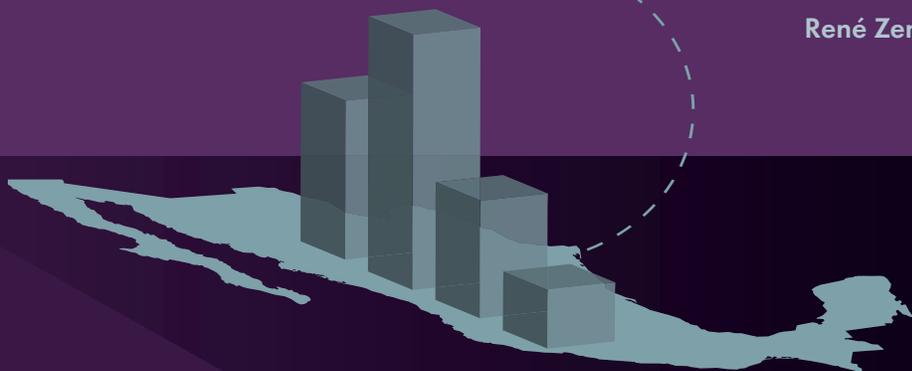


# IS MEXICAN MIGRATION TO THE UNITED STATES AN ISSUE OF ECONOMIC INEQUALITY?

René Zenteno | The University of Texas at San Antonio



## EXECUTIVE SUMMARY

**T**his document presents an analytical overview of the following three questions: how does inequality affect migration? how much do we know about this link, particularly for the case of migration from Mexico to the United States? and can public policy play a role towards decreasing incentives to move north through inequality alleviation in Mexico? The first section includes a brief discussion of past and recent patterns in Mexican migration to the United States. Since inequality has been mainly addressed as an economic issue in the study of migration, the second part of the paper provides a general examination of different economic theoretical approaches developed to understand the extent to which

inequality has an effect on the decision to migrate, on the rates of migration, and on the characteristics of migrants. The aim is to identify how inequality has been conceptualized to explain migration, as well as to identify facts about the Mexico-US case. The final section includes some considerations regarding public policy options. In conclusion, Mexico-US labor migration is associated with income inequalities between both countries. Inequality has also consequences for migrant selectivity in terms of educational characteristics and work skills. However, whether inequality within Mexico and within the sending communities promotes emigration or not remains an open question.

## Introduction

Inequality and migration issues are growing in importance as a consequence of rising economic disparities around the world and public concerns. Mexico is famous not only for its high levels of migration to the United States but also for its historical and persistently high levels of inequality.

The large influx of Mexican immigrants in the United States has stimulated debate about its implication for migration and inequality policies. On the one hand, millions of Mexicans have migrated to places in the United States with better living standards in order to overcome the economic and social disadvantages of their places of origin. According to U.S. Census Bureau data, over 16 million Mexicans were counted as new immigrant arrivals from 1965 to 2015;<sup>1</sup> one of the largest mass migrations worldwide, and an exodus without precedent in Mexico's history. Today, about 11.6 million Mexican-born immigrants live in the United States.<sup>2</sup> This demographic outcome comes as no surprise when one observes the long-standing history of uneven development and deprivation in Mexico, exacerbated by the economic reforms and severe recessions of recent years. On the other hand, inequality is a chronic flaw of Mexican society, as has been recently documented.<sup>3</sup> Millions of Mexicans face inadequate educational and labor market opportunities in their own country as a result of asymmetries in social, economic and political power. At the heart of Mexico's high disparities lies its incapacity to compensate children from economically and educationally disadvantaged families.

With rapid economic growth in many developed and developing countries, constant financial shocks in the capitalist system, and political instability in many poor nations, inequality has emerged as an object of significant public attention, including a growing interest in public policy to address it. Indeed, inequality has been described as a fundamental issue for human development by international organizations.<sup>4</sup> However, more attention has been devoted to inequality within individual countries rather than to wealth differences among countries.

The link between migration and inequality is complex and reciprocal. Migration is a response

to inequalities and also impacts inequality. Even when the inequality-migration connection runs both ways, issues dealing with the impact of migration on inequality have received the most emphasis. This is particularly true in the case of immigrant-receiving countries (e.g. United States, Canada, Australia, Spain).<sup>5</sup>

If we want to discern whether today's Mexican migration to the United States is an issue of economic inequality, we need to draw on previous theoretical and empirical work on the nature of this connection.<sup>6</sup> In this article, I consider what current data and research tell us about how inequality plays out as a determinant for emigration. This literature review and existing empirical evidence aim at answering three questions raised by this project: How does inequality affect migration? How much do we know about this connection, particularly in the case of Mexico-U.S. migration? And based on the available evidence, can public policy play a role in reducing incentives to migrate to the U.S. by alleviating inequality in Mexico? The first section begins with a brief discussion of past and recent patterns in Mexican migration to the United States. Since inequality has been mainly addressed as an economic issue in the study of migration, the second part of the paper provides an overview of distinctive economic theoretical approaches developed to understand the extent to which inequality has an effect on the decision to migrate, on the rates of migration, and on the characteristics of who migrates and who stays behind. My goal is not to offer an exhaustive account of the literature, but rather to identify how inequality has been conceptualized to explain migration as well as to identify facts about the Mexico-US case. The final section includes some considerations regarding public policy options.

Mexico-U.S. labor migration is definitely linked to income inequalities between both countries. However, whether inequality within Mexico and sending communities promotes migration is a question yet to be answered. Empirical evidence shows that Mexican emigration to the United States does not flow automatically in response to overall income inequality in Mexico. The research available for Mexico does not allow us to trace an effect of inequality on migration that is either

**Table 1. Mexican Immigrants in the United States and Annual Rate of Change, 1960-2017**

Mexican Immigrants		Growth Rate	
1960	575,900		
		1960-70	2.8
1970	759,700		
		1970-80	10.6
1980	2,199,200		
		1980-90	6.7
1990	4,298,000		
		1990-00	7.6
2000	9,177,500		
		2000-10	2.4
2010	11,711,100		
		2010-17	-0.6
2017	11,269,900		

**Source:** Migration Policy Institute (MPI) Data Hub <https://www.migrationpolicy.org/programs/data-hub/charts/mexican-born-population-over-time?width=1000&height=850&iframe=true>, and author's calculations.

consistent or sufficient. The literature review and the data available allow us to argue that inequality in Mexico is not the most important driver of migration to the United States *vis-à-vis* other economic and social factors. Instead, the Mexico-U.S. migration stream is shaped by multiple economic, demographic, social, and policy factors in both countries. Historical links, the maturity of migration networks, the U.S. demand for immigrant labor, Mexico's economic failure and delayed demographic transition, and the U.S. immigration enforcement policies have exerted a strong influence on the bilateral migration rates. While these factors experienced significant transformations during the last forty years, strongly influencing the Mexico-U.S. flow of migrants, the level of economic inequality in Mexico has remained practically constant during the same period, as will be later seen.

