have fewer possibilities and tools to face the material and symbolic demands of the educational system. In addition, lower-income students often attend schools with unsatisfactory

infrastructure and poorly trained teachers (INEE 2016a). Consequently, those students develop fewer educational skills than their peers who enjoy better circumstances which, in turn, negatively impacts the poorer students' possibilities of advancement in the educational system.

Social and economic inequalities are not the only ones that permeate the educational system; gender, ethnic and regional differences also affect the distribution of opportunities. During the first decades of the 20th century, girls attended school to a much lesser extent than boys (Parker and Pederzini 2000) and, while their attendance and graduation rates leveled around 1990 (Creighton and Park 2010), there are still striking differences. These include achievement in mathematics (on average, women do not fare as well [INEE 2016b, OECD 2016]), the selection of careers (women tend toward less "technical" careers [Buquet, Cooper, Mingo and Moreno 2013]), as well as the returns from education (women are employed less than men and have lower incomes). In part, these differences show the persistence of gender stereotypes that affect individuals' decisions and the operations of the educational system.

On the other hand, persons who identify as indigenous —historically socially and economically marginalized— today, have much lower access to education and graduation rates than non-indigenous groups, and their achievement level is significantly lower (Blanco 2017, Creighton, Post and Park 2016, INEE 2017, Schmelkes 2013). For the indigenous population, in addition to the effects of cultural marginalization, there are severe consequences that stem from economic backwardness and the low quality of the schools they attend (Blanco 2017, Santibáñez 2016, Tinajero and Englander 2011).

This section summarizes three key indicators that account for the recent situation of

**The development of complex learnings and abilities is essential for improving personal opportunities in an increasingly globalized world.**

educational inequality in Mexico: access to middle-school education, educational achievement at age 15, and high-school completion.<sup>1</sup>

These indicators are intended to function as a synthesis of the main challenges the Mexican educational system faces, from a perspective that emphasizes students' trajectories and the accumulation of inequalities over time. Simultaneously, these indicators cover the three essential educational opportunities: access to education, acquiring learning proficiency, and completing a vital educational level.

### Accessing middle-school education

During most of the 20th century, the great educational challenge in Mexico was the expansion and universalization of access to elementary education, in the context of the need to expand literacy among a growing, scattered, and impoverished population. This objective was effectively reached by around 2000. In the same context, the educational reform of 1992-1993 established compulsory middle-school education for the entire country. Therefore, access to middle-school education is an indicator for evaluating whether the educational system guarantees a minimum of educational rights and establishes a basic benchmark regarding inequality of opportunities.

Official figures show an important level of coverage and steady advancement in middle school. For the 2015-2016 school year, the net coverage rate reached 87.5% and timely enrollment (students 12 years or under enrolled in the first grade), 86.2%. The dropout rate in the first year of middle school is 4.4% (INEE 2017).

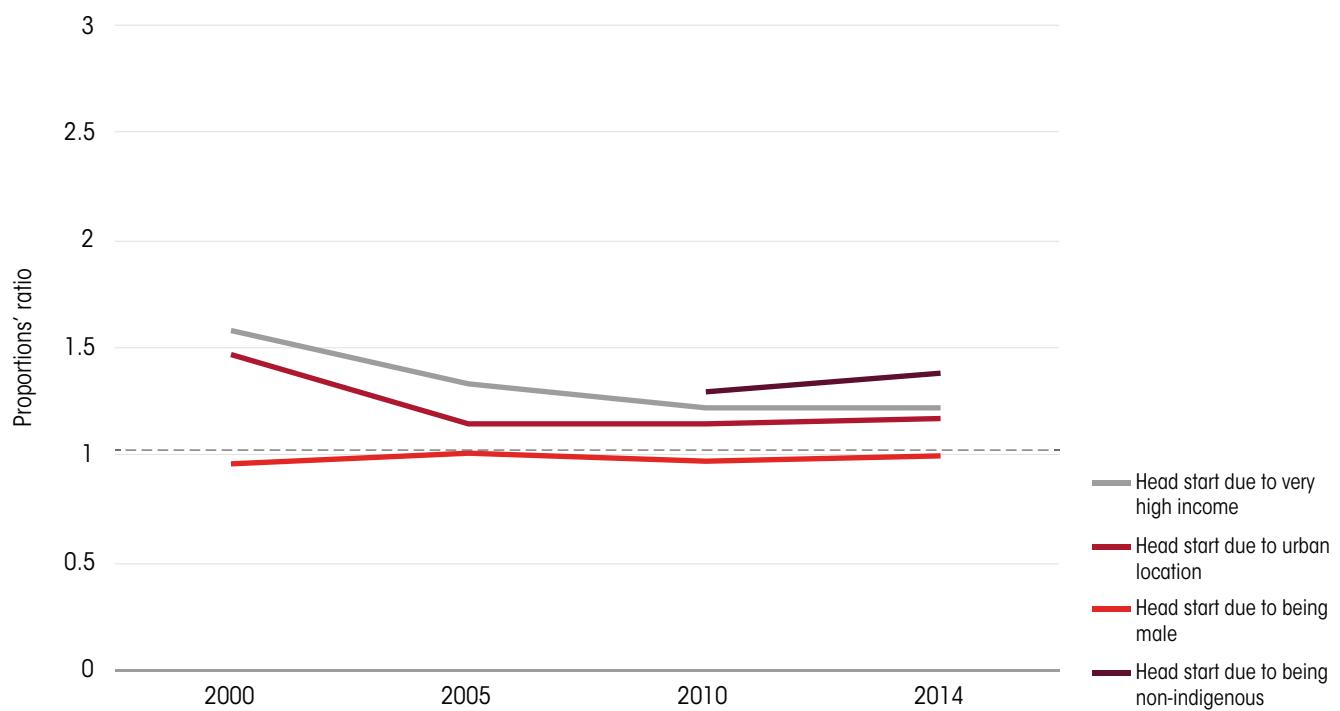
In this section we examine a stricter indicator of "access" to middle school: having completed the first year.<sup>2</sup> The most important reason is that merely having enrolled in

<sup>1</sup> Based on the analysis of the National Household Income and Expenditure Survey [Encuesta Nacional de Ingreso y Gasto de los Hogares, or ENIGH] of the National Institute of Statistics and Geography (INEGI) and the Programme for International Student Assessment (PISA).

<sup>2</sup> There is a methodological reason behind this. To build this indicator we use ENIGH data in place of the estimates



**Figure 1.1.** Head start positions of privileged groups vis-à-vis completing the first year of middle-school. Youth ages 16 to 18 (2000-2014)



**Source:** Compiled by the authors using microdata from the ENIGH 2000-2014.

**Note:** Lines represent the values of the proportions' ratio between pairs of groups. Values over 1 mark a head start of privileged groups, the higher the number, the greater the head start.

a certain grade is a lax criterion for effective access. Completing a grade level, in contrast, is a more realistic criterion: it shows whether the system is able to retain those enrolled and fulfill the aim of those who did, providing at least one extra year of education.

Figure 1.1 presents privileged groups' comparative advantage regarding access to middle school. The graph was obtained by estimating

the proportions' ratio of four pairs of groups.<sup>3</sup> The ratio is the relation between the proportion of access to this educational level of a pair of groups, as well as a measure of how much more likely it is to access middle school for a person of the group in the numerator compared to someone in the group in the denominator.<sup>4</sup> Values greater than 1 indicate a head start for the "privileged." The higher the number, the

by the Education Ministry based on school records ("Formato 911"), and population estimates of the National Population Council (Conapo). The first source is not only more reliable, but it avoids some overestimation factors (for example, counting readmissions as first admissions or underestimating the total population of school-age youths). The ENIGH asks for school years completed, not for levels enrolled in.

3 The pairs compare groups through income (the very high ones of quintile 5/the very low ones of quintile 1), type of locality of residence (urban/rural), sex (male/female), and, finally, non-indigenous/indigenous. The study utilized four years of the ENIGH (2000, 2005, 2010, and 2014). The comparison between indigenous and non-indigenous is only presented for the years 2010 and 2014 because there is no data for previous years.

4 To facilitate interpretation, the numerator always corresponds to data for the relatively privileged groups (very high income —quintile 5—, urban, men, and non-indigenous). Thus, the graph shows how more likely it is to enter middle school for a young woman in these groups, compared to a young woman of the "non-privileged" groups (very low income —quintile 1—, rural, female, or indigenous). The age bracket studied is 16 to 18, so as to have a group young enough to portray recent processes, but at the same time old enough for all the individuals to have had the opportunity to pass their selected educational thresholds.

greater the advantage or head start; a value of 2 for the ratio between levels of income indicates that a youth from a high-income family (quintile 5) has twice the chance of attending middle school than a person with a very low income (quintile 1).

In general terms, access to middle school had a sustained increase —from 75.7% in 2000, to 91.2% in 2014— for the age group.<sup>5</sup> The analysis of the proportions' ratios shows that instances of inequality persist. In 2000, a youth in the quintile with the highest income had a 59% greater chance of going to middle school than one from the lowest quintile; this difference fell to 23% in 2014. Similarly, the advantage for an urban youth over a rural one dropped from 47% to 18%. The greater part of this decrease occurred between 2000 and 2005, after which there has been little to no drop.

Significant gender differences were not found, a trend that remains constant during the entire period. Nevertheless, the disadvantage of indigenous-language speakers compared to non-indigenous ones increased from 29% in 2010, to 38% in 2015.

### Acquisition of quality learning proficiency by age 15

The development of learning abilities and cognitive competences is one of the key outcomes of the educational system, both collectively and individually. In particular, the competences acquired during middle school, strongly affect the possibilities of access to the next educational level and the kind of work a person can attain (Fernández and Cardozo 2014, Lorenzo 2016).

The Program for International Student Assessment (PISA), used in a wide range of

countries, evaluates educational systems by examining the cognitive abilities of 15-year-old students who take achievement tests in language, math, and science, every three years since 2000. Results identify the level of knowledge of each student in these areas, and classifies them in a six-level scale, defined by the cognitive skills each demands.

We then compare the differences between the percentages of students in different groups (for example, males and females) who achieve at least level 3 of proficiency in each of the tests. The criteria to reach this level are demanding because, according to PISA, such students demonstrate achieving a “good level of proficiency.”<sup>6</sup> In the most recent assessment, 17% of Mexican students achieved scores above this threshold in science and math, and 25% in language. These data clearly show that, in general, learning in Mexico is of low quality.

As in the analysis of access to middle school, we report on the head start that some of the compared groups have in achieving a level 3 score. This is an indicator of how much more (or less) likely it is for a youth in a group to meet level 3 requirements vis-à-vis the probability of a youth in the comparison group to accomplish the same.<sup>7</sup>

### Income inequality

PISA includes a socioeconomic index for each student, based on the educational and occupational characteristics of their parents, as well as on the material goods present in their household. Figure 1.2 shows the proportions' ratio between quintiles 5 and 1 of this index. A clear tendency towards a decrease of inequality in learning is found between 2000 and 2015, in all areas, save for the exceptional data for math in 2003.

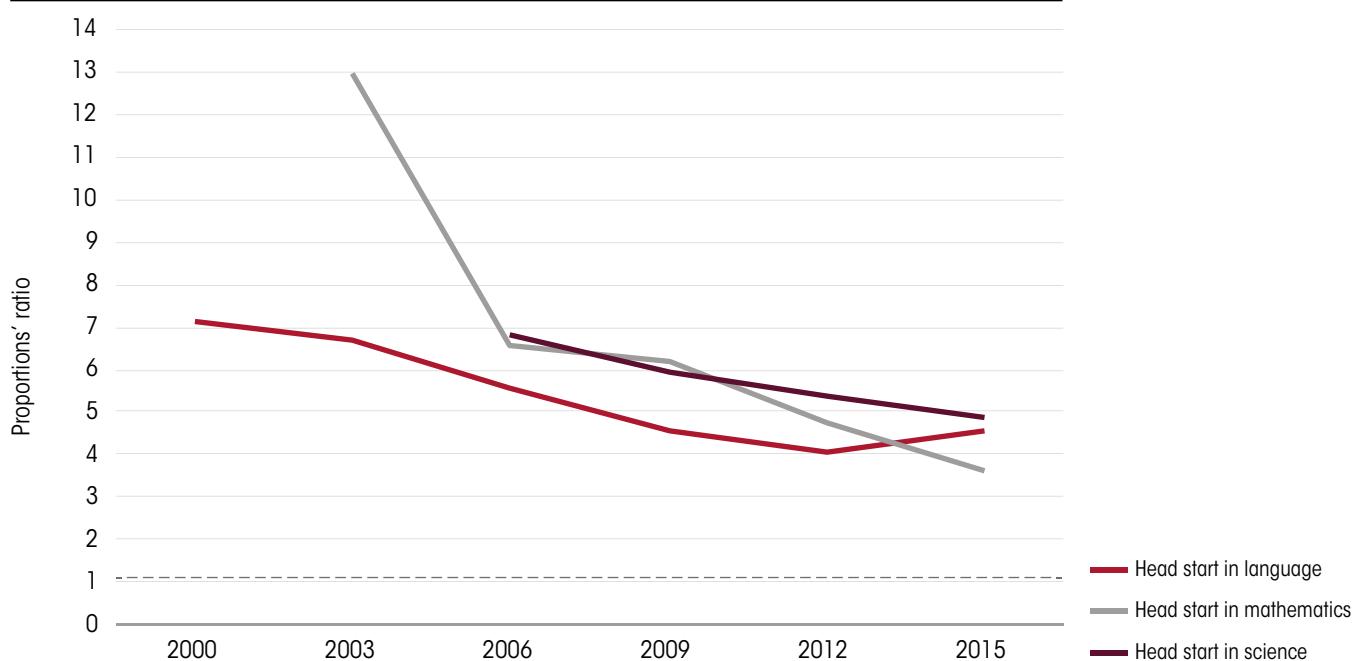
<sup>5</sup> The figure is slightly above the official estimates of timely enrollment, because in this indicator those who were not enrolled at age 12 are allowed to do so at a later age. It is also higher than the net coverage because it does not demand students' enrollment at the typical age to attend middle school, only that they have finished first grade.

<sup>6</sup> This level is above the learning proficiency considered minimally acceptable (level 2).

<sup>7</sup> In all of the cases, the relatively privileged groups were located in the numerator, with the goal of facilitating interpretation. For the years 2006–2015, data was used from the three areas of learning. For previous tests, although scores exist for all the exams, it is not possible to convert them to levels in all areas.



**Figure 1.2.** Head start of the high income group regarding obtaining good or superior scores on the PISA test (2000-2015)



**Source:** Compiled by the authors using PISA microdata.

**Note:** Proportions' ratio between persons with very high (quintile 5) and very low (quintile 1) socioeconomic indexes. Values over 1 mark a head start for the high income group, the higher the number, the greater the head start.

There are several reasons why this result should be taken with caution. The first is that, despite the drop, high levels of inequality still persist (belonging to the very high-income group makes it 4 to 5 times more likely to achieve good learning proficiency in comparison with youths in the lowest-income group). The second reason behind this relative alignment is, mainly, a reduction in the youths of the top quintile who achieve good proficiency, with no significant growth in the proportion of lower income students who cross this threshold.<sup>8</sup>

This scenario of an unchanged learning proficiency average and an improvement in equity, comes about in a context of constant growth of the proportion of 15-year-olds who participate in the educational system (in the

period evaluated, the percentage rose from 54.4% to 77.7%). In other words, educational inclusion has improved in Mexico without losing quality of learning, and even moderately reducing inequality as well.

### Gender inequality

Gender inequalities are far less acute than those stemming from socioeconomic origin. In many countries affiliated to PISA, young men tend to achieve better results in mathematics and sciences, while young women surpass males in language. In 2015, young women had a 20% greater chance than young men of having good language proficiency, while male students had almost a 35% greater chance of having good proficiency in math than females (Figure 1.3). These differences basically do not

<sup>8</sup> At any rate, this does not correspond (to freely use a concept coined by Fernando Cortés and Rosa M. Rubalcava [1991]) to “educational equality due to impoverishment,” given that a drop in average learning is not observed (INEE 2016b, OECD 2016). This suggests that among the young people in intermediate quintiles, there was an increase in the proportion of those who achieved good proficiency, or that there has been a generalized shift of young people, from level 1 (“insufficient”) to level 2 (“sufficient”), two situations that compensate for quality worsening in the superior strata.

vary throughout the reference period; therefore, we face what could be called a “scenario of continuing inequalities” in gender matters.

#### **Inequality due to linguistic status**

The comparison between Spanish speakers and speakers of indigenous languages shows, in the first place, noteworthy inequalities in all areas of learning. In 2015, it was six to seven times more likely for a non-indigenous student to be in PISA level 3, than for an indigenous one (Figure 1.4).

It must be taken into account that, at the time of the assessment, the indigenous and non-indigenous students who attend school had already undergone a selection. Not all 15-year-olds are part of the educational system, an exclusion accentuated in the case of indigenous youths. Results suggest that even when indigenous youths who remain in school up to age 15 constitute a “resilient” group, because they have been able to overcome the disadvantages of their social origins, there is no correlation between their permanence and achieving levels of learning proficiency even close to their peers of non-indigenous backgrounds. An explanation of this lies in the direct relationship between low income and poor learning, and in the fact that indigenous youths tend to receive education of far inferior quality than their non-indigenous peers (Santibáñez 2016).

For methodological reasons, the study was limited to the 2006-2015 period,<sup>9</sup> during which the last assessment found an increase in inequality, particularly in mathematics. The percentage of non-indigenous students who achieve good learning proficiency has not varied significantly between 2006 and 2015 (19% to 18%), while the indigenous population has seen its good proficiency achievement fall from 6% to 2.5%. This last drop might be due

to an increase in the inclusion of 15-year-old indigenous youths in the educational system. That is, the system now serves more disadvantaged students, but has been unable to reverse the effects of those inequalities associated with being indigenous in terms of learning proficiencies.

#### **Inequality by type of school zone (rural vs urban)**

In general terms, the probability that a student in an urban school will have good learning proficiency is three to four times greater than that of a student in a rural school (Figure 1.5), which illustrates the sharp inequality that persists between these groups. As in the case of linguistic condition, this difference is explained by both socioeconomic and educational system factors.

There was a reduction in inequality in math and a similar trend was found in language and sciences, which was reverted in 2015, resulting in a balance of persistent inequalities.

#### **Completing high school**

Finishing high school is an essential requirement to obtain quality jobs, as well as to have access to university education. This is why, in 2013, the Constitution was reformed to establish high school education as compulsory which, in turn, highly increased the state's duty to guarantee the youth's right to education.

In this context, the number of young people who finish high school<sup>10</sup> is a measure of the current state of the Mexican educational system, as well as a powerful indicator of the inequality of opportunities. These data synthesize the history of accumulation of disadvantages for young people in Mexico and the resulting variations in access, the dropout rate, and quality of learning, and the effect of

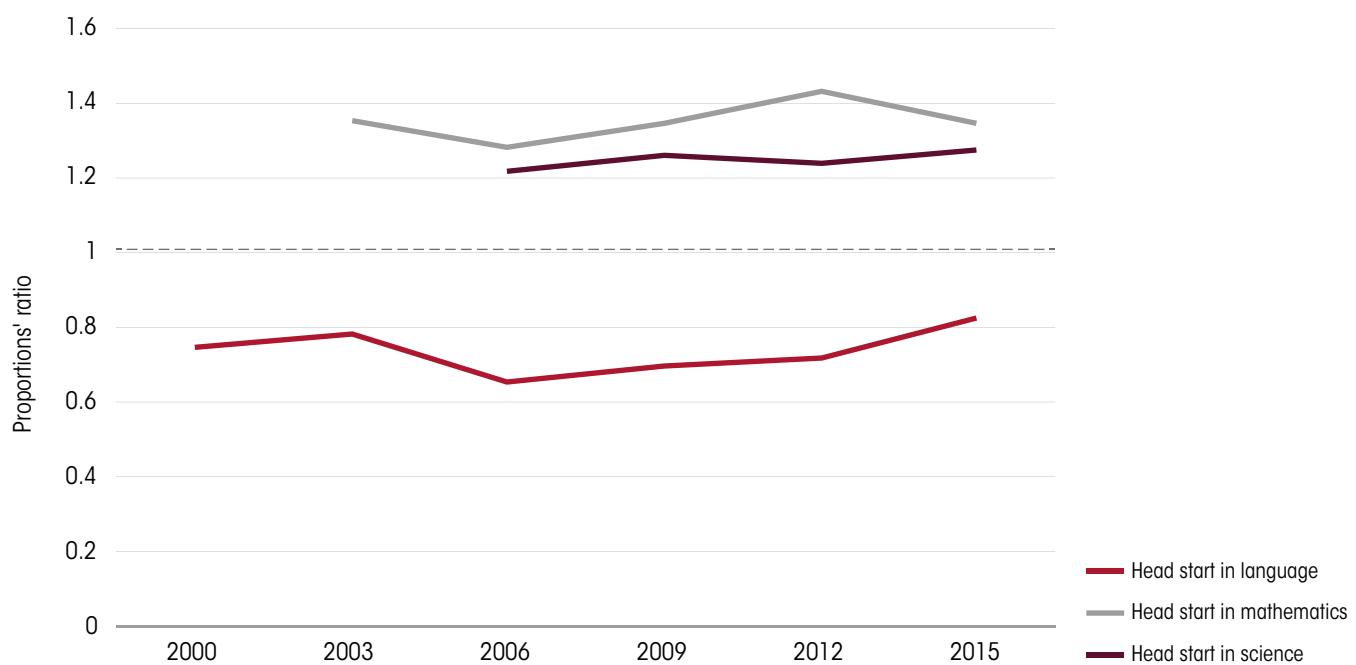
**The probability that a student in an urban school will have good learning proficiency is three to four times greater than that of a student in a rural school.**

<sup>9</sup> The PISA estimates for 2000 and 2003 must be taken with special caution, as they could have measurement and sampling errors (INEE 2016b) that affect the estimates for relatively small groups, such as in the case of indigenous youths.

<sup>10</sup> Strictly speaking, the indicator was built with information on those who have completed at least the third year of some type of high school (general or technical education, requiring having finished middle school).



**Figure 1.3.** Head start of males regarding obtaining good or superior scores on the PISA test (2000-2015)



**Source:** Compiled by the authors using PISA microdata.

**Note:** Proportions' ratio between males and females. Values over 1 mark a head start for males, the higher the number, the greater the head start.

**Figure 1.4.** Head start of non-indigenous language speakers regarding obtaining good or superior scores on the PISA test (2000-2015)



**Source:** Compiled by the authors using PISA microdata.

**Note:** Proportions' ratio between non-speakers and speakers of indigenous languages. Values over 1 mark a head start for non-speakers of indigenous languages, the higher the number, the greater the head start.

all this on decisions regarding continuance in the educational system.

Currently, high school is the great filter in educational trajectories. The net rate of coverage at this level for the 2015-2016 school year was 59.5%. This figure shows, above all, that many young people who finish middle school do not go on to high school<sup>11</sup> as well as the high drop-out rate among those who do enroll (14.4% in the 2014-2015 school year [INEE 2017]).

The proportion of the population ages 22 to 24 that finished high school went from 39.9% in 2000 to 51.5% in 2015, an increase of almost 30%. However, it is important to bear in mind that part of this increase is explained by the poor quality high school education offer, which could cause early abandonment (Ramírez 2015, Solís, Rodríguez Rocha and Brunet 2013, Weiss 2012 and 2015). Offers such as community *telebachillerato* (high schools involving video lessons), as well as open and distance learning, seem to privilege administrative or quantifiable inclusion, rather than a genuinely educational option.

How is this generalized increase in the opportunity to finish high school reflected in social inequality? Figure 1.6 shows the proportions' ratio among privileged and non-privileged groups, similarly to the indicators previously expounded.

In aggregate terms, inequality is substantially greater than the one observed in access to middle school in every dimension considered, particularly the economic one (the exception is gender, with virtually identical completion rates for men and women in the entire period). In a very general way, this greater inequality may be explained by several factors: (a) the accumulation of inequalities in earlier periods; (b) the non-compulsory nature of this level of education until 2013; this impacted the educational expectations of youths and

their families as well as governmental decisions to expand educational opportunity; (c) greater expenditures at this level of education (transportation, materials, the cost of foregone wages); (d) greater academic challenges for a poorly educated population and the subsequent incidence of academic failure; and (e) elements related to the characteristics of life at the typical ages for this school level, such as students' increasing independence from the family home, as well as competition between being a student and other identities.

In contrast, throughout the period, the disparities in opportunities between groups of different incomes have narrowed: in 2000, a young person from a high-income family (quintile 5) had a probability 5.6 times greater of finishing high school than one from a lower-income group (quintile 1); in 2015, the rate had reduced to 2.6. Although this still can be considered a critical inequality, the decrease is worth emphasizing. To explain this drop it is basic to bear in mind that the observed difference is the outcome of inequalities accumulated in the course of a lifetime; therefore, it is likely that this fall in inequality is related to a previous leveling process, such as completing middle school.

In conclusion, this section addresses the evolution of three key indicators surrounding educational inequality in Mexico: access to middle school, the status of learning at age 15, and high school accreditation. Taken as a whole, they reveal three essential opportunities for the development of successful educational trajectories: access to education, obtaining quality learning, and completing a level that allows admission to university, thus access to slightly skilled employment.

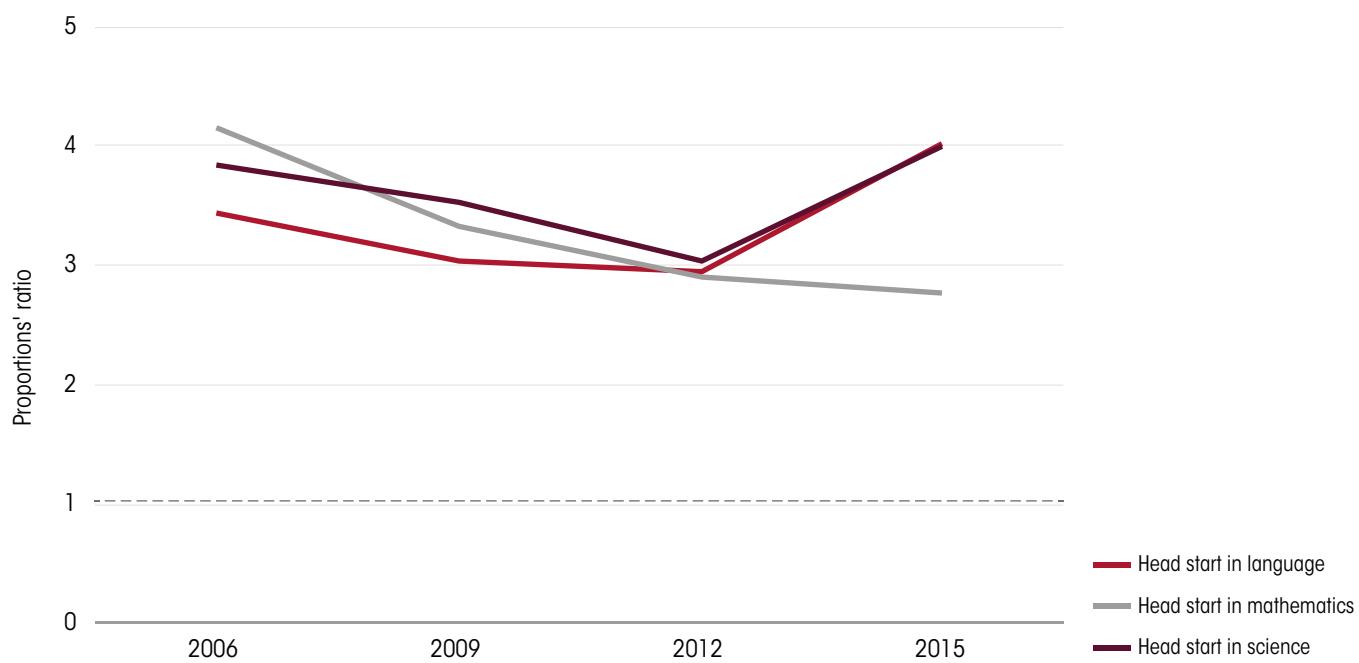
In practice, access to middle school has become universal, which has brought about relatively low levels of socioeconomic inequality, with no meaningful changes. This expansion

---

<sup>11</sup> Official figures estimate the absorption of high schools (the percentage of those who, having finished middle school, enrolled at this level) is 101.1%, an estimate clearly affected by the sources of information and the methods of estimation, in the absence of longitudinal data. Solís (2017) reports, utilizing data from the 2015 Intercensal Survey, a national absorption rate of 80.4% for youth ages 16 and 17. The problem with this source, which is also present in the ENIGH or the Census, is that it underestimates absorption figures because it does not record enrollment in the first semester of high school, only the completion of the first year.



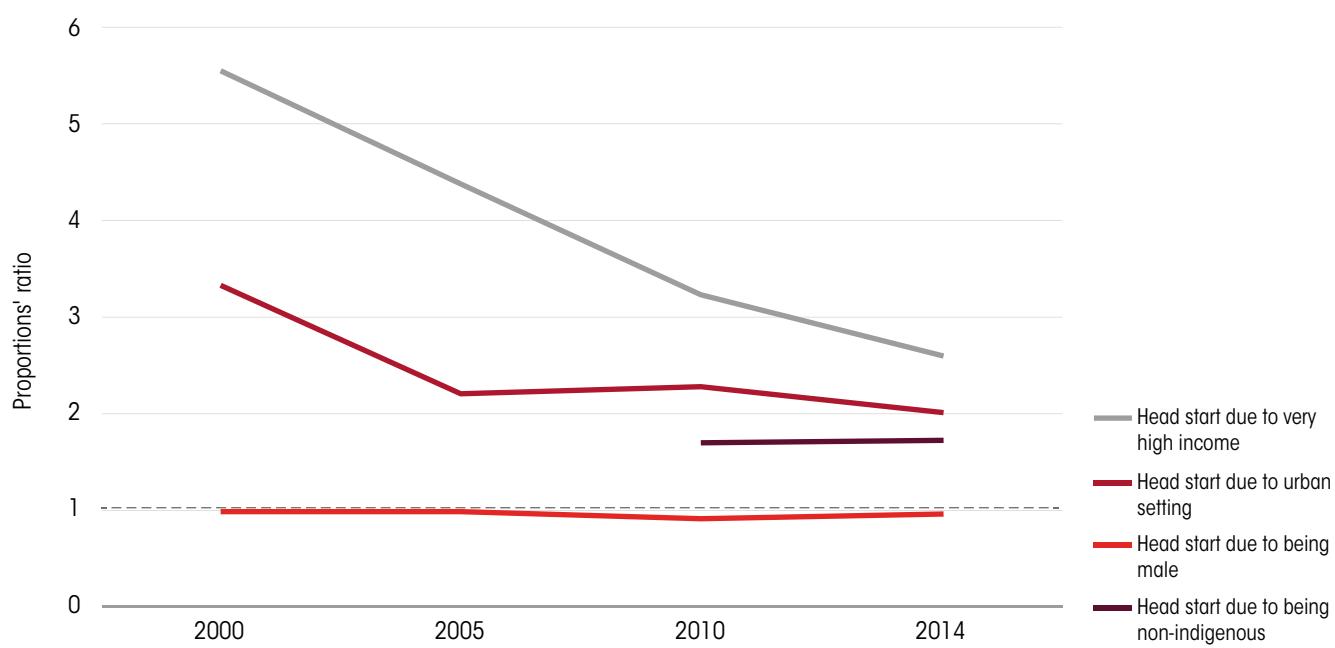
**Figure 1.5.** Head start of students from urban schools regarding obtaining good or superior scores on the PISA test (2006-2015)



**Source:** Compiled by the authors using PISA microdata.

**Note:** Due to the lack of information about schools, it is only possible to study the 2006-2015 period. Proportions' ratio between students in urban and in rural schools. Values over 1 mark a head start for students in urban schools, the higher the number, the greater the head start.

**Figure 1.6.** Head start for privileged groups to complete high school (2000-2014)



**Source:** Compiled by the authors using microdata from the ENIGH 2000-2014.

**Note:** Proportions' ratio among pairs of groups of youth aged 16-18 in Mexico (2000-2014). Values over 1 mark a head start for privileged groups, the higher the number, the greater the head start.

has progressed into higher grades, including high school education. In this context, which entails an increasingly heterogeneous social composition of the educated population, and poses larger challenges to educability, it is striking that learning proficiency at age 15 has remained relatively stable, even at low levels. It is also worth noting that socioeconomic inequalities' effects on learning have decreased despite their remaining at unacceptably high levels. Even so, income differences produce the largest gaps in educational outcomes.

The other dimensions of inequality —smaller in scale— produce fewer remarkable changes. There are no differences when it comes to gender in terms of access to middle school or finishing high school; instead, differences are significant in terms of learning proficiency and remain constant during the period examined. The inequalities between rural and urban areas have diminished in terms of access and completing school, but their evolution regarding learning proficiency is less clear. The differences between indigenous and non-indigenous youths have remained constant in the brief period evaluated in terms of access and completion, but might have increased in the area of proficiency.

Among the mechanisms that could explain the above processes is the expansion of the educational offer in middle school and high school, as well as a relative improvement in the living conditions of the most vulnerable sectors with access to education, and, perhaps, the growing pressure to obtain results (Rivas 2015).

The overall analysis, nevertheless, shows that educational inequalities continue to be severe, particularly in relation to learning proficiency and finishing high school. There are social and institutional mechanisms that contribute to the reproduction of inequalities, or that, at least, do not prevent it. Policies such as granting scholarships to reduce the economic costs of attending school still fall short. It is essential that government guarantees educational quality at all levels —from the institutional design to

the provision of material and human resources— that do not reflect the socioeconomic differences of the space in which students enroll.

