

# Economic Assimilation of Low-Skilled Immigrants in the United States: Evidence from Mexican and Central Americans

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## Abstract

Using US data data spanning the period between 1970 and 2017, we analyze the economic assimilation of subsequent arrival cohorts of Mexican and Central American immigrants, the more economically disadvantaged group of immigrants. We compare the wage and employment gap and growth relative to similar natives across various cohorts of entry. We find that all cohorts started with a significant earning disadvantage relative to the average US native and eliminated 1/3 of it mainly in the 10-20 years after entry. We also find that when comparing them with similarly educated natives, the gap is much smaller and that recent cohorts, arriving after 1995, did not do worse, but better, than earlier cohorts. We also find that Mexicans and Central Americans in the construction sector and in urban areas did better in terms of gap and convergence than others. Finally, also for other immigrant groups, such as Chinese and Indians, recent cohorts did well relative to previous ones.

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# 1 Introduction

Economic assimilation of immigrants, usually measured by economists by how their income and employment status compare to that of similarly skilled natives, is an important outcome for several reasons. On one hand it affects the material and psychological well-being of immigrants, and their gains from migration are larger if they achieve the economic status of receiving country's residents (Clemens et al., 2016). On the other hand assimilation is perceived by natives as a sign of how easy it is to absorb immigrants in their society, and better assimilation generates more open and positive opinions on immigrants and better attitudes towards immigration (Alesina et al., 2018). The United States has been historically a place where immigrants, attracted to the country by economic opportunities and the potential of successful careers, have been able to overcome initial difficulties and succeed economically (Chiswick, 1978). While differences among national groups exist, the narrative relative to the old immigration waves, the ones that arrived in the US before the 80's, is that most of those groups converged to natives' economic success. Similarly the evidence on earlier immigrants (Abramitsky et al., 2014) is that they also assimilated economically and, when compared to similar natives, they did not have a significant initial gap.

Several studies, however, since Borjas (1985) have pointed out that the recent history of immigrants assimilation is different. A deterioration in the initial gap between newly arrived immigrants and natives was putting this assimilation at risk. Moreover, even more recently, Borjas (2015) argues that not just the initial gap, but the rate of economic assimilation, measured as the average wage convergence of immigrants has been declining for recent cohorts of arrival. These papers paint a picture of a progressive increase in the initial gap and decline in the "catching up" between newly arrived immigrants and natives. This is certainly a worrying sign, as it implies that immigrants arrive with a larger initial disadvantage and do not make up for it. Borjas (1985) and Borjas (2015), however, combine all immigrants in one group and study their average progress towards economic (wage) assimilation to natives. As different groups of immigrants are present in very different number, depending on the court of arrival, the changing gap and wage trajectory of aggregate immigrants relative to natives, over time, may be due in part to a composition effect. Borjas (2015) shows that this is partly the case. As different nationalities select migrants of different education levels, age and initial skills, the changing composition may give the impression of a changing average gap and changing average convergence speed. A situation in which immigrants earn wages similar to comparable natives, but where their composition has changed over time in terms of education, age and place of origin is very different from a scenario in which immigrants composition is stable but they are increasingly lagging behind at arrival and slowing their assimilation to natives. The first scenario implies stable levels of assimilation, even if the composition of immigrants is changing. The second would imply a decrease in assimilation and could mean increasing difficulties or barriers to participation of immigrants, which would call for identifying the causes of such deterioration.

In this paper we focus on Mexicans and Central Americans, which represent the largest and the least economically affluent group of immigrants to the US. We follow the labor market assimilation of different arrival cohorts over time, starting with the cohort arriving in 1965-69 and ending with the one arriving in 2005-11. Our first question is whether these immigrants, usually characterized by low education and employed in manual and low-paying jobs, have done badly in terms of employment probability and earnings relative to natives of the same age, and then relative to similarly educated natives. By focusing on this group, we zoom into assimilation of low skilled immigrants, and we can ask whether this has deteriorated over time. Or rather, if the lack of success of this group is simply been a corollary of the lack of success of native low skilled.