### The Steady Rise and Sudden Fall of Mexican Emigration to the United States

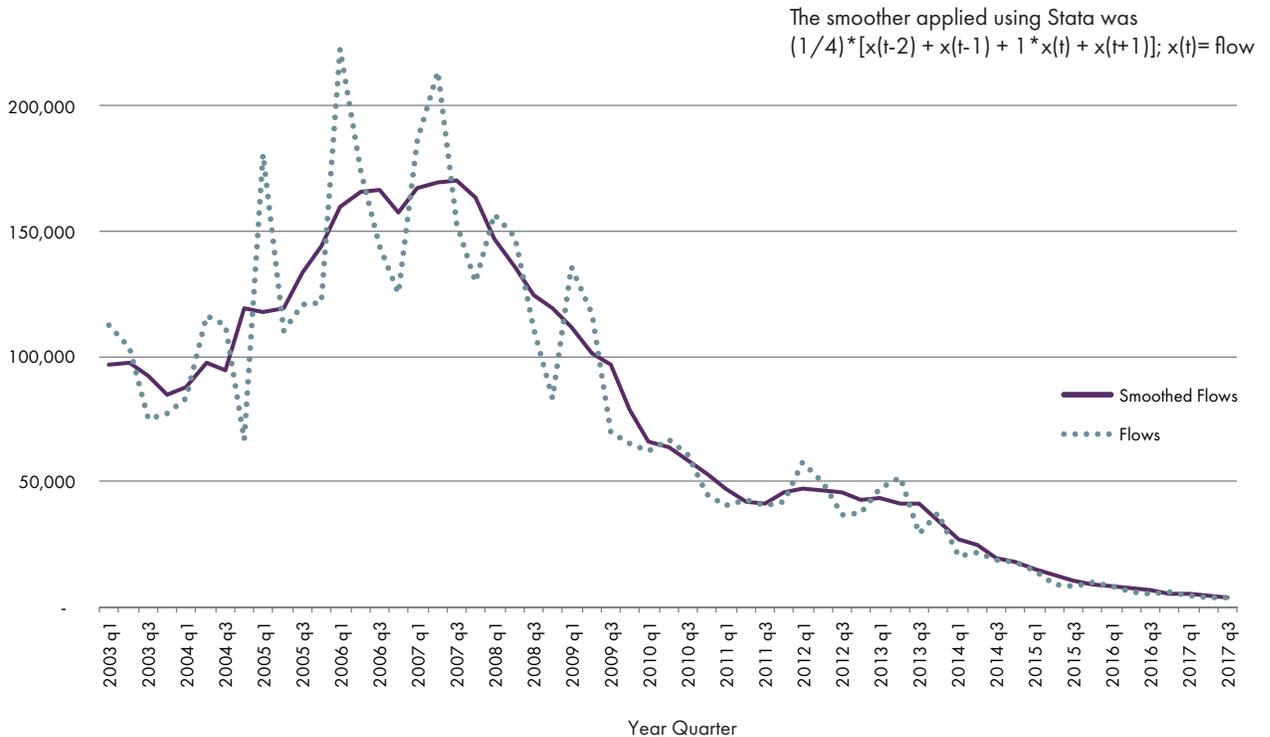
International migration has been making up for poor economic and social policies in Mexico. The last fifty years witnessed a resurgence of Mexican immigration to the United States. Annual

emigration from Mexico to the United States rose gradually after the end of the Bracero Programs in 1964 and the enactment of the Immigration and Nationality Act of 1965. The stock of Mexican migrants in the United States is now fifteen times its size in 1970. Table 1 shows that the gross influx of migrants from Mexico to the United States grew progressively from 1970 to 2010. In 1970, the 759,700 Mexicans residing in that country represented only 1.6 percent of the native population of Mexico. This population tripled between 1970 and 1980 and doubled in each of the following two decades to reach 9.2 million in 2000. By then, 9.5 percent of the Mexican-born population was already living in the United States. This persistent growth continued until 2007, the last year that registers an increase in the United States of both the total number of low-skilled immigrants and the Mexican-born population.<sup>7</sup>

The upsurge of northbound flows took place in a context of growing labor and capital markets disparities between Mexico and the United States, as well as an escalating regional polarization in Mexico in terms of economic and social opportunities. The peak of the Mexican exodus occurred in the 1990s when some 500 thousand Mexican

**Figure 1. Northbound mexican unauthorized flows to the United States measured on a quarterly basis, 2003-2017**

(smoothed data to show secular trend)



**Source:** Border Survey of Mexican Migration (EMIF)

migrants were added annually to the population of the United States. In the period between 1990 and 2000, the Mexican migrant stock grew at an annual rate of change of 7.6 percent.

The 2008 U.S. financial crisis exposed a fundamental reality about Mexico-U.S. migration: its strong ties to labor demand in the U.S. economy.<sup>8</sup> Mexican emigration to the United States declined radically as a result of the Great Recession. The total number of Mexican immigrants added to the U.S. population during the period of 2000-2010 was 2.5 million, which was about half the number for the previous decade and the lowest annual growth rate (2.4 percent) since the 1960s. By 2008, only 265 thousand Mexicans were counted as new immigrants in the United States, a figure much lower than the 615 thousand registered just four years earlier.<sup>9</sup>

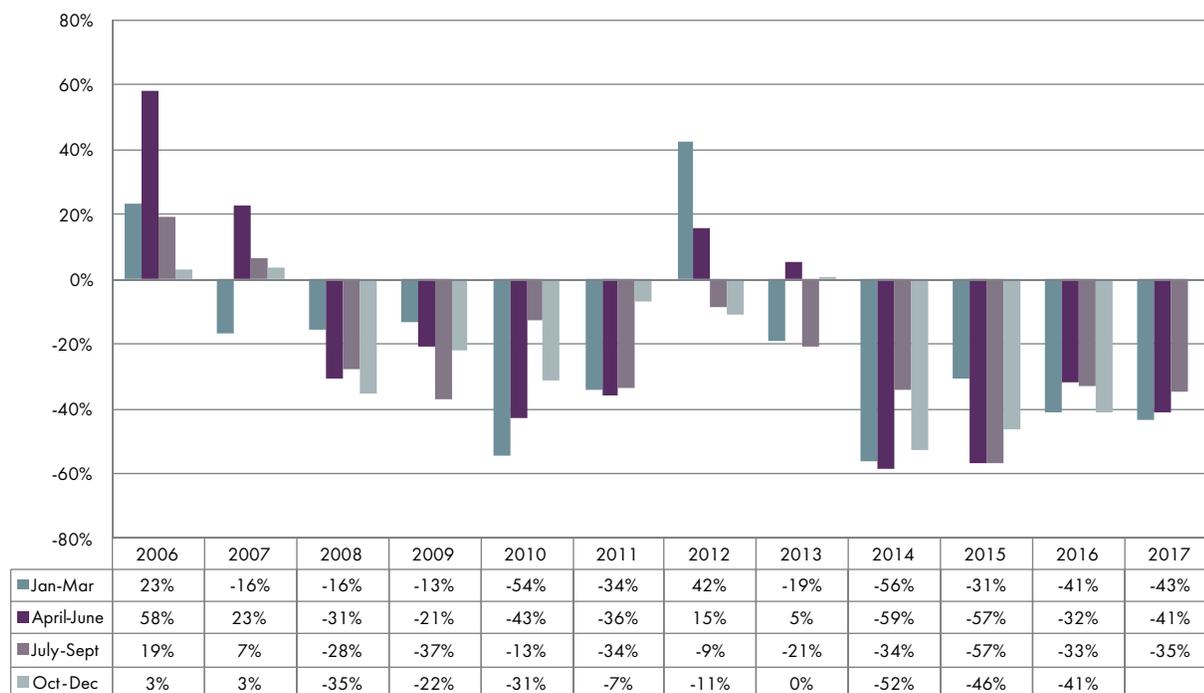
Table 1 also shows that the number of Mexican immigrants in the United States seems to have

stabilized or even declined slightly in the current decade. As of 2016, the Mexican-born population in the United States was 11.6 million. As we can infer from the Mexican migrant stock, new immigrant arrivals from Mexico have been offset by equally significant outflows of residents of the United States moving in the opposite direction.