## References

- Blanco, E. (2011). *Los límites de la escuela. Educación, desigualdad y aprendizajes en México*. Mexico City: El Colegio de México.
- Blanco, E. (2017). Los alumnos indígenas en México: siete hipótesis sobre el rezago en los aprendizajes de nivel primario. *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 15(3), 81-112.
- Blossfeld, H. and Shavit, Y. (1993). Persisting Barriers: Changes in Educational Opportunities in Thirteen Countries. In Y. Shavit and H. Blossfeld (eds.), *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Boulder, CO: Westview Press.
- Bracho, T. (1995). Distribución y desigualdad educativa en México. *Estudios Sociológicos*, 13(37), 25-53.
- Bracho, T. (2002). Desigualdad social y educación en México. Una perspectiva sociológica. *Educar*, 29, 31-54.
- Buquet, A., Cooper, J., Mingo, A. and Moreno, H. (2013). *Intrusas en la Universidad*. Mexico City: UNAM-PUEG/IISUE.
- Cortés, F. and Rubalcava, R. M. (1991). *Autoexplosión forzada y equidad por empobrecimiento: la distribución del ingreso familiar en México, 1977-1984*. Mexico City: El Colegio de México.
- Creighton, M., and Park, H. (2010). Closing the Gender Gap: Six Decades of Reform in Mexican Education. *Comparative Education Review*, 54(4), 513-537.
- Creighton, M. J., Post, D. and Park, H. (2016). Ethnic Inequality in Mexican Education. *Social Forces*, 94(3), 1187-1220.
- Fernández, T. (2004). *Distribución del conocimiento escolar: clases sociales, escuelas y sistema educativo en América Latina*. Mexico City: El Colegio de México.
- Fernández, T. and Cardozo, S. (2014). Educación superior y persistencia al cabo del primer año en Uruguay: Un estudio longitudinal con base en la cohorte de estudiantes evaluados por PISA 2003. *Páginas de Educación*, 7(1), 165-178.
- INEGI. *Encuesta Nacional de Ingreso y Gasto de los Hogares (ENIGH)* <http://www.beta.inegi.org.mx/datos/?init=2>
- INEE. (2016a). *Infraestructura, mobiliario y materiales de apoyo educativo en las escuelas primarias. ECEA 2014*. Mexico City: INEE.

**The probability that a student from a high-income family will finish high school is almost three times greater than one from a lower-income group.**



- INEE. (2016b). *México en PISA 2015*. Mexico City: INEE.
- INEE. (2017). *Panorama Educativo de México 2016. Indicadores del Sistema Educativo Nacional. Educación básica y media superior*. Mexico City: INEE.
- Lorenzo, V. (2016). *Transiciones al empleo: un estudio para el caso de los jóvenes uruguayos*. Master's thesis. Flacso-México.
- Muñoz Izquierdo, C. (1998). *Origen y consecuencias de la desigualdad educativa*. Mexico City: Fondo de Cultura Económica.
- OECD. *PISA Database*. <http://www.oecd.org/pisa/data/>
- OECD. (2016). *PISA 2015 Results (Vol. I): Excellence and Equity in Education*. Paris: OECD Publishing.
- Parker, S. and Pederzini, C. (2000). Género y educación en México. *Estudios Demográficos and Urbanos*, 15(1[43]), 97-122.
- Ramírez, R. (2015). "Introducción." In R. Ramírez (ed.), *Desafíos de la educación media superior*. Mexico City: Instituto Belisario Domínguez. Senado de la República.
- Rivas, A. (2015). *América Latina después de PISA: Lecciones aprendidas de la educación en siete países (2000-2015)*. Buenos Aires: CIPPEC-Natura-Instituto Natura.
- Santibáñez, L. (2016). The Indigenous Achievement Gap in Mexico: The Role of Teacher Policy under Intercultural Bilingual Education. *International Journal of Educational Development*, 47, 63-75.
- Schmelkes, S. (2013). Educación para un México intercultural. *Sinéctica*, 40, 1-12.
- Shavit, Y., Yaish, M. and Bar-Heim, E. (2007), The Persistence of Persistent Inequality. In S. Scherer, R. Pollak, G. Otte and M. Gangl (eds.), *From Origin to Destination: Trends and Mechanisms in Social Stratification Research*. Chicago, IL: The University of Chicago Press.
- Solís, P. (2010). La desigualdad de oportunidades y las brechas de escolaridad. In S. Giorguli and A. Arnaud (eds.), *Educación mexicana: situación actual y perspectivas*. Mexico City: El Colegio de México.
- Solís, P. (2017). La transición de la secundaria a la educación media superior en México. *Perfiles Educativos (tercera época)*, 40(159), 66-89.
- Solís, P., Rodríguez Rocha, E. and Brunet, N. (2013). Orígenes sociales, instituciones y decisiones educativas en la transición a la educación media superior: el caso del Distrito Federal. *Revista Mexicana de Investigación Educativa*, 18(59), 1103-1136.
- Tinajero, G. and Englander, K. (2011). Bilingual-Intercultural Education for Indigenous Children: The Case of Mexico in an Era of Globalization and Uprisings, *Intercultural Education*, 22(3), 163-178.
- Weiss, E. (2012). La educación media superior en México ante el reto de su universalización, *Archivos de Ciencias de la Educación*, 6(6). <https://www.archivosdeciencias.fahce.unlp.edu.ar/article/view/Archivos06a03>.
- Weiss, E. (2015). El abandono escolar en la educación media superior: dimensiones, causas y políticas para abatirlo. In R. Ramírez (ed.), *Desafíos de la educación media superior*. Mexico City: Instituto Belisario Domínguez. Senado de la República.

## Educational infrastructure and regional inequality

T1

In Mexico, the students who attend public schools have different educational experiences depending on the state they live in. In addition to the heterogeneity in the quality of teaching, there is an important geographic variation in the basic infrastructure of the educational facilities, which also has an impact on learning (Murillo and Román 2011).

For example, sewer service constitutes a minimum standard of well-being, as it permits an appropriate control of waste and reduces health risks. Also, the availability of appropriate bathroom facilities has been linked to girls' willingness to stay in and take advantage of school (Devnarin and Matthias 2011, Sommer *et al.* 2016). Nevertheless, the provision of national coverage of this basic service is far from being reached.<sup>1</sup>

Figure T1.1 shows the percentage of schools with sewage service in the federal entities. The states with the most critical shortfalls in their educational facilities are Oaxaca, Guerrero, and San Luis Potosí, where only a third or less of the schools have sewerage.<sup>2</sup> The percentage of campuses that have this service is greater than 80% in only three entities: Aguascalientes, Mexico City, and Tlaxcala. In general, there is a much smaller

lag in the north of the country; nevertheless, in Sonora, Chihuahua, and Tamaulipas, coverage is lower (between 48% and 64.3%, according to the 2013 survey). If we consider another infrastructure indicator, such as access to a library in a school, we see a smaller coverage and striking asymmetries. Figure T1.2 shows the percentage of school facilities with a room for a library in the states in 2013.

More than half the states in the country have coverage of less than 50%. In general, while the northern region has relatively high and more homogeneous levels in the availability of a library (with the exception of the states of Sonora and Coahuila), the south presents the lowest levels. The central region has the greatest asymmetries: while Mexico City, Puebla, and Tlaxcala have relatively high percentages, the State of Mexico, Morelos, Querétaro, and Michoacán report that less than 48% of their schools have a library.

The distribution of these infrastructure indicators shows differentiated patterns of educational spending priorities in Mexico. These expenditure decisions directly affect the school lives of the students, both boys and girls.

1 Having a bathroom or latrine does not necessarily mean having access to sewerage systems in the schools. According to the definitions of CEMABE (2013), access to sewerage means that there are pipes to remove waste and dirty water.

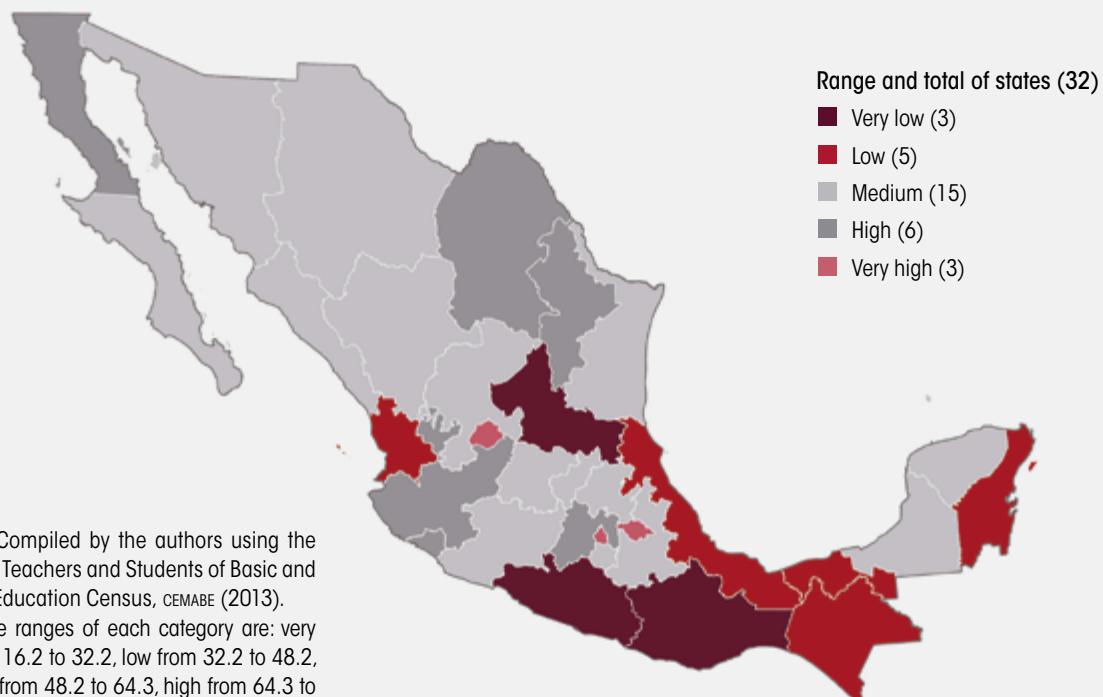
2 The most recent available information is from 2013.

## References

- CEMABE (2013). *Resultados definitivos del Censo de Escuelas, Maestros y Alumnos de Educación Básica y Especial*, SEP-INEGI.
- Devnarin, B., and Matthias, C. R. (2011). Poor Access to Water and Sanitation: Consequences for Girls at a Rural School. *Agenda*, 25(2), 27-34.
- Murillo, F. J., and Román, M. (2011). School Infrastructure and Resources Do Matter: Analysis of the Incidence of School Resources on the Performance of Latin American Students. *School Effectiveness and School Improvement*, 22(1), 29-50.
- Sommer, M., Caruso, B. A., Sahin, M., Calderon, T., Cavill, S., Mahon, T., and Phillips-Howard, P. A. (2016). A Time for Global Action: Addressing Girls' Menstrual Hygiene Management Needs in Schools. *PLoS medicine*, 13(2), e1001962.



**Figure T1.1** Percentage of schools with sewage service by state (2013)



**Source:** Compiled by the authors using the Schools, Teachers and Students of Basic and Special Education Census, CEMABE (2013).

**Note:** The ranges of each category are: very low from 16.2 to 32.2, low from 32.2 to 48.2, medium from 48.2 to 64.3, high from 64.3 to 80.3, and very high from 80.3 to 96.3.

**Figure T1.2** Percentages of schools with a room for a library by state (2013)



**Source:** Compiled by the authors using CEMABE (2013).

**Note:** The ranges of each category are: very low from 23.2 to 35.4, medium 35.4 to 47.6, high from 47.6 to 59.8, and very high from 59.8 to 71.9.

## Higher education and gender inequality

G1

In Mexico, the educational attainment of men and women has evened out: the average schooling of women under 30 is a little greater than that of men of the same age group, while women ages 60 to 65 studied 1.25 fewer years than their male peers (INEGI 2015).

Education is a right and also a fundamental pillar of social capital, an investment so that more people participate in economic activities and the production of social wealth. It is crucial to promote substantive equality not only to eliminate obstacles for men and women to reach higher educational levels, but also to guarantee the relevance of this schooling and allow insertion into the labor market under dignified conditions.

If we examine the group between ages 25 and 64, the period in which people normally participate in the labor market, we see that 20.9% of the

total men and 18.2% of the total women have university education. Nevertheless, these percentages fall to 18.9% and 16.6% in small localities, and to 5.5% and 4.9% in rural areas (INEGI 2015).<sup>1</sup>

While differences by sex between the population that accesses university education appear to be smaller, there are clear asymmetries in the areas of knowledge they study. Indeed, gender stereotypes are reproduced in these asymmetries: women tend to work in fields involving care, which include education and health, while men concentrate on the exact, natural, and engineering sciences (figure G1.1). The selection of university fields (majors), unfortunately, does not reflect the comparative advantages of students or local labor market characteristics. Accordingly, as a result of this segregation, we are squandering a tremendous potential as a society.

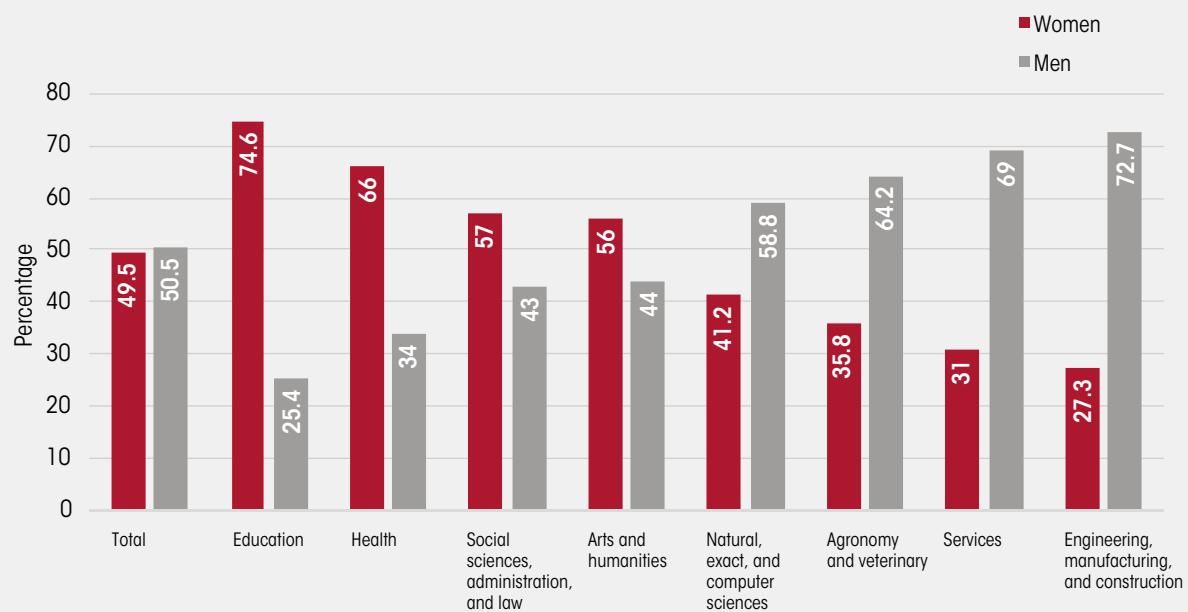
<sup>1</sup> The small localities have 15,000 to 49,999 inhabitants, while the rural ones have fewer than 2,500.

## References

- ANUIES. (2017). Anuario Educación Superior. Retrieved from [http://www.anuies.mx/gestor/data/personal/anuies05/anuario/ANUARIO\\_EDUCACION\\_SUPERIOR-LICENCIATURA\\_2016-2017.zip](http://www.anuies.mx/gestor/data/personal/anuies05/anuario/ANUARIO_EDUCACION_SUPERIOR-LICENCIATURA_2016-2017.zip)
- CEPAL. (2010). Género, trabajo remunerado y no remunerado: eslabones en la discriminación y la desigualdad. *Panorama Social de América Latina 2009*. Santiago, Chile: CEPAL.
- INEGI. (2015). Encuesta Intercensal 2015 [Intercensal Survey]. *Encuesta en hogares* [Survey of Homes]. Retrieved from <http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/>



**Figure G1.1** Distribution of women's and men's areas of study in university undergraduate and technology programs (2015-2016 school year)



**Source:** Compiled by the authors using data from ANUIES (2017).

## 2 Income and mobility

One of the main development objectives in modern democracies is to foster a high social mobility that allows people who were born with limited or no resources to improve their living conditions. Various research projects have documented that the present inequality can negatively affect social mobility in the future (Corak 2013). Given that Mexico is, comparatively, a country with high economic inequality, with a Gini coefficient of 0.48 (World Bank 2018), we face a great risk of an even lower social mobility in the future.

The labor market is the main source of income in Mexico, and, as such, it could become a force to increase social mobility and reduce inequality. This is why, in this section, we examine social mobility in Mexico together with labor market conditions, in terms of participation in the labor market and labor income. This examination's outcome brings about two concerns: in the first place, Mexico has one of the lowest rates of upward social mobility in the world, and, secondly, high levels of wealth and poverty are persistent. That is, individuals who come from well-off households have a high probability of remaining in this situation in adulthood, while those persons who grew up in contexts of poverty are more likely to continue under the same circumstances.

Since in Mexico 74% of income comes from the labor market,<sup>12</sup> analyzing how people join the workforce and how their income is distributed is fundamental. It is worth emphasizing that an examination of data from the Mexican Social Security Institute (IMSS) (for workers formally employed) and from the National Survey of Occupation and Employment (ENOE) shows a severe stagnation or even a drop in labor income in the last 10 years (2007-2017), depending on the source.

This section also discusses the effects of gender on the economy. Mobility figures show that women are more likely to drop on the socio-economic scale if they start from a privileged position and, at the same time, those who are born in poor households have a greater probability of remaining marginalized in their adult lives. This could be explained by the low labor participation of women in the economy, as they represent only 38% of the country's workforce (OECD 2018). Besides, the percentage of working women has stagnated at around 45% in recent years. Excluding Arab countries, these percentages are among the lowest in the world. In terms of income, it is worth highlighting that although the gender wage gap has fallen since 2000, it is still between 13% and 15%.

### The lack of social mobility in Mexico

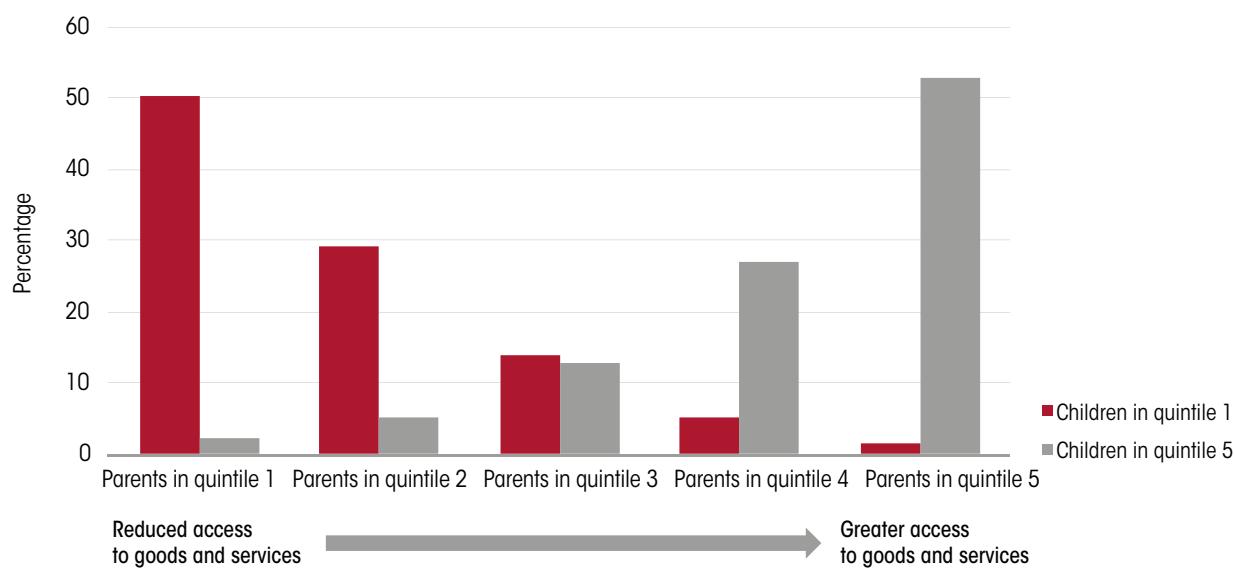
This section discusses the level of social mobility in the country, with figures from the *Intergenerational Social Mobility Module*, a study conducted by the National Institute of Statistics and Geography (INEGI) in 2016. The module seeks to generate information about social mobility in Mexico for population ages 25 to 64. The survey includes retrospective questions about the household of origin of the interviewee when he or she was 14 years old, in particular about whether they had access to a specific set of goods and services, and similar questions regarding the person's current situation. The comparison of the situation in the household of origin and the present situation of each individual, allows to gauge the level of social mobility of the interviewee in terms of educational level, employment, and wealth.

---

<sup>12</sup> Considering wage earners and earnings through self-employment, 74% of the income generated in the economy, comes from paid work.



**Figure 2.1.** Percentage of social mobility (2016)



**Source:** Compiled by the authors using the Intergenerational Social Mobility Module 2016, produced by INEGI.

**Note:** The information corresponds to 25,129 homes, after eliminating missing values in the relevant variables.

Below, a chart presents information about mobility in terms of access to goods and services, measured through an assets index.<sup>13</sup> Once the indexes of access have been determined for the current household and the one of origin, the situation of the parents can be compared with that of their children, and social mobility can be estimated with a transition matrix. Figure 2.1 —the results of the matrix— compares the starting and present levels of interviewees.

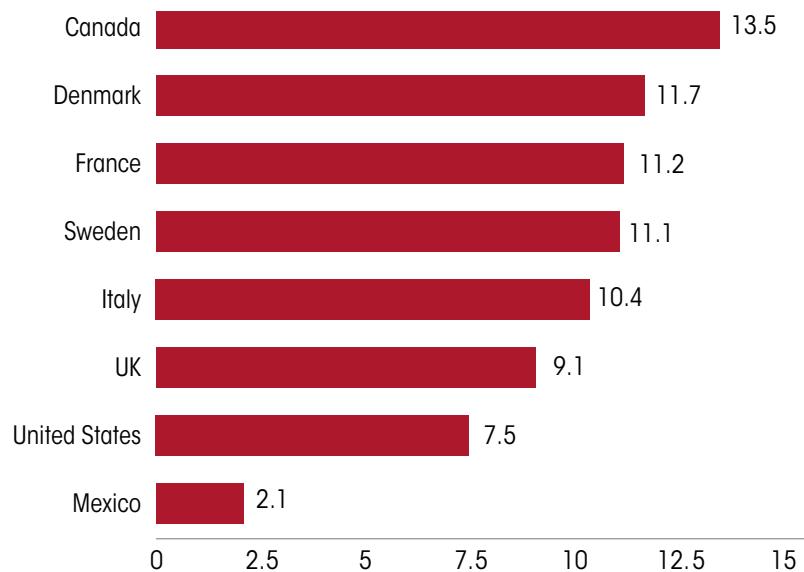
The horizontal axis shows the quintiles of the interviewees' parents' access to goods and services. The quintiles sort the population into five groups, beginning with those persons with the least access (quintile 1) up to those with greater access (quintile 5). The bars show the percentage of the children who come from

households in each quintile where the current availability of goods and services corresponds to quintiles 1 and 5.

The figure indicates that if the parents (household of origin) were in the most disadvantaged group (quintile 1), then 50.2% of their children will remain in same quintile 1. Only 2.1% of the children born in households in this quintile rise socially as adults to the quintile with the greatest access (quintile 5). If we examine the complete transition matrix, we find that the majority of the children born in households from quintile 1 (76%) will be in the two least favorable quintiles when they are adults; these two quintiles add 40% of those with the lowest access to goods and services. As previously mentioned, in Mexico someone who comes from a poverty-stricken household

<sup>13</sup> An index of goods and services existing in the household of origin and in the current one is calculated. To build the indexes, an analysis of the main components of goods was conducted, using the value of the first component as a predictor. The variables used to measure the situation in current home are access to potable water, to electricity, having a stove, refrigerator, washing machine, blender, landline telephone, computer, VCR, microwave oven, cable television, being the homeowner, owning a business or land or other property, automobile, tractor, animals or livestock, bank account, credit card, domestic service, internet, dirt floor, hot-water heater, heating, and schooling of the person interviewed. For the household of origin the same variables are used, excluding domestic service and dirt floors, internet, hot-water heater, and heating.

**Figure 2.2.** Intergenerational upward social mobility. Selected countries (latest year)



**Source:** Compiled by the authors using the following sources: Canada: Corak and Heisz (1999); Denmark: Boserup *et al.* (2014); France, Italy, and Sweden: Alesina *et al.* (2017); United Kingdom: Blanden and Machin (2008); United States: Chetty *et al.* (2014). Mexico: authors' estimations based on the Intergenerational Social Mobility Module (Módulo de Movilidad Social Intergeneracional) 2016, by INEGI.

has a high probability of remaining in similar circumstances upon reaching adulthood; people born in the group with greatest access to goods and services (quintile 5) have a high probability of remaining in a well-off position in adulthood. 52.9% of the children of parents with the greatest access to goods and services (quintile 5) remain in the same group, and at least 80% remain within the 40% who have the greatest access to such goods and services (quintiles 4 and 5). Examining the matrix of complete transition, it is also evident that people who were born in households in the middle of the distribution (quintile 2 or 3) have a greater likelihood of remaining in that status than of rising socially.

Figure 2.2 shows an international comparison of intergenerational upward mobility, taken as the percentage of those who come from homes in the lowest-income group (quintile 1) that have been able to rise socially to the highest-income group (quintile 5). If there were

perfect social mobility, we would expect upward mobility to be 20%. The country closest to this ideal level is Canada, followed by Denmark, France, Sweden, and Italy, and, with a little less mobility, the United Kingdom and the United States. Mexico is in last place, with an upward income mobility of 2.1%. This mobility, which is extremely low, means the country does not have an effective system to equalize citizens' opportunities of access to key goods and services. Conversely, the economic origins of Mexicans determine, to a great extent, the socioeconomic conditions they live under as adults.

In addition to the problem of socioeconomic status immobility, there are differences in terms of gender. For example, according to Torche (2015), in Mexico, the persistence of socioeconomic results is greater in men than in women, particularly in families with higher incomes. That is, parents transmit their socioeconomic status in a more direct way to sons than to daughters.<sup>14</sup> The low participation of

<sup>14</sup> An attempt was made to replicate this result with INEGI's *Intergenerational Social Mobility Module* but the



women in the labor market in Mexico could bear consequences for women's social mobility, since those outside the labor market depend on the economic performance of their partner to a larger extent.

In Mexico, there is also clear evidence that social mobility depends on a person's place of birth. Delajara and Graña (2017) find, using the 2011 Social Mobility Survey of the Centro de Estudios Espinosa Yglesias, that mobility is higher in the northern states, where there are greater levels of development, than in southern states.

In sum, it is of great concern that the problem of low social mobility in Mexico is not limited to the high generational persistence of socioeconomic status. Groups such as women or people born in less-developed regions face even larger obstacles in order to improve their social and economic situation as compared to their context of origin.

### Labor market participation as a lever for mobility

The analysis of labor participation used the National Employment Survey (ENE) for the period 2000-2004 and ENOE for the 2005-2017 period, both produced by INEGI. These surveys include questions about employment or unemployment of people over 15, as well as about their educational level and labor income, among others. The percentage of workers in the economy as well as their income from labor can be found in these databases.<sup>15</sup>

In this exercise, we also use the IMSS (Mexican Institute for Social Security) database,

which reports the number of workers in the formal sector and their wages.<sup>16</sup> This database only includes those with paid wages in the formal sector, while the ENOE gathers information on all workers in the country. The advantage of the former is that the income and number of workers is reported directly to that institution and, since inaccurate wage reporting to IMSS is illegal, usually this income data is more reliable than ENOE's. Furthermore, in recent years the question about labor income in ENOE has had a high level of "no answer," which causes an underestimation of labor income (Campos-Vázquez and Lustig 2017).<sup>17</sup>

Figure 2.3 shows the percentage of workers in Mexico ages 20 to 64. The percentage of male workers has remained stable at a level close to 85%. Although a drop is seen in the percentage after the international crisis of 2008, the trend has been slowly recovering since. The proportion of women workers increased consistently from 2000 to 2012, to later pause at 45%. Besides, only 38% of the Mexican labor force is female (OECD 2018). Reaching the OECD average of 44% represents a huge challenge for Mexico: about 6 million women would have to enter the labor force.

In terms of the educational level of the women who participate in the workforce, those with little schooling are employed less than those with a higher level. Nevertheless, in relative terms, women with lower educational attainment have increased their rate of participation in the workforce the most (Figure 2.4). In fact, women who graduated from high school and went to university have not

**In Mexico someone who comes from a poverty-stricken household has a high probability of remaining in similar circumstances upon reaching adulthood.**

---

rates are practically the same between men and women. Nevertheless, a quantile regression shows that women attain a lower socioeconomic status in adulthood than men. More research is needed to elucidate this difference in results, which may arise due to variation in databases used or to the characteristics of the retrospective data.

<sup>15</sup> Database available at <http://www.beta.inegi.org.mx/proyectos/enchogares/regulares/enoe/default.html>

<sup>16</sup> Database available at <http://datos.imss.gob.mx/>. A representative month is used for each quarter (February, May, August, and November).

<sup>17</sup> Analysis is restricted to the group of people ages 20 to 64. Workers income is calculated using November 2017 as the base month for constant pesos. The ENOE restricts labor income to full-time workers (at least 35 hours of work during the week of the survey). All calculations consider the corresponding statistical weights for the results to be representative at the national level.

**Figure 2.3.** Percentage of women and men who work (2000-2018)



**Source:** Compiled by the authors using ENE 2000-2004 and the ENOE 2005-2017.

**Note:** 20-64 age group. Those people who reported at least one hour of work during the survey's reference week are considered workers. Estimates represent the value of the first quarter of each year.

increased their employment rate since 2005; indeed, it could be said that their participation has marginally fallen since then.<sup>18</sup>

### Labor income has not increased

Figure 2.5 shows the median monthly income of workers, based on IMSS and ENOE databases. The median is found exactly in the middle of the distribution; that is, 50% of workers have this level income or lower. In a country as unequal as Mexico, the median is a more realistic and exacting measure of central tendency than average income, as the latter necessarily falls above the median; that is, it describes the higher part of labor income distribution. Suffice it to note, as an indication, that in Mexico the average is found around the 70th

percentile of the distribution, both in ENOE and IMSS data.

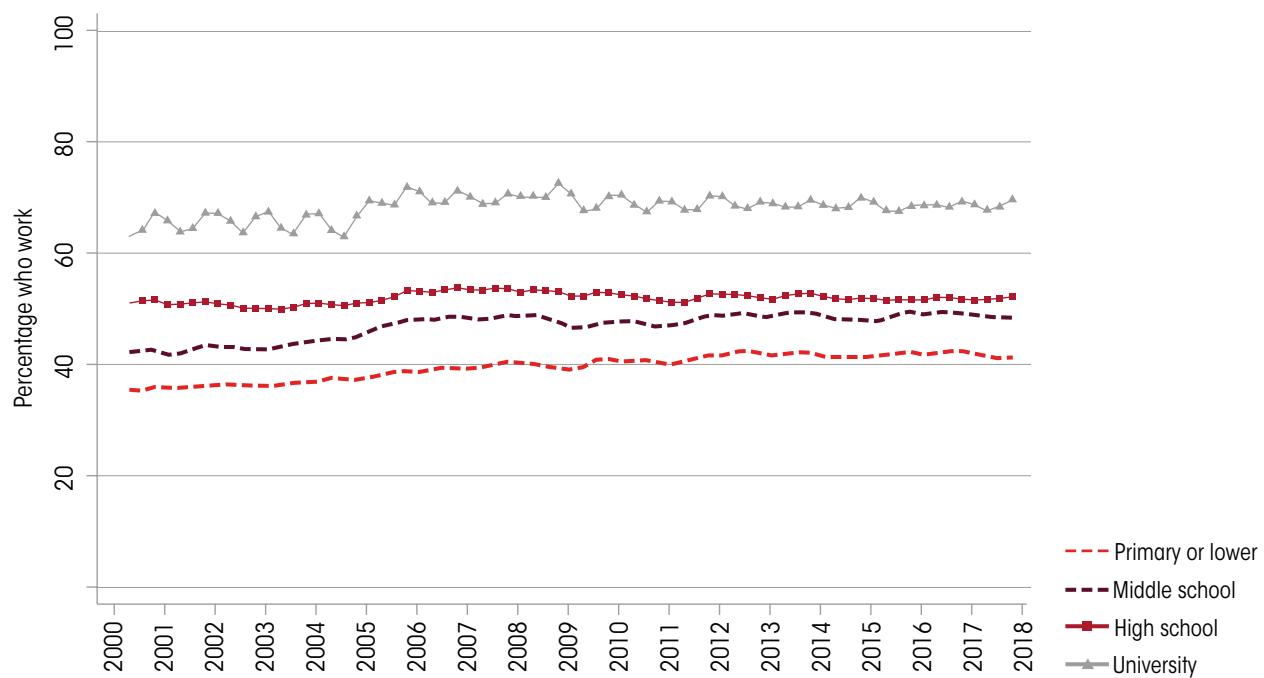
The figure shows an increase in workers' labor income for the 2000-2007 period, according to data in IMSS and ENOE. Improvement is concentrated in informal workers' income, as it increases from 5,000 to 6,000 pesos in the ENOE; however, a similar increase is not found in IMSS. From 2007 onward, the IMSS data show that formal sector wages have not increased. Indeed, given inflation rates, by 2017 the real median wage is found at almost the same level as in 2007.

The income trend for the group of workers that includes the informal sector is even less favorable. Nevertheless, it must be stressed that the ENOE income survey has become less reliable in recent years, possibly because of

<sup>18</sup> This analysis used data from the ENE 2000-2004 and the ENOE 2005-2017. The percentages of participation consider women in the 20-64 age group. Workers are defined as those persons who report at least one hour of work in the survey's reference week.