The second new contribution is that we also look at employment probability, besides earnings. The group of Mexican and Central Americans has been employed in many low-skilled jobs, and the general perception is that these immigrants work at very high rates. In following the cohorts of arrival constructed with the Census and American Community Survey (ACS) data, we identify a potential large source of error, related to the misreporting of year of arrival. This is potentially an important issue that we are not aware has been addressed in the existing articles that use these data and methods and will be important to consider in future work.

Zooming in potential correlates with Mexican's earning gap and growth we look at whether the sector of employment and the location affect the gap and assimilation of these immigrants. Finally we analyze the earning convergence behavior of two other groups, which have been quite different in selection and skills, but

also growing and much faster in the last decade, namely the Chinese and Indians.

Our main findings are three. First, while it is true that Mexican and Central Americans have an income gap on arrival and do not fully converge over the first 2-3 decades of their stay, we find that both the initial gap and speed of convergence has not worsened with recent cohorts of arrival. In fact, the most recent cohorts (arriving in 1995-99 and 2005-11) have fared quite well relative to the others. Very important to identifying the actual performance of Mexican and Central American immigrants is to compare them with natives with similar education and age, this improves further the relative performance of recent cohorts. However, given that workers at low levels of education and experience have done relatively poorly in the US markets and as Mexican and Central American are mainly in low education groups, in a comparison with average US wage it appears that this group of immigrants does worse.

Second, when looking at employment probability the picture is very different. Mexicans and Central Americans have almost no employment gap since their arrival. Over time they actually overtake natives and show higher probability of employment both relative to the average US born and relative to US born with similar schooling after 20 years in the US. This is an interesting feature of the US labor market, in which overall immigrants have an employment rate larger than natives. Moreover, the employment probability of this group has become better for recent arrival cohorts relative to previous arrival cohorts. This superior performance of low skilled immigrants in employment rates distinguishes the US from Europe and most other countries where the reverse is true (see Battisti et al., 2018). Third, when decomposing Mexican and Central Americans by the sector of their employment, we find that the initial gaps are smaller and assimilation faster for immigrants in the construction sector, while their performance is the worse in the agricultural sector. We also find a somewhat smaller gap and faster assimilation to comparable natives for Mexicans and Central Americans in urban (rather than rural) areas.

Finally by analyzing the other two largest groups of immigrants in the US (Chinese and Indians) who show a much higher average educational attainment than Mexicans and Central Americans, we see that even for these groups relative performance of recent cohorts (those who arrived in 1995-99 and in 2005-11) is better than the performance of those who arrived in the seventies and eighties. So we suggest that the aggregate impression of worse initial gap and slower convergence is an artifact of the composition of aggregate immigrants and not of the performance of each group.

In finding these results, we introduce a note of caution on the previous empirical research that looked at the convergence of different arrival cohorts (e.g., Borjas, 1985, 2015). First we emphasize the importance of considering a homogeneous group of immigrants when doing this, especially when comparing different cohorts. The composition of cohorts of immigrants has changed much, and it is important to distinguish changes in type of immigrants (skills) from changes in ability to integrate to US labor markets for a certain group. Second we find indication that probably the Census data incorporate large measurement error on the time of arrival of immigrants, as there seems to be a strong tendency (possibly due to recall error) to pre-date the arrival in the country. This is revealed by the strange phenomenon of increasing size of an arrival cohort in the first 2 decades after arrival.

The rest of the paper is developed as follows. Section 2 frames this paper in the existing literature on assimilation of immigrants. Section 3 introduces the data and some aggregate statistics, Section 4 shows the empirical models we estimate. Section 5.1 describes the main results on earnings and employment rate assimilation of Mexican and Central American Immigrants, Section 6 describes differentiate among immigrants by sector of employment and location. Section 7 analyzes economic assimilation of the other two largest groups of immigrants, Chinese and Indians, for comparison and Section 8 provides some concluding remarks.