In understanding the evolution of the Mexico-U.S. stream during the post-1965 period, we must ponder the role played by undocumented migration. Mexicans accounted for half of the 11.3 million unauthorized immigrant population in the United States in 2016.<sup>10</sup> The numbers of Mexicans crossing the border without proper documentation have been substantially declining in recent years due to diverse economic and policy factors.

The upsurge of Mexican unauthorized northbound flows before the Great Recession can be seen in Figure 1, and its most recent collapse in Figures 2 and 3. Several observations can be made

**Figure 2: Annual percentage change in the flow of unauthorized migrants measured on a quarterly basis, 2006 to 2017**



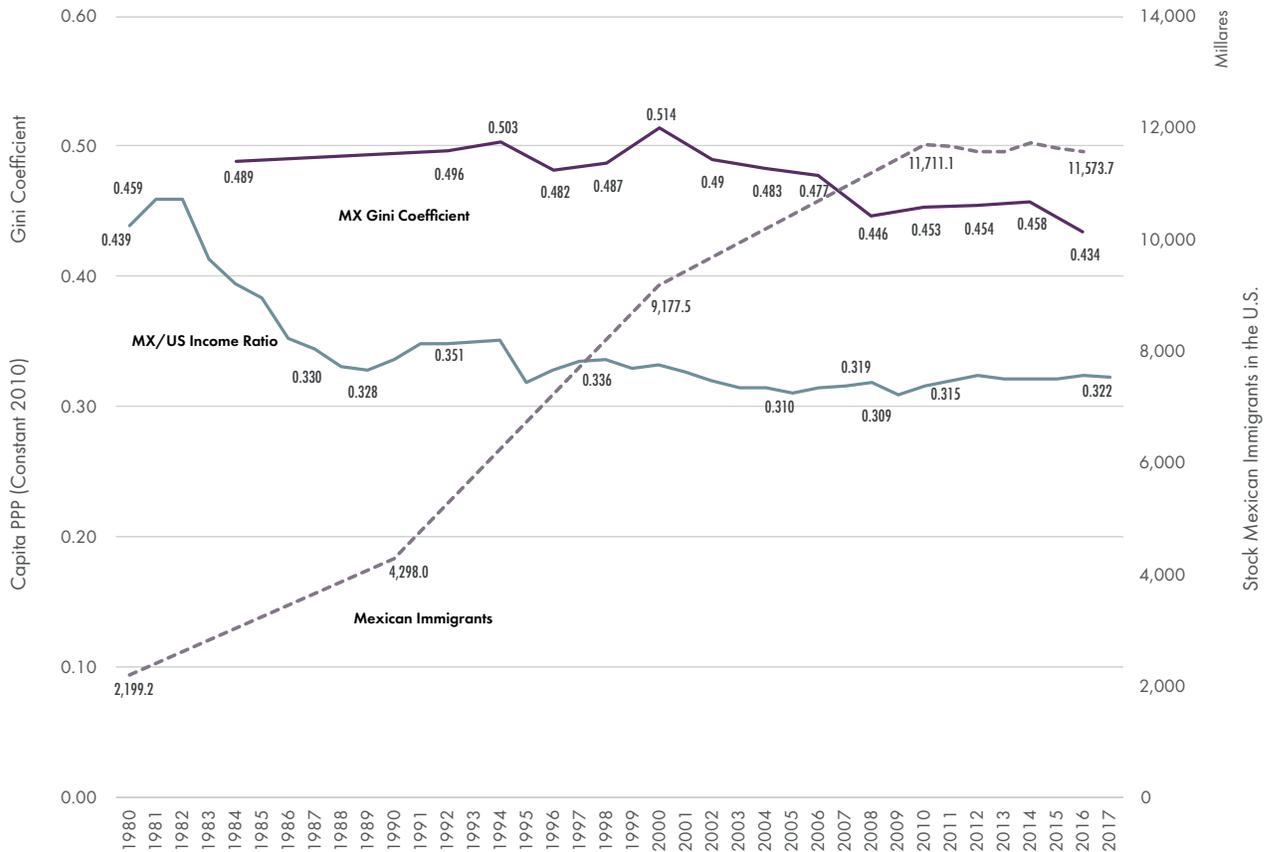
**Source:** Border Survey of Mexican Migration (EMIF)

from these figures based on data from the Border Survey of Mexican Migration, also known by its Spanish acronym EMIF.<sup>11</sup> First, the flows of unauthorized migrants presented important seasonal variations during the years of heightened demand in the U.S. labor market. These variations disappeared after absorbing the effects of the economic recession. Second, overall Mexican unauthorized migration flows skyrocketed from 330 thousand in 2002 by the mid-2000s. The flow increased to more than 500 thousand in 2005 and then peaked near 700 thousand in 2007, but dipped sharply after the home construction bubble burst in the United States. Third, the Great Recession had a sharp impact on the northbound flow unfolding a new chapter in the history of contemporary Mexico-U.S. migration.

The total unauthorized northbound flow shows that overall Mexican migration into the United States swelled in the mid-2000s when

the housing bubble temporarily expanded demand for Mexican construction workers. Figure 1 shows the peak northbound flow in the first quarter of 2006. Since the second quarter of 2008, flows from Mexico to the United States posted 16 straight quarters of decreasing volume on an annualized basis, according to data from the EMIF. The tendency began to reverse by 2012. The pace of decline began to slow in the second half of 2010 and, in the first two quarters of 2012, the flow marked small gains compared with the previous year. However, starting in the first quarter of 2014, flows of unauthorized migration continued their downward trend and dipped sharply for 14 consecutive quarters. The 2014-2017 period has been the worst “free-fall” of the Mexico-U.S. stream of undocumented migration after the Great Recession. Today’s unauthorized northbound flows are at an all-time low.

**Figure 3. Per Capita Income in Mexico Relative to the United States, Mexico's Gini Coefficient, and Mexican Immigrants in the United States, 1980-2017.**



**Source:** OECD for GDP Per Capita (Constant, 2010, International \$) Ratio, World Bank for Gini Coefficient and Migration Policy Institute for Mexican Immigrants in the U.S.