**Figure 2.4.** Percentage of working women by educational level (2000-2018)



**Source:** Compiled by the authors based on the ENE 2000-2004 and the ENOE 2005-2017.

**Note:** Only workers with income in the 20-64 age group (IMSS) and full-time workers with at least 35 hours worked in the reference week (ENOE). The data is presented in constant 2017 pesos. Estimates represent the values of the first quarter of each year.

the security crisis facing the country and its negative effect on the response rate in various polls. With this in mind, it is clear however that the fall in labor income is steep: in 2007, the median income was a little more than 6,000 pesos per month, while in 2017 it was nearly 5,200, a 13% drop in its real value.

Another important indicator of economic inequality is the wage gap between men and women, that is, the pay women would have to earn to have the same income as men.<sup>19</sup> In 2000, according to IMSS and ENOE, female workers made about 20% less in labor income than men. This gap has narrowed over time, although it is more noticeable among the population in formal employment (IMSS data). In 2017, the gap in labor income was between 13% and 15%. Nevertheless, as in the case of

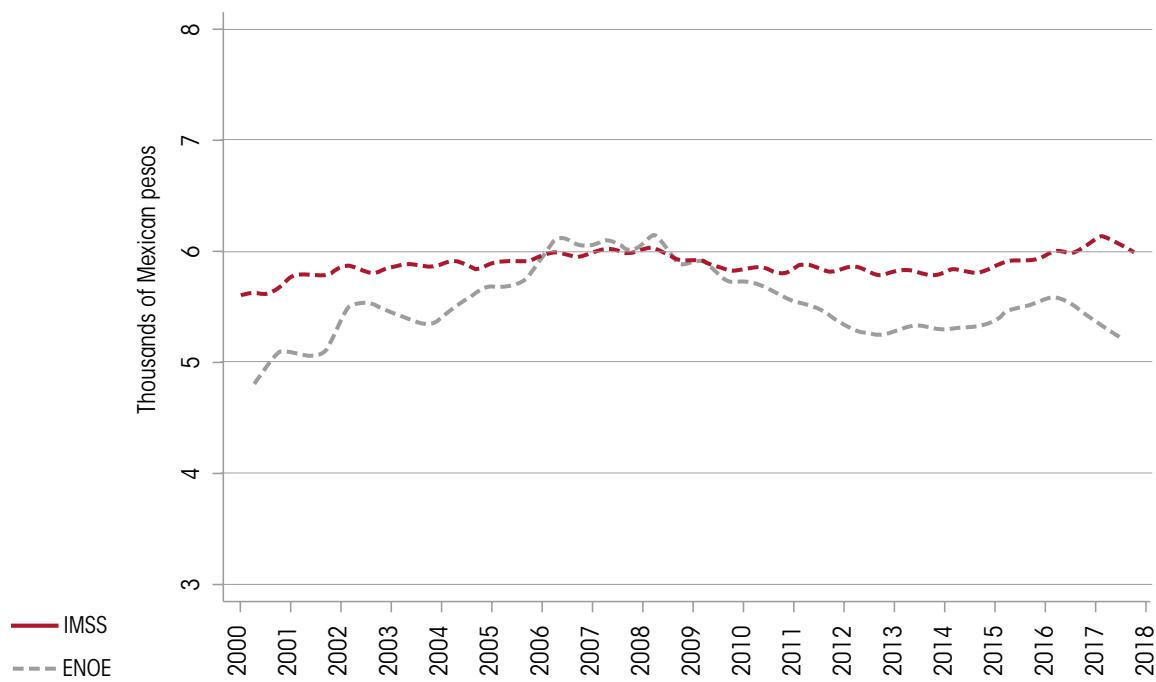
female labor participation, the reduction of the gap has slowed down since 2012.

Our analysis of social mobility shows conclusively that the possibilities for Mexicans who are born into poverty to rise on the social scale are very limited. Furthermore, expected mobility is restricted because workers' labor income has stagnated or, in the worst case scenario, has fallen drastically since 2007 (ENOE data).

Regarding women, there is also a greater probability for them to fall on the income scale, to a large extent due to their low participation rate in the labor market in Mexico (one of the lowest in the world). While the average salary gap between men and women has narrowed since 2000, there is evidence that this trend has stagnated in recent years.

If Arab countries are excluded, the percentage of working women in Mexico (45%) is one of the lowest in the world.

<sup>19</sup> Estimated using data from the IMSS and the ENOE surveys, including the ENE (2000-2004) and the ENOE (2005-2017). Analysis only includes paid workers in the 20-64 age group; the ENOE considers those persons who have worked at least 35 hours in the survey's reference week, full-time workers.

**Figura 2.5.** Real median monthly income (2000-2018)

**Source:** Compiled by the authors using the IMSS and the ENOE. Includes the ENE 2000-2004 and the ENOE 2005-2017.

**Note:** Only workers with income in the 20-64 age group (IMSS) and full-time workers with at least 35 hours worked in the reference week (ENOE). The data is presented in constant November 2017 pesos. The estimates represent the values of the first quarter of each year.

The conclusions from this section suggest the need for a gender-based approach in labor market activation policies. In Mexico, women depend to a great extent on intergenerational transfers from their parents or on their partners' income. Moreover, due to the salary gap, working women have a lower average income than men.

## References

- Alesina, A., Stantcheva, S., and Teso, E. (2017). "Intergenerational Mobility and Support for Redistribution." (NBER Working Paper 23027). Retrieved from National Bureau of Economic Research webpage: <http://www.nber.org/papers/w23027.pdf>
- Blanden, J. and Machin, S. (2008). "Up and Down the Generational Income Ladder in Britain: Past Changes and Future Prospects." *National Institute Economic Review*, 205(1), 101–116. doi: <https://doi.org/10.1177/0027950108096594>
- Boserup, S. H., Kopczuk, W., and Kreiner, C. T. (2014). "Stability and persistence in intergenerational wealth formation: Evidence from Danish wealth records of three generations." Retrieved from the University of Copenhagen webpage: <http://www.econ.ku.dk/boserup/papers/WealthAcrossGen.pdf>
- Campos-Vázquez, R. M. and Lustig, N. (2017). "Labour income inequality in Mexico: Puzzles solved and unsolved." (Working Paper UNU-WIDER 186/2017). Retrieved from the United Nations University webpage: <https://www.wider.unu.edu/publication/labour-income-inequality-mexico>
- Chetty, R., Hendren, N., Kline, P., and Saez, E. (2014). "Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United



- States.” *Quarterly Journal of Economics*, 129(4), 1553–1623. doi:<https://doi.org/10.1093/qje/qju022>
- Corak, M., and Heisz, A. (1999). “The Intergenerational Earnings and Income Mobility of Canadian Men: Evidence from Longitudinal Income Tax Data.” *The Journal of Human Resources*, 34(3), 504–533. Retrieved from <http://www.jstor.org/stable/146378>
- Corak, M. (2013). “Income Inequality, Equality of Opportunity, and Intergenerational Mobility.” *Journal of Economic Perspectives*, 27(3), 79–102. doi:10.1257/jep.27.3.79
- Delajara, M. and Graña, D. (2017). “Intergenerational Social Mobility in Mexico and its Regions” Work Document CEEY 006, Centro de Estudios Espinosa Yglesias. Retrieved from: <https://ceey.org.mx/wp-content/uploads/2018/06/06-Delajara-Gra%C3%B3n-2017.pdf>
- IMSS. *Asegurados*. <http://datos.imss.gob.mx/group/asegurados>
- INEGI. (2016). *Módulo de Movilidad Social Intergeneracional [Intergenerational Social Mobility Module] (MMSI) 2016*. <http://www.beta.inegi.org.mx/proyectos/enchogares/modulos/mmsi/2016/>
- INEGI. *Encuesta Nacional de Empleo (ENE)*. <http://www.beta.inegi.org.mx/proyectos/enchogares/historicas/ene/>
- INEGI. *Encuesta Nacional de Ocupación y Empleo (ENOE), población de 15 años y más de edad*. <http://www.beta.inegi.org.mx/proyectos/enchogares/regulares/enoe/>
- OECD. (2018). *OECD Labour Force Statistics 2017*. Paris: OECD Publishing. Retrieved from [http://dx.doi.org/10.1787/oecd\\_lfs-2017-en](http://dx.doi.org/10.1787/oecd_lfs-2017-en)
- Torche, F. (2015). “Intergenerational Mobility and Gender in Mexico.” *Social Forces*, 94(2), 563–587. doi: <https://doi.org/10.1093/sf/sov082>
- World Bank (2018). World Bank Open Data. Retrieved from <http://data.worldbank.org>

## Income and territorial inequality

T2

**M**exicans' wage expectations are very different depending on the federal entity where they work; while the median monthly labor income was 6,657 pesos in Querétaro in 2017, it was 4,748 pesos in Puebla. The contrast is even greater if we compare Chiapas (3,708 pesos) with Nuevo León (7,371 pesos).

Figures T2.1 and T2.2 show the median wage income by state in 2002 and 2017. The labor markets in the southern states have the lowest salaries which do not come close to the pay levels of the states with greater economic development. The highest wages are found in Baja California Sur, Mexico City, Nuevo León, and Querétaro. Furthermore, there was a fall in labor income in seven states —Baja California, Mexico City, Jalisco, the State of Mexico, Puebla, Quintana Roo, and Tamaulipas— between 2002 and 2017.

As previously discussed, labor market participation can be a lever for social mobility. Therefore, wage differences among states also mean

different mobility scenarios for Mexicans. Delajara and Graña (2017) find that the patterns of intergenerational mobility vary significantly between the country's regions. Their study shows that those born into the most disadvantaged percentiles of households have a greater probability of improving their socioeconomic position if they grew up in northern states, than if they were born in southern ones under similar circumstances.<sup>1</sup>

That is, without even taking into account the characteristics of the household of origin or individual efforts, wage and social mobility expectations for people in Mexico are higher or lower just because of the simple fact of being born in a certain state.

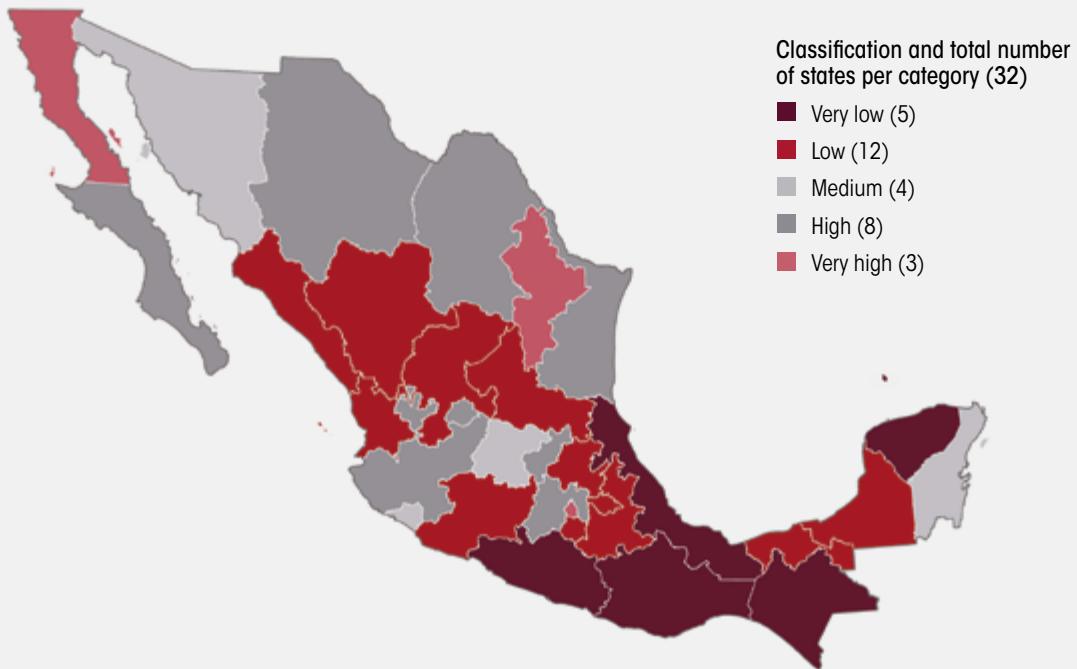
1 The authors analyze data from the Survey on Social Mobility in Mexico 2011 (EMOVI).

### References

- Delajara, M., and Graña, D. (2017). Intergenerational Social Mobility in Mexico and its Regions. Work document no. 006/2017, Centro de Estudios Espinosa Yglesias.
- EMOVI (2011). *Resultados de la Encuesta ESRU de Movilidad Social en México* [Survey on Social Mobility in Mexico]. Centro de Estudios Espinosa Yglesias.
- IMSS (2017). *Sistema de datos abiertos del IMSS*, <http://datos.imss.gob.mx/>



**Figure T2.1** Median labor income by federal state (2002)



**Figure T2.2** Median labor income by state (2017)



**Source:** Compiled by authors with data from the IMSS (2017), the ENE (2000-2004) and the ENOE (2005-2017).

**Note:** An average is obtained between incomes reported in ENOE and in IMSS, with weights equal to the proportion of formal workers in each state. 20 to 64 age group. ENOE covers only full time workers (with a minimum of 35 hours of work during the survey's reference week). A weighted average is used because the proportion of workers who do not state their income in the ENOE has increased in the past few years.. The yearly ranges of each category are: in 2002, very low from 2,968 to 3,806; low from 3,806 to 4,654; medium from 4,654 to 4,923; high from 4,923 to 5,916 and very high from 5,916 to 7,230. In 2017, very low from 3,708 to 4,828; low from 4,828 to 5,575; medium from 5,575 to 5,925; high from 5,925 to 6,658 and very high from 6,658 to 7,371.

## Wages and gender inequality

G2

**O**f the adults who had access to higher education, 87.8% of the men participate in the economy, in comparison with only 69.3% of the women.<sup>1</sup> In this select group of people with high levels of education, there are 80 times more women than men whose main activity is housework, a figure that raises to 89 in small cities.<sup>2</sup> This is a cause of concern, because 20% of the adult Mexican women who went to university, more than a million, do not use their academic abilities in any paid work. If devoting oneself to housework were a free choice, an equivalent number of men with university education would only do domestic chores, but instead the proportion is 0.2% (13,418).

This situation speaks to a great squandered potential that is part of the so-called gender bonus. As set forth in this section, if women

worked outside the home, they could significantly increase their household's income, thus improving economic growth and reducing poverty (CEPAL 2010).

In the Mexican labor market, moreover, there is discrimination regarding monthly labor income and differences in terms of work. Figure G2.1 shows the income ratio of women compared to men with university education according to their work situation. Adult women with university education earn 79% of the income of men if they work as employees or workers, 68% when they are chiefs or employers, and 75% if they are self-employed (compiled by authors using INEGI, 2015).

1 The Mid-term Census Survey (Encuesta Intercensal) recorded those who worked the previous week, made or sold some product, helped in some business, offered some service for pay, ran their own business, or did not work even though they had a job (INEGI, 2015).

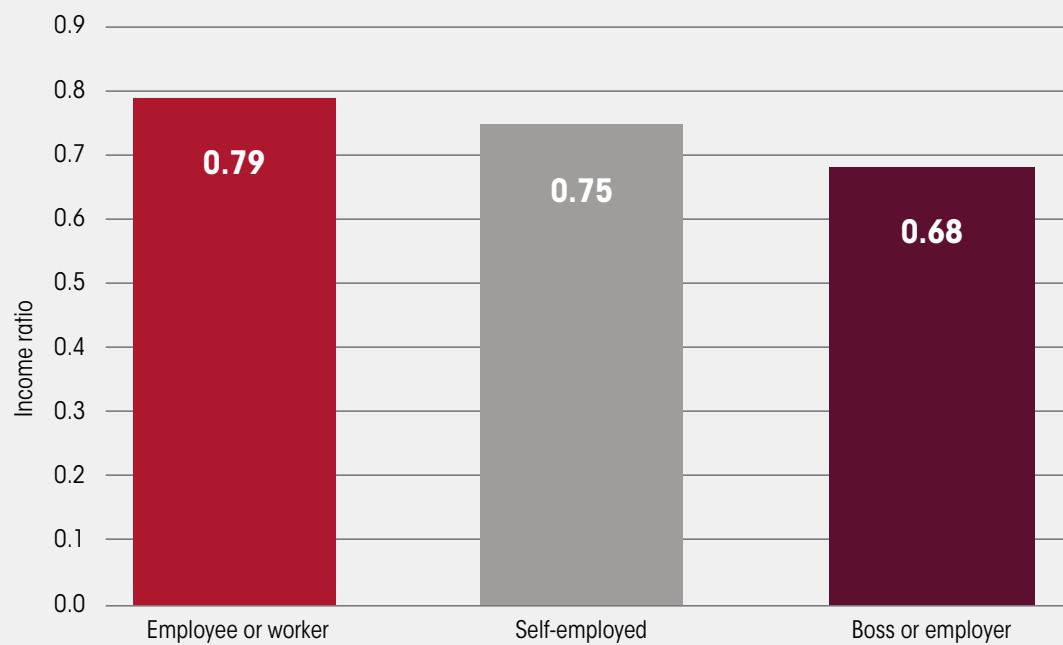
2 INEGI defines small cities as those with 50,000 to 99,999 inhabitants.

## Referencias

- INEGI. (2015). Encuesta Intercensal 2015. *Encuesta en hogares*. Retrieved from <http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/>



**Figure G2.1** Ratio of women's labor income compared to men's by position held at work. Adults with university education (2015)



**Source:** Compiled by the authors using data from INEGI 2015.

### 3 Work

Equitable access to good jobs is essential to improve people's quality of life. The International Labour Organization (ILO) defines *decent work* as one that generates sufficient income to cover basic necessities, is stable, guarantees social protection, and takes place in safe conditions (ILO, 1999). Quality jobs have a considerable positive effect on people's well-being. For example, having a contract and access to social protection reduces labor uncertainty and income instability for families (Rodrik 2001, Bosch and Maloney 2006), contributes to guarantee continuity in children's schooling (Kazianga 2012), and strengthens households' ability to cope with economic and health adversities (Krishna 2012).

Mexico has experienced an erratic and unequal economic growth in recent decades, with direct consequences for the labor markets. While unemployment has remained low, the jobs created in recent years have been increasingly precarious. Precarious jobs are characterized by being unstable, lacking protections (for example, health or disability insurance), and being inadequately paid for (Guerra 1994, ILO 1998). Mexico has seen an increase in jobs with low pay and in subcontracting, as well as a weakening of social protection plans and labor regulations (Bensusán 2006). Moreover, the state does not seem to prioritize improvement of the population's living conditions above policies oriented towards increasing international labor market competitiveness (Mora and Oliveira 2010).

These market and employment characteristics develop in a context of continuous change in the dynamics of Mexican families. Faced with limited public social protection coverage, families fulfill social support and protection purposes in times of economic crises (Arriagada

**Having a contract and access to social protection reduces labor uncertainty and income instability for families.**

2007). The role of the family has also expanded into a growing participation of household members in unpaid family microbusinesses or production units (Rendón 2003, Pacheco 2004). These types of unpaid or part-time jobs have been key to include female and young workforce, which has increased in response to changes in the composition of families and the deterioration of household incomes (Rendón 2003, García and Oliveira 2006).

This section explores the evolution of the characteristics of employment beginning in 2000, and analyzes its precariousness for different population sectors, as well as changes in their income. Indicators in three dimensions allow the examination of the situation in Mexico from the perspective of decent work: unemployment and discouragement, employment characteristics, and wages.<sup>20</sup> This study emphasizes inequalities in these dimensions in terms of gender, occupation, and level of schooling.

Our findings show that the creation of jobs has not translated into greater opportunities to access quality positions. The proportion of workers who lack contracts and social protection has remained constant, while the percentage of those paid less than the minimum wage has increased. We also see that, beginning with the 2008 recession, wages have worsened for people with high levels of education and for employers, with no substantial improvement in the income of other segments. This has translated into a downward wage convergence.

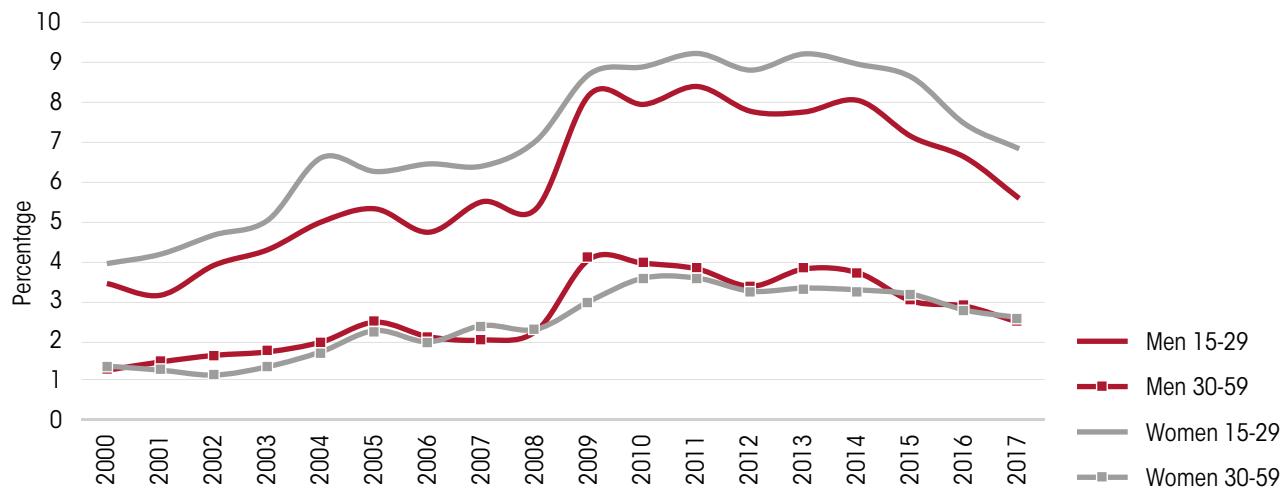
#### Entering the labor market

The open unemployment rate is used to examine people's opportunities to join the labor

<sup>20</sup> These dimensions correspond exactly to three key characteristics of decent work: the opportunity to join the labor market, access to quality jobs, and adequate pay (Ghai 2003).



**Figure 3.1.** Unemployment rate by sex and age (2000-2017)



Source: Compiled by the authors using the ENE 2000-2004 and the ENOE 2005-2017.

market.<sup>21</sup> This indicator shows the percentage of jobless people in the economically active population (PEA), that is, those persons aged 15 and older who say they are seeking work. In Mexico, the open unemployment rate is among the lowest in Latin America (Economic Commission for Latin America and the Caribbean [CEPAL] 2017a). This has been explained arguing the lack of unemployment insurance at the national level,<sup>22</sup> causes job loss events to be remedied through activities involving low productivity, informality, and a lack of social protection. Another reason may be the poorer growth of the participation rate in economic activity, which reduces pressure on employment (CEPAL 2017b, García 2010).

Figure 3.1 shows the evolution of the unemployment rate since 2000, by sex and age groups. In the first place, the increase in open unemployment that occurred in Mexico after the 2008 economic crisis, affected the younger population that was entering the labor market to a greater extent. This affected women more intensely, which can be explained by two

factors. On the one hand, this seems to reflect the greater difficulties women face to achieve an effective transition from the school system to the labor market compared with men (CEPAL 2017a). On the other, the maquiladora export industry, where a large part of the female workforce is concentrated, is the sector that lost the most jobs during the crisis.

Secondly, the graph shows that, while the level of unemployment has dropped for the four groups in the previous three years, the unemployment rate has not returned to the levels seen at the beginning of the first decade of the 21st century.

Another indicator that allows identification of labor market entry opportunities is the percentage of the population able to work, but claim not to be seeking employment. Those interviewed said the reasons they interrupted their job searches include having failed in previous attempts, or thinking they have no possibility of finding work.

This population, called *discouraged workers*, is counted as part of the non-economically

21 For the analysis of the labor market, data from the National Employment Survey (ENE) 2000-2004 and the National Survey of Occupation and Employment (ENOE) 2005-2017 was used, with information from the second quarter of each year.

22 Argentina, Brazil, Chile, Ecuador, Uruguay and Venezuela have some kind of unemployment insurance (Velásquez 2010).

active population (PNEA), even though their situation stems from scarce labor market opportunities. The above hides an important part of unemployment in the country (Márquez 2015). While the discouraged worker population was 15.2% in 2005, this percentage rose to an average of 19.1% during the 2009–2013 period, after the recession that began in 2008. After that moment, there was an economic recovery, followed by another percentage fall. In 2017, 16.7% of the employable population said it was not looking for work.

Discouragement seems to reinforce aspects of gender inequality in relation to workforce participation. Data obtained about the main activity performed by the discouraged worker population shows that, among the youngest (ages 15 to 29), men tend to focus on acquiring skills (78.9% continue studying and 10.7% take care of their home), while women invest less in their education and concentrate on domestic activities (47.6% continue studying and 51% take care of their home).<sup>23</sup> This difference is probably linked to early maternity in women, and to the fact that they are more involved than men in the care of younger and older family members. The difference in activities between men and women becomes even more noticeable in the “discouraged” middle-aged population and among older adults.

### Accessing quality jobs

**Almost half the workforce in the country continues to lack the benefits associated with social security (45.3% in 2017).**

The second dimension of our analysis deals with characteristics of employment and working conditions. More than two-thirds of the working population in Mexico are employees or paid workers under some type of management.<sup>24</sup> Between 2000 and 2017, this kind of workforce increased moderately, from 63.6% to 68.5% among men, and from 64.8% to 68.1% among women. On the other hand, men are more likely than women to establish their own businesses and hire workers. Between

2000 and 2017, the percentages of self-employed men and women converged at around 22%, since there was both, a decrease in men's resorting to this type of activity, and a slight increase in women's.

Women are more likely than men to work without pay: in 2017, 6.9% of women and 3.4% of men worked without compensation, which probably responds to women's greater participation in support of family businesses, generally subsistence ones. It is noteworthy that the 2008 economic recession did not significantly affect the proportion of self-employed men and women. One reason could be that, for the most part, these are quite small-scale jobs, particularly linked to the internal market, while the greater effect taxed positions in large export sector companies such as automobiles, electronics, textiles, and clothing.

The immediate need to generate income because of a lack of well-paid employment leads many workers to start small businesses or to accept jobs in precarious conditions (García 2010). While there is little open unemployment in Mexico, examining labor conditions reveals the quality of work in the country. Figure 3.2 describes the working conditions of employees in 2000 and 2017. Four indicators that reflect different aspects of work precariousness are shown: lack of access to social security, absence of a contract, earning less than the minimum wage, and having a temporary contract.

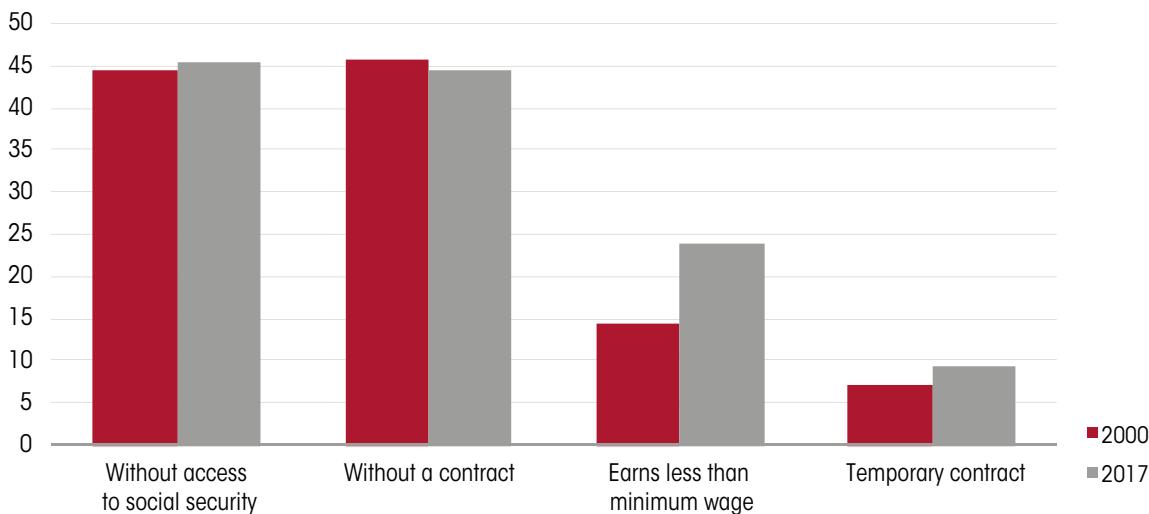
It is a matter of concern that, as shown by the figure, the percentage of people with labor income lower than the minimum wage increased from 14.4% in 2000 to 24% in 2017. Furthermore, the percentage of workers who do not have access to social security has remained the same for almost two decades. Almost half the workforce in the country continues to lack the benefits associated with social security (44.3% in 2000 and 45.3% in 2017). Labor conditions deteriorated, particularly

<sup>23</sup> These are the average percentages for the 2014–2017 period.

<sup>24</sup> An employee (or “paid subordinate worker,” the term used in the Spanish original) is a person who works in exchange for pay.



**Figure 3.2.** Employees' working conditions (2000-2017)



**Source:** Compiled by the authors using the ENE 2000-2004 and the ENOE 2005-2017.

for women, in this period: the percentage of female workers without social insurance went from 41.2% in 2000 to 48% in 2017.

Labor precariousness is intensely linked to employment instability and uncertainty. It speaks to the point that the proportion of workers without a contract remains very high: 45.8% of the workforce in 2000, 44.5% in 2017. There is a moderate increase in the percentage of women who work without a contract (41.9% in 2000, 45.6% in 2017), while little significant change is seen for men in this period. Finally, the percentage of workers with temporary contracts increased slightly for the year 2017. These trends indicate that unstable labor arrangements continue to be very common in Mexico.

### Receiving adequate pay

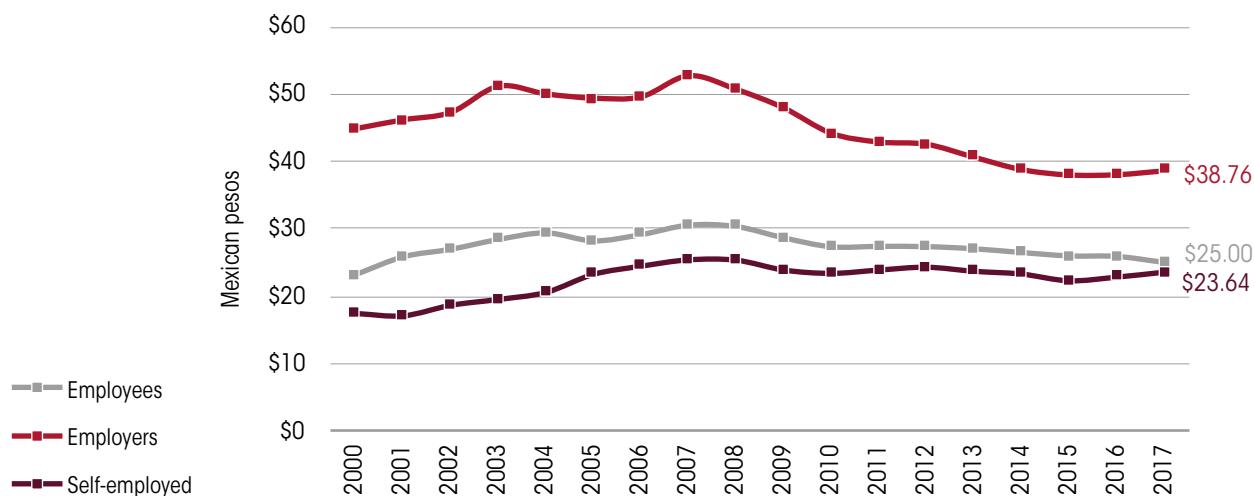
Finally, we examine the evolution of labor income from 2000 to 2017 (in constant pesos adjusted to 2017 prices). Figure 3.3 shows the trend of the real median hourly income of the working population for the period of study.<sup>25</sup>

First we present disaggregated data by workers labor category: employers, employees, or self-employed. In the period before the 2008 economic crisis, labor income increased for the three groups. Employers saw an increase of 17% in the value of their median income between 2000 and 2007, while employees experienced a 32% rise in the value of their median wages, and self-employed workers, 44%.<sup>26</sup> Although we see a larger increase for

<sup>25</sup> The median of hourly income marks the wage level that divides the population in two; 50% of the population's income falls below the median value, and 50%, above. As in the previous section, median income is used instead of average income, because extreme values affect the latter considerably.

<sup>26</sup> An *employer* or *boss* is defined as an independent worker who employs the services of one or several workers in exchange for wages. It should be noted that the businesses referred to for these occupational categories are mostly micro-establishments in which it is difficult to distinguish, in terms of income, between the employer and his or her employee, who are often members of the same family, or are self-employed. During the period of study, between 73.1% and 76.8% of the employers were persons working in micro-establishments, and between 7.9% and 12.1% in small establishments.

**Figure 3.3.** Median of hourly income by type of occupation (2000-2017)



**Source:** Compiled by the authors using the ENE 2000-2004 and the ENOE 2005-2017.

**Note:** Values at 2017 prices.

both employees and the self-employed in this first period, it should be noted that the gap in wages between categories is wide. While the median hourly income for employers was 44.88 pesos in 2000, it was 23.16 for employees, and only 17.64 for self-employed workers.

Since the crisis and up to 2017, there has been a downward trend for the three categories. The negative impact has been greater for the employers, who lost 26% of the value of their income, followed by employees, who lost 18%, and self-employed workers at 7%. After the recession, employers' income has approached that of employees; that is, there is a downward salary convergence. And, even while the crisis affected the income of employees and of the self-employed less intensely, these were already quite low from the start.