## 2 Economic Assimilation of Immigrants in the Literature

Since the seminal work of George Borjas (Borjas, 1985) who shows that in order to analyze the earnings convergence of immigrants one has to follow a cohort of arrival over time, and differentiate across different arrival cohorts, the economic literature has followed such an approach. While certainly an improvement over the cross-sectional analysis (first explored by Chiswick, 1978) which compare different groups of immigrants who have been in the country for different periods of time, even the cohort analysis must be considered with caution. As subsequent cohorts of immigrants to the US have been quite different in their composition (by origin and education), the initial average gap in earnings, has changed and also their convergence in

earnings may have varied over time due to change in their composition. Typically, this literature looks at the aggregate set of immigrants and compares them with the average native. If the composition of immigrants and the performance of different groups of natives is changing over time, this can be confounded with changes in assimilation rates. In this paper we start from Borjas (2015) and we focus on Mexican and Central Americans and their assimilation. This is the group with lowest education and lower earnings among immigrants, hence their performance is important to understand the evolution of assimilation of low skilled immigrants. Moreover we focus on a comparison with natives in similar age and education group, so that the income and employment dynamics of native groups do not get confused with changes in assimilation rates. While the recent literature on immigrant convergence in the US has raised questions about the ability of recent cohorts to assimilate, the literature on assimilation of immigrants in Europe, which is more recent, has emphasized the employment gap of immigrants especially refugees, and their slow convergence. Evidence from the UK (Clark and Lindley, 2006), Norway (Bratsberg et al., 2017) and from a set of 13 EU countries (Ho and Turk-Ariss, 2018) finds a significant initial employment gap of immigrants relative to natives, especially when considering refugees and immigrants from low-income sources. While some convergence is usually observed, it is far from complete after 20 years from arrival. Several recent papers have looked at what policies have been successful in promoting more complete and faster convergence. Using causal inference through regression discontinuity and quasi-experimental evidence on assignment to policies, some recent papers have established that language training (Lochmann et al., 2019), active labor market policies (Sarvimäki and Hämäläinen, 2016) and improvements in the processing time of asylum requests (Hainmueller et al., 2016) have improved the labor market assimilation and performance of immigrants. Overall, however, the recent research emphasizes worries about the assimilation of recent immigrants, especially refugees in Europe (Fasani et al., 2018). Our paper looks at assimilation of the most vulnerable group of immigrants in the US (Mexican and Central Americans) and analyzes whether their convergence has slowed for more recent cohorts and their gap has widened. While we will not provide causal evidence on the effect of policies, we will however identify some factors, such as occupation and location, as important correlates of assimilation of this group.

### 3 Data and Earnings Gap-Convergence for All Immigrants

The data we use were obtained from IPUMS (Ruggles et al., 2019) and are the same samples used in Borjas (2015); however, we extend our analysis to include the year 2017. These data include the decennial US Census samples spanning the period between 1970 and 2000, as well as the pooled 2009-2011 and the 2017 ACS samples. Our samples differ slightly from those used by Borjas (2015) because of errata in the 2009-11 ACS sample that had not been corrected at the time of Borjas (2015)’s analysis.<sup>1</sup> Nevertheless, replication exercises using these corrected data reveal coefficients that are either identical or very close (all are within .01) to those reported by Borjas (2015), so we are confident that the updated samples we use will reflect estimates that are comparable to his analysis.

The sample of individuals used in the earnings analysis only includes males between the ages of 25 and 64 who have between 1 and 40 years of work experience, worked at least one week during the previous year, were not living in group quarters or attending school at the time of the survey, and arrived in the US at age 18 or older. For the employment rate analysis, the same criteria are used with one deviation: individuals who did not work at least one week and those who did not generate earnings are also included in the sample in order to construct the employment rate. We classify individuals as employed if they worked at least one week in the previous year.

For the earnings analysis, all dollar amounts have been adjusted to real 1999 dollars using the “Current, not seasonally-adjusted, U.S. city average for all items for all urban consumers.”<sup>2</sup>

In order to be sure that our data are consistent with Borjas (2015) we produce the analysis of initial earning gap and convergence for all immigrants together, and we show it in Table A.2 and Figure A.1 in

<sup>1</sup>In particular, on July 1, 2015 (which is after the date that Borjas (2015) had conducted his analysis), IPUMS adjusted the CPI on the source variables (inwage and incbus00) that are used to construct the main outcome variable (inearn) used in the analysis. In addition, on May 25th, 2017, IPUMS made another adjustment to the source variable incwage.

<sup>2</sup>This CPI can be found using the “Multi-Screen Data Search” tool at <https://www.bls.gov/cpi/data.htm>. Since the census samples report earnings from the previous year, we also use the CPI from the previous year to adjust earnings reported in the census samples. However, the ACS surveys reflect information about the previous 12 months (not the previous calendar year). Following Borjas (2015), we all use the previous year’s CPI to adjust the reported earnings from the ACS samples.