### Inequality as a Determinant of Emigration: A Theoretical Overview and Evaluation of the Mexican Case

Most Mexicans move to the United States to escape economic disadvantages, low salaries, and limited opportunities for social mobility. The importance of economic forces for inducing migration has long been recognized by social scientists. Several economic theories attempt to explain migration decisions based on inequalities. However, as noted by Stark (2006), we have learned little about the relationship between migration and inequality at both origin and destination. He argues that our understanding of how income inequalities influence migration or not may be limited not only by the lack of findings,

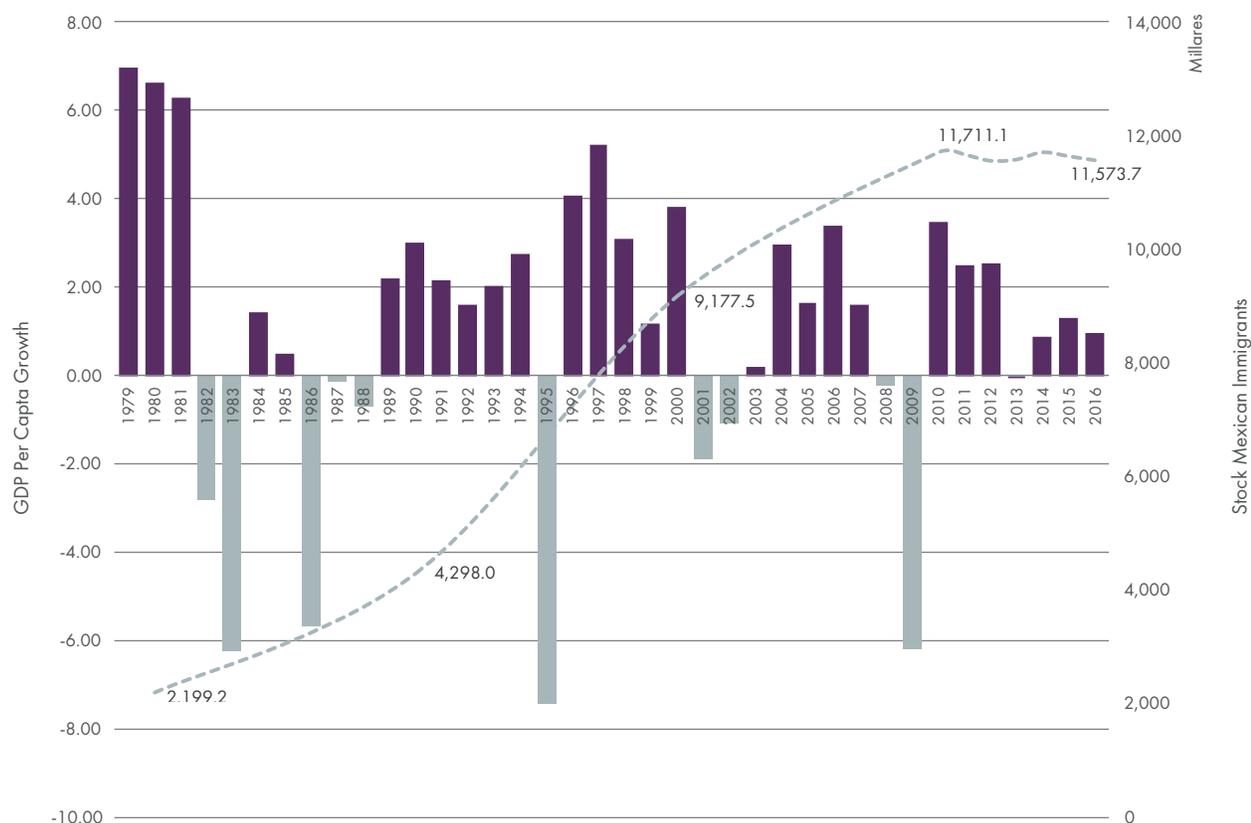
but also by the shortcomings of conceptualizing the analytical behavior of individuals.<sup>12</sup>

### Inter-country Inequality

In understanding how inequality drives migration, we must take care to distinguish between inter-country inequality and within-country inequality.

An important premise of inequality studies is that the country, region or community you were born and raised in is more important in determining your life chances and life outcomes than any other individual factors.<sup>13</sup> Between-countries inequality tries to capture the effect of belonging to one location, such as Mexico, as a predictor of unequal economic opportunities.

**Figure 4. Mexico GDP per capita growth (annual %) and Stock of Mexican Immigrants in the United States, 1979-2016.**



**Source:** World Bank for GDP per capita growth and Migration Policy Institute for Mexican Immigrants in the United States.

According to neoclassical economic theory, interregional migration movements are driven by between-countries inequalities in the form of wages, economic opportunities or employment. In their seminal publication, Harris and Todaro (1970) argue that the rate of migration will increase the higher the urban-rural wage differential and the lower the perceived probability of finding a job in the modern sector.<sup>14</sup> Migration is certainly rooted, at least in part, in wealth and income inequalities between sending and receiving areas. World wage inequality due to variations in skill prices and human capital, imperfectly captured by per capita income differentials, influence migration decisions.<sup>15</sup> Although the relation between emigration rates and income is complex,<sup>16</sup>

per-capita income gaps are strong determinants of labor migration.<sup>17</sup>

An undisputable key attraction of the United States is represented by its high income per capita. That the United States offers better opportunities for income is captured by the fact that, on average, GDP per capita in Mexico is only 30% of that in the U.S. (see Figure 3).<sup>18</sup> Relative income between Mexico and the United States is central to the migration decision of Mexicans moving north, and provides some support to the Harris-Todaro hypothesis of wage differentials.

The persistence of economic pressures for immigration from Mexico is captured by the fact that per capita income in Mexico relative to the United States has remained persistently low since the

mid-1980s. Convergence of the Mexico and U.S. economies should theoretically produce changes on migration patterns. However, Mexico has never been able to catch up with the United States in terms of living standards, or even to significantly reduce their inter-country inequality. The great Mexican migration to the United States took place during a time when the income gap between the two countries did not decrease, not even after the enactment of the North American Free Trade Agreement.

Inequality between Mexico and the United States clearly promotes migration but cannot account for the variations in the number of immigrants in the United States from Mexico, as Figure 3 allows us to infer. The prospect of higher wages in the United States might continue to attract Mexicans to the United States at the same levels than before, however, emigration rates from Mexico are much lower today, due to other factors explained throughout this paper and in the conclusions.

It is useful to place the Mexican immigrant inflow of the last forty years in the context of Mexico's economic growth. At the aggregate level, northbound flows have been linked to the negative shocks of the Mexican economy and most recently to the Great Recession. Figure 4 plots Mexico's GDP annual per capita growth and the stock of Mexican immigrants in the United States from 1979 to 2016.

Economic performance in Mexico has been disappointing since the 1982 debt crisis and the liberalization of its economy. The lack of progress in the domestic economic front in Mexico is reflected not only in the modest growth of GDP per capita, but also by the sharp decline in economic output and income in the 1980s, 1990s and 2000s. With the exception of the last ten years, the severe regressions in income per capita in Mexico were accompanied by sharp increases in the volume of immigrants in the United States. The Mexican financial crisis of December 1994 made the great migration of the 1990s possible. As economic opportunities declined and living standards fell in Mexico, millions of Mexicans moved to the United States, as discussed above. The economic success of the United States in the 1990s and the well-established migrant networks

between the two countries also contributed to facilitate this massive migration.