In terms of the worth of their work, the population with high levels of schooling lost the most. Figure 3.4 shows that, despite the slight drop in real hourly income among persons

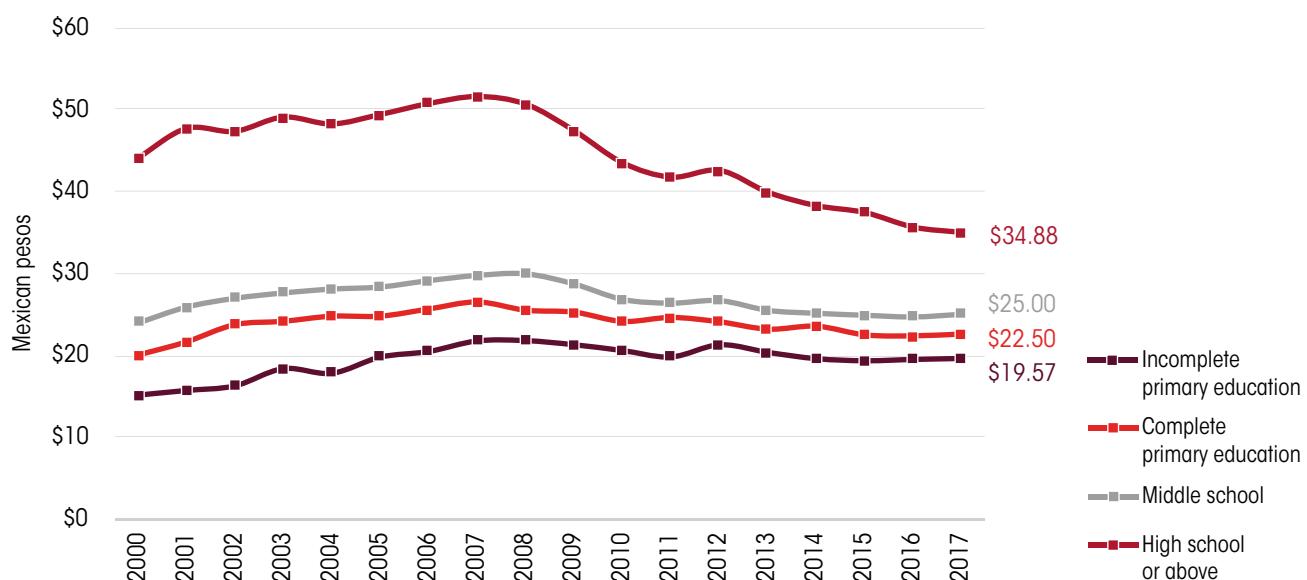
with primary and middle school education, it has remained relatively stable since 2011. However, the hourly income of those with high school or university education suffered a loss of 32% following the economic crisis. This differentiated effect may be due to the fact that a greater proportion of people with high levels of education work in more modern sectors, often linked to export activities, and are thus more exposed to the effects of recession. Moreover, various research studies in other Latin American countries suggest that the fall in wages of this segment can also be attributed to a decline in the quality of some high school and higher education options (Reyes *et. al.* 2013, Lustig *et al.* 2016).

Figure 3.5 shows the evolution of wages for the working population in the formal and informal sectors.<sup>27</sup> Informal work may be a strategy faced with a lack of well-paid and stable labor opportunities in the formal sector (Alba and Kruijt 1995, Alba and Labazé 2007).

<sup>27</sup> To identify the population in the informal sector, we used ENOE's definition, which classifies informal workers as those who labor in unregistered businesses, as well as those who work in any other kind of business or domain not registered with a social security institution (lack of access to health services in a social security institution as a labor right is the operative criterion followed).



**Figure 3.4.** Median of hourly income by top level of schooling (2000-2017)



Source: Compiled by the authors using the ENE 2000-2004 and the ENOE 2005-2017.

Note: Constant 2017 prices.

Data shows that, during the examined period, the income of people in formal jobs is moderately higher than for those in informal positions. Nevertheless, since 2007 there has been a sustained deterioration in formal worker income (with a loss of 17.8% of its value) and, by 2017, a convergence of hourly income between workers in both sectors.

In conclusion, this section examines three key dimensions that allow the assessment of the employment situation in Mexico: employment and discouragement, employment characteristics, and wages. Our findings suggest that while the employment rate has recovered in recent years, labor precariousness has become obvious. There are inequalities associated to activity, gender, and level of schooling.

A first indicator of employment deterioration is the growth of the unemployment rate, as it doubled in one year due to the 2008 recession; it reached its highest point in 2012. Employment has increased since, but to date it has not reached pre-crisis levels. Young people of both sexes wound up being the age group most affected by unemployment, although the proportion of jobless women is still higher.

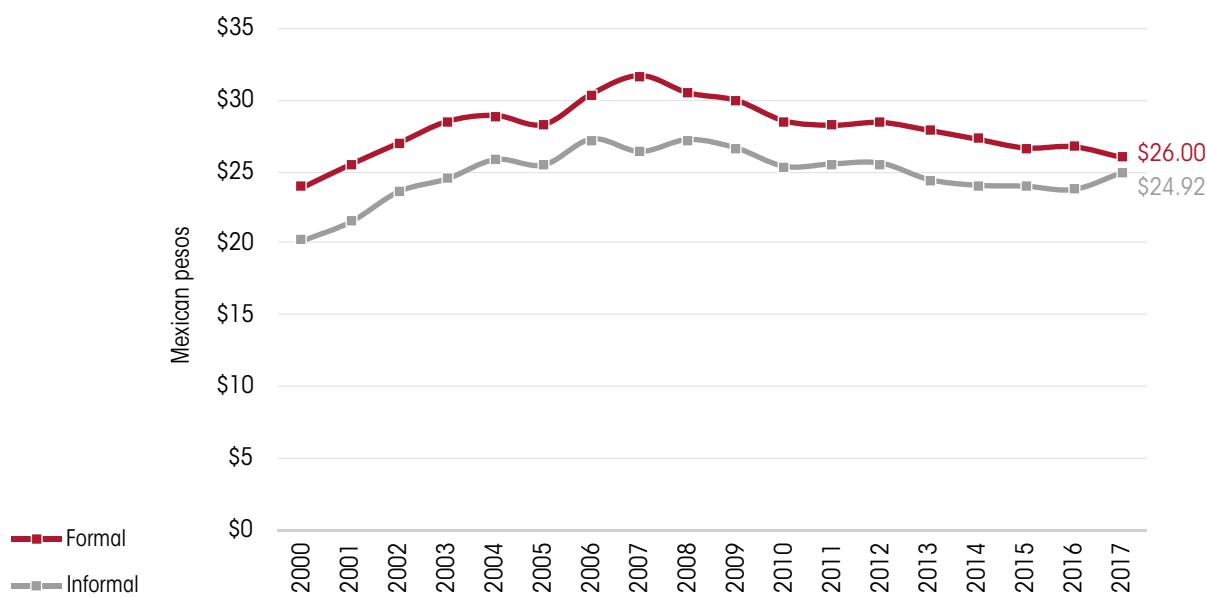
The lack of work opportunities has also been reflected in the increase of the discouraged population, which stopped looking for work, particularly during the years after the crisis. Since 2008, the majority of school-age men retreated to the classrooms, while women withdrew to their homes.

Other signs of the increase in labor precariousness are inactivity regarding access to social security, and the kind of hiring taking place. The proportion of persons who earn less than a minimum wage has increased by over 50% since 2000; the proportion of insured population has not grown, and that of those who work with no contract (around 40% of the workforce) has not changed significantly.

In terms of labor income, it is noteworthy that employers have experienced the greatest loss, probably because of the recession's impact on many small, self-owned businesses. Since the beginning of the economic crisis, the real income of those with high school or university education has suffered a significant loss, while the wages of those with primary and middle school education have not improved.

A growing number of people have stopped looking for work, particularly since 2008. The majority of school-age men retreated to the classrooms, while women withdrew to their homes.

**Figure 3.5.** Median of hourly income by employment status (2000-2017)



Source: Compiled by the authors using the ENE 2000-2004 and the ENOE 2005-2017.

Note: Constant 2017 prices.

Both, those who worked in formal and informal conditions improved their income up until the 2008 recession, after which a decline in pay for both groups was observed. There is an income convergence since 2016, mainly due to an income decrease among formal workers.

## References

- Alba, C. and Kruijt, D. (1995). El significado del sector informal y la microempresa en América Latina y en México. In T. Calvo and B. Méndez Lugo (eds.), *Micro y Pequeña Empresa en México: frente a los retos de la globalización*. Mexico City: Misceláneas.
- Alba, C., and Labazée, P. (2007). Libéralisation et secteur informel: Réflexions à partir du cas mexicain. *Transcontinentales: Sociétés, idéologies, système mondial* (4), 77-98.
- Arriagada, I. (2007). Transformaciones familiares y políticas de bienestar en América Latina. In I. Arriagada (ed.), *Familias y políticas públicas en América Latina: una historia de desencuentros* (pp. 125-152). Santiago, Chile: CEPAL.
- Bensusán, G. (2006). La distancia entre normas y hechos: instituciones laborales en América Latina. *Revista de Trabajo*, 2(2), 115-132.
- Bosch, M., and Maloney, W. (2006). *Cyclical Movements in Unemployment and Informality in Developing Countries* (No. 3514). World Bank Publications.
- CEPAL. (2017a). *Panorama social de América Latina 2017*. Santiago, Chile: CEPAL.
- CEPAL. (2017b). *Coyuntura laboral en América Latina y El Caribe: la inmigración laboral en América Latina*. Santiago, Chile: CEPAL.
- García, B. (2010). Población económicamente activa: evolución y desafíos. In M. Ordóñez and B. García (eds.), *Los grandes problemas de México: Población*, Vol. 1 (pp. 363-392). Mexico City: El Colegio de México.



- García, B. and Oliveira, O. (2006). *Las familias en el México metropolitano: visiones femeninas y masculinas*. Mexico City: El Colegio de México.
- Ghai, D. (2003). Trabajo decente. Concepto e indicadores. *Revista Internacional del Trabajo*, 122(2).
- Guerra, P. (1994). "La precarización del empleo: algunas conclusiones y un intento de operacionalización." In *El empleo precario y el empleo atípico; revisión bibliográfica y propuestas para el debate*. Documento de Trabajo No. 105. Programa de Economía del Trabajo (PET). Santiago, Chile.
- ILO. (1998). "La medición del subempleo" (Underemployment). Report I. 16th International Conference of Labour Statisticians. ILO, Geneva.
- ILO. (1999). *Trabajo decente*. Memoria del Director General a la 87.<sup>a</sup> reunión de la Conferencia Internacional del Trabajo (Report of the Director-General: Decent Work, at the International Labour Conference, 87th session). Geneva.
- INEGI. *Encuesta Nacional de Empleo (ENE)*. <http://www.beta.inegi.org.mx/proyectos/enchogares/historicas/ene/>
- INEGI. *Encuesta Nacional de Ocupación y Empleo (ENOE), población de 15 años y más de edad*. <http://www.beta.inegi.org.mx/proyectos/enchogares/regulares/enoel/>
- Kazianga, H. (2012). Income Risk and Household Schooling Decisions in Burkina Faso. *World Development*, 40(8), 1647-1662.
- Krishna, A. (2011). *One Illness Away: Why People Become Poor and How They Escape Poverty*. Oxford: Oxford University Press.
- Lustig, N., Lopez-Calva, L. F., Ortiz-Juárez, E. and Monga, C. (2016). Deconstructing the Decline in Inequality in Latin America. In *Inequality and Growth: Patterns and Policy* (pp. 212-247). London: Palgrave Macmillan.
- Márquez, C. (2015). *Buscadores, desalentados y rechazados: las dinámicas de inclusión y exclusión laboral enraizadas en la desocupación* (doctoral thesis, social science with a specialty in sociology). Mexico City: El Colegio de México.
- Mora, M. and Oliveira, O. (2010). Las desigualdades laborales: evolución, patrones y tendencias. In F. Cortés and O. de Oliveira (eds.), *Los grandes problemas de México: Desigualdad Social*, Vol. 5 (pp. 101-139). Mexico City: El Colegio de México.
- Pacheco, E. (2004). *Ciudad de México, heterogénea y desigual: un estudio sobre el mercado de trabajo*. Mexico City: El Colegio de México.
- Rendón, T. (2003). *Trabajo de hombres y trabajo de mujeres en el México del siglo XX*. Mexico City: Universidad Nacional Autónoma de México, Programa Universitario de Estudios de Género.
- Reyes, L., Rodríguez, J. and Urzúa, S. S. (2013). *Heterogeneous Economic Returns to Postsecondary Degrees: Evidence from Chile* (NBER Working Paper No. 18817). National Bureau of Economic Research.
- Rodrik, D. (2001). Why Is There So Much Economic Insecurity in Latin America? *CEPAL Review*, 73.
- Velásquez, M. (2010). Seguros de desempleo y reformas recientes en América Latina, *Serie Macro-economía del desarrollo* No. 99. Santiago, Chile: CEPAL.

## Access to social security and territorial inequality

T3

**D**ifferences in the quality of employment are also based on territorial disparities. People with similar levels of schooling join a labor market determined by its geographical location. Furthermore, the characteristics of their jobs define, to a large extent, the level of social protection their families can attain: 58% of the people in Sonora have access to services linked to social security, while only 27% have the same benefits in Puebla.<sup>1</sup> Figure T3.1 shows the percentage distribution of the population with access to social security by state in 2014.

In addition to the wage differences seen in box T2, the map displays the wide variations in labor conditions people encounter throughout the country. In the northern states, in Jalisco, Colima, Aguascalientes, Mexico City, and Quintana Roo, over half the population has benefits associated with social security.

In contrast, the situation in the south of the country clearly illustrates the accumulation of inequalities: workers in these states receive relatively lower wages (see box T2), have a greater labor vulnerability, and lack a system of protection to face adverse circumstances. If we bear in mind that the quality of services offered by the Seguro Popular [Popular Insurance] is highly heterogeneous among states, concern surrounding the situation is even greater (Flamand and Moreno-Jaimes 2015).

Given the connections between formal work and access to social security, the lack of benefits reflects the differentiated burden informality poses on the economies of the states.<sup>2</sup> Beyond the differences in productivity, these disparities reveal labor markets' different levels of precariousness, as well as differentiated social mobility scenarios for Mexicans.

1 Data from the Coneval's 2014 Socioeconomic Conditions Module.

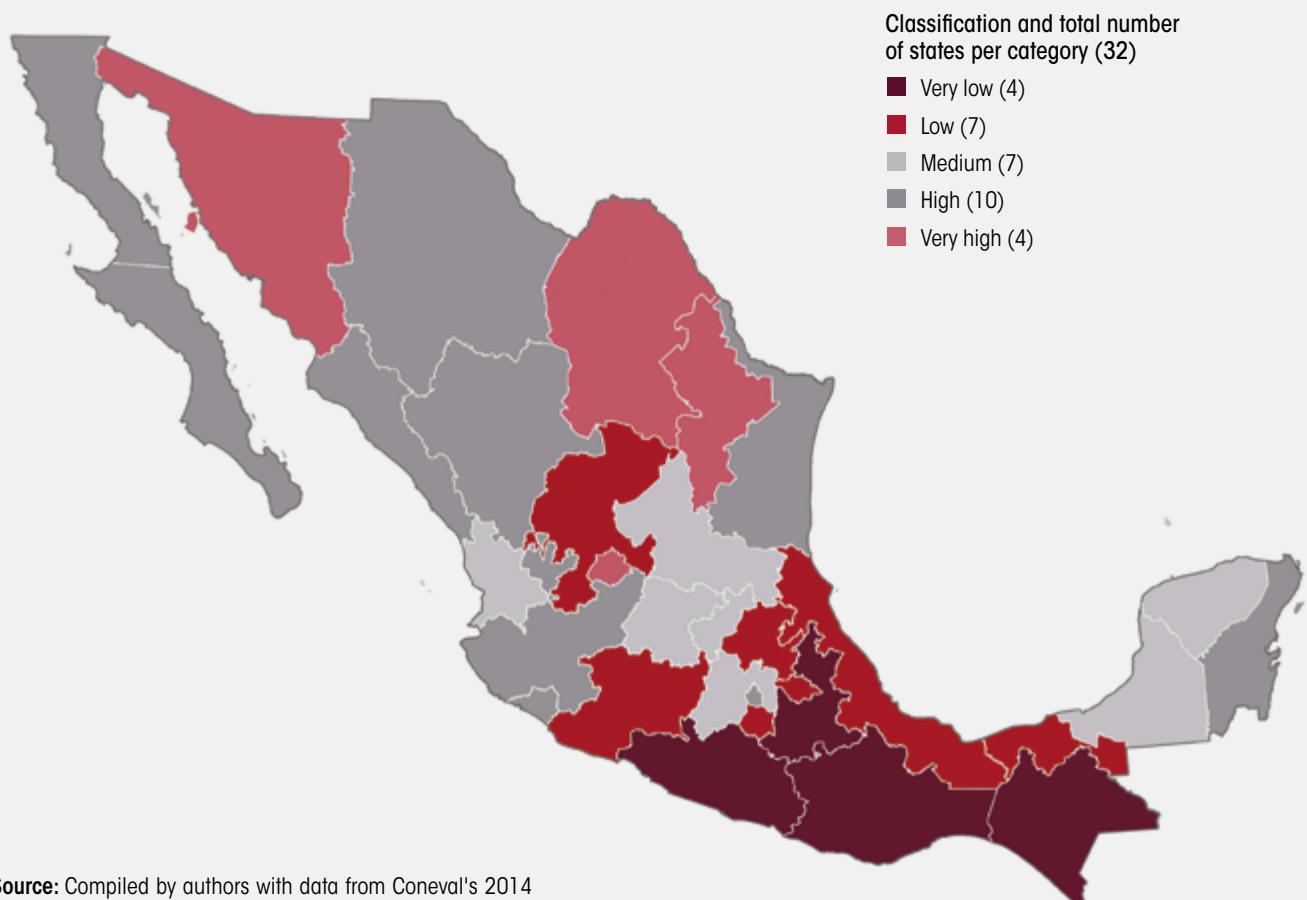
2 Coneval classifies the population by its access to social security with the following criteria: (a) A wage-earning economically active person has social security if he or she enjoys labor benefits as established in Article 2 of the Social Security Law or in section B of constitutional Article 123. (b) In the case of independent workers, people are considered to have social security when they have medical services available as a labor benefit or through voluntary association with the IMSS' compulsory scheme. (c) Access is also acknowledged when people have some retirement plan or pension, or are next of kin to a person with social security. Finally, (d) people of retirement-age (65 and older) are considered to have social security if they benefit from a pension's social program for senior citizens.

## References

- Coneval (2014). *Resultados del Módulo de Condiciones Socioeconómicas* [Socioeconomic Conditions Module].  
 Coneval (2015). "Metodología para la medición multidimensional de la pobreza en México." *Realidad, Datos y Espacio. Revista Internacional de Estadística y Geografía*, Instituto Nacional de Estadística y Geografía INEGI, México, Vol. 2, No. 1, January-April 2011, pp. 36-63.  
 Flamand, L. and Moreno-Jaimes, C. (2015). La protección social en salud durante el gobierno de Calderón. Avances y rezagos en el diseño y la implementación del Seguro Popular (2006-2012). *Foro Internacional*, 55(1 [219]), 217-261.



**Figure T3.1** Percentage distribution of the population with access to social security by state (2014)



**Source:** Compiled by authors with data from Coneval's 2014 Socioeconomic Conditions Module.

**Note:** The ranges of each category are: very low from 17.2 to 27.1, low from 27.1 to 37, medium from 37 to 46.8, high from 46.8 to 56.7 and very high from 56.7 to 66.6.

## Unpaid work and gender inequality

G3

This section examines unpaid activities undertaken by the adult population with higher education, particularly the weekly time spent on these tasks. On average, adult women with university studies spend 43 hours on this type of work, almost three times the amount spent by men. Women who devote their time exclusively to housework, spend 72 hours on it a week, while those who work outside the home spend only 36 hours doing domestic chores, while men in the same situation allocate 15 hours to it (authors' calculations based on INEGI (2015)).

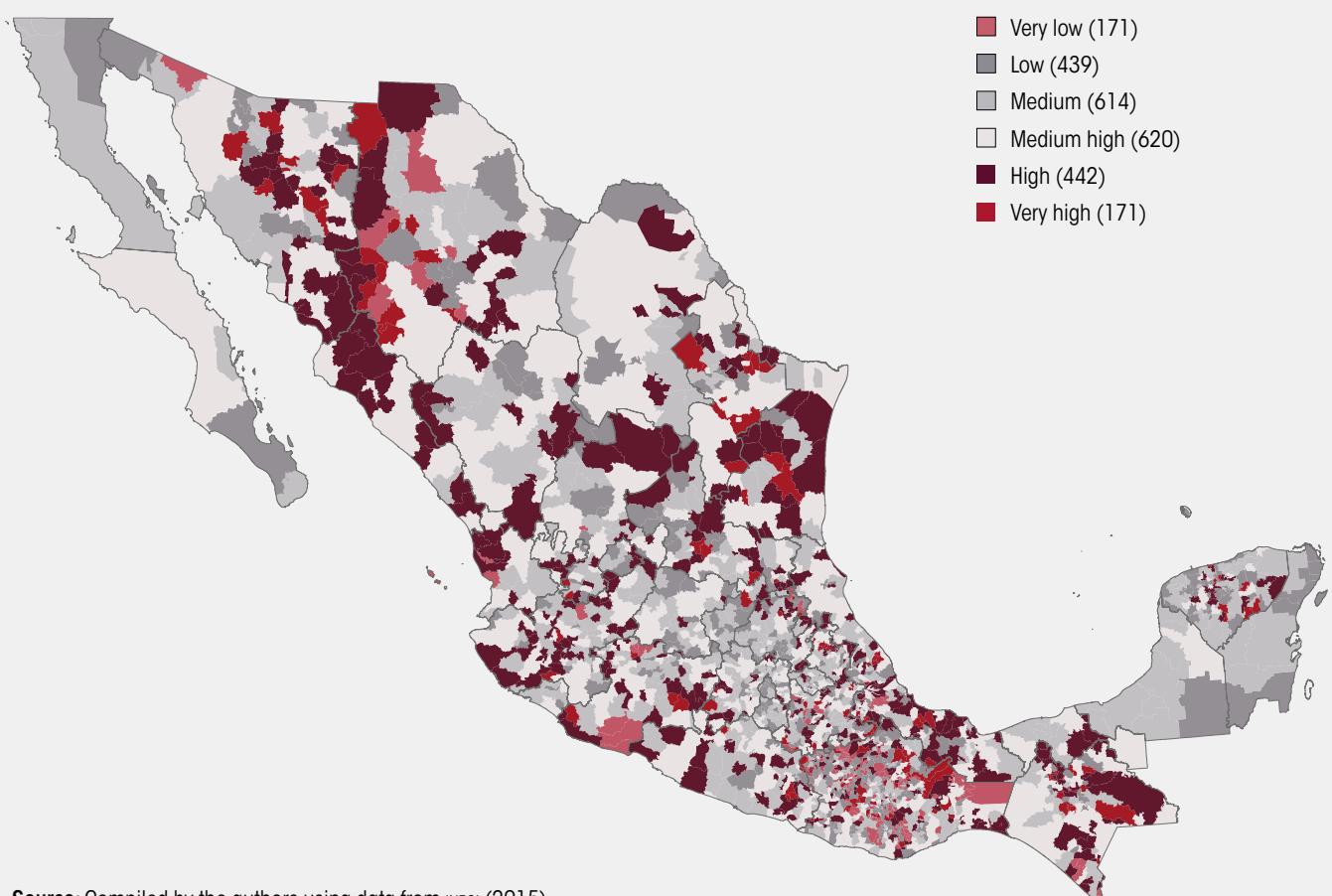
The inequalities by sex for nonpaid work by people with university education are expressed spatially. Figure G3.1 shows the female-male ratio of time spent on housework and caregiving in the country's municipalities. There are 171 municipalities where this ratio is very low, but in 613 it is greater than 3.5. Nevertheless, there is no defined regional pattern; there are bordering municipalities with high and low inequality, for example, in Yucatán. Public actions geared towards the promotion of substantive equality between men and women need to consider specific local contexts.

### References

- INEGI. (2015). Encuesta Intercensal 2015. *Encuesta en hogares*. Retrieved from <http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/>



**Figure G3.1** Ratio of weekly time spent on unpaid work, men and women with university education (2015)



**Source:** Compiled by the authors using data from INEGI (2015).

**Note:** The values show the weekly proportion of time spent on unpaid activities by women in relation to the time spent by men. One indicates time parity. The higher the number, the more time spent by women. The ranges of each category are: very low from 0 to 0.17, low from 0.17 to 2.16, medium low from 2.16 to 2.69, medium high from 2.69 to 3.48, high from 3.48 to 5.49, and very high greater than 5.49.



•

# New challenges for equity

# MÉXICO

In addition to the legacies of inequality that interact affecting one another in 2018 Mexico, as discussed in the previous section, two processes pose new challenges to equity: return migration and climate change.

The population that returns to Mexico after living in the United States is a heterogeneous group that faces unequal contexts, thus joins the social, economic, and labor spheres in various ways. Return migrants are progressively coming back to marginalized areas where precarious working conditions are more common. On the other hand, exposure to phenomena associated with climate change, such as temperature, rainfall, and sea level rises, is very heterogeneous. This exposure asymmetry also interacts with the population's varying resource availability for adaptation. This differentiated exposure to the risks of climate change tends to deepen preexisting territorial social inequalities, as well as those between men and women.

## 4 Return migration and inequality

Migration between Mexico and the United States is not a new phenomenon, but rather the combination of historical, geographical, political, social, and economic factors (Durand 2016, Garip 2016, Massey, Durand and Malone 2002). Following the Bracero Program, for a long time migration from Mexico was predominantly circular, seasonal, and male. Nevertheless, as a result of the increase in female migration, the appearance of Mexican families in the United States, the incorporation of migrants into non-agricultural work in urban areas, and migration policies that have made it difficult to come and go, the migrants' length of time abroad and settlement have increased.

Beyond these changes, which took place over several decades, the nature of migration

was transformed in the past ten years due to the financial crisis and economic recession of 2008, as well as to the increase in deportations begun under President Obama's administration. Since 2009, the net migration rate has been almost zero as a consequence of a decrease in emigration from Mexico, mainly because of economic reasons (Alarcón *et al.* 2008, Villarreal 2014), and a increasing numbers of return migrants (Gonzalez-Barrera 2015, Passel and Cohn 2009, Passel, Cohn and Gonzalez-Barrera 2012, Zenteno 2012). The number of Mexicans who returned from the United States<sup>28</sup> tripled between 2000 and 2010, going from around 266,000 to 824,000. In 2015 this number fell to around 442,000. This section examines the migratory changes that have been taking place and identifies the main

<sup>28</sup> Using census and national survey data, we define a return migrant as a Mexican who lives in Mexico today, but who lived in the United States five years ago. This definition of return migration differs from that of circular migration (or intra-census migration) for the five-year time period considered. Circular migration involves individuals who lived in a specific household five years before, then emigrated to come back during the five-year period. Information on emigration, returning, and not returning during the five-year period is captured in the international migration module of the long-form questionnaire of the 10% sample of the Mexican censuses of 1990, 2000, and 2010. Thus, it is not available for 2005 or 2015. This definition tends to underestimate migration flows and stocks, as it does not consider the emigration of complete households or periods of stay longer than five years.

challenges for the reintegration of those who return: Who are the migrants who come back from the United States to Mexico? Where do they go to in Mexico? What circumstances do they find and how do they fit into the municipality they move to?<sup>29</sup>

Our study shows that Mexicans who return after living in the United States are not a homogeneous group, and that they find unequal contexts that bring about different forms of social, economic, and labor market reintegration. There is now a different family return pattern compared to previous time-periods: today, Mexicans who return have lived in the United States for an extended period and are older, while the U.S. migrants who arrive in Mexico are mainly a young population, the sons and daughters of returned Mexican parents.

In recent years, we also identified a process of diversification of destinations returnees go to. On the one hand, both small localities and big cities have attracted migrants who return to Mexico. On the other hand, and in contrast with trends seen earlier, now the returnees also head to municipalities with greater social disadvantages.

Finally, we find return migrants face considerable challenges to effectively participate in the labor market and find quality work. While there is a perception that returnees are inclined to start productive projects upon returning to Mexico, data show the majority are wage earners. Precarious working conditions are more common in localities with greater

**Return migrants are a heterogeneous group due to their previous work experience, their levels and types of education, the skills they acquired (formal and informal), their age and sex, among other characteristics.**

social disadvantages, which presents additional difficulties for the returnees who go to these places.

## Mexico-U.S. migration has changed

Beginning in 1986, the long-standing back-and-forth nature of Mexican migration to the United States changed as a result of stricter U.S. border control enforcement policies (Massey, Durand and Pren 2015). Predominantly male circular migration, which involved returning after a short stay, to the Mexican community where migrants' wives, children, or parents lived, was transformed as a result of the increase in female migration and the varying types of jobs migrants took in the United States (Durand 2016).

In 2018, approximately 11.2 million Mexicans lived in the United States. The Pew Research Center estimates that almost 80% of the 5.8 million undocumented Mexicans have lived in the United States more than 10 years and that only 7% of the Mexicans without documents arrived in the previous five years (Passel and Cohn 2016). A large share of the undocumented population has created family, friendship, and labor networks in the United States. While family reunification continues to be an incentive for many migrants who return to Mexico, a greater number return involuntarily because of stricter migration policies and a lack of jobs, among other economic factors.<sup>30</sup>

29 The aim of the analysis presented in this section is to review the demographic and geographic changes in return migration from the United States to Mexico using data from the 2015 Intercensal Survey and from Mexican censuses of 2000 and 2010. Some ideas and analysis discussed in greater detail in Masferrer (in press), and analyzed for 2015 data in Masferrer, Sánchez Peña and Rodríguez Abreu (2017) are included here.

30 During the George W. Bush administration (FY2001-FY2009) around 1.56 million Mexicans were deported, and during the Barack Obama administration (FY2009-FY2017), this figure rose to nearly 2 million were (Office of Immigration Statistics 2015, 2016). The numbers have been increasing. Whereas in fiscal years 2000 to 2003 around 150,000 Mexicans were deported per year, more than 270,000 were deported annually since 2009. In 2013 this reached its highest point, at 310,000. During those years, the Great Recession seriously eroded economic opportunities in the United States and motivated many Mexicans to return, interrupting their migration project (Rivera Sánchez 2013).



The flows from the United States toward Mexico include both Mexicans by birth and immigrants born in the United States or in other countries. In 2010, the flow from the United States reached a record number of almost 1 million individuals age 5 or older who had lived there for five years. A comparison of these estimates with the totals for deportees<sup>31</sup> shows the numbers of returnees and deportees are close for 2010, which suggests an increase in involuntary returns (Masferrer and Roberts 2012). There was a drop in circularity (because more migrants are arriving after a long period of stay in the United States) and growth in the involuntary character of returning —due to economic and legal reasons— (Alarcón *et al.* 2008, Cabrera-Hernández *et al.* 2011), as well as an increase in the arrival of Mexicans accompanied by family members and growing numbers of minors born in the United States. These transformations represent challenges for integration in Mexico and on the other side of the border, both for the Mexican population and their U.S.-born relatives. In sum, return migration is demanding for Mexican and U.S. populations, showing the need to develop public policy initiatives in both countries.

Although many leave children and spouses behind upon being deported or when facing economic difficulties, others decide to return as a family. In contrast to the general perception, the majority of people born in the United States who live in Mexico are minors who live with a Mexican relative. In 2015, eight of every 10 persons from the US in Mexico, more than half a million, were minors. Indeed, the incoming flow of newly born US migrants and minors under 18, grew from 148,000 in 2000 to 316,000 in 2010 and was 183,000 in 2015.

The arrival of minors born in the United States, often youngsters with limited Spanish, poses not only challenges regarding social and educational issues, having to do with validating prior school years, but also difficulties adapting to a new social context, including establishing relationships with fellow students and professors (Medina and Menjívar 2015, Vargas Valle and Camacho Rojas 2015, Zúñiga 2013, Zúñiga and Hamann 2008 and 2015). To help facilitate these minors' access to school, a measure was adopted in 2015 that eliminated the requirement to submit apostilled primary, middle, or high school education certificates (Jacobo-Suárez 2017).

### **Mexican returnees from the United States**

Mexicans return from the United States for economic, family, and social reasons. In many cases, the presence of a wife or children in Mexico, or the illness or death of a relative is the reason to come back (Camargo 2002, Van Hook and Zhang 2011). Nevertheless, beginning in 2008, studies emphasize the relationship between the economic recession, mainly the lack of employment (Granados Alcántara and Hernández 2013), and the increase in deportations and other anti-immigrant policies (Anguiano Téllez, Cruz Piñeiro and Garbey Burey 2013, Jardón Hernández 2015, Masferrer and Roberts 2016, Mestries 2013, Rendall, Brownell and Kups 2011).

Next, selected demographic characteristics of return migrants and the non-migrant population from 2000 to 2015 is explained.<sup>32</sup> Traditionally, migration from Mexico has been male; therefore, it is expected that the greater

<sup>31</sup> Differences between the number of Mexican arrivals —returnees and immigrants— from the United States and the number of deportees may be associated with processes of re-emigration to the United States, errors of measurement or underreporting in the Mexican data sources, or due to periods of residence shorter than five years.

<sup>32</sup> The comparison of the characteristics of return migrants and non-migrants allows the examination of different processes involving the migratory cycle. The characteristics of those who return determine whether they will be seeking work, live with their families, the place they will settle in, and what type of health and educational services they will require, etc. The population that decides to migrate often differs from the average general population, as will be seen in various examples throughout this section.

proportion of returnees will be men. Indeed, around two-thirds of the total return population is male; nevertheless, the proportion of women is greater among the returnees who are minors (57% in 2015).