Appendix A. The Table A.2 shows the estimates of log earning gap for each cohort of entry in each Census year 1970, 1980, 1990, 2000, 2010, and we add the year 2017 from the ACS data. Figure A.1 shows those gaps in a chart, connecting each entry cohort over 30 years of stay in the US. That figure shows the progressively larger initial gap and slower convergence emphasized in Borjas (2015) for cohort of immigrants arrived from 1965-69 to 2005-2009. Both the table and the figure are essentially identical to Figure 1 and Table 1 in Borjas (2015). Finally, Table A.1 shows the number of immigrants who arrived in each cohort of arrival, calculated using the Census data in each year. We see that entry cohorts have become larger with time, but also we see that following one cohort of arrival over time shows that its size becomes larger in the first two decades after arrival. This raises question about measurement error of year of arrival and will be discussed in Section 3 below.

## 4 Methodology and Empirical Specification

In order to study the rate of economic assimilation of an immigrant group, in our case Mexicans and Central Americans, we start estimating the following model separately for each cross section,  $\tau$ , while restricting the sample to only include native-born and immigrant workers from the specific country/region under consideration, in our case usually Mexican and Central Americans:<sup>3</sup>

$$Y_{\ell\tau} = \beta_0 + \beta C_\ell + \mathbf{GX}_{\ell\tau} + \epsilon_{\ell\tau}, \quad (1)$$

In equation (1)  $Y_{\ell\tau} \in (\ln(w_{\ell\tau}), Emp_{\ell\tau})$  represents the measure of labor market performance of interest. The variable  $\ln(w_{\ell\tau})$  is the natural log of the weekly earnings of individual  $\ell$  measured in year (cross section)  $\tau$ ,  $Emp_{\ell\tau}$  is a dummy variable that identifies whether an individual was employed during the previous year,  $\mathbf{X}_{\ell\tau}$  is a third-order polynomial for the individual's age,  $C_\ell$  is a vector of fixed effects representing each immigrant cohort of arrival in the sample being considered and one fixed effect, omitted in the regression, representing native workers, and  $\epsilon_{\ell\tau}$  is the error term.<sup>4</sup> With this notation and convention, the coefficients  $\beta$  for the vector of fixed effects  $C_\ell$  capture the log weekly earnings or employment rate differential for each immigrant cohort group relative to native workers with the same age, namely after controlling for nonlinear age effects.<sup>5</sup>

Then we pool the information in all cross sections and we allow for the comparison of different cohorts of migrants with natives of similar age and education. This allows a comparison of the initial gap and of the evolution of their wages, relative to a group of natives with similar age and education. We estimate the following model, including natives and immigrants from Mexico and Central America:

$$Y_{\ell\tau} = \mathbf{GX}_{\ell\tau} + \alpha y_{\ell\tau} + \beta C_\ell + \theta(y_{\ell\tau} C_\ell) + S_{\ell\tau} + \epsilon_{\ell\tau}, \quad (2)$$

In equation (2),  $X_{\ell\tau}$  is third order polynomial for the age of each individual,  $y_{\ell\tau}$  is a third order polynomial that identifies the number of years in the U.S. capturing the potentially nonlinear effect of U.S. work experience,  $C_\ell$  is a vector of dummy variables identifying each immigrant cohort and  $y_{\ell\tau} C_\ell$  identifies a cohort-specific additional experience trend. The term  $S_{\ell\tau}$  is a vector of education-age-survey year fixed effects.<sup>6</sup> The introduction of such a rich set of skill-by-year effects implies that in this regression we are comparing immigrants with natives in the same education-experience group. The estimated coefficients  $\beta$  capture the (log earning or employment) gap of a specific cohort at entry and the coefficients  $\theta$  captures the average decennial growth of that specific cohort of entry of immigrants relative to natives.<sup>78</sup>

<sup>3</sup>For each separate analysis, we remove all immigrants from the sample whose birthplace differs from the country/region of origin being analyzed.

<sup>4</sup>We define employed as working at least one week during the previous year.

<sup>5</sup>All regressions that use equation (1) are weighted by the individual sample weights using the variable "perwt."