Despite another significant negative shock of the Mexican economy in 2008 and 2009, flows of Mexican migrants for the first time did not rise but dropped. As the Great Recession curtailed economic opportunities and unparalleled enforcement efforts in the United States aimed at massive detentions and deportations elevated the cost of migration, the last ten years can be characterized by a setback of historical migration patterns. Both factors appear to have exercised a dominant influence in the reduction of Mexican immigration in recent years.<sup>19</sup>

### **Income Inequality and Migrants' Selectivity**

International migration has always been economically constrained. One of the most important theoretical links between inequality and migration lies in the selectivity of migrants. By establishing that migration decisions depend on the predicted benefits and the cost of migration as a human capital investment,<sup>20</sup> neoclassical economic theory also predicts that migration is more likely to be undertaken by individuals who can produce the highest payoff to their investment.<sup>21</sup> Thus, migrants are not a random sample of the origin population. Highly-skilled workers are more responsive to an income maximization opportunity and immigrant selection would be positive. Migrants also tend to be positively self-selected given the out-of-pocket costs of migration.<sup>22</sup> However, these models cannot explain a large number of relatively unskilled and uneducated migrants.<sup>23</sup>

At the aggregate level, migration theory also suggests that differences across countries in the return to skills will select migrants from different parts of the skill distribution.<sup>24</sup> Advancing the theory of immigrants' selection and Roy model,<sup>25</sup> George Borjas (1987) challenged the assumption of positive selection by formalizing the analysis of self-selection mechanisms to predict that income dispersion in both the country of origin and the country of destination determine migration movements (flows) and the patterns of immigrants' selection with respect to unobservable and observable characteristics.<sup>26</sup>

According to Borjas, the relative income inequality, the comparative wage differentials

between the origin and destination countries, and the degree of transferability of skills influence migrants' selectivity and impact on welfare systems.<sup>27</sup> If income dispersion is more unequal in the sending than in the host country, like in the Mexico-U.S. case, migrants will be chosen from the lower tail of the income distribution in the sending country and will enjoy below average earnings in the country of destination as well. Highly educated individuals will find more attractive to stay in locations with high inequality to seek the highest reward to their skills. Positive selection will occur when the distribution of earnings is more dispersed in the destination than in the origin. In his influential article, Borjas found that greater income inequality in the country of origin has a negative effect on the initial earnings of immigrant workers in the U.S.

A significant body of literature has found support for the positive-selection hypothesis among international migrants.<sup>28</sup> However, studies of the skill composition of Mexican immigrants have produced mixed evidence due not only to the exceptionality of the Mexico-U.S. case, but also to problems associated with data limitations and identification problems. Early cross-national and cross-sectional studies based on U.S. and Mexico unveiled support for intermediate or positive selection. Chiquiar and Hanson's (2005) analysis of U.S. and Mexican census data to compare observed characteristics of Mexican immigrants did not find support for Borjas' negative-selection hypothesis in terms of education and earnings.<sup>29</sup> They found that male immigrants are drawn from the middle of the education and skill distributions, while female immigrants are positively selected. Feliciano (2005), also using census data in both countries, demonstrates that the selection of Mexican migrants regarding education was positive from 1960 to 2000.<sup>30</sup>

In a hazard rate model using data collected by the Mexican Migration Project (MMP) in 47 communities in Mexico, Orrenius and Zavodny (2005) found similar evidence to that of Chiquiar and Hanson's (2005) for intermediate selection among unauthorized Mexican immigrants with respect to education. Moreover, positive selection increased with harsher border enforcement, as it would be expected from neoclassical economic theory.<sup>31</sup>

The positive-selection claim for the Mexican case started to be challenged by Ibarra and Lubotsky (2007).<sup>32</sup> Although they also found that Mexico-born immigrants reported in the U.S. Census are drawn from the upper middle part of the Mexican education distribution, using the ten percent sample data from the 2000 Mexican census on household residents who left Mexico to the United States during the last five years, allowed them to find support for the negative-selection hypothesis in relation to education. However, their result has been questioned not only because they used predicted education, but also because the predicted values of this variable were based on a limited number of individual characteristics.<sup>33</sup>

Research indicates that social networks influence migration, including emigrant selection.<sup>34</sup> Migration depends on networks in order to reduce migration costs and to increase the chances of finding a job. McKenzie and Rapoport (2010) argue that positive-selection is significant during the initial stages of the migration process, but the poor become more likely to migrate as migration networks grow and the cost is less of a constraint on departure. Using data from the MMP and the National Survey of Demographic Dynamics in Mexico, they included information on the maturation of migration flows and found that migrants are positively selected in communities with a low prevalence of migration and the opposite in places with longer migration history.<sup>35</sup>

Fernandez-Huertas (2011) adopted a new data source: the *Encuesta Nacional de Empleo* (National Employment Survey). In his specification of levels of education and earnings of household members before recently moving to the United States, he found no support for the intermediate-to-positive selection claimed by previous studies on Mexican emigration.<sup>36</sup> Although he shows positive selection for emigration from rural Mexico, his results report the existence of negative selection during the 2000-2004 period.

In line with Fernandez-Huerta's article and Borjas' view, two more recent studies find support for the negative-selection hypothesis of Mexican immigrants in the United States. Ambrosini and Peri (2012) used the 2002-2005 panel data from the Mexican Family Life Survey (MxFLS) and the

American Community Survey to analyze the selection of migrants to the United States on both observable and unobservable characteristics.<sup>37</sup> They found negative selection on unobserved characteristics due to both individual abilities and temporary negative shocks. Moreover, they also report the weak inclination to migrate to the United States of highly educated Mexicans. By relying on several data sources, the work of Rendall and Parker (2014) allows us to calibrate how nationally representative (cross-sectional and longitudinal) data collected in Mexico capture higher levels of Mexican immigrants with rural and semi-urban origins than data collected in the United States.<sup>38</sup> Their comprehensive analysis identifies support for the negative-selection hypothesis for men and intermediate selection for women with respect to education. They also demonstrate how unlikely it is for Mexican residents with the highest levels of education to migrate to the United States.

Kaestner and Malumud (2014) also rely on the MxFLS in order to find evidence on the nature of immigrants' self-selection from Mexico to the United States in relation to age, education, health, and cognitive ability. Unlike Ambrosini and Peri, they did not find support for the negative selection of migrants during the 2002-2005 period. Mexicans who choose to migrate are drawn from the middle of the education distribution and are not significantly different from an "average" Mexican in terms of health and cognitive ability. The MxFLS data allow these authors to corroborate the low likelihood of Mexicans with more than 12 years of education to migrate to the United States. Their analysis of male pre-migration earnings, however, shows a negative pattern of selection consistent with Borjas' migrant selection model.

In a recent paper, Hanson, Liu and McIntosh (2017) follow a similar analysis to that undertaken by Chiquiar and Hanson in 2005.<sup>39</sup> In their analysis of the composition of low-skilled Mexican immigrants in the United States, they estimate counterfactual or possible wage distributions of male and female Mexican immigrants for 1990, 2000 and 2010 assuming they would have chosen to stay in Mexico. Their results show a mildly positive selection among Mexican men

that disappeared over time. The counterfactual wage density of Mexican immigrants in the United States shows no difference vis-à-vis the working-age population's wage distribution in Mexico in 2010. Immigrant women display a stronger positive selection than immigrant men, but again this self-selection characteristic vanishes over time and they seem to come from a random draw of the Mexican female population in terms of observable skills.

In sum, immigrant self-selection constitutes one of the most relevant lines of inquiry with respect to inequality driving migration flows and migrants' characteristics thanks to the work of George Borjas. It is hardly an exaggeration to claim that much of the empirical work on Borjas' self-selection model has been done in relation to Mexican immigrants. Although positive selection seems to be the norm for international migration, studies of immigration education selectivity in Mexico have produced contradictory results. Initial studies underscored the existence of intermediate or positive selection for Mexican immigrants, however more recent research either find negative selection aligning with Borjas' model, or confirm intermediate selection. Mexico seems to be a distinct case of immigrant selection.