The ages of return migrants are in the economically productive population bracket. In the three years under study, return migrants are older, both in terms of the average and the median age, than non-migrants. This is obviously linked to the aging of the Mexican population living in the United States, as well as to longer periods of residence and settlement abroad. Among the returned population, the largest age group between 2000 and 2015 consisted of young adults ages 35 to 44 (18.3% to 28%) while adults ages 45 to 54 doubled from 7.4% to 14%.

The age composition of the return migrant population means that policies to facilitate the returnees' incorporation according to their experience and training should be differentiated. Both the age and sex compositions of returnees and of the non-migrant population, like their labor participation, vary over time. Male returnees have greater participation rates in the economically active population than non-migrants, particularly among men ages 25 to 49. Female returnees, however, have slightly lower participation rates in the economically active population than those of non-migrant women, although the rates rise over time and close the gap, particularly among ages 30 to 39. These differences point to the need to study the factors that drive women returnees to enter the labor market in greater detail (Figure 4.1).

Between 2000 and 2015, the proportion of returnees who are heads of household grew. In 2015, 65.5% of return migrants were heads of household or spouses; in contrast, in the

Mexicans who return have lived in the United States for an extended period and are older, while the U.S. migrants who arrive in Mexico are mainly a young population, the sons and daughters of returned Mexican parents.

non-migrant population, the proportion of heads of household or spouses did not reach 50%.

## Destinations

The states of the center-west of the country are the traditional migration region, as can be seen by the strong ties linking migration flows with those states (Durand and Massey 2003).<sup>33</sup> In 2000, almost half (47%) of the return migrants arrived to this region; in 2015, this figure was a little more than a third (35%). During those 15 years, the northern area of the country, another important region for Mexico-U.S. migration, steadily attracted a quarter of the returns (25% in 2000 and 23% in 2015). Nevertheless, both the south-south-east and central regions increased their relative participation, from 9% to 17% and from 18% to 23%, respectively.

The analysis of the total number of Mexican return migrants in 2000, 2010, and 2015 shows an increase for the period, both in traditional sending states (Jalisco, Michoacán, and Guanajuato) and in other states (Veracruz, Oaxaca, Guerrero, the State of Mexico, and Baja California).

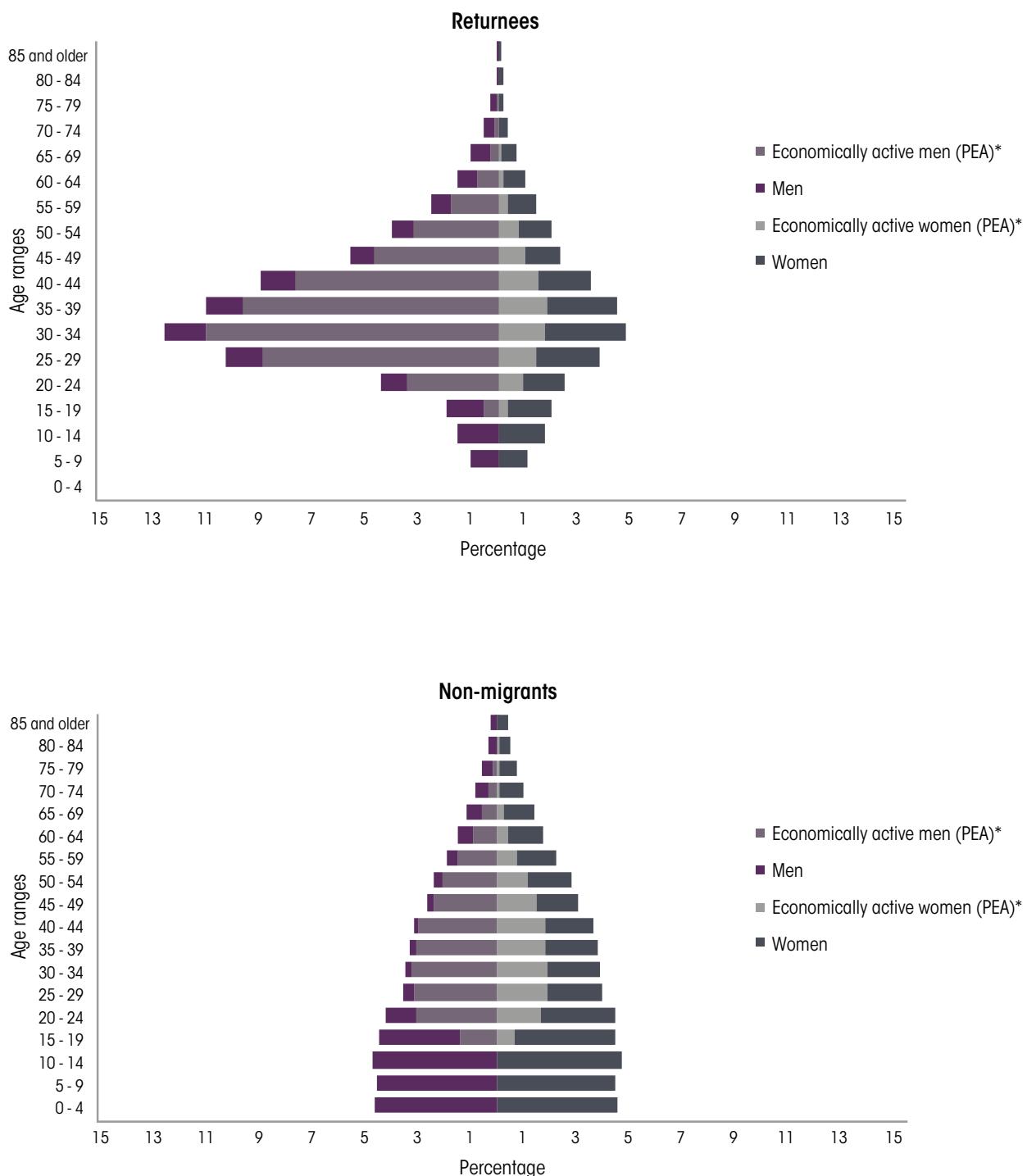
The geography of return migration and immigration has recently changed (Riosmena and Massey 2012).<sup>34</sup> New studies emphasize the importance of economic and social conditions of return destinations. For example, the city of Monterrey is not a typical source of emigration, yet it is an important destination for returnees who value the economic opportunities offered by the city (Hernández-León and Sandoval 2017, Lindstrom 1996). Social networks created between migrants in the United States ease this type of return (Rivera Sánchez 2013).

<sup>33</sup> The states of Aguascalientes, Colima, Durango, Guanajuato, Jalisco, Michoacán, Nayarit, San Luis Potosí, and Zacatecas comprise the region.

<sup>34</sup> In Mexico, return migration can link internal migration and international migration (King and Skeldon 2010, Lindstrom 1996), as it is possible to study to what extent migrants return to their place or community of origin (Masferrer 2014, Masferrer and Roberts 2012) and if young people, for example, are more likely to undertake this type of movement (Masferrer 2012).



**Figure 4.1.** Distribution by age and sex and economic participation status of the return migrant and non-migrant populations (2015)



**Source:** Compiled by the authors using the Intercensal Survey 2015, based on MASFERRER *et al.* (2017).

**Notes:** The return migrant population includes Mexicans who lived in the United States five years prior to the survey, while non-migrant population was located in the same state at the time of the survey and five years before. \*PEA=Economically active population [Población económicamente activa]. Economic participation status is estimated only for the population age 15 and older.

The relative proportion of non-migrant Mexicans who live in localities with more than 100,000 inhabitants remained stable at 47% of the population between 2000 and 2015; in contrast, return migrants are more likely to live in rural localities of less than 15,000. In fact, in 2015, returnees were concentrated in both rural areas and large cities: 30% lived in a locality with fewer than 2,500 inhabitants (while one in five non-migrants did) and 35% settled in a city with more than 100,000 inhabitants. It is indispensable, therefore, to consider the rural-urban duality of return migration when defining integration policies and programs, given the enormous differences between both contexts.

Just as there are differences in the type of locality the migrants return to, there are also inequalities in the conditions they find in the return municipalities themselves. By analyzing the Social Gap Index,<sup>35</sup> we find that the returnees are more likely than non-migrants to live in less marginalized municipalities. Nevertheless, this trend has decreased in recent years. In 2010, 15% of returnees lived in a municipality with a low, medium, or high social gap; in contrast, in 2015, this relative presence grew to 20%. With this percentage growth, the absolute number of returnees who live in municipalities with social shortcomings also increased. In sum, in recent years the municipalities of destination have become much more heterogeneous in terms of development.

### Economic integration opportunities

Municipalities of destination have become much more heterogeneous in terms of development.

The following section examines return migrants' integration into the labor market, compared to non-migrant Mexicans. As seen in Figure 4.2, the rates of female participation are lower than those of males, regardless of their migration status. The percentage of inactive

women decreases during the period, and the employment gap between returnees and non-migrants closes. In 2010, the year with the greatest number of returnees, the percentage of unemployed is 7.5% and, although this fell to 5% in 2015, it is greater than it was in 2000. In absolute terms, there was an increase in the number of male migrants who returned and did not find work.

There are considerable differences in labor insertion when it comes to the level of development of the municipalities of destination. While no significant differences exist for men in terms of municipalities with different social-gap levels, there is a clear distance in the labor participation of women in municipalities with fewer social disadvantages than in the rest, situation that heightens over time (Figure 4.2). In fact, among women, employment rates are higher for returnees than for non-migrant women.

The general perception that return migrants undertake productive projects as self-employed workers upon returning to Mexico has no empirical support: 70% of men and women returnees participate in the labor market as wage earners (workers, laborers, or paid assistants), as happens with the non-migrant population (Figure 4.3). Self-employment is, in fact, more common among returnees than among non-migrant males; nevertheless, there has been a drop in this type of employment during the period (from 35% to 26%) and a relative increase in formal paid work. One of every four returnees and four of every 10 non-migrants are formal wage earners. It is worth mentioning, likewise, that the proportion of employed migrants without the right to health services (informal workers) increased between 2000 and 2015.

Local conditions of the labor market determine participation patterns both for migrants

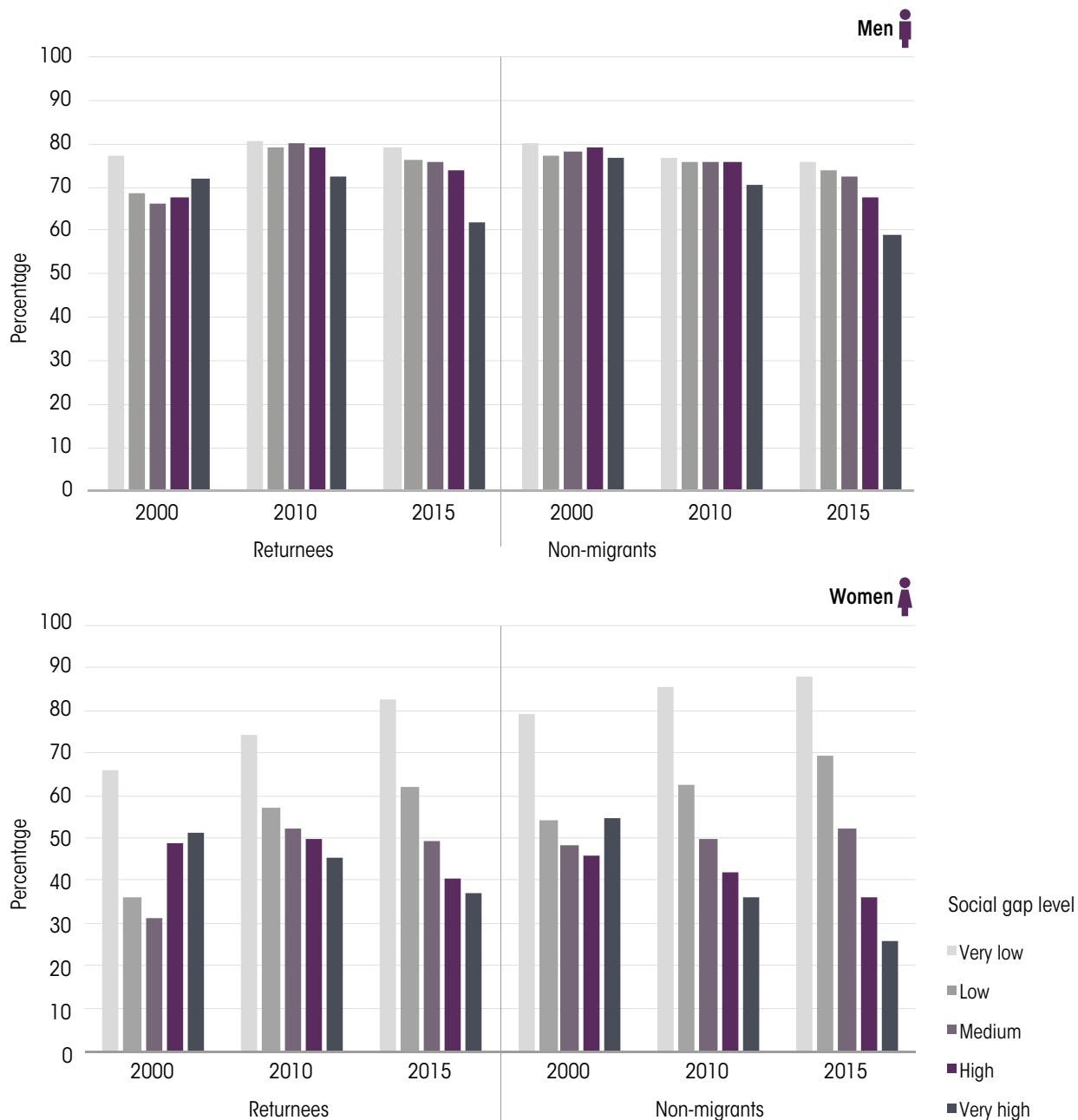
<sup>35</sup> The Social Gap Index of the National Council for Evaluation of Social Development Policy (Coneval) is an aggregate measure of education, access to health services, basic services, housing living space, and assets in the household that allow municipalities to be ranked according to their shortcomings. The index has five tiers, from "very high" to "very low," that are defined so that in each tier the municipalities are as homogeneous as possible and, indeed, as different as possible among tiers. The tiers also allow comparisons to be made over time.



and for non-migrants. In general terms, the greater the social disadvantage, the lesser the availability of formal, salaried work. Nevertheless, there are considerable differences in

the type of employment, depending on the migratory status of people. In municipalities with fewer social disadvantages, an increase in formally employed returnees is found, both

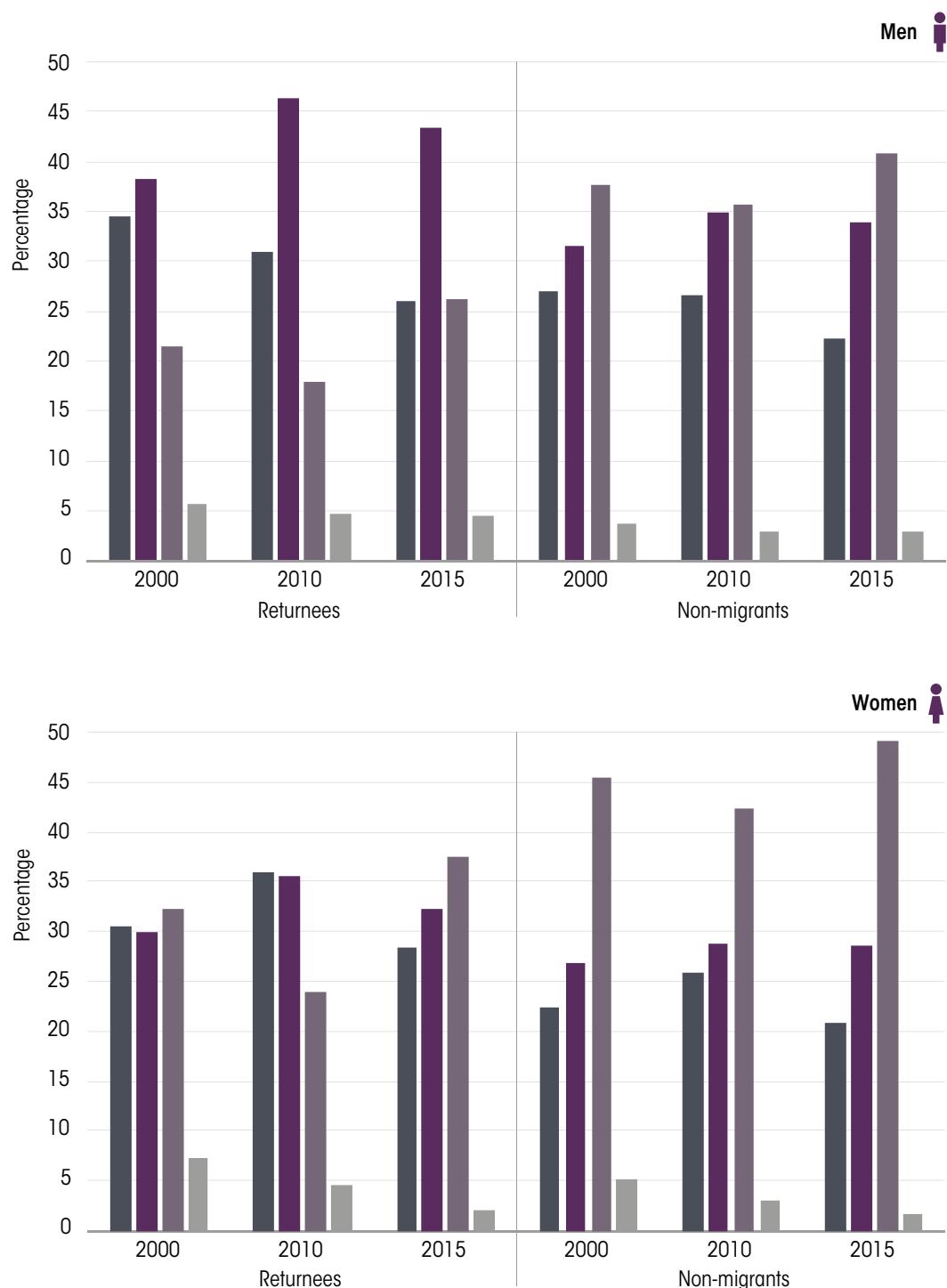
**Figure 4.2.** Percentage of employed return migrants and non-migrants ages 15 to 64, by social gap level of the municipality (2000-2015)



**Source:** Compiled by the authors using the Population Censuses of 2000 and 2010 and the Intercensal Survey 2015.

**Notes:** The return migrant population includes Mexicans who lived in the United States five years prior to the survey, while the non-migrant population was located in the same state at the time of the survey and five years previously.

**Figure 4.3.** Activity and type of employment by migratory status (2000-2015)

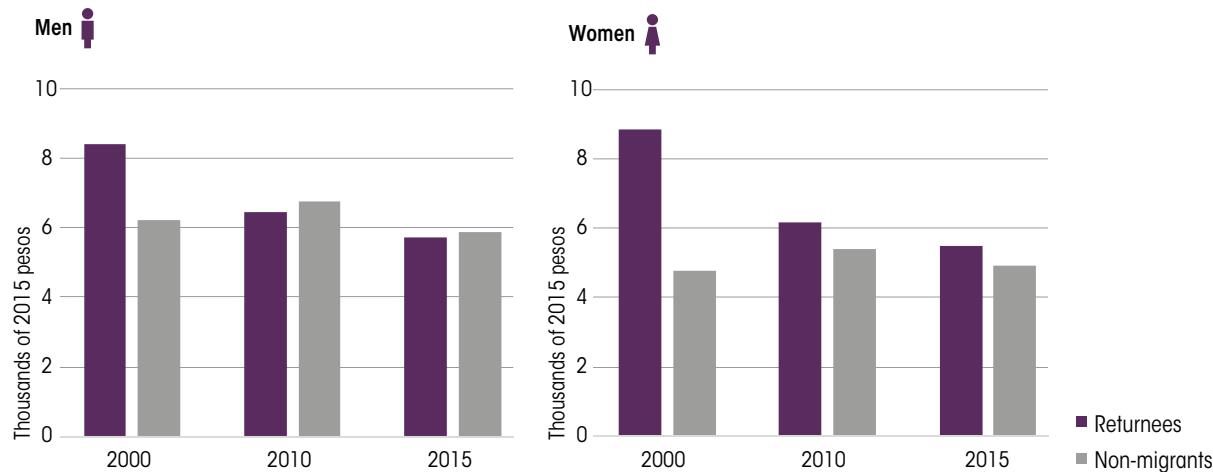


**Source:** Compiled by the authors using data from the Population Censuses of 2000 and 2010 and the Intercensal Survey 2015.

**Notes:** Population ages 15 to 64. The return migrant population includes Mexicans who lived in the United States five years prior to the survey, while non-migrant population was located in the same state at the time of the survey and five years previously. Work done for oneself is defined as self-employment. Workers with wages are employees, laborers, or paid helpers. We distinguish between wage-earning informal and formal workers by considering whether they are entitled to public health services (IMSS, ISSSTE, Pemex), excluding Seguro Popular and private insurance.



**Figure 4.4.** Average monthly income by migration status and sex (2000-2015)



**Source:** Compiled by the authors using data from the Population Censuses of 2000 and 2010 and the Intercensal Survey 2015.

**Notes:** Graph includes population ages 15 to 64, employed, and earning a wage. Wages are reported in constant 2015 prices. Included in the return migrant population are Mexicans who lived in the United States five years prior to the time of survey, while non-migrant population lived in the place where survey was conducted at the time of survey and five years previously.

for men and women.<sup>36</sup> Among women returnees, self-employment in municipalities with greater social gaps increased from 28.6% to 37.2%. That is, the labor strategies of returnees are heterogeneous depending on the local context and these are linked to the possibility of transferring abilities—not necessarily formal education—, acquired through the migratory experience, to the new labor context; this is something women seem to achieve in a more effective way than men (Hagan, Hernández-León and Demonsant 2015, Hagan and Wassink 2016).

There has been a decline in the female and male returnees' salaries between 2000 and 2010, which extends to 2015 as well (Parrado and Gutierrez Vazquez 2016 and Figure 4.4). The wage income gap between both populations disappears due to a downward salary convergence, closer to the wages of the non-migrant population. In fact, the average monthly wage income of male returnees is slightly lower than that of non-migrants in 2015, while in 2000 the former had a considerable advantage

compared to those who had not migrated. Although among return migrants men earn more than women, the gender wage gap is still greater among non-migrants.

### The challenges to integrate migrants

Return migrants share, with the rest of the population, many of the labor market challenges discussed earlier: difficulties in finding jobs, labor informality and work precariousness, depressed wages and lower income for women. They also face additional challenges, as the contexts into which they arrive are different than those of their departure, such as having limited information about available jobs, hardships to prove their work experience abroad, or ratifying certifications. In addition, the social networks of the returnees may have weakened depending on the length of their stay outside the country, or because of the criminal stigma associated with deportation. Against this background, the two most important challenges for

<sup>36</sup> Male formal employees increased from 27.4% in 2000 to 41.1% in 2015; female formal workers increased from 36% in 2010 to 48.1% in 2015.

the labor reintegration of returnees are the following: return migrants are a heterogeneous group due to their previous work experience, their levels and types of education, the skills they acquired (formal and informal), their age and sex, among other characteristics. There is a pressing need to establish differentiated public policy strategies.

Secondly, there is a growing dissociation between the returning moment and the one of original migration. In some cases, returning to the community of origin, where there are strong family ties but few opportunities, can limit reintegration. Moreover, a greater vulnerability and involuntary returns translate into less planning for relocation, reducing the possibilities of a successful reintegration.

## References

- Alarcón, R., Cruz, R., Díaz-Bautista, A., González-König, G., Izquierdo, A., Yrizar, G. and Zenteno, R. (2008). *La Crisis Financiera en Estados Unidos y su Impacto en la Migración Mexicana*. Tijuana: El Colegio de la Frontera Norte. <http://www.colef.mx/coyuntura/crisisfinanciera.pdf>.
- Anguiano Téllez, M. E., Cruz Piñeiro, R. and Garbey Burey, R. M. (2013). Migración internacional de retorno: trayectorias y reinserción laboral de emigrantes veracruzanos. *Papeles de población*, 19(77), 115-147.
- Cabrera-Hernández, J., Hall, A., de Anda, J., Rocha Romero, D. and Saldaña, R. (2011). Coping with Hard Times in El Norte. In D. Scott Fitzgerald, R. Alarcón and L. Muse-Orlinoff (eds.), *Recession Without Borders: Mexican Migrants Confront the Economic Downturn* (pp. 95-110). San Diego: Center for Comparative Immigration Studies, University of California, San Diego.
- Camargo, M. A. (2002). *Migrante de retorno ¿volver a lo mismo? Transformaciones culturales y el dilema del retorno en Temalac, Guerrero, México*. Mexico City: INAH-ENAH.
- Coneval. Índice de Rezago Social, 2000, 2010 y 2015. Consejo Nacional de Evaluación de la Política de Desarrollo Social. <https://coneval.org.mx/Medicion/IRS/Paginas/Que-es-el-indice-de-rezago-social.aspx>
- Durand, J. (2016). *Historia Mínima de la Migración México-Estados Unidos*. Mexico City: El Colegio de México.
- Durand, J. and Massey, D. S. (2003). *Clandestinos. Migración México-Estados Unidos en los albores del siglo XXI*. Mexico City: Miguel Ángel Porrúa and Universidad Autónoma de Zacatecas.
- Garip, F. (2016). *On the Move: Changing Mechanisms of Mexico-U.S. Migration*. Princeton, NJ: Princeton University Press.
- Gonzalez-Barrera, A. (2015). *More Mexicans Leaving Than Coming to the U.S.* Retrieved from <http://www.pewhispanic.org/2015/11/19/more-mexicans-leaving-than-coming-to-the-u-s/>
- Granados Alcántara, J. A. and Hernández, K. P. (2013). Paso del Norte, que lejos te vas quedando. Implicaciones de la migración de retorno en México. *Estudios Demográficos y Urbanos*, 28(2[83]), 469-496.
- Hagan, J. M., Hernández-León, R. and Demontant, J.-L. (2015). *Skills of the “Unskilled”: Work and Mobility among Mexican Migrants*. Oakland: University of California Press.
- Hagan, J. M. and Wassink, J. (2016). New Skills, New Jobs: Return Migration, Skill Transfers, and Business Formation in Mexico. *Social Problems*, 63(4), 513-533. doi:10.1093/socpro/spw021
- Hernández-León, R. and Sandoval Hernández, E. (2017). El reclutamiento de trabajadores temporales mexicanos para Estados Unidos. Infraestructura burocrática, industria de la migración y economía del engaño en el programa de visas H-2. In M. Barros Nock and A. Escobar Latapí (eds.), *Migración: nuevos actores, procesos y retos, Vol. 1: Migración internacional y mercados de trabajo* (pp. 184-208). Mexico City: CIESAS.
- INEGI. *Encuesta Intercensal 2015*. <http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/>
- INEGI. *Censo General de Población y Vivienda*. <http://www.beta.inegi.org.mx/datos/?init=2>
- Jacobo-Suárez, M. (2017). De regreso a “casa” y sin apostilla: estudiantes mexicoamericanos en México / Back home without apostille: Mexican-American students in Mexico. *Sinéctica*, (48).
- Jardón Hernández, A. E. (2015). Dinámica de la migración de retorno en contextos de crisis y violencia antiinmigrante. El caso de Las Vueltas, México. In *Las Muchas caras del retorno en América Latina. Retorno en los procesos migratorios de América Latina. Conceptos, debates, evidencias* (pp. 211-241). Rio de Janeiro, Brazil: ALAP, UNFPA.
- King, R. and Skeldon, R. (2010). ‘Mind the Gap?’ Integrating Approaches to Internal and International Migration. *Journal of Ethnic and Migration Studies*, 36(10), 1619-1646. doi:10.1080/1369183x.2010.489380
- Lindstrom, D. P. (1996). Economic Opportunity in Mexico and Return Migration from the United States. *Demography*, 33(3), 357-374. doi:10.2307/2061767

- Masferrer, C. (2012). Cuando el origen no es destino: el ciclo de vida y el retorno como posibles vínculos entre la migración interna e internacional. *Coyuntura demográfica*.
- Masferrer, C. (2014). De regreso a otro lugar. La relación entre la migración interna y la migración de retorno en 2005. In M. Valdivia and F. Lozano (eds.), *Análisis espacial de las remesas, migración de retorno y crecimiento regional en México* (pp. 175-237). Mexico City: Plaza y Valdés/CRIM-UNAM.
- Masferrer, C. (In press). Cambios demográficos y geográficos del retorno de los migrantes mexicanos desde Estados Unidos antes y después de la Gran Recesión. In S. Giorguli Saucedo and L. J. Sobrino (eds.), *Dinámica demográfica de México en el siglo XXI*. Mexico City: El Colegio de México.
- Masferrer, C. and Roberts, B. R. (2012). Going Back Home? Changing Demography and Geography of Mexican Return Migration. *Population Research and Policy Review*, 31(4), 465-496. doi:10.1007/s11113-012-9243-8
- Masferrer, C. and Roberts, B. R. (2016). The Changing Patterns of Return Migration from the USA to Mexico and Their Policy Implications. In D. L. Leal and N. P. Rodríguez (eds.), *Migration in an Era of Restriction and Recession: Sending and Receiving Nations in a Changing Global Environment* (pp. 235-258). Cham, Switzerland: Springer International Publishing.
- Masferrer, C., Sánchez Peña, L. and Rodríguez Abreu, M. (2017). Condiciones laborales de los migrantes de retorno de Estados Unidos. *Apuntes para la equidad*, (2) (May).
- Massey, D. S., Durand, J. and Malone, N. J. (2002). *Beyond Smoke and Mirrors: Mexican Immigration in an Era of Economic Integration*. New York: Russell Sage Foundation.
- Massey, D. S., Durand, J. and Pren, K. A. (2015). Border Enforcement and Return Migration by Documented and Undocumented Mexicans. *Journal of Ethnic and Migration Studies*, 41(7), 1015-1040. doi:1.1080/1369183X.2014.986079
- Medina, D. and Menjívar, C. (2015). The Context of Return Migration: Challenges of Mixed-Status Families in Mexico's Schools. *Ethnic and Racial Studies*, 38(12), 2123-2139. doi:10.1080/01419870.2015.1036091
- Mestries, F. (2013). Los migrantes de retorno ante un futuro incierto. *Sociológica* (México), 28(78), 171-212.
- Office of Immigration Statistics (2015). *Yearbook of Immigration Statistics 2015*. Washington, DC: Department of Homeland Security.
- Office of Immigration Statistics (2016). *Yearbook of Immigration Statistics 2016*. Washington, DC: Department of Homeland Security.
- Parrado, E. A. and Gutierrez Vazquez, E. Y. (2016). The Changing Nature of Return Migration to Mexico, 1990-2010. *Sociology of Development*, 2(2), 93-118. doi:10.1525/sod.2016.2.2.93
- Passel, J. S. and Cohn, D. V. (2009). Mexican Immigrants: How Many Come? How Many Leave? Washington, DC: Pew Research Center.
- Passel, J. S. and Cohn, D. V. (2016). Overall Number of U.S. Unauthorized Immigrants Hold Steady Since 2009. Washington, DC: Pew Research Center.
- Passel, J. S., Cohn, D. V. and Gonzalez-Barrera, A. (2012). Net Migration from Mexico Falls to Zero — and Perhaps Less. Washington, DC: Pew Hispanic Center.
- Rendall, M., Brownell, P. and Kups, S. (2011). Declining Return Migration From the United States to Mexico in the Late-2000s Recession: A Research Note. *Demography*, 48(3), 1049-1058. doi:10.1007/s13524-011-0049-9
- Riosmena, F. and Massey, D. S. (2012). Pathways to El Norte: Origins, Destinations, and Characteristics of Mexican Migrants to the United States. *International Migration Review*, 46(1), 3-36. doi:10.1111/j.1747-7379.2012.00879
- Rivera Sánchez, L. (2013). Reinserción social y laboral de inmigrantes retornados de Estados Unidos en un contexto urbano. *Iztapalapa, Revista de Ciencias Sociales y Humanidades*, (75).
- Van Hook, J. and Zhang, W. (2011). Who Stays? Who Goes? Selective Emigration Among the Foreign-Born. *Population Research and Policy Review*, 30(1), 1-24.
- Vargas Valle, E. D. and Camacho Rojas, E. (2015). ¿Cambiarse de escuela? Inasistencia y rezago escolar de los niños de migración reciente de Estados Unidos a México. *Norteamérica*, 10(2), 157-186.
- Villarreal, A. (2014). Explaining the Decline in Mexico-U.S. Migration: The Effect of the Great Recession. *Demography*, 51(6), 2203-2228.
- Zenteno, R. (2012). Saldo migratorio nulo: el retorno y la política antiinmigrante. *Coyuntura demográfica*, 1(2), 17-21.
- Zúñiga, V. (2013). Migrantes internacionales en las escuelas mexicanas: desafíos actuales y futuros de política educativa. *Sinéctica*, (40).
- Zúñiga, V. and Hamann, E. T. (2008). Escuelas nacionales, alumnos transnacionales: la migración México/ Estados Unidos como fenómeno escolar. *Estudios Sociológicos*, 26(76), 65-85.
- Zúñiga, V. and Hamann, E. T. (2015). Going to a Home You've Never Been To: The Return Migration of Mexican and American-Mexican Children. *Children's Geographies*, 13(6), 643-655. doi:10.1080/14733285.2014.936364.

## Remittances and territorial inequality

T4

**F**amily remittances are one of the Mexican economy's largest sources of foreign currency and, as we show below, their distribution throughout the country is very unequal. Figures T4.1 and T4.2 show the percentage of total family remittances each state received, nationwide, in 2003 and 2016.