<sup>6</sup>We include four education groups for High school dropouts, High school graduate, Some college, College diploma and we divide age in five years groups between 25 and 65.

<sup>7</sup>Our model deviates from the one used in Borjas (2015) by constraining the age effects to be equal for natives and immigrants. This allows us to conveniently compare the results from (2) to (1), which uses the same constraint for age.

<sup>8</sup>All regressions that use equation (2) are weighted by the variable "perwt" divided by the population of the cross section that the observation belongs to.

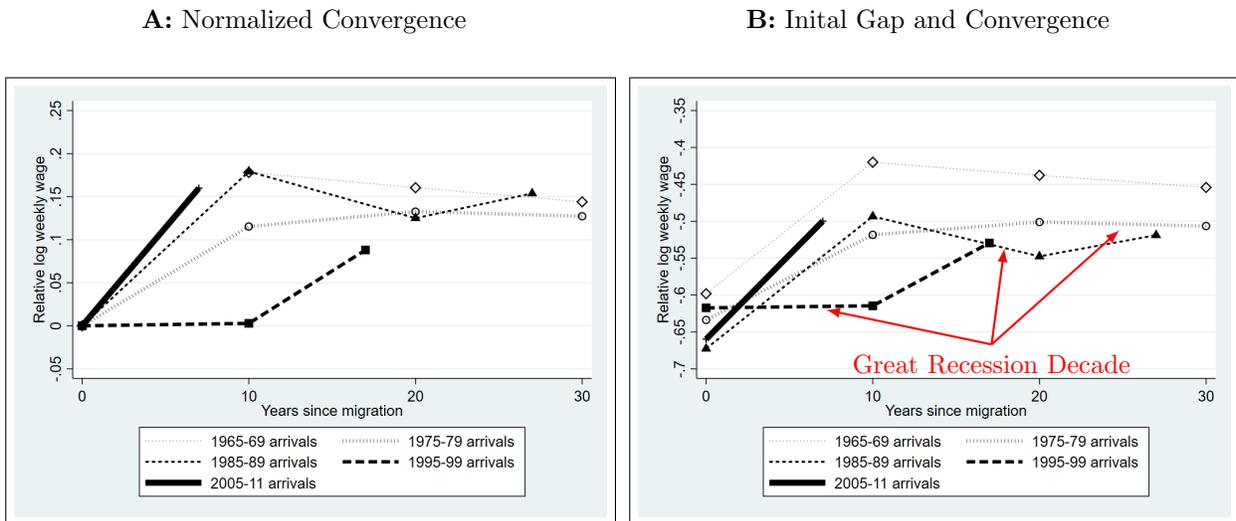
All the tables that we will show in the paper report the cohort-of-arrival specific initial gap, and the 10-years estimated growth from equation (2). They are estimated first without the age-education-year effects,  $S_{\ell\tau}$  so as to capture gap and growth relative to the average native with same age, and then with the fixed effects  $S_{\ell\tau}$  so as to capture the gap and convergence relative to same age-education natives. The difference between those two specifications captures the part of the gap and convergence explained simply by the composition of immigrants across education groups and the different performance of those education groups over time.

## 5 Empirical Findings: Earnings and Employment Convergence for Mexicans and Central Americans

### 5.1 Adjusted Earning Gaps and Convergence

Figure 1 below shows the convergence of log earnings of Mexican and Central Americans to those of US natives of similar age, either normalizing the initial level to 0 (Panel A) or starting from the estimated initial gap (Panel B). Those are estimated using specification (1) above. Several things are worth noting. First, while the initial earning gap is somewhat smaller for the very early cohort (1965-69) the difference is small and the convergence rate seems roughly comparable across cohorts. Second, the initial gap is substantial (-60 to -70 log points) and it is only reduced in the first twenty years by 15 to 20 log points. Third the great recession seems to have produced one lost decade of convergence for all cohorts. In panel B we indicate which segments in the convergence of three cohorts of arrival, coincide with the period 2000-2010, which is when the great recession took place. Each of those segments is flat or even downward sloping implying no or negative convergence in that decade for all cohorts. Finally the very last cohort, the one that arrived in 2005-11, seems to be quite good with an initial gap comparable to that of any cohort arrived in the 70's or 80's and faster convergence. In fact this cohort seems to achieve a 17 log point convergence in 10 years. It may be early to evaluate the economic success of this cohorts but these results are very encouraging.