The substantial body of evidence attests to the relationship between the individual characteristics of Mexicans and the decision to migrate to the United States, making it clear that those who migrate are not a random sample of the Mexican population. Yet the bulk of this literature is based on education as the only measure of skill and face serious data limitations, impeding efforts to fully understand the selectivity of Mexican migration to the United States. Migration data sources in the United States, such as the Census and the American Community Survey, present challenges due to the undercounting of Mexican immigrants, particularly those with irregular status, and the overreporting of immigrants' educational attainment. Mexican data sources like the Census and demographic and employment surveys tend to undercount Mexican migrant households who moved to the United States permanently and have no members left behind to report their departure. Employment surveys have high attrition rates, while others like the MxFLS suffer from small

sample sizes of migrants, and the MMP excludes Mexican migrants living in the United States.

### Within-Country Inequality

Migration decisions are not mainly a response to income or wage differences. Indeed, significant migration flows can occur in the absence of large real wage differentials between two regions, and the opposite in the case of substantial wage gaps. Under these circumstances, economic factors such as imperfect capital markets, inequality and relative deprivation can still play a role in migration decisions, as suggested by the New Economics of Migration theory (Stark, 1991).<sup>40</sup> Moreover, in opposition to Borjas' approach, Stark (2006) makes the case for the degree of inequality in the country of origin as the only source for the selectivity of migration.<sup>41</sup>

The effect of the Gini Coefficient, the most common measure of income dispersion, on migration seems puzzling. Modeling data from 23 countries on migration intentions, Liebig and Sousa-Poza (2004) found a positive correlation between the Gini Coefficient and emigration propensity after controlling for income per-capita.<sup>42</sup> However, a more recent paper by Maestri et al. (2017) that explicitly analyzes the role of inequality as a driver of migration, finds the opposite.<sup>43</sup> Using data from 231 countries during the 1990-2015 period, they model this relationship by plugging data on migration stocks and the Gini index. Their results show there is a negative relationship between income dispersion in the country of origin and emigration rates: the higher the income dispersion in a country, the lower the incentives to migrate. They interpret this aggregate-level evidence as a result of the poverty trap that restrains large segments of the population, an assumption that has been supported by the work of McKenzie and Rapoport (2010) in the absence of mature migration networks.

Do changes in migrant flows follow changes in inequality in Mexico? According to Figure 3, income inequality, as measured by the Gini coefficient, has remained almost unchanged in Mexico since 1984. The correlation between the Gini coefficient and migration flows seems very low. Income inequality in Mexico peaked around the

1990s and lasted up to the 2000s, and there is some evidence that income dispersion has slightly declined recently. In 2016, the Gini coefficient for Mexico was 0.43, the lowest since 1984. Migration flows do not seem to follow any inequality trend at the national aggregate level. This suggests, but does not directly confirm, that there is not a strong correlation between the level of income inequality in Mexico and migration flows to the United States.

### Relative Deprivation

Besides the macro-level perspective of income and economic opportunities gaps, at the household and individual level the propensity to migrate varies along the income distribution. As mentioned above, another inequality development rests on the relative deprivation approach to understand migration. According to neoclassical migration theory, the level of inequality in the community of origin of migrants does not play a significant role in migration decisions.<sup>44</sup> However, the New Economics of Migration identifies income inequality as a distinct explanatory factor of migration. Researchers argue that households and individuals care about their relative position in society, and link income uncertainties to the migration decision process of households.

Oded Stark (1984, 1989) has hypothesized that the way households define and feel relative deprivation in relation to their community or reference group has an effect on migration outcomes.<sup>45</sup> According to this relative deprivation theory, migration can become an effective mechanism for households to overcome a relatively low position and to experience changes in group affiliation. Thus, this theory argues that relative deprivation in relation to others in the household's reference group has a positive relationship with the propensity to migrate.

Studies adopting the relative deprivation approach in Mexico are limited. In their analysis of a random sample of sixty-one households in two villages in the state of Michoacan, Stark and Taylor (1989) found support for the relative deprivation hypothesis.<sup>46</sup> After controlling for household's expected income gains from migration, these authors found that the household's probability of sending migrants to the United States

is related to their initial relative deprivation. By using a broader definition of relative deprivation that includes wealth and not only income, as well as data from the Mexican Migration Project, Quinn (2006) found evidence in line with the relative deprivation hypothesis for internal migration, but the influence of wealth relative deprivation was not significant in the case of Mexico-U.S. migration decisions.<sup>47</sup>

I find relative deprivation to be the most promising theoretical approach to understand the effects of inequality on migration decisions. However, current empirical shortcomings to measure relative deprivation are still severe. Moreover, research based on this theory seems limited in comparison with Borja's model of immigrants' selection.

## Conclusions

Migration has become a prominent feature in the landscape of U.S.-Mexico relations; two countries separated by a clear division in terms of economic development. As millions of Mexicans have moved to the United States attracted by better opportunities, questions have arisen concerning the role of inequality in driving Mexican emigration.

The connection between migration and policies is important in the context of economic liberalization and welfare reform in Mexico. Globalization and liberalization have been the major defining features of the Mexican economy during the last forty years. Capital flows and trade have not brought about alternatives to migration in Mexico. The puzzling question is how Mexico has gone through numerous political, economic, and social transformations but with no significant effects on inequality and poverty.

The connection between inequality and migration runs both ways and is therefore complex. In the case of Mexico, one must not forget that during the last fifty years cross-time variations in the flows and stock of immigrants in the United States endured significant positive and negative shocks that did not coincide with meaningful changes in income inequality or in income levels. The source of the variation should be sought in other factors. Labor demand has been the most important economic factor attracting migrants

to the United States. The consolidation of strong migration networks between the two countries, and immigration and enforcement policies in the United States, also contribute to explain the rise and fall of Mexican emigration.

Scholars have identified diverse mechanisms to link inequality to migration. Two fundamental tenets in connection to inequality driving migration are that: 1) inequality in sending and host countries affect the size of migration flows and who migrates, and 2) relative deprivation has a positive relationship with the propensity to migrate.

The debate on how inequality may have an effect on migration is far from being settled. Taken together, the studies reviewed in this paper do not provide a clear picture of the interplay between inequality and migration for the case of Mexico. Inequality has implications for migrants' self-selection in relation to pre-migration observed and unobserved characteristics. Understanding who migrates and who stays in Mexico is important not only to capture the effects of inequality on migration decisions, but also the consequences for Mexico's economic and social development. Although positive selection has been the norm for international migration, who migrates from Mexico is still under discussion. The nature of positive or negative selection of Mexican immigrants remains an open question in light of the inconsistency of results due to the nature of data used and model specification issues. Although Mexican emigrants are rarely the poorest in Mexico, they are typically unskilled mainly because they have limited formal schooling when compared with the U.S. native population.

On the other hand, relative deprivation is an influential conceptual approach to understand migration decisions in relation to other households' position along income distribution. However, further inquiry into this line of thinking in Mexico is clearly an important task for future research.

What are then the alternatives to migration in Mexico? The barriers to international migration have increased with little hope of any significant change of direction in the near future. For Mexican workers, the U.S. job market is starting to look a lot less inviting and immigration enforcement policies have raised the cost of migration for all immigrants. Furthermore, as reported by the Pew

Research Center, in 2015 more Mexicans believed that life is about the same in the U.S. and in Mexico than in 2007: 33% and 23%, respectively.<sup>48</sup>

Our data and literature review suggests the importance of closing the income gap with the United States and provide greater incentives for education in Mexico. An important consideration is to develop economic policies that can promote higher real income levels in the country through,

for example, minimum wage legislation. Although an increase in education and wages in Mexico might also facilitate migration by upgrading the skills of Mexican workers and reducing liquidity constraints, low demand for immigrant labor, together with immigration controls in the United States, will keep the cost of migration high in the immediate future.