The most recent data show that the most remittance income is concentrated in central and southern states, in particular in Mexico City, Guanajuato, the State of Mexico, Jalisco, Michoacán, Puebla, and Oaxaca. In fact, Michoacán and Guanajuato have established themselves as the most important recipients, while Jalisco increased its weight in the total distribution of remittances in 2016. The states that reported the lowest percentage of remittances in both years were Baja California, Campeche, and Quintana Roo.

The comparison presented in the maps also shows a slight increase for the southern region in recent years, which can be linked to changes in the composition of the migrant population. In 2003, remittances were mainly concentrated

in the central region of the country; in 2016, center-south states, such as Puebla and Oaxaca, increased their share. During the study period, the state that recorded the greatest drop was Veracruz, which went from 6.6% of the total remittances in 2003, to 4.2% in 2016.

How important are remittances to the states' economies? In 2016, Michoacán had an income from remittances equivalent to 11.6% of the state GDP, Oaxaca 9.3%, and Guanajuato 5.4% (Cervantes and Jiménez 2017). Various research studies have shown that remittance flows have positive effects as they stabilize consumption patterns of the recipient households, and promote their inclusion in the banking system (Li *et al.* 2014, World Bank 2015). Nevertheless, a high level of dependence on these transfers can increase the vulnerability of communities to external shocks (Barajas *et al.* 2010, Bartolini and Castagnone 2015). So, it is extremely important to implement targeted policy strategies to reduce risk in the communities, and leverage remittances' effects as motors of economic development.

### References

- Bartolini, Laura and Castagnone, Eleonora. (2015). *Remittances and the Economic Crisis: Evidence from the Greenback 2.0 Survey in Italy*. Washington, DC: World Bank.
- Barajas, A., Chami, R., Fullenkamp, C., and Garg, A. (2010). *The Global Financial Crisis and Workers' Remittances to Africa: What's the Damage?* IMF Working Paper.
- Cervantes, Jesús A. and Jiménez, Denisse. (2017). *Notas de remesas 2017-2*, Foro CEMLA de remesas en América Latina y el Caribe. Centro de Estudios Monetarios Latinoamericanos.
- Li, J. J., Salinas, J.C., Ramírez, T., Hoyo, C. and Serrano, C. (2014). *Do remittances foster financial inclusion in Mexico?* BBVA Research Paper, Financial Inclusion Economic Watch, 07.22.2014.
- World Bank. (2015). *Global Economic Prospects: Having Fiscal Space and Using It*. Washington, DC: World Bank.



**Figure T4.1** Percentage distribution of family remittances by state (2003)



**Figure T4.2** Percentage distribution of family remittances by state (2016)



**Source:** Compiled by authors using data from the Banco de México. Note: The family remittances are reported in nominal dollars each year and the percent that each state represents of the national total is estimated.

**Note:** The share of the remittances received by each Mexican state of the nationwide total is estimated using family remittances reported yearly in nominal dollars.. The ranges for each category are: In 2003: low from 0.1 to 3, medium low from 3 to 6, medium high from 6 to 8.9, and high from 8.9 to 11.8. In 2016: low from 0.2 to 2.7, medium low from 2.7 to 5.2, medium high from 5.2 to 7.7 and high from 7.7 to 10.2.

## Return migration and gender inequality

G4

**O**ccupational gender inequalities persist among Mexican returnees, as there are 25 times more women devoted to household chores than men. Nevertheless, if a woman manages to participate in the labor market, she is more likely to find better working conditions than a man. For instance, the proportion of women who received a bonus or medical benefit as part of her work is a third greater than for men in the same circumstances (Figure G4.1).

In addition, the inequalities in labor income have reduced: female workers earn 99.4% of the pay of their male counterparts and female bosses and employers earn 86.8% of what men do in the same position, while self-employed women receive only 3% less than self-employed men.

Special attention should be paid to migrant children and adolescents headed to the United States, both accompanied and unaccompanied. While the majority of migrant minors are males,

the proportion of unaccompanied girls and female adolescent migrants increased from 29% in 2010 to 32% in 2015 (Lorenzen Martin 2016, p. 197). In 2000, 64.3% of repatriated minors was male—the year with the lowest proportion—percentage that went up to 84.3% in 2015 (p. 32).

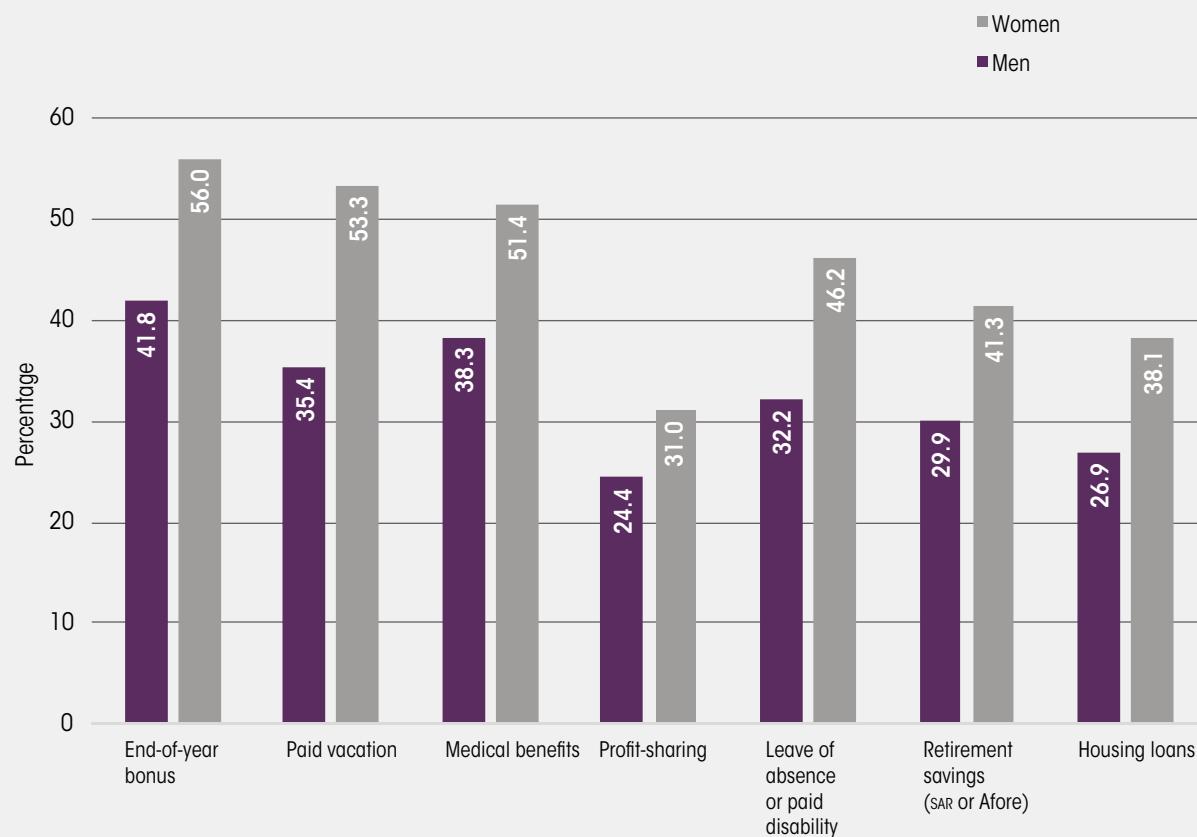
When migration breaks up the nuclear family of origin, there are considerable effects on the make-up of homes and in minors' living arrangements. If one or both parents migrate, the minor may be separated from one or both parents. The Intercensal Survey (INEGI 2015) shows there are 1,123,140 minors under age 18 who live in a home where they are grandchildren of the male or female head of household, but without the mother; 3,885,355 minors who reside in a home without the father; and 921,740 minors who live with neither parent. These varying living arrangements for minors may have particular implications for women, who take on a greater share of caregiving responsibilities.

### References

- INEGI. (2015). Encuesta Intercensal 2015. *Encuesta en hogares*. Retrieved from <http://www.beta.inegi.org.mx/proyectos/encuestas/especiales/intercensal/>
- Lorenzen Martin, M. J. (2016). *Migración de niñas, niños y adolescentes: Antecedentes y análisis de información de la Red de módulos y albergues de los Sistemas DIF, 2007-2016*. Mexico City: Consejo Nacional de Población / Sistema Nacional para el Desarrollo Integral de la Familia.



**Figure G4.1** Percentage of return migrants who receive employee benefits (2015)



Source: Compiled by the authors using INEGI 2015.

## 5 Climate Change

Climate change has multiple and profound implications for the well-being of the population, including variations in rainfall, temperature and humidity that will impact food production and health conditions, as well as changes in the oceans that will affect sea levels, marine life, and coastal areas (Intergovernmental Panel on Climate Change, IPCC, 2014). There are also predictions about an increase in the number, intensity, and location of extreme climate events. These considerable changes directly and indirectly affect a variety of ecosystems, putting their sustainability and the population's means of subsistence at risk (IPCC 2014).

Climate induced changes vary significantly across the territory, exposing people to very different types and levels of risk. What distinguishes climate change from other environmental challenges is its global reach, the spread and variability of the risks it brings about and their potential to deepen existing inequality, inside countries as well as among them (Beck 2010). Climate impacts depend on preexisting conditions of social vulnerability and disparities in development. That is, risks are added to the old inequalities, deepening and generating new areas of inequality, both because of differences in exposure to climate change among population groups, and because of the adaptation resources available to them. For example, poor homes are more exposed to extreme hydrometeorological events (Hallegatte *et al.* 2016).<sup>1</sup> The conditions of homes and of urban infrastructure increase the vulnerability of the poor, while the precariousness of their material resources limits their ability to respond, in the short and long terms, to climate risks.

The issue of climate change has been absent from discussions about Mexico's marked inequalities. While its importance is recognized in development plans and sectoral programs, it has been circumscribed to the area of natural resource management, without considering its connections with inequality. However, this is an inescapable issue because of three central reasons:

The first is because climate change modifies the environmental risks we face, altering the probabilities of sudden disasters and bringing about slow-developing but far-reaching environmental change (Nelson, Adger and Brown 2007). The growing climate risks will expose millions of households to greater volatility in their ways of life and income, in addition to the serious risks posed to public infrastructure and private investments (Agrawal and Lemos 2015, Few *et al.* 2006). These impacts can already be felt today and their costs, both in households as in countries, are hastily increasing, stressing inequalities (Hallegatte *et al.* 2015).

The second reason is that existing disparities in Mexico constrain both the possibilities of reducing greenhouse gas emissions, and of adapting to the expected effects of climate change. Those who will be affected, when and where, will depend not only on the change in the planet's physical systems, but also on the socioeconomic changes that take place in Mexico. It would be far easier to tackle the challenges of climate change in a future context of reduced inequalities, than in one where they persist.

Third, the risks implied in climate change are extensive and global, therefore, it is necessary to review traditional mechanisms of

<sup>1</sup> In urban settlements, for example, given the high housing costs, families with fewer resources are willing to live in areas with a greater situational exposure to risks, such as landslides or floods (Hallegatte *et al.* 2016, p. 85).



public policy design, and redefine the social agenda for the coming decades. This section discusses these topics and their implications for efforts to fight inequality in Mexico.

### Greenhouse gas emission trends and expected effects for Mexico

Despite Mexico's commitments to quickly reduce greenhouse gas emissions, they have remained relatively stable in recent years, placing the country in the 10th place in global emissions (Climate Data Explorer [CAIT 2018]). A frequent argument is that, given its lower level of emissions, Mexico does not need to make great efforts in terms of mitigation. Nevertheless, in relative terms, the country belongs to the big greenhouse gas emitters, even though its volume is considerably less than that of the main emitters (China, the United States, and the European Union). Likewise, the trend and the makeup of Mexican emissions continues to be worrisome, not only because the total level has remained essentially unchanged since the mid-2000s, but because close to 66% of Mexican emissions come from the energy sector, where the use of fossil fuels is predominant (Figure 5.1). This percentage has also remained stable, suggesting a very slow transition toward alternative sources of energy, making emissions reduction costly (Octaviano, Paltsev and Gurgel 2015). Faced with this data, Mexico committed to making a 50% reduction in its expected emissions by 2050. It is an ambitious goal, particularly considering the modest reduction in recent years. Nevertheless, the contribution of economies such as Mexico's is essential to meet global mitigation goals, as reductions by the biggest emitters will not be enough (Paltsev *et al.* 2012).

The trend in global and national emissions highlights the difficulty of reducing them and

reaching international goals that would help avoid the worst scenarios associated with climate change. Projections show there will be climate changes in the near future that will then broaden toward the end of the 21st century (IPCC 2013). Natural variations have an important influence on climate change; however, estimates show, with a high degree of certainty, that emissions generated by human activities also affect climate (IPCC 2013). At the global level, in a scenario of high emissions (RCP 8.5),<sup>2</sup> average temperatures would increase close to 2 degrees by 2050 and 4 degrees by 2100, while in a scenario of emission stabilization, temperatures would rise around 1.5 degrees by the middle of the century and 1.8 degrees by the end of it (KNMI 2018). As climate is sensitive to the concentration of emissions in the atmosphere, a greater concentration leads to temperature increases and more climatic variability.

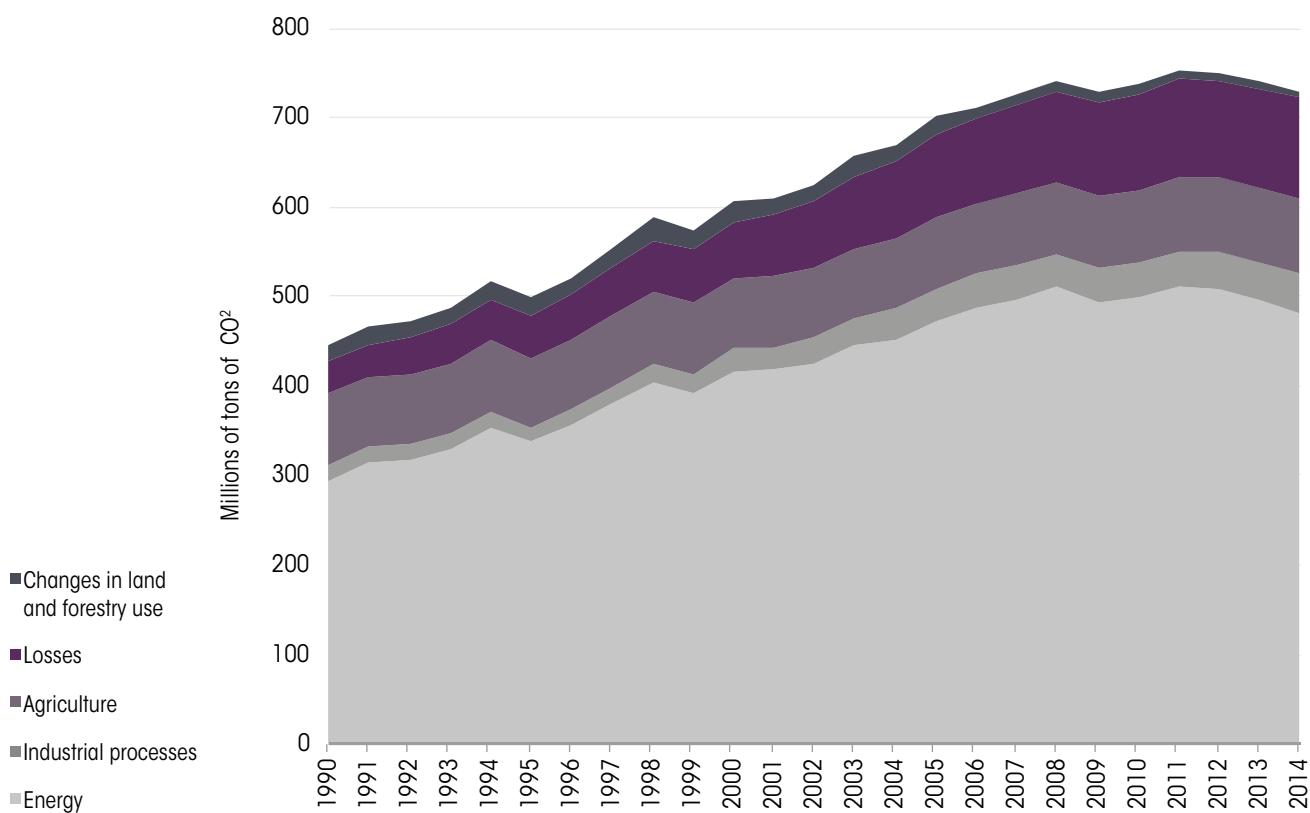
Why should we worry today about something so distant in the future? To begin with, because those effects are already taking place. Also, because the accumulation of greenhouse gases in the atmosphere and many of their effects will persist for numerous decades, even if emissions were to completely stop tomorrow. This underscores the urgency to take action, given the emissions' lasting effects on the environment and on human well-being. If the trend of emissions growth continues, we could soon reach a critical point that would make it very difficult to avoid the most damaging impacts of climate change in the future (O'Neill, Riahi and Keppo 2010).

It is necessary to implement a broader and stronger set of measures to modify the trajectory of the emissions. In Mexico, this involves assessing the efficacy of the actions taken so far and explicitly considering the unequal generation of greenhouse gases so as to

Climate change modifies the environmental risks we face, altering the probabilities of sudden disasters and bringing about slow-developing but far-reaching environmental change.

<sup>2</sup> RCP (Radiative Concentration Forcing) refers to the concentration level of emissions in the atmosphere and can describe different possible future climates. Scenarios predict how climate would change at different emission concentration levels. For example, comparing a scenario of high emissions (8.5 RCP) versus one of low emissions (4.5) makes it possible to look into the effects of a policy to reduce greenhouse gas emissions. It should be noted that a level of 4.5 RCP would mean a reduction in the current global trend, that is, it is an optimistic scenario.

**Figure 5.1.** Greenhouse gas emissions by sector. (1990-2014)



Source: Compiled by the authors using data from CAIT (2017).

disincentivize sectors with greater emissions and guarantee the well-being of those with fewer resources (Grubler and Pachauri 2009). It is also necessary to assess the impacts that a more stringent mitigation policy, such as that needed to meet current mitigation goals, would mean for the Mexican population. Some studies find that because of Mexico's strong dependence on fossil fuels, the costs to reduce it would be high in the medium term (Octaviano, Paltsev and Gurgel 2015); similarly, others find that energy prices would rise, affecting consumption in Mexican households (Ruijven, Escoto and Sánchez 2017). Nevertheless, if a policy of mitigation is not implemented, the negative impacts could be greater in the long run, given the high costs

that could come from soil productivity changes or extreme events.

### Climate change and expected impacts

Of the many predicted changes due to climate, below we concentrate on three: temperature, sea level, and rainfall.

*Temperature.* It is estimated that summer temperatures in Mexico will rise between 2 and 3 degrees by 2050 and between 2.5 and 4.5 degrees by the end of the century (KNMI 2018).<sup>3</sup> This estimate is greater than the average global rise in temperature. An increase of 25% in the number of days with extreme temperatures

<sup>3</sup> Indeed, higher temperatures will be expected if emissions continue to rise instead of stabilizing. The estimates come from the Climate Change Atlas, produced by KNMI (2018).



is expected, even if emissions are stabilized (KNMI 2018). The heat waves will mean challenges to public health as well as to economic and social activities. This will particularly be the case in urban areas, which are also subject to the urban heat island effect (IPCC 2014).<sup>4</sup>

*Sea level.* The rise in temperature also contributes to increases in sea levels, as this will expand the volume of water in the ocean, while the melting of the glaciers and polar ice caps expands the flow to the oceans. Historical data shows that, since 1870, the sea level has increased 19 centimeters and that this rise has accelerated in recent years (IPCC 2013). It is expected that in coming decades it will rise even faster, with an average change of at least 80 centimeters by the year 2100, although it is possible it could reach 2 meters, depending on the concentration of emissions in the atmosphere. There is variation between coasts, but similar levels of sea level rise are expected in Mexico, where the coastal areas have grown dynamically in terms of population and economic activity. An increase of this magnitude in sea levels would compromise the sources of employment in these areas, as most of the hotels and infrastructure (roads, boardwalks, piers) would be more susceptible to flooding. Beach areas would be lost as well, and these regions would become more vulnerable to high waves and surges during storms.

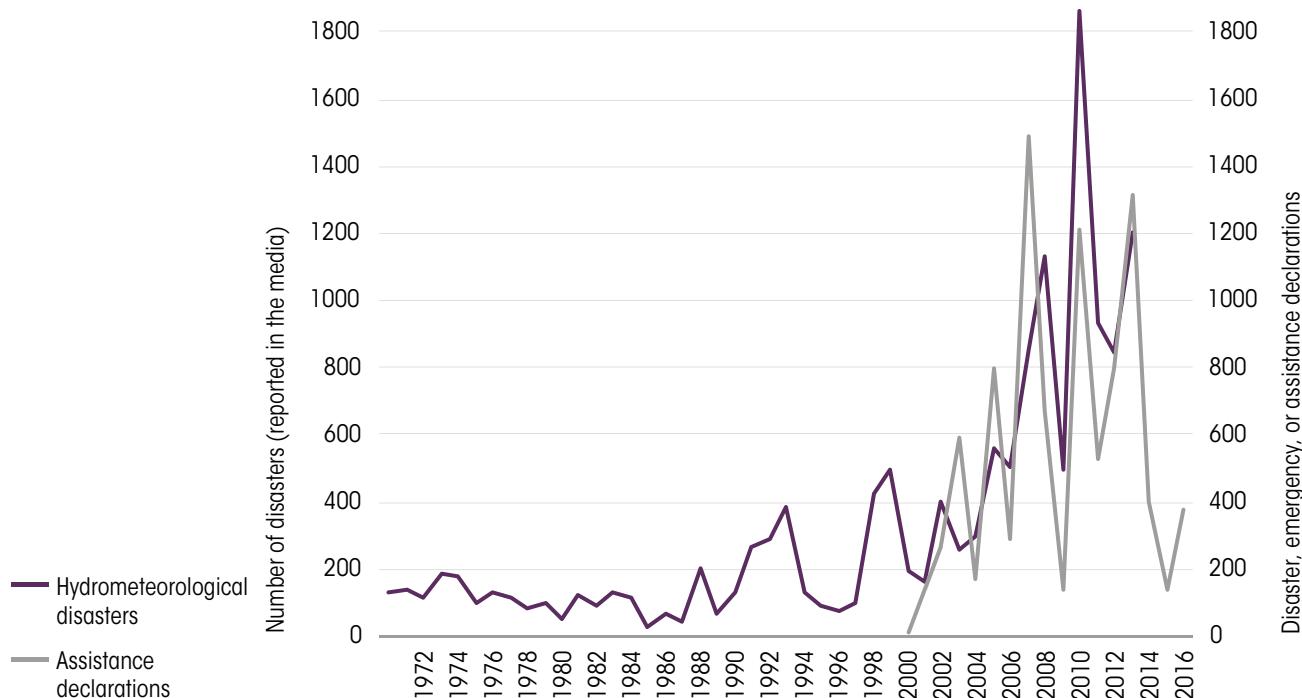
In the Caribbean region it is estimated that sea level will increase a meter (highly probable according to current predictions), and that a third of the hotel complexes will be flooded, causing the loss of beaches and touristic attractions (Scott, Simpson and Sim 2012). Further, it is expected that the price of touristic services will increase because of the cost of investment needed to keep areas attractive as tourist destinations and because of a greater demand for energy and water associated with climate change (Santos-Lacueva, Clavé and Saladié 2017).

*Rainfall.* Climatological models also predict changes in precipitation and storms, with important variations by region and season. It is expected that heavy rains will increase, particularly in tropical regions and those of higher altitude (IPCC 2013). Additionally, it is predicted that there will be stronger winds during rains and tropical storms (IPCC 2013). Mexico will experience changes in rainfall, with significant regional variations, and will be affected by a greater number of extreme hydrometeorological events. It is expected that, by the year 2050, there will be a drop in average rainfall throughout the nation, but with greater losses in the north (Uniatmos 2018). A decline in rainfall would pose major threats to water systems that are already under pressure, exacerbating vulnerability in terms of access to water and its quality. These negative effects would impact numerous areas, from agriculture and food security, to energy infrastructure and health (Wilder *et al.* 2013). Other research also predicts drought increases, particularly in northern Mexico, resulting from a combination of deficits in rainfall and temperature rise (Gutzler 2013, Magaña, Zermeño and Neri 2012).

The scenarios described above illustrate the potential effects climate change would have on Mexicans' economic activities, health, and life in general. The effects of climate change on agricultural productivity and, consequently, on food prices, are also a matter of concern. Some studies suggest that agricultural productivity will drop in Mexico (Gay *et al.* 2006, Magaña, Zermeño and Neri 2012). Rainfall decline would have negative effects because nearly half the total crop production is grown on rainfed land, and because a greater variability in rainfall would affect both, corn and bean production (Gay *et al.* 2006), thus consumption in Mexican households, particularly in urban areas where almost 90% of the population are net food consumers (Ruijven, Escoto and Sánchez 2017).

<sup>4</sup> Temperatures in urban areas tend to increase more than in rural ones because of the types of materials used in construction, vehicle combustion associated with transportation, and the smaller number of wet areas, among other factors.

**Figure 5.2.** Number of hydrometeorological disasters and assistance declarations (1972-2016)



**Source:** Sánchez and De la Torre (2018) using data from Cenapred (2017 and 2018).

**Notes:** Number of disasters corresponds to media reports registered by the Inventory System of Disaster Effects (Sistema de inventario de efectos de desastres, DesInventar 2017). Public assistance declarations include disasters, emergencies, or contingencies linked to hydrometeorological events according to Cenapred.

Developing countries such as Mexico are more vulnerable to these effects not only due to their climate and greater exposure to extreme events, but also because of their limited infrastructure and institutional response capabilities.

As the planet has warmed, extreme climatological events have increased in number and intensity, as well as in their geographic variability and duration (NASEM 2016).<sup>5</sup> Available data show, on the one hand, that the number of hydrometeorological disasters—the most common type in Mexico—have increased in recent decades, both in terms of recorded trends by autonomous monitoring systems (DesInventar 2017) and in the official disaster declarations by the National Disaster Prevention Center [Centro Nacional de Prevención de Desastres] (Cenapred 2018) (see Figure 5.2).

Between 2000 and 2015, hydrometeorological events accounted for almost 93% of the monetary losses caused by disasters in Mexico (Cenapred 2018). A conservative estimate of the damages caused by these catastrophes during those 15 years suggests that they represent more than US\$27 billion (Cenapred 2018). Some studies focusing on other countries indicate disasters have an effect on inequality given the differentiated losses between those who are more and less exposed to them (Hsiang *et al.* 2017) and because of their varying response capabilities.

### New risks, new inequalities

Climate change will have uneven effects on the population, both in territorial terms and

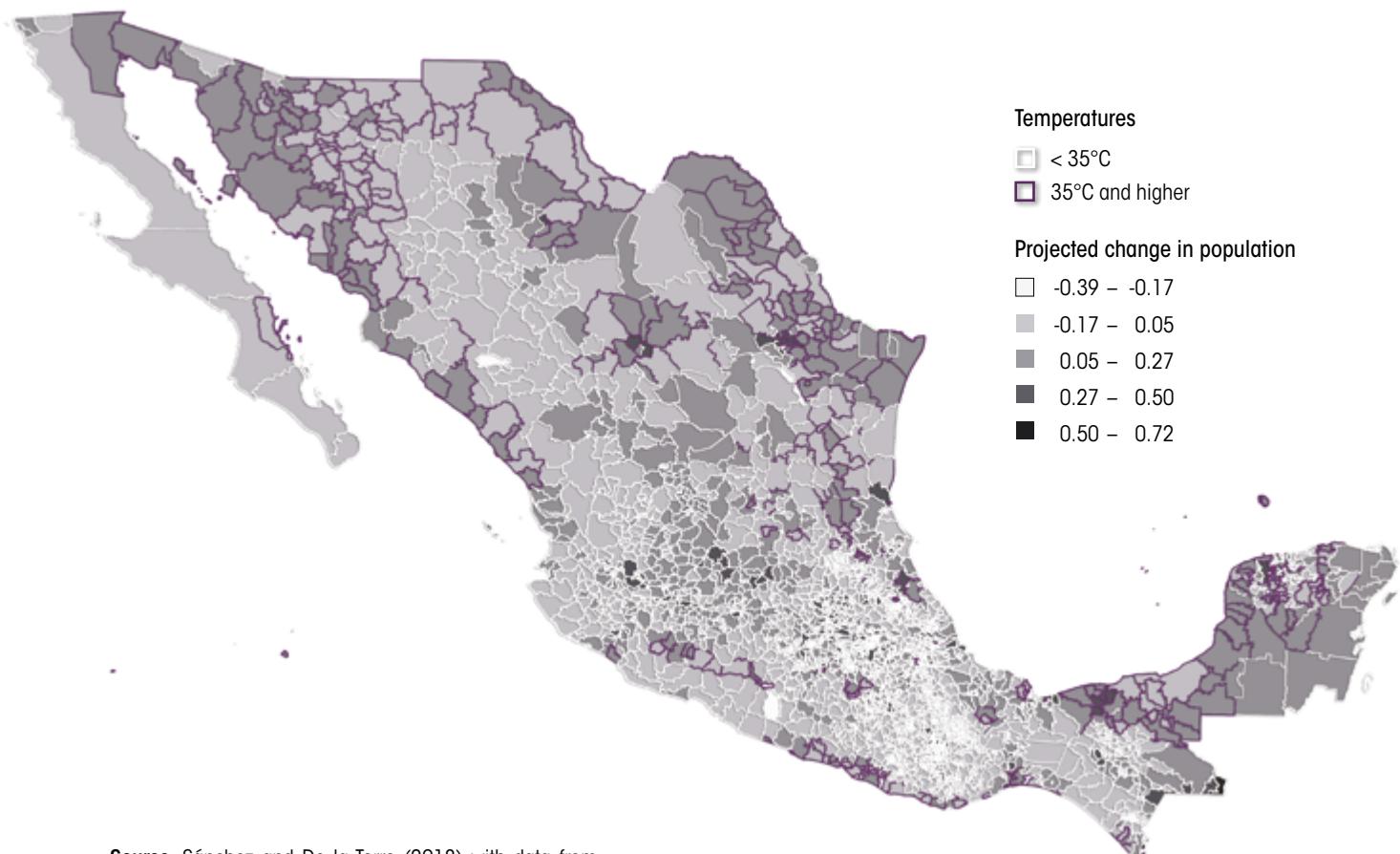
<sup>5</sup> It is difficult to attribute the cause of individual disasters to climate change, but recent studies have focused on understanding how and to what extent changes in climate systems affect the probabilities of the occurrence, as well as the intensity of natural phenomena (NASEM 2016).



in terms of socioeconomic status, gender, ethnicity, and age. Geographic location affects the degree of exposure of different groups, as important territorial differences are predicted regarding climate change risks. This exposure will also depend on the geographical distribution of the population in the future. Figure 5.3 estimates the change in the number of people exposed to severe increases in temperature: the figure presents estimates of expected population growth between 2010 and 2040 (Jones and O'Neill 2016), and contrasts this information with the location of communities where the average maximum temperature will exceed 35 degrees during the summer months. We estimate that, by 2040, close to 3 million more people will be exposed to high temperatures under a conservative emissions scenario.

The purple contours show the places where high temperatures are expected; the majority are found in the north of the country and in coastal areas. These areas, nevertheless, will vary significantly in expected population growth: while very small increases are expected in the northeast of Chihuahua, population will grow considerably in urban coastal municipalities (Sonora, Sinaloa, Campeche, Yucatán, Tamaulipas, and Quintana Roo) and in the metropolitan areas of Coahuila and Nuevo León. Further, while municipalities in the central part of the country are projected to experience an important population growth, extreme temperatures are not forecast there. Thus, our analysis shows that the growth in exposure to this specific climate risk comes from combining the change in temperatures with the spatial distribution of the population.

**Figure 5.3.** Population growth (2010-2040) and maximum temperatures (2018)



**Source:** Sánchez and De la Torre (2018) with data from Uniatmos (2018) and Jones and O'Neill (2016 and 2017).

Information on the varying spatial effects of climate change opens opportunities for policy action that can reduce exposure and vulnerability.

Besides intersecting with the spatial population distribution, climate effects crisscross the structure of existing inequalities. However, it cannot be inferred that today's inequalities will be tomorrow's. First, because economic development will modify them, and second, because these climate risks involve new inequalities among people who are more and less exposed, as well as those who are well-prepared to adapt and others who are not. The extent of climate impacts, as well as the distribution of private and public resources intended for adaptation, will shape inequality in the future. While being poor is not synonymous with environmental vulnerability (Smith, Klein and Huq 2003), poor people end up being more affected because: (a) they tend to be more exposed to risks, (b) their relative losses are greater and can have longer-term effects, and (c) because they have fewer resources to circumvent the risks and to adapt (Hallegatte, Bangalore, Bonzanigo, Fay, Narloch, Rozenberg and Vogt-Schilb 2014). Moreover, increases in temperatures, in precipitation, and in the frequency and intensity of natural disasters are associated with the possibility that affected households will fall into poverty. Hydrometeorological disasters affect food and energy prices, destroy household goods and investments, and damage employment and local businesses (Ahmed, Differbaugh and Hertel 2009).

Furthermore, climate change can affect decisions about households' investments and savings, as it introduces greater uncertainty about the future (Hallegatte, Hourcade and Dumas 2007). Various authors have documented the effects of climate change on income, consumption, and poverty (Boyd and Ibarrarán 2009, López-Feldman 2014, Rodríguez-Oreggia, De la Fuente and De la Torre 2013, Ruijven, Escoto and Sánchez 2017).