Figure 1: Age-Adjusted Convergence for the Relative Weekly Earnings of Mexican and Central American Cohorts



**Note:** In Figure 1A, the relative log weekly earnings for each cohort is normalized to zero at the time of the entry.

Figure 1, presenting the relative gap and convergence, however, does not account for the fact that the population of Mexican and Central Americans in the US has a large concentration among low education groups. If wages of less educated have done worse than wages of average Americans, during the period,

this will result in appearance of slower assimilation, while the reason for slow convergence to the mean is increased earning inequality affecting native and immigrants as well. In order to clean our analysis from this issue we show in Table 1 below, the comparison between the initial gap and ten year growth of each cohort, when compared to average US native of similar age (first column, reflecting the estimates of figure 1 Panel A) and when compared with US natives with same education and age, in the second column, reflecting the inclusion of age-education-year effects in specification (2). The table shows three important differences between column 1 and column 2. First the initial gap is reduced by one fourth to one third for each cohort. Most cohorts have a gap round 42 log points when measured relative to similarly educated natives (in column 2). Second the convergence is faster, equal to 20 log points in the first decade, for most cohorts. Third the most recent cohort looks quite good in terms of smaller initial gap and slightly fast convergence. These encouraging findings are also confirmed in Figure 2 where we show the convergence (Panel A) and initial gap plus convergence (Panel B) only considering Mexicans/Central Americans and Natives with high school degree or less. The initial gap was around 40 log points for the two most recent cohorts and it was reduced by half in 10-20 years. When comparing Mexican and Central Americans with similarly educated natives the gap is much less significant.

Table 1: Age-Education-Adjusted Relative Weekly Earnings of  
Mexicans and Central American Immigrants:  
Initial Gap and Convergence After First 10 Years

<b>Panel A</b>		
	<i>Relative Entry Wage</i>	
1965-69 arrivals	-0.523*** (0.0439)	-0.449*** (0.0283)
1975-79 arrivals	-0.626*** (0.0418)	-0.437*** (0.0284)
1985-89 arrivals	-0.670*** (0.0463)	-0.445*** (0.0342)
1995-99 arrivals	-0.674*** (0.0225)	-0.423*** (0.0262)
2005-11 arrivals	-0.732*** (0.0159)	-0.427*** (0.0272)
2012-17 arrivals	-0.530*** (0.00379)	-0.237*** (0.0260)
<b>Panel B</b>		
	<i>Relative Wage Growth in First 10 Years</i>	
1965-69 arrivals	0.081 [0.202]	0.221*** [.000]
1975-79 arrivals	0.088 [0.162]	0.216*** [0.001]
1985-89 arrivals	0.109 [0.102]	0.198*** [0.002]
1995-99 arrivals	0.099** [0.031]	0.181*** [0.000]
2005-11 arrivals	0.189*** [0.000]	0.239*** [0.000]
Basic Specification	X	-
Educ-Age-Year FE	-	X
<i>N</i>	9,669,594	9,669,594

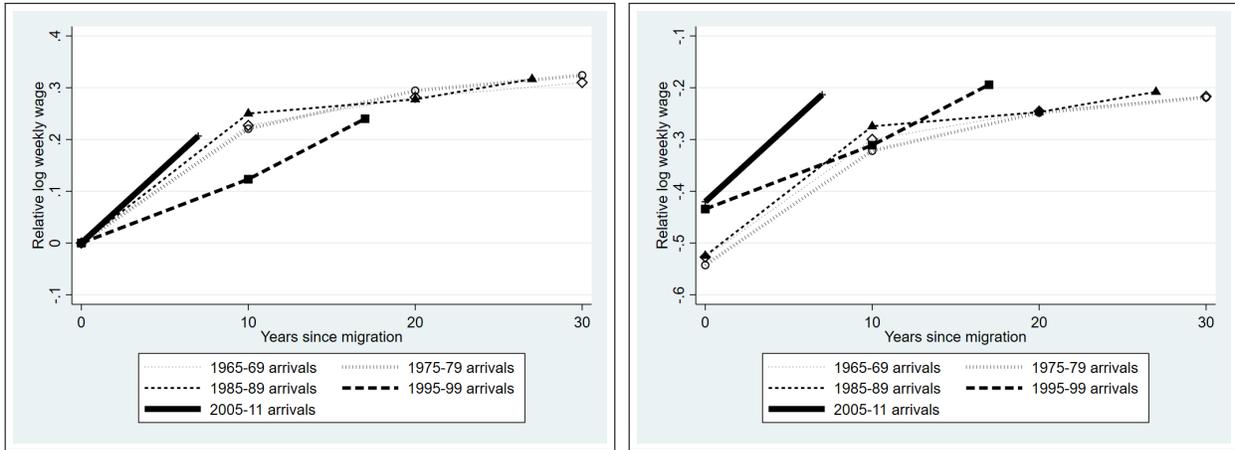
Standard errors in parentheses. P-values in brackets.