## ABOUT THE AUTHOR

---

**RENÉ ZENTENO** holds a PhD in Sociology and Demography, from the University of Texas Austin, and was a postdoctoral fellow at the University of Pennsylvania. Dr. Zenteno is a Professor in Demography at the College of Public Policy of the University of Texas at San Antonio (UTSA). He was the first vice-rector for international initiatives at UTSA. At the same time, he was also founding chief executive of ConTex, a joint undertaking of the University of Texas System and the Mexican National Council for Science and Technology (Consejo Nacional de Ciencia y Tecnología de México / CONACYT). He was Undersecretary for Population, Migration and Religious Issues in the Ministry of the Interior (Secretaría de Gobernación), collaborator for the National Institute for Statistics and Geography (Instituto Nacional de Estadística y Geografía / INEGI), founded and directed the Population Studies Program at El Colegio de la Frontera Norte and headed the Economics and Development Area of the Public Administration and Policy School of the ITESM. Dr. Zenteno also held the position of Chief Executive of the Center for U.S.-Mexican Studies of the University of California at San Diego. His work in demographics has been highly acknowledged and received several awards. He holds a Level III researcher degree at the National Researchers' System (SNI, Spanish acronym) and is a member of the Mexican Academy of Sciences.

## NOTES

- 1 Pew Research Center. 2015. "Modern Immigration Wave Brings 59 Million to U.S., Driving Population Growth and Change Through 2065." <http://www.pewhispanic.org/2015/09/28/modern-immigration-wave-brings-59-million-to-u-s-driving-population-growth-and-change-through-2065/>
- 2 Migration Policy Institute (MPI) Data Hub <https://www.migrationpolicy.org/programs/data-hub/charts/mexican-born-population-over-time?width=1000&height=850&iframe=true>
- 3 Esquivel, Gerardo. 2015. "Extreme Inequality in Mexico. Concentration of Economic and Political Power". Oxfam. <https://is.cuni.cz/studium/predmety/index.php?do=download&did=113954&kod=JMM591>; El Colegio de Mexico. 2018. "Desigualdades en Mexico 2018." <https://desigualdades.colmex.mx/informe-desigualdades-2018.pdf>
- 4 Fratzke, Susan and Brian Salant. 2018. "Moving Beyond "Root Causes. The Complicated Relationship between Development and Migration". Migration Policy Institution. <https://www.migrationpolicy.org/research/moving-beyond-root-causes-complicated-relationship-between-development-and-migration>
- 5 Hanson, Gordon. 2010. "International Migration and the Development World". In Rodrik, Daniel and Mark Rosenzweig (eds). *Handbook of Development Economics, Vol. 5. The Netherlands: Elsevier BV. Pp. 4363-4414.*
- 6 As social scientists, it is our job to produce research relevant to the real world and for users in the policy arena. This includes offering scientific rigor by asking the right questions and paying attention to theory and methods.
- 7 Zenteno, Rene. 2012. "Saldo Migratorio Nulo: El Retorno y la Política Anti-Inmigrante". *Coyuntura Demográfica 2:17-21*; Hanson, Gordon, Chen Liu and Craig McIntosh. 2017. "Along the Watchtower: The Rise and Fall of U.S. Low-skilled Immigration", *Brooking Papers on Economic Activity*.
- 8 Villarreal, Andrés. 2014. "Explaining the Decline in Mexico-U.S. Migration: The Effect of the Great Recession." *Demography 51: 2203-2228*; Massey, Douglas, Jorge Durand, and Karen Pren. 2014. "Explaining Undocumented Migration to the U.S.," *International Migration Review 48(4):1028-1061.*
- 9 Cohn, D'Vera, Jeffrey S. Passel and Ana Gonzalez-Barrera. 2017. "Rise in U.S. Immigrants From El Salvador, Guatemala and Honduras Outpaces Growth From Elsewhere". Pew Research Center. <http://www.pewhispanic.org/2017/12/07/rise-in-u-s-immigrants-from-el-salvador-guatemala-and-honduras-outpaces-growth-from-elsewhere/>
- 10 Cohn, D'Vera, Jeffrey S. Passel and Ana Gonzalez-Barrera. 2017. "Rise in U.S. Immigrants From El Salvador, Guatemala and Honduras Outpaces Growth From Elsewhere". Pew Research Center. <http://www.pewhispanic.org/2017/12/07/rise-in-u-s-immigrants-from-el-salvador-guatemala-and-honduras-outpaces-growth-from-elsewhere/>
- 11 The *Encuesta sobre Migración en la Frontera Norte de México (EMIF)* tracks original data on the number of people crossing the U.S.-Mexico border legally or illegally. It is conducted by El Colegio de la Frontera Norte in selected border-crossing points and at airports within Mexico since 1993.
- 12 Stark, Oded. 2006. "Inequality and Migration: A Behavioral Link," *Economic Letters 91: 146-152.*
- 13 Zenteno, René and Mary Jo Bane. 2009. "Poverty and Place in North America", in *Poverty and Poverty Alleviation Strategies in North America. Bane, Mary Jo and Rene Zenteno (eds.). Cambridge, Mass: David Rockefeller Center for Latin American Studies and Harvard University Press. Pp. 3-32.*
- 14 Harris, John R. and Michael P. Todaro. 1970. "Migration, Unemployment, and Development: A Two-Sector Analysis," *American Economic Review 60:126-142.*
- 15 Rosenzweig, Mark R. 2010. "Global Wage Inequality and the International Flow of Migrants," in *Equity in a Globalizing World, Kanbur, Ravi and A. Michael Spence (eds). New York: Routledge. Pp. 205-*
- 16 Hanson, Gordon. 2010. "International Migration and the Development World". In Rodrik, Daniel and Mark Rosenzweig (eds). *Handbook of Development Economics, Vol. 5. The Netherlands: Elsevier BV. Pp. 4363-4414.*
- 17 Ortega, F., and G. Peri (2013), "The Role of Income and Immigration Policies in Attracting International Migrants," *Migration Studies, 1, 1, 47-74*; Grogger, Jeffrey, and Gordon H. Hanson. 2011. "Income Maximization and the Selection and Sorting of International Migrants," *Journal of Development Economics 95(1): 42-57*; Hatton, T.J. and Jeffrey G. Williamson. 2005. *Global Migration and the World Economy: Two Centuries of Policy and Performance. Cambridge: The MIT Press*; Clark, Ximena, Timothy J. Hatton and Jeffrey G. Williamson. 2004. "What Explains Emigration Out of Latin America?," *World Development 32(11): 1871-2004*; Quinn, Michael. 2006. "Relative Deprivation, Wage Differentials and Mexican Migration," *Review of Development Economics 10(1): 135-153.*
- 18 GDP per capita is not the best wage measure. However, it is difficult to find comparative wages between Mexico and the United States.
- 19 Villarreal, Andrés. 2014. "Explaining the Decline in Mexico-U.S. Migration: The Effect of the Great Recession." *Demography 51: 2203-2228*; Hanson, Gordon, Chen Liu and Craig McIntosh. 2017. "Along the Watchtower: The Rise and Fall of U.S. Low-skilled Immigration", *Brooking Papers on Economic Activity*.
- 20 Sjaastad, Larry A. 1962. "The Costs and Returns of Human Migration," *Journal of Political Economy 70(5): 80-93.*