Both, poverty and climate vulnerability vary geographically in Mexico. Figure 5.4

The extent of climate impacts, as well as the distribution of private and public resources intended for adaptation, will shape inequality in the future.

shows the percentage of municipal poverty in 2015 (Coneval 2017) and the number of days with extreme rainfall between 2005 and 2014.<sup>6</sup>

In Mexico, the areas that experienced extreme rainfall are in the center, south, and a portion of the west, whereas there is a lower incidence in the northern part of the country. It is also worth noting that a large proportion of municipalities with high poverty levels were exposed to a greater number of days with heavy rains. In fact, while municipalities with less poverty experienced, on average, 16 days of extreme rains, the localities with the highest poverty levels experienced 26 such days. The high concentration of poor people in the south of the country accentuates the need to develop measures against flooding and landslides, to protect both, the population and economic activities, as well as to organize infrastructure to channel heavy rains.

Various socioeconomic inequalities besides poverty contribute to the vulnerability and heterogeneity in the capacities to adapt to climate change. Particularly, a low diversification of sources of household income and goods contributes to a greater sensitivity to climatic effects, plus other factors which increase climate vulnerability, such as dependence on one economic sector, one type of employment, crop, or investment, as well as having little access to technology and services which would provide greater flexibility (UN-DPAD 2017). In addition, the most affected population often has few assets which tend to be more territorially concentrated. In contrast to marginalized households, those in a higher socioeconomic position not only have higher incomes, but their physical and financial capital is diversified, and they often have safeguards such as insurance (UN-DPAD 2017).

Vulnerability to climate change is linked to other dimensions of inequality beyond economic ones. Gender, ethnicity and race, educational level, and age are important variables for understanding who is more exposed and

<sup>6</sup> Precipitation above the 95th percentile.

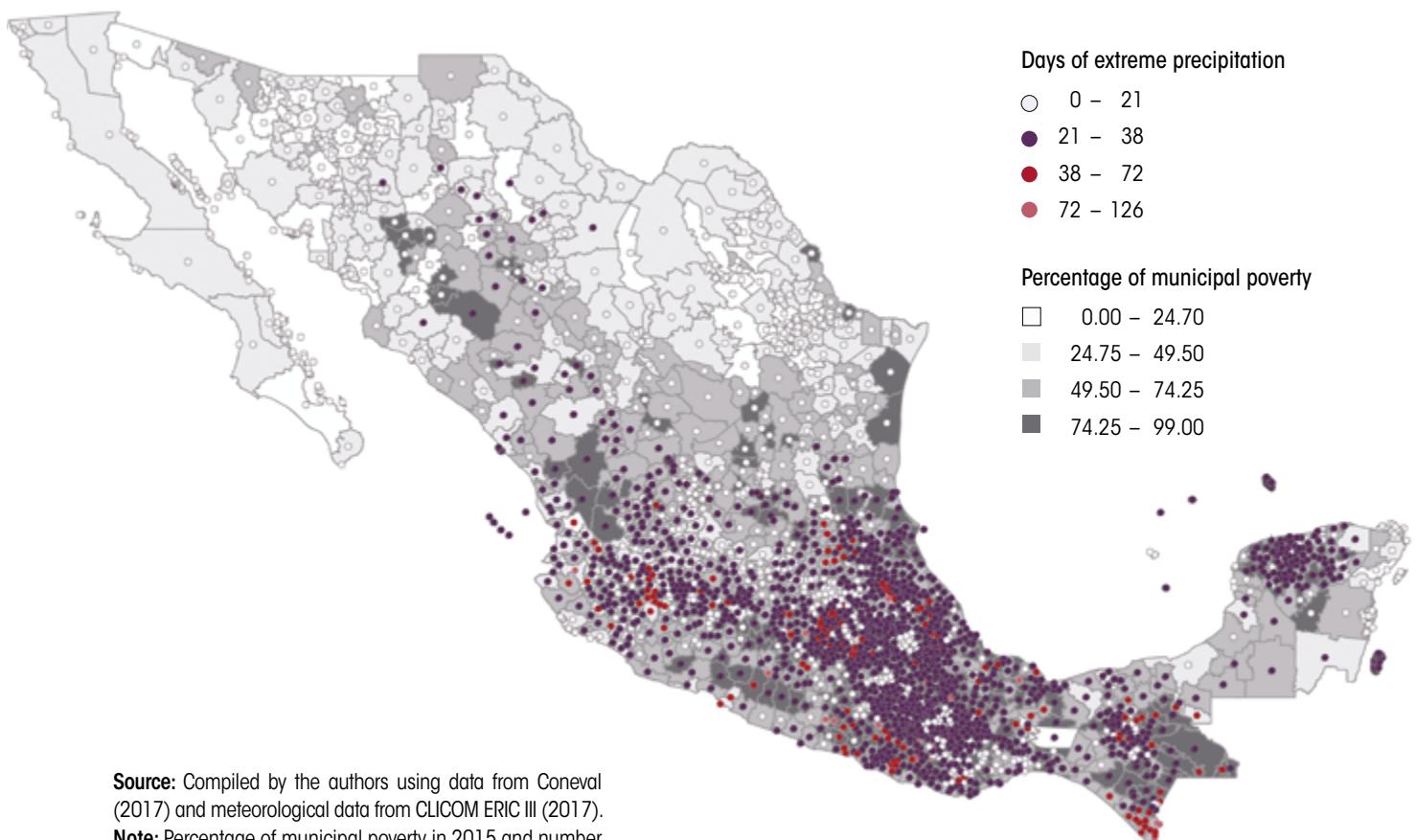


what are their response capabilities. Moreover, this inequality increases because of asymmetries in political representation and institutional coverage (Yohe and Tol 2002). For example, studies increasingly document how climate change affects men and women differently, and how their capacities for adaptation vary. Limitations in land property rights—private and communal—and a lack of access to financial capital mean fewer opportunities for women to hedge against climate risks (Perez, Jones, Kristjanson, Cramer, Thornton Förch and Barahona 2015).

Other studies suggest that, as women spend more time on caring for children and older adults, their vulnerability during disasters increases in the days following catastrophic events.<sup>7</sup> Moreover, gender norms can restrict women's access to education, skills, and key social networks at times of emergency. Similarly, reconstruction efforts following disasters may require a disproportionate amount of unpaid work by women, in tasks such as caregiving, devoting more time to collect water, participating in the management of resources

<sup>7</sup> In the days after a disaster, the caregiving work of women increases, as they must not only feed and dress children and older adults, but also tend to these people's physical and emotional health. This expansion of duties exposes women to greater risks, as when, for example, women are forced to find food under emergency conditions. These burdens reduce the time women can spend taking care of themselves in such dire circumstances. Studies in other countries have found that caregiving work can explain gender differences in mortality and morbidity after an extreme event (Nelson *et al.* 2002).

**Figure 5.4.** Days with extreme rainfall (2005-2014) and percentage of municipal poverty (2015)



**Source:** Compiled by the authors using data from Coneval (2017) and meteorological data from CLICOM ERIC III (2017).

**Note:** Percentage of municipal poverty in 2015 and number of days with extreme precipitation between 2005 and 2014.

and in neighborhood committees (Habtezion 2013). Added to this is the low female representation in international organizations assessing climate policy, as well as in national and even local organizations.

Nevertheless, some studies suggest that households headed by women could have greater resilience due to diversification of their sources of income and their spending patterns (Nelson *et al.* 2002). Similarly, it is expected that women's educational advancement will contribute to reduce their vulnerability, as it is generally assumed that education will have a positive effect regarding climate risk perceptions and people's abilities and knowledge to cope with it (Nelson *et al.* 2002). Better educated people and communities are more prepared and have an improved response in case of disasters; they also tend to be less affected and to recover more quickly (Lutz, Muttarak and Striessnig 2014). In this sense, women's higher rate of enrolment at high school and university, as well as an increase in their average years of schooling, could contribute to reducing their vulnerability, even when inequalities in the labor market, caregiving work, and rural property persisted.

In Mexico, an indigenous status is associated with a greater likelihood of being poor. Around 75% of the indigenous population of Mexico was considered poor in 2012, with a rate nearly double of that of the non-indigenous population. Indigenous vulnerability increased because of deficiencies in housing and less access to health services (Coneval 2013). A large majority of indigenous populations (64%) live in rural contexts and are more dependent on natural resources. Their geographical location, economic activities, and cultural frameworks demand ethnic belonging to be reconsidered in climate change policy, not only because of indigenous people's high degree of vulnerability, but also because of their potential contribution to the design of alternative policies, particularly regarding forest and biodiversity conservation (Etchart 2017). Nevertheless, we still know little about the living conditions and needs of the indigenous population in the current context, and do not know enough about

the rules and operations of the institutions that determine their vulnerability. For example, we need to understand how the early-alert and disaster-declaration systems operate in contexts of inequality and how to develop compensatory mechanisms that recognize the indigenous population's contributions to the preservation of environmental services and combating climate change.

## Reducing inequalities

While the climate change agenda is extensive and specific actions must be addressed, it is also important to recognize how inequality intersects greenhouse gas emissions, and impacts the well-being of populations as well as their abilities to respond to new risks. This first step implies mconsidering such inequalities in the design of policies and actions. The discussion above shows that when it comes to climate change, inequalities are based at the intersection between differences in exposure (to greater and more diverse environmental risks) and socioeconomic and institutional inequities.

A second point concerns the need to understand the specificity of climate risks. It is frequently presumed that working against poverty and marginalization will eradicate, by itself, the negative impacts of climate change. Nevertheless, various studies show this is not the case. Nelson *et al.* (2016) note that, even when poverty is reduced through investment in human capital and improvements in income, households continue to be vulnerable because of a lack of investment in climate risk management in the short and long terms. That is, anti-poverty policies are necessary, but not enough: social policy must include specific measures against environmental risks.

Third, it must be explicitly considered that climate risks entail an expansion in the types of actions implemented, in terms of whom they target and where, and also in the forms public interventions take. The challenges posed by climate change require reconsidering which environmental risks are socially

Low diversification of sources of household income and goods contributes to a greater sensitivity to climatic effects.



acceptable and what costs we are prepared to face. This diagnostic may be very complex in Mexico because of the marked inequalities in economic resources and in civil society's capabilities to influence. Consequently, it is imperative to discuss the social redistribution of risk, that is, the potential of using collective protection mechanisms to deal with these risks and reduce adaptation gaps.

## References

- Ahmed, S., Diffenbaugh, N. S. and Hertel, T. W. (2009). Climate Volatility Deepens Poverty Vulnerability in Developing Countries. *Environmental Research Letters*, 4(3), 1-9. doi:<https://doi.org/10.1088/1748-9326/4/3/034004>
- Agrawal, A. and Lemos, M. C. (2015). Adaptive development. *Nature Climate Change*, 5(3), 185-187.
- Beck, U. (2010). Remapping Social Inequalities in an Age of Climate Change: For a Cosmopolitan Renewal of Sociology. *Global Networks*, 10(2), 165–181.
- Boyd, R. and Ibarrarán, M. E. (2009). Extreme Climate Events and Adaptation: An Exploratory Analysis of Drought in Mexico. *Environment and Development Economics*, 14(3), 371–395. <https://www.cambridge.org/core/journals/environment-and-development-economics/article/extreme-climate-events-and-adaptation-an-exploratory-analysis-of-drought-in-mexico/834769A864777E5D8560DC97D90899C9>
- CAIT. (2017). *Climate Data Explorer*. Washington, DC:World Resources Institute. <http://cait.wri.org>
- CAIT. (2018). *Climate Data Explorer. Statistics*. <https://www.climatewatchdata.org/ghg-emissions>.
- Cenapred. (2017). "Declaratorias sobre emergencia, desastre y contingencia climatológica." *Base de datos*. <https://datos.gob.mx/busca/dataset/declaratorias-sobre-emergencia-desastre-y-contingencia-climatologica>
- Cenapred. (2018). "Impacto Socioeconómico de los desastres. 2000-2015." *Database*. <https://datos.gob.mx/busca/dataset/impacto-socioeconomico-de-desastres-de-2000-a-2015>
- CLICOM ERIC III. (2017). "Base de datos Climáticos de CLICOM (2013) para estaciones meteorológicas en México." Software.
- Coneval. (2013). *Informe de pobreza en México, 2012*. Mexico City: Coneval.
- Coneval. (2017). "La pobreza en los municipios de México, 2015." *Medición de la pobreza*. Retrieved from [https://www.coneval.org.mx/Medicion/Documents/Pobreza\\_municipal/Presentacion\\_resultados\\_pobreza\\_municipal\\_2015.pdf](https://www.coneval.org.mx/Medicion/Documents/Pobreza_municipal/Presentacion_resultados_pobreza_municipal_2015.pdf)
- DesInventar. (2017). "México-Inventario Histórico de Desastres. 2000-2015." *Sistema de inventario de efectos de desastres. Database*. <https://online.desinventar.org/>
- Etchart, L. (2017). The Role of Indigenous People in Combating Climate Change. *Palgrave Communications* 3(17085), 1-3. Retrieved from <https://www.nature.com/articles/palcomms201785>
- Few, R. et al. (2006). Linking Climate Change Adaptation and Disaster Risk Management for Sustainable Poverty Reduction. Mexico country study, carried out for the Vulnerability and Adaptation Resource Group.
- Gay, C. et al. (2006). Potential Impacts of Climate Change on Agriculture: A Case of Study of Coffee Production in Veracruz, Mexico. *Climatic Change*, 79 (3-4), 259–288. <http://link.springer.com/10.1007/s10584-006-9066-x>
- Grubler, A. and Pachauri, S. (2009). Problems with Burden-Sharing Proposal Among One Billion High Emitters. *Proceedings of the National Academy of Sciences of the United States of America* 106(43). E122-3. author reply E124. <http://www.ncbi.nlm.nih.gov/articlerender.fcgi?artid=2775349&tool=pmcentrez&rendertype=abstract>.
- Gutzler, D. S. (2013). Regional Climatic Considerations for Borderlands Sustainability. *Ecosphere* 4(1). <http://doi.wiley.com/10.1890/ES12-00283.1>
- Habtezion, S. (2013). *Overview of the Linkages Between Gender and Climate Change*. <http://www.undp.org/content/dam/undp/library/gender/Gender-and-Environment/PB1-AP-Overview-Gender-and-climate-change.pdf>
- Hallegatte, S. et al. (2015). Poverty and Climate Change: Natural Disasters, Agricultural Impacts and Health Shocks. *Geneva Reports on the World Economy*. November 2015. (pp. 369-389). <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84956507366&partnerID=40&m&d5=5c06a203a0fbe7854eba311e98c3014>
- Hallegatte, S. et al. (2016). *Shock Waves: Managing the Impact of Climate Change and Poverty*. Washington, DC: World Bank, International Bank for Reconstruction and Development.
- Hallegatte, S., Bangalore, M., Bonzanigo, L., Fay, M., Narloch, U., Rozenberg, J. and Vogt-Schilb, A. (2014). Climate Change and Poverty. An Analytical Framework. *World Bank Policy Research*. Working Paper 7126. <https://ssrn.com/abstract=2531160>
- Hallegatte, S., Hourcade, J. and Dumas, P. (2007). Why Economic Dynamics Matter in Assessing Climate Change Damages: Illustration on Extreme Events. *Ecological Economics*, 62(2), 330-340.
- Hsiang, S. et al. (2017). Estimating Economic Damage from Climate Change in the United States. *Science*, 356(6345), 1362-1369.

- IPCC. (2013). *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK, and New York: Cambridge University Press. <http://www.climatechange2013.org/report/full-report/>
- IPCC. (2014). *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK, and New York: Cambridge University Press.
- Jones, B. and O'Neill, B. C. (2016). Spatially Explicit Global Population Scenarios Consistent with the Shared Socioeconomic Pathways. *Environmental Research Letters*, 11(8). <http://stacks.iop.org/1748-9326/11/i=8/a=084003?key=crossref.51e5432142aa508d829ebd92d31e7ca>
- Jones, B. and O'Neill, B. C. (2017). *Global Population Projection Grids Based on Shared Socioeconomic Pathways (SSPs), 2010-2100*. Palisades, NY: NASA Socioeconomic Data and Applications Center (SE-DAC). <https://doi.org/10.7927/H4RF5S0P>.
- KNMI. (2018). "Climate Explorer: Atlas of Climate Change." Royal Netherlands Meteorological Institute. <http://climexp.knmi.nl/start.cgi>
- López-Feldman, A. (2014). *Cambio climático, distribución del ingreso y la pobreza: El caso de México*. <https://ideas.repec.org/cgi-bin/refs.cgi>
- Lutz, W., Muttarak, R. and Striessnig, E. (2014). Universal Education Is Key to Enhanced Climate Adaptation. *Science*, 346(6213), 1061-1062. doi: 10.1126/science.1257975
- Magaña, V., Zermeno, D. and Neri, C. (2012). Climate Change Scenarios and Potential Impacts on Water Availability in Northern Mexico. *Climate Research*, 51(2), 171-184. <http://www.int-res.com/abstracts/cr/v51/n2/p171-184/>
- NASEM. (2016). "Attribution of Extreme Weather Events in the Context of Climate Change." National Academies of Sciences, Engineering, and Medicine. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21852>.
- Nelson, D. R., Adger, W. N. and Brown, K. (2007). Adaptation to Environmental Change: Contributions of a Resilience Framework. *Annual Review of Environment and Resources*, 32(1), 395-419. <http://www.annualreviews.org/doi/abs/10.1146/annurev.energ.y32.051807.090348>
- Nelson, D. R., Lemos, M. C., Eakin, H. and Lo, Y. (2016). The Limits of Poverty Reduction in Support of Climate Change Adaptation. *Environmental Research Letters* 11(9). <http://stacks.iop.org/1748-9326/11/i=9/a=094011?key=crossref.04423c7692ee-03c09b07c3c0e8322f4b>
- Nelson, V. et al. (2002). Uncertain Predictions, Invisible Impacts, and the Need to Mainstream Gender in Climate Change Adaptations. *Gender and Development*, 10(2), 51-59.
- O'Neill, B. C., Riahi, K. and Keppo, I. (2010). Mitigation Implications of Midcentury Targets That Preserve Long-Term Climate Policy Options. *Proceedings of the National Academy of Sciences of the United States of America*, 107(3), 1011-1016. <http://www.ncbi.nlm.nih.gov/article/2806345>
- Octaviano, C., Paltsev, S. and Gurgel, A. C. (2015). Climate Change Policy in Brazil and Mexico: Results from the MIT EPPA Model. *Energy Economics*, 56 (May 2016), 600-614. <http://www.sciencedirect.com/science/article/pii/S0140988315001292>
- Paltsev, S. et al. (2012). The Role of China in Mitigating Climate Change. *Energy Economics*, 34(3), S444-S450. <https://dspace.mit.edu/handle/1721.1/70563>
- Perez, C., Jones, E. M., Kristjanson, P., Cramer, L., Thornton, P. K., Förch, W. and Barahona, C. (2015). How Resilient Are Farming Households and Communities to a Changing Climate in Africa? A Gender-Based Perspective. *Global Environmental Change*, 34, 95-107.
- Rodríguez-Oreggia, E., De la Fuente, A. and De la Torre, R. (2013). The Impact of Natural Disasters on Human Development and Poverty at the Municipal Level in Mexico. *Development Studies*, 43(3), 442-55.
- Ruijven, B. V., Escoto, A. and Sánchez, L. (2017). Impacts of Climate Change and Climate Policy on Households in Mexico. In *IAM-Meeting*, São Paulo, Brazil.
- Sánchez, L. and De la Torre, R. (2018). "Patrones geográficos y poblacionales en el cambio de la exposición a fenómenos hidrometeorológicos extremos en México." Manuscript.
- Santos-Lacueva, R., Clavé, S. A. and Saladié, O. (2017). The Vulnerability of Coastal Tourism Destinations to Climate Change: The Usefulness of Policy Analysis. *Sustainability*, 9(11).
- Scott, D., Simpson, M. C. and Sim, R. (2012). The Vulnerability of Caribbean Coastal Tourism to Scenarios of Climate Change Related Sea Level Rise. *Journal of Sustainable Tourism* 20(6): 883-898. <http://www.tandfonline.com/doi/abs/10.1080/09669582.2012.699063>
- Smith, J., Klein, R. and Huq, S. (2003). *Climate Change, Adaptive Capacity and Development*. London: Imperial College Press.
- UN-DPAD. (2017). *World Economic and Social Survey 2016: Climate Change Resilience: an opportunity for reducing inequalities*. New York: Development Policy & Analysis Division of United Nations. <https://www.un.org/development/desa/dpad/publication/world-economic-and-social-survey-2016-climate-change-resilience-an-opportunity-for-reducing-inequalities/>
- Uniatmos. (2018). "Actualización de los escenarios de cambio climático para estudios de impactos, vulnerabilidad y adaptación." Unidad Informática para las Ciencias Atmosféricas y Ambientales. *Bases de datos*. [http://atlasclimatico.unam.mx/AECC\\_descargas/](http://atlasclimatico.unam.mx/AECC_descargas/)
- Wilder, M. et al. (2013). Chapter 16: Climate Change and U.S.-Mexico Border Communities. In *Assessment*



*of Climate Change in the Southwest United States: A Report Prepared for the National Climate Assessment* (pp. 340-384.) Washington, DC: Island Press.

Yohe, G. and Tol, R. S. J. (2002). Indicators for Social and Economic Coping Capacity - Moving Toward a Working Definition of Adaptive Capacity. *Global Environmental Change*, 12(1), 25-40. <http://www.sciencedirect.com/science/article/pii/S0959378001000267>.

## Climate change and territorial inequality

T5

**A**s we have seen in this section, exposure to environmental risks from climate change has different territorial effects and will be likely to generate new inequalities.

Figure T5.1 shows the territorial distribution of vulnerability to climate change in Mexico's municipalities. A recent study by the National Institute of Ecology and Climate Change (IN-EEC) introduced an indicator classifying Mexican municipalities according to their climate vulnerability (PECC 2014).<sup>1</sup> Of the country's 2,456 municipalities, 480 (20%) have a high or very high indicator. The most vulnerable municipalities are in 13 states: Baja California, Chiapas, Chihuahua, Guerrero, Hidalgo, Oaxaca,

Puebla, Quintana Roo, San Luis Potosí, Sonora, Tabasco, Veracruz, and Yucatán. Those with very high vulnerability are concentrated in the states of the southern and southeastern regions (Chiapas, Guerrero, Oaxaca, Veracruz, and Tabasco). Given the long-standing social disadvantages of the region, vulnerability vis-à-vis climate change presents a major challenge in terms of population readiness to confront new environmental risks and disasters.

To be effective, it is necessary that federal and local government strategies consider the differentiated effects of climate change and their interaction with the legacies of inequality that prevail across Mexico.

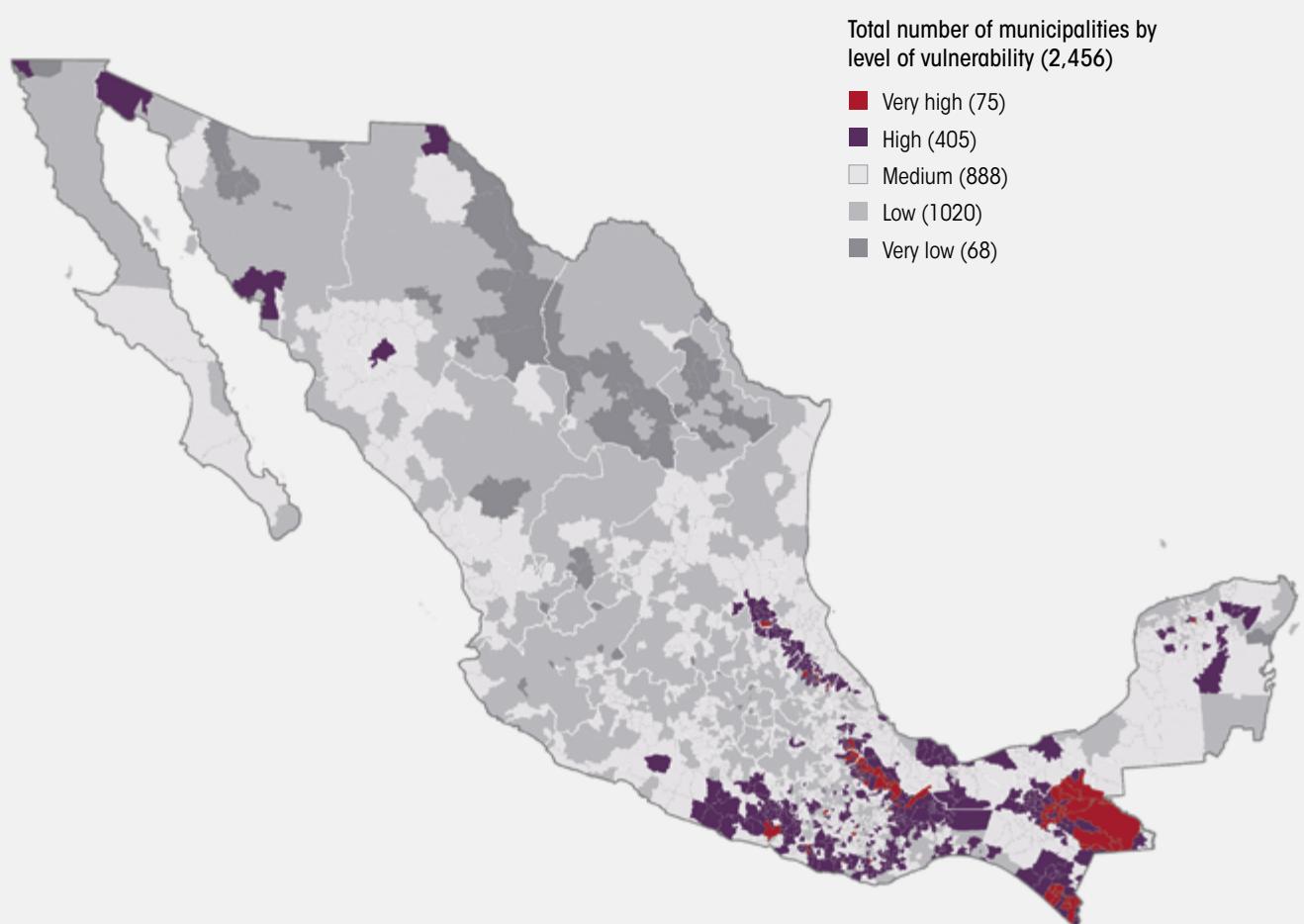
<sup>1</sup> Municipalities are classified in five categories of vulnerability: very low, low, medium, high, and very high.

---

### References

- PECC (2014). *Versión de Difusión del Programa Especial de Cambio Climático 2014-2018*. Gobierno de la República, México.

**Figure T5.1** Vulnerability to climate change in Mexican municipalities (2013)



**Source:** Compiled by authors with 2013 data from the National Institute of Ecology and Climate Change (INECC).

## Environmental risks and gender inequality

G5

**I**t is often assumed that the effects of environmental deterioration and climate change affect men and women equally. However, recent research has shown considerable differences. For instance, Castañeda and Gammage (2016, pp. 273-274), identify the effects of climate change that are relevant or specific to women (Table G5.1).

In a study of the Action Guidelines for Climate Adaptation for Sustainable Cities (part of the National Strategy for Climate Change), Crossa and Sánchez (in press) find the guidelines do not include goals with an explicit gender dimension.

“Designing and including a gender perspective in the strategies to reduce social vulnerability” is only mentioned when discussing mitigation actions, and concrete follow-up mechanisms are not proposed. Efforts to incorporate the needs and specific contributions of women are still insufficient. Two future areas of applied research stand out: a) efforts to identify vulnerability to climate change, and b) the expansion of collective consultation and decision-making mechanisms in which gender differences are expressed.

### References

- Castañeda, I. and Gammage, S. (2016). Género, crisis mundiales y cambio climático, in Vázquez García, V., Castañeda Salgado, M. P., Cárcamo Toalá, N. J. and Santos Tapia, A. (eds.). *Género y medio ambiente en México: una antología*. Cuernavaca: Universidad Nacional Autónoma de México, Centro Regional de Investigaciones Multidisciplinarias, 2016, pp. 265-302.
- Crossa, V. and Sánchez, L. (in collaboration with Sheila Gachuz) (in press). Género, Ciudad y los Objetivos de Desarrollo Sostenible. In C. J. Echarri Cánovas (ed.). *Los Objetivos de Desarrollo Sostenible y su relación con políticas públicas dirigidas a la igualdad sustantiva entre mujeres y hombres en México*, Vol. 2. Mexico City: ONU Mujeres and El Colegio de México.

**Table G5.1** Gender and climate change effects

Issue	Main effects	Effects for women
<b>Scarcity of environmental resources</b>	Between 15% and 40% of the species could become extinct due to an increase of just 1-2° C in temperature. Strong drought effects, because of changes in the hydrological cycle and wind patterns, could result in the dieback of extensive areas of the ecosystems with the greatest diversity on the planet.	An increase in the time women need to do their work (for example, collecting water and firewood) makes it harder to spend time on other tasks and negatively affects their health due to the increase in their workload.
<b>Food insecurity</b>	Temperature increases, groundwater depletion, interrupted hydrological cycles, and drought will drastically reduce agricultural yields, particularly in Africa. It is likely that this reduction will deprive hundreds of millions of people of their ability to produce or buy enough food.	Lower production and productivity from subsistence agriculture (a sector highly "feminized" in many parts of the world), fishing, and forestry will very likely result in food insecurity and hunger.
<b>Loss of land and properties</b>	The melting of the glaciers will increase the risk of flooding during the rainy season and will significantly reduce the supply of water in the dry season for a sixth of the world population, mainly in India, parts of China, and South America. Rising sea levels will contribute to the loss of land, coastal erosion, and displacement of population, with one estimate concluding some 200 million people may be affected by mid-century (Stern <i>et al.</i> 2006).	In those places where women experience restrictions in terms of property rights and depend on common assets, their access to resources will drop disproportionately.
<b>Economic vulnerability</b>	The loss of homes, assets, family members, community networks, social capital, and jobs could result in relocations, a transition toward new forms of subsistence, and lead to greater conflicts and disasters.	Women's vulnerability to violence could increase.
<b>Health deterioration</b>	The impacts of climate change on health will likely include the spread of illnesses such as malaria and cholera, as well as an increase in psychosocial problems.	These impacts will not only affect women's health, but will increase their responsibilities in terms of caring for others.

**Source:** Castañeda and Gammie (2016).

**Reference:** Stern *et al.* (2006). Stern Review: The Economics of Climate Change. London: HM Treasury.



⋮

# Inequalities and the electoral agenda

## 6 Assessment of the 2018 electoral platforms

As we have seen in earlier sections, inequalities in Mexico translate into very different living conditions and life opportunities among groups, and also shape work and educational trajectories that deepen these asymmetries. Given that inequalities broadly impact Mexicans' well-being, we would expect them to be a central issue in the policy agenda, thus, for public action. How did electoral platforms include the dimensions of inequality in the 2018 federal election process?

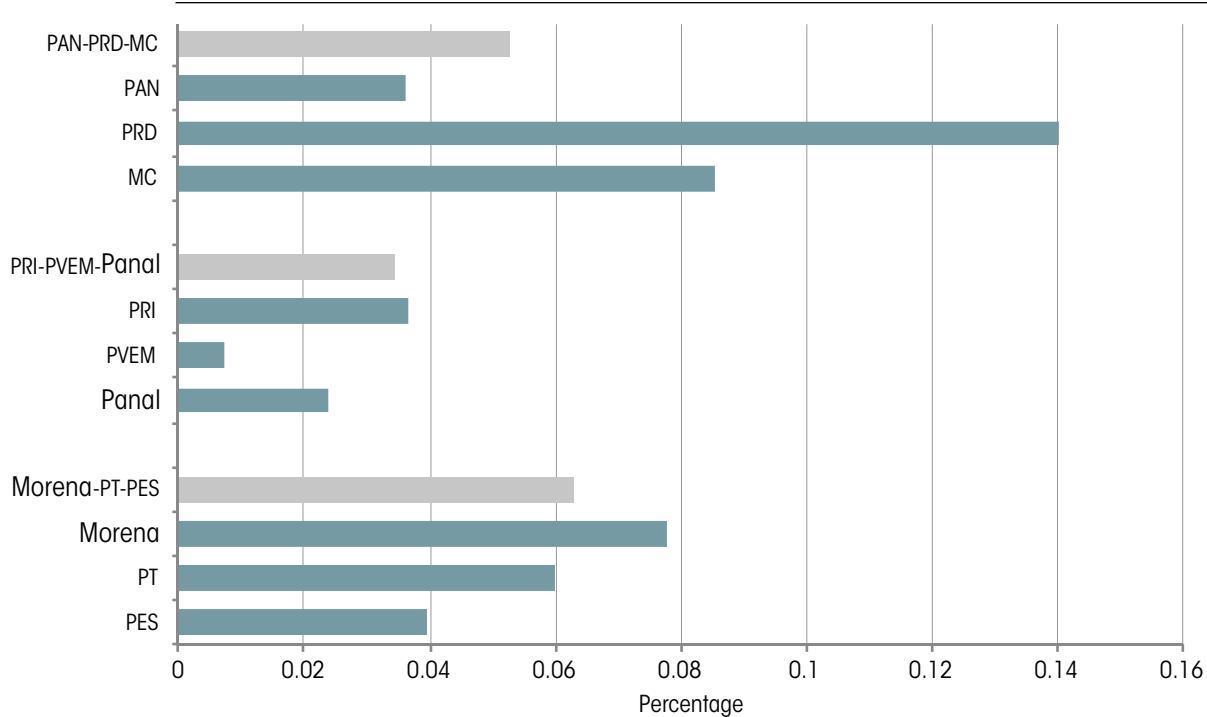
In this section we explore the positions of the political parties and electoral coalitions regarding inequality in Mexico as well as the proposals they include to address it. To this end, we assess the electoral platforms of the parties and coalitions so as to identify references to economic and social inequalities, the context and depth in which they are discussed, and the proposed measures the platforms introduced to

deal with them. While electoral platforms are not binding documents, they are useful instruments to identify the political commitments that precede campaigns. These documents also present the parties' public policy strategies and are a reference point to evaluate the performance of parties that come to power (Maisel 1993, Fine 2003, Lo *et al.* 2016).