\*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

Figure 2: Age-Adjusted Convergence for the Relative Weekly Earnings of Mexican and Central American Cohorts, Only High School Educated or Less

A: Normalized Convergence

B: Initial Gap and Convergence



**Note:** In Figure 2A, the relative log weekly earnings for each cohort is normalized to zero at the time of the entry. In Figures 2A and 2B, all individuals (both native and immigrant) have a high-school education or less.

## 5.2 Employment Rate Gaps and Convergence

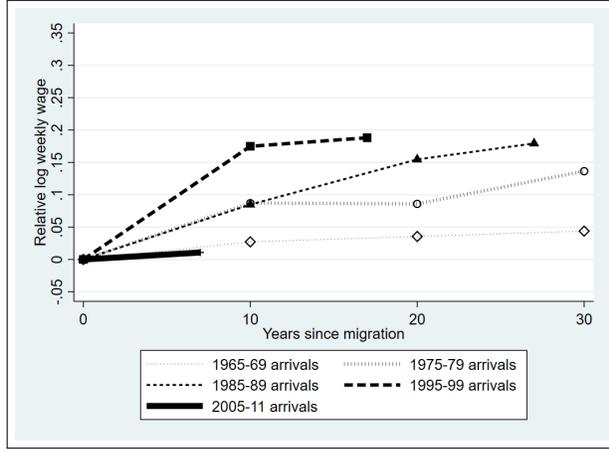
While earnings and income show an initial substantial gap, albeit with convergence and no deterioration in the more recent cohorts of arrival, a different picture is painted by analyzing the employment gap. Figure 3 show the convergence and initial gap for employment probability. It is clear that the low earnings of Mexicans and Central American are not due to their low probability of working or marginal attachment to the labor market. This group of immigrants has high employment rate and after 10-20 years in the US their employment rate exceeds that of similarly aged natives (the graphs do not even correct for schooling). What is also true in this case is that the performance in terms of employment rate of immigrants relative to natives seem to have improved for recent cohorts with the last two cohorts overcoming the natives employment rate within 10 years. This phenomenon is in line with the idea that low skilled immigrants have taken a large number of jobs among manual and physically intensive occupations, whose job creation has been quite strong in the recent decades (Basso et al., 2017). The flexible US labor markets have employed many immigrants, although at low wages. This is quite different from what has occurred with refugees in Europe, where employment rates have remained quite low (Fasani et al., 2018) in part due to the more generous support of government, but in part due to harder access to labor markets due to more rigidity and hiring costs.