- 21 Grogger, Jeffrey, and Gordon H. Hanson. 2011. "Income Maximization and the Selection and Sorting of International Migrants," *Journal of Development Economics* 95(1): 42–57.
- 22 Chiswick, Barry R. 1999. "Are Immigrants Favorably Self-selected?" *American Economic Review* 89(2): 181–185.
- 23 Ghatak, Subrata, Paul Levine and Stephen W. Price. 1996. "Migration Theories and Evidence: An Assessment," *Journal of Economic Surveys* 10(2): 159-198.
- 24 Borjas, George. 1987. "Self-Selection and the Earnings of Immigrants," *American Economic Review* 77(4): 531–553.
- 25 Roy, Andrew D. 1951. "Some Thoughts on the Distribution of Earnings." *Oxford Economic Papers* 3 (2): 135–46.
- 26 Borjas, George. 1987. "Self-Selection and the Earnings of Immigrants," *American Economic Review* 77(4): 531–553; Borjas, George. 1991. "Immigration and Self-Selection," in *Immigration, Trade, and the Labor Market*, Abowd, John M. and Richard B. Freeman (eds). Chicago: University of Chicago Press. Pp 29-76.
- 27 Borjas, George. 1987. "Self-Selection and the Earnings of Immigrants," *American Economic Review* 77(4): 531–553.
- 28 Liebig, Thomas and Alfonso Sousa-Poza. 2004. "Migration, Self-selection and Income Inequality: An International Analysis." *Kyklos* 57: 125–146; Feliciano, Cynthia. 2005. "Educational Selectivity in U.S. Immigration: How do Immigrants Compare to those Left Behind?" *Demography* 42(1): 131–152; Rosenzweig, Mark. 2007. "Education and Migration: A Global Perspective," Yale University (mimeograph); Grogger, Jeffrey, and Gordon H. Hanson. 2011. "Income Maximization and the Selection and Sorting of International Migrants." *Journal of Development Economics* 95(1): 42–57; Belot, Michele and Timothy Hatton. 2012. "Immigrant Selection in the OECD." *Scandinavian Journal of Economics* 114(4): 1105–1128; Aleksynka, Mariya and Ahmed Tritah. 2013. "Occupation–Education Mismatch of Immigrant Workers in Europe: Context and Policies." *Economics of Education Review* 36: 229–244; Akee, Randall. 2010. "Who Leaves? Deciphering Immigrant Self-Selection from a Developing Country." *Economic Development and Cultural Change* 58(2): 323-344.
- 29 Chiquiar, Daniel and Gordon H. Hanson. 2005. "International Migration, Self-Selection, and the Distribution of Wages: Evidence from Mexico and the United States." *Journal of Political Economy* 113(2): 239-281.
- 30 Feliciano, Cynthia. 2005. "Educational Selectivity in U.S. Immigration: How do Immigrants Compare to those Left Behind?" *Demography* 42(1): 131–152
- 31 Orrenius, Pia M., and Madeline Zavodny. 2005. "Self-Selection among Undocumented Immigrants from Mexico." *Journal of Development Economics* 78(1): 215–240.
- 32 Ibarra, Pablo and Darren Lubotsky. 2007. "Mexican Immigration and Self-Selection: New evidence from the 2000 Mexican Census," George J. Borjas (ed.), *Mexican Immigration to the United States*. University of Chicago Press. Pp. 159-192.
- 33 Kaestner, Robert and Ofer Malamud. 2014. "Self-selection and International Migration: New Evidence from Mexico," *The Review of Economics and Statistics* 96(1): 78-91.
- 34 Orrenius, Pia M., and Madeline Zavodny. 2005. "Self-Selection among Undocumented Immigrants from Mexico." *Journal of Development Economics* 78(1): 215–240; McKenzie, David and Hillel Rapoport, 2007. "Network Effects and the Dynamics of Migration and Inequality: Theory and Evidence from Mexico," *Journal of Development Economics* 84(1): 1–24.
- 35 McKenzie, David and Hillel Rapoport, 2007. "Network Effects and the Dynamics of Migration and Inequality: Theory and Evidence from Mexico," *Journal of Development Economics* 84(1): 1–24.
- 36 Jesús Fernández-Huertas Moraga. 2011. "New Evidence on Emigration Selection," *The Review of Economics and Statistics* 93(1): 72–96
- 37 Ambrosini, William and Giovanni Peri. 2012. "The Determinants and the Selection of Mexico-US Migrants," *The World Economy*, Wiley Blackwell, vol. 35(2):111-151.
- 38 Rendall, Michael S., and Susan W. Parker. 2014. "Two Decades of Negative Educational Selectivity of Mexican Migrants to the United States," *Population and Development Review* 40(3):421-446
- 39 Hanson, Gordon, Chen Liu and Craig McIntosh. 2017. "Along the Watchtower: The Rise and Fall of U.S. Low-skilled Immigration", *Brooking Papers on Economic Activity*.
- 40 Stark, Oded and Edward Taylor. 1991. "Migration Incentives, Migration Types: The Role of Relative Deprivation," *The Economic Journal* 101(408):1163-1178.
- 41 Stark, Oded. 2006. "Inequality and Migration: A Behavioral Link," *Economic Letters* 91: 146-152.
- 42 Liebig, Thomas and Alfonso Sousa-Poza. 2004. "Migration, Self-selection and Income Inequality: An International Analysis." *Kyklos* 57: 125–146.
- 43 Maestri, V., S. Migali and F. Natale. 2017. "The Relationship between Inequality in the Origin Country and Emigration", *JRC Contribution to Policy Documents*. European Commission.

- 44 Quinn, Michael. 2006. "Relative Deprivation, Wage Differentials and Mexican Migration," *Review of Development Economics* 10(1): 135-153.
- 45 Stark, Oded. 1984. "Rural-to-Urban Migration in LDCs: A Relative Deprivation Approach," *Economic Development and Cultural Change* 32: 475-486; Stark, Oded and Edward Taylor. 1989. "Relative Deprivation and International Migration," *Demography* 26(1): 1-14.
- 46 Stark, Oded and Edward Taylor. 1989. "Relative Deprivation and International Migration," *Demography* 26(1): 1-14.
- 47 Quinn, Michael. 2006. "Relative Deprivation, Wage Differentials and Mexican Migration," *Review of Development Economics* 10(1): 135-153.
- 48 <http://www.pewresearch.org/fact-tank/2016/02/11/mexico-and-immigration-to-us/>

EDITOR OF THE SERIES: Claudia Masferrer | March 2019

EDITORIAL ASSISTANT: Gabriela Pinillos

MIGDEP thanks the funding granted by the MISSION FOODS TEXAS-MEXICO CENTER.



**SMU** | Mission Foods Texas-Mexico Center  
DEDMAN COLLEGE OF HUMANITIES & SCIENCES

In partnership with the Cox School of Business

**NOTAS  
SOBRE  
MIGRACIÓN Y  
DESIGUALDADES**

@SeminarioMigdep  
 migdep@colmex.mx  
migdep.colmex.mx