Analysis of the content of electoral platforms helps clarify the importance given to specific issues by political parties and helps infer general party positions that may point out specific public policies (Budge *et al.* 1987, Prud'homme 2001, Pogorelis *et al.* 2005, Mondragón 2012). Our study compares the weight and treatment of inequalities in the platforms of the three contending coalitions with the positions of the parties that belong to each of these alliances.<sup>1</sup> As coalitions often break up from one election to the next, it is important

<sup>1</sup> The three coalitions are a) Por México al Frente [*Forward for Mexico*], formed by the Partido Acción Nacional [National Action Party, or PAN], the Partido de la Revolución Democrática [Party of the Democratic Revolution, or PRD], and Movimiento Ciudadano [Citizens' Movement, or MC]; b) *Todos por México* [*Everyone for Mexico*], formed by the Partido Revolucionario Institucional [Institutional Revolutionary Party, or PRI], the Partido Verde Ecologista de México [Ecological Green Party, or PVEM], and the Partido Nueva Alianza [New Alliance Party, or Panal]; and c) *Juntos Haremos Historia* [*Together We Will Make History*], formed by the Movimiento de Regeneración Nacional [National Regeneration Movement, or Morena], the Partido del Trabajo [Labor Party, or PT], and the Partido Encuentro Social [Social Encounter Party, or PES]. The electoral platforms of the parties and the coalitions were reviewed online through the web portal of the Instituto Nacional Electoral [National Electoral Institute, or INE]. Links to the parties and coalitions electronic documents can be found in the references section.

**Figure 6.1** The number of times “inequality” appears as a percentage of the total number of words in electoral platforms (2018)



Source: Compiled by the authors using the political parties' and coalitions' electoral platforms for the 2018 federal elections.

to identify each party's views on inequalities, to later examine to what extent these concepts were kept in the coalition platforms.

Our review of the political platforms gives rise to three main results. First, we find that while inequality is seen as an important problem in the country, the parties devote different levels of attention to the issue. In addition, there are differences in the perspectives from which inequality is addressed. Some parties associate it, predominantly, with poverty or the lack of economic development. Approaches that incorporate other dimensions, such as gender or regional inequalities, are less frequent. Second, the electoral platforms of each coalition converge toward the approach to inequality of the dominant party, in electoral terms. As the coalitions in the 2018 elections were formed by parties that previously had political positions that were far apart from each other, this convergence shows that, at least in terms of the issue of inequalities, the ideological differences among parties' positions are less clear-cut.

Third, while platforms acknowledge inequality as one of the central problems of the country, this does not necessarily translate into comprehensive or defined proposals to address its various dimensions. The issue often appears in the first pages of party documents, particularly in sections about the country's situation. Nevertheless, the policy proposals related to inequalities are fragmented and do not present enough information to assess their suitability and feasibility.

### References to inequality in the electoral platforms

A first indicator of the attention paid to inequalities in the platforms is the number of references to the issue that are found. While the mere mention of the word “inequality” does not mean that this problem is strongly addressed, it is a measure that allows an examination of whether the parties and coalitions deal with the issue and whether there are differentiated party patterns. That is, mentions indicate at least



a minimum level of attention to inequality. A subsequent detailed examination can focus on the context and depth of treatment.

Figure 6.1 shows the number of times the word “inequality” appears, as a percentage of the total words in the platforms of the political parties and electoral coalitions in 2018. While the frequency of appearances compared to the total number of words is generally very low in the platforms, it is still possible to find differences in the weight awarded to the issue among parties and coalitions. In the *Forward for Mexico* coalition (PAN-PRD-MC), there is a stark contrast in the proportion of times the word “inequality” appears in the platform of the PRD (0.14%, the highest percentage among all the parties), with the lowest percentage in the platform of the PAN (0.04%). The proportion of occurrences in the platforms of the coalition (0.05%) corresponds more to the weight the PAN’s platform shows, than to the frequency observed in individual documents of the PRD and the Citizens’ Movement (0.09%).

In the case of the *Everyone for Mexico* coalition (PRI-PVEM-Panal), the PVEM stands out as the party with the fewest mentions in its individual platform (nearly 0.01%, the lowest percentage among all the parties evaluated). The percentage of occurrences in the Panal’s texts (0.02%) is smaller than in the PRI’s (0.04%). Again, the frequency of appearances in the coalition’s platform (0.03%) is closer to the position of the dominant party which, in this case, is the PRI.

The coalition *Together We Will Make History* includes Morena (0.08%) and the PT (0.06%) on the one hand and the PES on the other, which gives the least weight to the issue in terms of occurrences (0.04%). The proportion found in the coalition platform (0.06%) tends toward Morena’s.

In short, when individual party positions are combined together into the platforms of the electoral coalitions, the points of view of the most powerful parties in electoral terms are favored; this process also seems to dilute the differences among the individual platforms of each party. Below we present an examination

of the dimensions of inequality that parties and coalitions address in their platforms, as well as the depth with which the issue is covered by the party programs.

## Perspectives on inequality of parties and coalitions

### The *Forward for Mexico* coalition (PAN-PRD-MC)

This coalition acknowledges the meaningful ideological differences among the three parties that form it and does not claim to have become a single organization nor that each party has abandoned their individual ideologies or histories. Their alliance responds, says the platform, to the “urgent situation the country is undergoing, [which forces us] to put forth the elements we have in common.” Therefore, the way in which inequality is dealt with and the types of inequalities included in the platform of the coalition do not reflect the platforms of each party.

From the beginning, the platform recognizes inequality as one of the most pressing problems in Mexico. It says poverty prevents more than half the population from living in a dignified way. The platform goes on to mention that social programs, because of the clientelistic way in which they operate, have not been able to mitigate these problems (pp. 1-2). For the coalition, since inequality is not something natural or inevitable, a change of regime is necessary in order to guarantee equality of conditions to exercise freedoms and produce an inclusive economic system that reduces inequalities (pp. 5-6). But while the coalition platform recognizes that inequality is a central problem, the proposals to combat it are not prioritized, and the general discussion around them seems to be superficial.

Of the three parties that form the coalition, the PRD and the Citizens’ Movement place the most importance on the issue of inequality in their platforms. The PRD, as mentioned in the previous section, is the party that mentions inequality the most. The three parties perceive

Electoral platforms assemble strategies for public action and act as an initial reference to assess the performance of the winning coalition.

**Figure 6.2.** Frequency of words in the platform of the *Forward for Mexico* coalition (PAN-PRD-MC)



**Source:** Compiled by authors using text of the electoral platform of the coalition.

inequality as a phenomenon that affects and feeds into the other problems facing Mexican society: the PAN connects inequality with the current political system (which it deems non-inclusive), the PRD links inequality with the unemployment and low wages that characterize the Mexican labor market, and the Citizens' Movement associates inequality with insecurity and impunity, problems that aggravate situations of inequality, but that can also cause them.

This coalition's references to inequality or inequity are generally connected with economic factors (in particular, income) and gender. This does not differ much from the focus of the three individual parties, which give greater weight to economic inequality. Nevertheless, the PRD and the Citizens' Movement have a broader vision about inequality and they problematize it in a detailed way, speaking of various kinds of inequality in terms of gender, wages, and education, in several regions of the



country, in the administration of justice, and among various sectors of the population, such as young people. Finally, although the parties consider various types of inequality, its dimensions are examined separately, with no appreciation of how different inequalities accumulate and affect one another.

To explore what other issues the coalition deals with and their relative importance in terms of inequality, Figure 6.2 presents a word cloud generated with the text from the platform of *Forward for Mexico*. Size represents the frequency of words' occurrences.<sup>2</sup> The word "development" stands out as the most common; other important words in the text are "security," "government," and "rights." By comparison, on the left side of the cloud, the word "inequality" appears much less frequently.

### **The Everyone for Mexico coalition (PRI-PVEM-Panal)**

Unlike the *Forward for Mexico* coalition, the platform of the *Everyone for Mexico* coalition is defined as a proposal for action, a result of the consensus between the parties that form the grouping (PRI, PVEM, and Panal). Its approach is divided into five areas of action, with three cross-cutting themes, one of which is gender equality. Throughout the document, the platform explicitly discusses various types of inequalities: economic, educational, social, ethnic, gender, of persons with disabilities, and among regions.

The coalition platform considers inequality of opportunities, health, education, and income, among others, to be interdependent. The fourth area of action, "An inclusive and supportive Mexico," asserts that "it is not enough to combat poverty. It is key to promote specific policies to eliminate the chains of inequalities in all areas, from access to education, health and well-being, to income levels and access to justice" (p. 40). It also declares that the exercise of social rights is crucial for there to be effective access to opportunities

that allow a full development for all (p. 38). Additionally, the platform explores the manner in which inequality affects different population groups, such as indigenous communities (it mentions the need to close the gap in levels of well-being and ensure equality for indigenous populations), as well as between men and women (the platform speaks of promoting gender equality, particularly in income and education).

The coalition's approach coincides in various ways with the Panal platform, and prioritizes the economic view of inequality in terms of income as well as its links with poverty and development. This party also connects inequality with issues such as public insecurity, which is seen as a consequence of social differences; with health, which projects social asymmetries; and with the administration of justice and regional inequality, underlining the existence of severe regional differences in Mexico as one of the greatest challenges to overcome. The Panal includes a type of inequality that no other party deals with: that of access to telecommunications. This party also opens discussion on the digital divide.

The PVEM platform is the discordant factor in this coalition; while the party identifies inequality in its individual platform as one of the country's main problems, the subject is not treated in depth. However, the platform does briefly mention gender inequality in terms of wage differences.

The party that dominates the coalition platform is the PRI. In its individual platform, inequality is broached from two perspectives. On the one hand, inequality is linked with economic development in terms of income levels by family or of regional differences. On the other hand, inequality is connected to social issues such as gender, access to opportunities, education, health, the use of natural resources, as well as access to and the administration of justice and its fair exercise; eradication of inequality in this

<sup>2</sup> To avoid irrelevant outcomes, this exercise excluded articles, prepositions, and common verbs

**Figure 6.3.** Frequency of words in the platform of the *Everyone for Mexico* coalition (PRI-PVEM-Panal)



**Source:** Compiled by authors using text from the electoral platform of the coalition.

latter area could serve to solve insecurity and violence problems.

Figure 6.3 presents a word cloud generated using the *Everyone for Mexico* platform. The word “government” is the most frequent word in the coalition’s platform; the words “development” and “education” also are prominently featured. References to “equality,” “fairness,” and “inclusion” are less frequent.

## The *Together We Will Make History* coalition (Morena-PT-PES)

The platform of the coalition *Together We Will Make History*, as in the other two cases, identifies inequality as an important problem for Mexico. In general terms, the document proposes to establish public policies geared towards breaking the inertia of low economic growth, social and economic inequalities, and

**Figure 6.4.** Frequency of words in the platform of the *Together We Will Make History* coalition (Morena-PT-PES)



**Source:** Compiled by authors using text from the electoral platform of the coalition.

the loss of well-being for Mexican families. In the section called “Legality and eradication of corruption” the coalition states the country does not need new laws, but the willingness to comply with existing ones. According to the platform, corruption increases inequality, violence, disintegration, moral decadence, and, finally, poor economic performance. Further, although it does not explicitly refer to inequality,

the platform's section on "Combating poverty" of the platform establishes a causal relationship between "material precariousness... and the increase in insecurity, violence, forced migration, and political and institutional breakdown, in addition to the mediocrity of economic performance in general" (p. 6).

The section “Gender equality,” which presents broad objectives, but with few specific

mechanisms or policies to achieve them is, needless to say, another area that brings up the issue of equality. Some of its wording conveys that “an inclusive project, such as ours, intends to eliminate the inequality gaps between women and men, as well as the obstacles women face in all arenas, so that women can advance in their physical, economic, and political autonomy, and to ensure their physical and emotional integrity” (p. 8).

Thus, while the *Together We Will Make History* coalition distinguishes inequality as a pressing problem for Mexico, its analysis of the issue is relatively less developed. The coalition recognizes there are income, work, education, and gender inequalities, as well as the fact that these types of inequalities combine with other issues such as economic precariousness and corruption. However, the approach of the coalition regarding interdependence among these dimensions is unclear.

Morena, the coalition’s dominant party, has preeminence within the alliance, both in terms of the types of inequalities included in the common platform, and the manner in which they are dealt with and are linked with other issues, such as corruption. On the other hand the Labor Party (PT) alludes to various types of inequality, including social, productive, sectoral, regional, and gender, but it does not elaborate sufficiently; instead, the party adopts an approach limited to income inequality. The Social Encounter Party also sees inequality from an economic perspective, and associates it with poverty, as can be seen in its second topic, “Social development and combating poverty.”

Figure 6.4 presents the word cloud for the platform of *Together We Will Make History*. The word “corruption” is the most common one in the coalition text; other words such as “development,” “projects,” “government,” and “education” are repeated often. There are more occurrences of the word “poverty” than of the word “inequality.”

In terms of the issue of inequalities, the ideological differences among parties' positions are less clear-cut.

## Proposals to tackle inequalities in Mexico

The coalitions’ proposals to address inequalities vary in terms of the public policy areas they refer to and in the way the proposals are formulated. Table 6.1 presents a synthesis of the measures the coalitions propose to meet some of the problems brought about by inequalities.<sup>3</sup>

The proposals laid out by the coalition *Forward for Mexico* constitute general objectives, rather than commitments to promote policies and specific programs. The platform suggests reducing inequalities, social disadvantages in the south of the country, and gender gaps, but there is little discussion in terms of concrete public policy plans that could be implemented. The general language of the coalition proposals contrasts, for example, with the individual platform of the PRD, which mentions specific measures such as increasing the minimum wage, promoting formal employment, and implementing progressive fiscal reforms (pp. 6 and 7).

The platform of the coalition *Everyone for Mexico* displays a broad set of objectives that can be grouped into five dimensions related to inequality: economic, social, educational, gender, and territorial. Yet, these goals are not translated into clear and distinct public policy proposals. Their formulation tends to be general, such as saying “consolidate public education as a source of mobility and social justice” or “close the gap in levels of well-being between indigenous communities and the rest of the country.” In the case of more specific proposals, continuity of current social and educational policies is mentioned, but not the goals expected from their implementation.

In the platform of *Together We Will Make History*, as in the documents of the associate parties, most points refer to a diagnosis and outlook that critique current policies, rather than make concrete proposals to change course. Objectives mentioned include paying “priority attention to an effective compliance with the rights of vulnerable groups” or “guaranteeing

<sup>3</sup> The proposals, as well as their order and categorization, were edited for comparative purposes.

**Table 6.1.** Types of inequality and proposals by coalition in the 2018 federal election

Coalition	Types of inequality and proposals
<b>Forward for Mexico (PAN+PRD+MC)</b>	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>• Guarantee equality of opportunities, abandoning the policy of handouts</li> <li>• Reduce inequality and marginalization as a state policy</li> </ul> <p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>• Guarantee equal opportunities for investors</li> </ul> <p><b>Gender-related:</b></p> <ul style="list-style-type: none"> <li>• Mainstream gender equality in the design of government actions</li> <li>• Promote wage equity between men and women performing the same work</li> <li>• Guarantee equal access to education for men and women</li> </ul> <p><b>Territorial:</b></p> <ul style="list-style-type: none"> <li>• Reduce disadvantages in the south and southeast</li> </ul>
<b>Everyone for Mexico (PRI+PVEM+Panal)</b>	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>• Progressively increase interventions to guarantee food, dignified housing, and quality health care and education to the more vulnerable populations</li> <li>• Attain universal internet access</li> <li>• Close the gap in levels of well-being between indigenous communities and the rest of the country</li> <li>• Create a new social pact among political, social, and economic actors aimed at mobilizing resources and abilities to achieve development with equity</li> </ul> <p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>• Preserve macroeconomic stability</li> <li>• Boost social economy</li> <li>• Eliminate the generalized subsidies on consumption to improve progressivity and efficiency of public spending</li> <li>• Broaden and standardize targeted subsidies and direct transfers</li> </ul> <p><b>Gender-related:</b></p> <ul style="list-style-type: none"> <li>• Establish mechanisms to guarantee employers pay the same wages to their workers without gender discrimination</li> <li>• Promote education that fosters equality, so that boys and girls learn to treat each other as equals and without discrimination</li> <li>• Establish preventive measures to reduce adolescent pregnancies and infant and maternal mortality</li> </ul> <p><b>Educational:</b></p> <ul style="list-style-type: none"> <li>• Strengthen public education as a source of mobility and social justice</li> <li>• Guarantee quality education with equity and inclusion, with particular attention to vulnerable groups</li> </ul> <p><b>Territorial</b></p> <ul style="list-style-type: none"> <li>• Reduce inequalities among regions through the creation of special economic zones</li> <li>• Organize the national territory to promote sustainable development with equity</li> <li>• Coordinate government efforts that strengthen the social fabric and prevent violence in regions, cities, and communities that have high crime rates</li> </ul>

Coalition	Types of inequality and proposals
<b>Together We Will Make History</b> <b>(Morena+PT+PES)</b>	<p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>• Create sources of employment</li> <li>• Promote productive activities</li> <li>• Suitably reallocate public spending and use it in a more efficient manner and without corruption</li> <li>• Promote infrastructure projects that ignite economic revival and the standardization of entire regions</li> <li>• Guarantee that public spending is redistributive and contributes to a harmonious growth and economic development among regions, social sectors, and persons</li> </ul> <p><b>Social:</b></p> <ul style="list-style-type: none"> <li>• Include all young people in educational and labor programs</li> <li>• Protect the rights of women, indigenous people, older adults, children, and other vulnerable groups in an effective way</li> <li>• Dignify older adults who have been left out of the traditional pension systems</li> </ul> <p><b>Gender-related:</b></p> <ul style="list-style-type: none"> <li>• Eliminate inequality gaps between women and men</li> <li>• Eliminate the obstacles women face in all arenas to promote their physical, economic, and political autonomy</li> <li>• Ensure the physical and emotional integrity of women</li> </ul>

**Source:** Compiled by authors using content from the coalitions' electoral platforms. The proposals were edited and their order and categorization were adapted for comparative purposes.

that public spending be redistributive" without presenting specific means to accomplish this. This coalition suggests implementing measures that reverse conditions that cause low economic growth, an increase in social and economic inequality, and a drop in well-being. These problems are mainly associated with government corruption, the reduction of which is rendered as an essential mechanism to confront the country's major problems.

This section, about the level of attention paid to inequality in Mexico in the electoral platforms of 2018, both by individual political parties and by coalitions, together with their proposals to reduce it, concludes with the following: in terms of the importance of inequality in the platforms, we find that the PRD, followed by the Citizens' Movement and Morena, are the parties that mention the word "inequality" the most. The PVEM and Panal refer to the issue least. The proportion of occurrences is very close among coalitions, although slightly greater in the case of *Together We Will Make*

*History*. We also find that party documents frequently associate inequality with poverty and the lack of economic development. However, parties such as the PRD, the PRI, the PAN, and Morena specifically raise gender inequality and territorial and regional inequalities.

In each coalition platform, the most powerful party in electoral terms clearly dominates the others. The platforms of the three coalitions thus duplicate central elements of the individual documents of the PRI, PAN, and Morena, respectively. Moreover, if we consider the ideological orientation of the coalitions, we do not find polarization among their proposals. Despite the situation of enormous inequality, moderation prevails in the positions of the coalitions.

Both, the platforms of each of the parties and those of the coalitions, acknowledge inequality is a central problem. Nevertheless, there are few proposals to reduce directly. As the proposals are very general, it is difficult to identify fundamentally distinct positions in



terms of public policy. The platforms allude more to diagnostics with imprecise objectives, than to proposals that suggest substantive mechanisms to cope with the inequalities presented in this report.

## References

- Budge, I., Robertson, D., and Hearl, D. (eds.). (1987). *Ideology, Strategy and Party Change: Spatial Analyses of Post-War Election Programmes in 19 Democracies*. Cambridge, UK: Cambridge University Press.
- Fine, T. S. (2003). Party Platforms as Tools of Presidential Agenda Setting. *White House Studies*, 3(2), 199-213.
- Maisel, L. S. (1993). The Platform-Writing Process: Candidate-Centered Platforms in 1992. *Political Science Quarterly*, 108(4), 671-698.
- Mondragón, S. J. (2012). La distancia ideológica entre los tres principales partidos políticos mexicanos (1976-2006). *Estudios Políticos*, 9(26), 57-79.
- Lo, J., Proksch, S. O., and Slapin, J. B. (2016). Ideological Clarity in Multiparty Competition: A New Measure and Test Using Election Manifestos. *British Journal of Political Science*, 46(3), 591-610.
- Pogorelis, R., Maddens, B., Swenden, W., and Fabre, E. (2005). Issue Salience in Regional and National Party Manifestos in the UK. *West European Politics*, 28(5), 992-1014.
- Prud'homme, J. F. (2001). ¿A poco tenían programas? Plataformas electorales en las elecciones de 2000. In L. Salazar (ed.), *México 2000: Alternancia y transición a la democracia* (pp. 157-203). Mexico City: Cal y Arena .
- Platforms of parties and coalitions**
- Juntos Haremos Historia coalition [Together We Will Make History]*. (2018). “Proyecto Alternativo de Nación 2018-2024. Plataforma Electoral y Programa de Gobierno.” *Convenios de Coalición*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/94367/CG2ex201712-22-rp-5-2-a2.pdf>
- Por México al Frente coalition [Forward for Mexico]* (2018). “Plataforma electoral 2018.” *Convenios de Coalición*. ine <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/94343/CG2ex201712-22-rp-5.1-a2.pdf>
- Todos por México coalition [Everyone for Mexico]*. (2018). “Plataforma electoral y programa de gobierno 2018-2024.” *Convenios de Coalición*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/94386/CGx201801-5-rp-unico-a2.pdf>
- Partido Acción Nacional (PAN) [National Action Party]. (2018). “El cambio inteligente: plataforma electoral 2018.” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95069/Plataforma%20PAN.pdf?sequence=1&isAllowed=y>
- Partido de la Revolución Democrática (PRD) [Party of the Democratic Revolution]. (2018). “Plataforma electoral 2018 del Partido de la Revolución Democrática. México sostenible.” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95062/Plataforma%20PRD.pdf?sequence=1&isAllowed=y>
- Partido del Trabajo (PT) [Labor Party]. (2018). “Plataforma electoral 2018-2024”. *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95066/Plataforma%20PT.pdf?sequence=1&isAllowed=y>
- Partido Encuentro Social (PES) [Social Encounter Party]. (2018). “Plataforma electoral nacional. Proceso electoral 2017-2018.” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95061/Plataforma%20ES.pdf?sequence=1&isAllowed=y>
- Partido Movimiento Ciudadano (MC) [Citizens' Movement]. (2018). “Plataforma electoral 2017-2018: Un Nuevo Proyecto de País.” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95063/Plataforma%20MC.pdf?sequence=1&isAllowed=y>
- Partido Movimiento Regeneración Nacional (Morena) [National Regeneration Movement]. (2018). “Proyecto Alternativo de Nación 2018-2024: Plataforma Electoral y Programa de Gobierno”. *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95065/Plataforma%20MORENA.pdf?sequence=1&isAllowed=y>
- Partido Nueva Alianza (Panal) [New Alliance Party]. (2018). “Plataforma 2018: ‘Una propuesta liberal para el México que queremos.’” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95068/Plataforma%20NA.pdf?sequence=1&isAllowed=y>
- Partido Revolucionario Institucional (PRI) [Institutional Revolutionary Party]. (2018). “Proceso electoral federal 2017-2018. Plataforma electoral.” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95064/Plataforma%20PRI.pdf?sequence=1&isAllowed=y>
- Partido Verde Ecologista de México (PVEM) [Ecological Green Party of Mexico]. (2018). “Plataforma político electoral 2018-2024.” *Plataformas Electorales*. INE. <http://repositoriodocumental.ine.mx/xmlui/bitstream/handle/123456789/95067/Plataforma%20PVEM.pdf?sequence=1&isAllowed=y>

# Final notes on inequalities in Mexico in 2018

In this study we understand inequalities to be asymmetric distributions of outcomes and of access to opportunities between individuals or groups. As shown by the life histories presented in the first pages, these distributions are unjust because they affect key aspects of the lives of people who find themselves at a disadvantage because of their social position (such as being disabled, or from a racial or ethnic minority, or a woman, among many others). This final chapter offers a brief review of the purposes of this analysis, its contribution to the study of inequalities, and its most significant findings.

Around the world, there is ample evidence showing that inequalities can be averted or remedied through a broad range of public interventions such as taxes or subsidies, minority quotas for legislative assemblies, and universal systems of social protection. With this in mind, the Colegio de México offers this diagnostic assessment of key inequalities in Mexico in 2018 as a public product for social, private, and governmental actors committed to doing away with them.

## The contributions of *Inequalities in Mexico 2018*

There are four elements that define our perspective regarding the study of inequalities in Mexico: their relational character, their intersectionality, the accumulation of disadvantages during people's life cycles and, finally, noting new challenges for equality. In terms of inequalities' relational aspect, we assume that while certain social groups face unfavorable circumstances, other groups benefit from a concentration of resources and opportunities. In other words, in unequal societies, the life disadvantages faced by some, are parallel to a series of prerogatives that others enjoy, giving way to higher levels of well-being and positions of relative privilege. For these reasons, our study emphasizes comparisons between groups of high and low income, indigenous language speakers and non-indigenous language speakers, men and women, and those with social protection and those with none. As shown throughout the report, the disparities between these groups are persistent and far-reaching.

Second, the study of inequalities, in the plural, allows an examination of how people in certain social groups face very severe levels of exclusion because their disadvantages create a feedback loop and accumulate (for example, a person with low income and limited schooling who is female and disabled). Each section of our study incorporates *intersectionality* as a perspective to analyze the gaps experienced by certain societal groups. This approach is laid out with greater precision in the cross-cutting dimensions developed throughout the report: territorial and gender inequalities.

Third, our analysis of inequalities in Mexico highlights the way gaps are perpetuated and expanded throughout people's life cycles and allows tracking of intergenerational ramifications (for example as they affect social mobility). The *chains* of inequalities refer to how social

disparities accumulate over time, carrying pernicious consequences for people's development in the long term.

Fourth, this study examines new challenges for equity. Our approach also reveals that transformations such as the ones caused by return migration and the risks associated with climate change have different effects for certain groups, which, in turn, generate new inequalities concerning resources and access to development opportunities.

The Colegio de México has been a pioneer in the study of inequalities in our country, a research agenda we are moving forward, relying on an interdisciplinary perspective. To produce this report, eleven professor-researchers from six different areas (political science, demography, economics, environmental studies, gender studies, and sociology) contributed. Behind this interdisciplinary effort lies the firm belief that inequalities are multifactorial and that their assessment requires various analytical perspectives to generate innovative and effective initiatives to combat them.

### **The ongoing inequality in educational opportunities**

In its first section, the report confirms that universal access to middle-school education has been effectively achieved, reducing socioeconomic inequality to relatively low levels among students enrolled at this level. This increase in access means, however, that the social composition of this population is increasingly heterogeneous, presenting greater challenges for educability. In terms of quality of learning and completion of high school, there continue to be stark educational inequalities. While income differences have been mitigated in recent years, these are still responsible for the widest gaps in educational results.

Finally, inequalities between rural and urban areas have decreased in terms of access to middle-school education and completing high school, but they persist regarding learning achievement. Differences between indigenous and non-indigenous people remain in terms of access and completion, and appear to have increased in learning achievement.

### **Income inequality and mobility opportunities**

In Mexico, people born into poverty continue to have very limited possibilities for moving up the social ladder. Indeed, we have one of the lowest upward social mobility rates in the world. Because the labor income of workers has stagnated since 2007, the scenario for mobility is very discouraging, even if someone has talent and works hard.

The situation is more critical for women. They are more likely to descend on the socioeconomic scale if they start from a privileged position and, at the same time, those who are born

into poverty have a greater probability of remaining marginalized in their adult life. In Mexico, particularly due to the low rate of female labor participation, women largely depend on the income of their partner or family members. In addition, because of the salary gap, women who work have lower incomes on average than men.

### Dignified work is not available for everyone

Since 2000, in Mexico, opportunities for accessing quality work have diminished. Labor precariousness is seen in three overwhelming facts: the proportion of employees who earn less than the minimum wage has grown more than 50%, the percentage of those with social security has not increased, and the proportion of those who work without a contract has changed only marginally. Since the 2008 recession, wages have deteriorated for people with high levels of schooling and for employers, without a substantial improvement in the income of other groups; since the crisis, we have seen a continuous downward salary convergence. People who were employed in the formal and in the informal sectors have both improved their income up until the economic recession, but since, there has been a decline in pay for formal workers.

### The challenges of return migration

The migratory flow from the United States to Mexico has increased considerably in recent years, including Mexicans who return after several years, as well as their family members born in the United States. Return migrants are a heterogeneous group in terms of their levels of education, skills, and labor experience, which suggests important challenges for their successful integration in Mexico.

Our study shows a growing dissociation between places of original migration and return destinations, together with a diversification of the latter, which now include municipalities with greater social disadvantages. Reintegration may be difficult for at least two reasons: (a) the returnees' social networks may have weakened after long periods of absence, and (b) returning to marginalized communities means having few work opportunities and scarce quality positions.

### The new challenges linked to climate change

Our report reiterates that the predicted numerous effects of climate change, such as increases in temperature, sea level, and precipitation, alter the probabilities for untimely natural disasters occurring in Mexico.

Inequalities vis-à-vis climate change result from the differences in exposure to environmental risks and from preexisting socioeconomic and institutional inequities. People with fewer resources tend to be more exposed to risks, lack safeguards and means to adapt, in addition to their relative losses being greater, and having more lasting effects.

The extent of climate impacts, together with the distribution of private and public resources aimed at adaptation, will determine future inequalities. While it is necessary to alleviate poverty in the communities vulnerable to climate change, social policy should also be tied to specific measures, so that households can tackle environmental risks in the short and long terms.

### Inequalities span the national territory

Other studies have examined territorial differences in terms of urban and rural communities, or between the north and south of the country. In this report we have examined the way in which

legacies of inequality and new challenges for equity span the territory, particularly states and municipalities. Intense spatial asymmetries in educational and labor opportunities as well as in social mobility are evident through this outlook.

The distribution of educational infrastructure reveals spending priorities that have placed certain communities at a disadvantage, compared with others. The differences among labor markets mean, for example, that the median labor income for a working person is twice as high in Nuevo León than in Chiapas. The quality of employment also varies between states: in Sonora, almost six out of ten people have access to social security, while in Puebla, a little less than three in ten have this benefit. Additionally, the risks entailed by climate change, such as droughts or floods, will have differentiated territorial effects and will generate new inequalities, particularly in the south and southeast of Mexico.

The implications of this analysis are critical, as they show that, even without considering the characteristics of the household of origin or the efforts undertaken by its members, Mexicans face very unequal opportunities in terms of educational achievement, wages, and social mobility due to the mere chance of having been born in a certain state or municipality.

### Inequalities involving women

Besides territory, this report has looked into another cross-cutting dimension of inequality: gender. As shown in the tables at the end of each legacy and new challenge covered, in Mexico a woman usually has fewer opportunities for upward mobility and is more vulnerable to all sorts of risks than a man in a similar situation.

Social expectations about occupations considered feminine or masculine are an obstacle for women seeking to acquire relevant education that will allow them to participate in the labor market in decent conditions. A fifth of Mexican women with university education, more than a million, are not gainfully employed and mainly do care work. The vulnerability associated with climate change will affect women disproportionately; for example, they may lose land and property, particularly in places where there are gender restrictions around property rights, or where women depend on communal assets.

In sum, regardless of the characteristics of a person's origin, talent, or efforts, the report shows that women in Mexico experience unequal opportunities in terms of higher education, wages, and gainful employment. Women largely undertake unpaid care work and, in general, are more vulnerable to risks of various kinds, such as those produced by climate change.

### How to do away with inequalities?

Electoral platforms assemble strategies for public action and act as an initial reference to assess the performance of the winning coalition. In terms of inequalities, our review of the parties' and coalitions' political platforms shows three central findings, discussed below.

First, inequality is identified as a key problem in Mexico; nevertheless, there is great heterogeneity among the parties in terms of the attention paid to the issue. The majority of them link inequality with poverty and lack of economic development, while less attention is paid to dimensions such as gender or territorial inequality.

Second, the platforms of the coalitions converge on the approach toward inequality proposed by the dominant party in the grouping. In the 2018 electoral process, the coalitions gathered parties that had different policy and ideological positions vis-à-vis inequalities, however, these are not evident.

Third, frequent mentions of inequality appear, above all, in the diagnostic section of the party documents. Policy proposals to address inequalities, when included, are not articulated, nor

do they touch upon the various dimensions of inequality or their interactions. Unfortunately these suggestions do not include a detailed perspective, needed to evaluate their relevance and feasibility.

### The enormous debt involving inequalities

The overview presented in this report, offers an interdisciplinary and detailed perspective of the complexity inequalities represent in Mexico. We consider it indispensable to draw from a profound analysis in order to design public policies that effectively address the differentiated needs of the population. These policies should establish clear mechanisms to overcome the existing gaps and cope with new challenges. Furthermore, to enable accountability, it is crucial that all levels of government issue tangible goals for the medium and long terms, in each of the different dimensions of inequality.

In Mexico, during 2018, thousands of boys and girls will be born in disadvantaged circumstances: in low-income households with illiterate fathers or mothers, without access to quality education, and without social security. Some of them, very likely, will come from the community of origin of María Basilio, near Matías Romero in Oaxaca. As a society, we have the possibility of preventing places of origin and social positions of disadvantaged people from determining their future, as in the case of María. Towards this aim, addressing inequalities must be a priority on the public agenda. Steps must be taken to ensure that the rights the Constitution bestows on every Mexican are translated into true life opportunities •