### 5.2.1 Caveat: Misreporting and Measurement Error

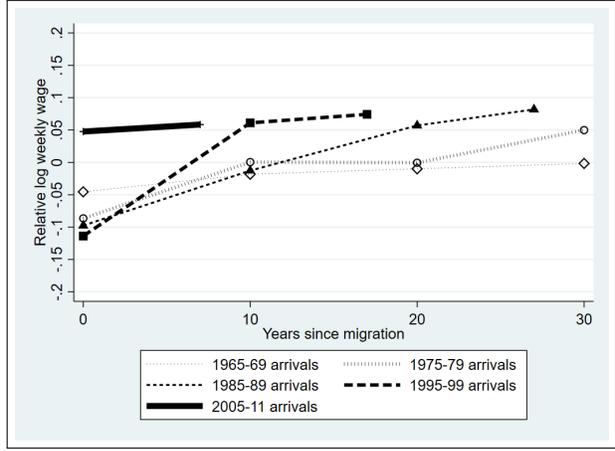
The cohort method that we adopt has been used as the main tool of analysis of immigrant assimilation, and the Census and ACS data have been the main source for this type of analysis. However, we need to emphasize two important caveats on these data. The first is that if there is return migration, a cohort will change composition over time and if the return is selective part of the earnings convergence may be due to immigrant leaving if their economic performance is poor. This phenomenon would imply a reduction in size of a cohort of entry over time. However, as shown in Table 2 below (and in Appendix Table A for all immigrants), the opposite is true. Each cohort of entry appears to grow in size in a very substantial way in the 2 decades after arrival. Some cohorts, such as the one entered in 1985-89 and the one entered in 1995-99 double or triple in size one decade later. This is a big and important puzzle and we are not aware that people have pointed it out. There may be a couple of explanations for it. First is that new arrival cohorts, especially if in precarious legal status, may report that they arrived earlier in the past to appear more established. Or they may simply make mistakes in reporting (but they are large and systematic mistakes). Alternatively,

Figure 3: Age-Adjusted Convergence for the Relative Employment of Mexican and Central American Cohorts

A: Normalized Convergence



B: Initial Gap and Convergence



**Note:** In Figure 3A, the relative employment rate for each cohort is normalized to zero at the time of the entry.

people may be coming and going from the US for some years and when they establish themselves they give the first year of entry and not the year of more permanent entry as arrival date. In either case, the tendency of new comers to give earlier years of arrival seems likely and would generate an appearance of slower convergence, as people who are just arrived and earn lower salary would be counted as 10 or more years in the country. Moreover if there is a selection of people who have this reporting behavior (say the undocumented are more likely to do it) this would also generate mis-measurement of the initial gap. We simply notice this issue here, and we think it is important to focus on it more in order to understand better its impact and how to correct for it.

Table 2: Population Estimates for Mexican and Central American Immigrant Cohorts

Cohort	Survey Year					
	1970	1980	1990	2000	2010	2017
1940-49 arrivals	38,733	33,260	13,254	4,146	492	...
1950-59 arrivals	56,767	83,900	57,218	33,719	14,272	3,751
1960-64 arrivals	36,000	68,420	74,964	49,038	27,804	14,568
1965-69 arrivals	32,100	97,180	114,667	111,418	55,955	31,822
1970-74 arrivals	...	161,180	224,832	268,519	170,338	83,375
1975-79 arrivals	...	126,680	297,287	403,498	312,422	204,826
1980-84 arrivals	...	...	312,513	546,356	507,870	369,468
1985-89 arrivals	...	...	240,531	742,257	755,060	631,716
1990-94 arrivals	...	...	...	556,445	720,128	700,474
1995-99 arrivals	...	...	...	522,375	956,681	912,823
2000-04 arrivals	...	...	...	...	951,031	1,020,205
2005-11 arrivals	...	...	...	...	558,886	732,400
2012-17 arrivals	...	...	...	...	...	360,896

**Note:** These figures estimate the population of Mexican and Central American males between the age of 25 and 64 who had between 1 and 40 years of potential work experience, were not in school or living in group quarters, had positive earnings, worked at least one week during the survey year, and whose year of entry into the U.S. is able to be identified.

## 6 Empirical Findings: The Role of Sector and Location

### 6.1 Convergence by Sector of Employment

It is hard to produce causal evidence on what economic conditions or what policies may promote faster earning convergence of Mexican and Central American immigrants. We can, however, characterize some features of the labor market and of location choices that are associated with different rates of earnings' growth. In particular, by focusing on the occupation/industries where Mexicans and Central Americans are highly concentrated, we calculate whether working in any specific one of those is correlated with higher and faster growing wages, relatively to similarly skilled natives. Similarly, we analyze whether being located in urban areas produced earning convergence advantage or being located in states with large share of Mexicans and Central American (enclaves) hurts their ability to assimilate and converge to native economic performance. Different occupation/industries may provide different opportunities for upward mobility, and similarly some specific urban locations (Moretti, 2013; Chetty and Hendren, 2018) are associated with faster wage growth and more inter-generation mobility of natives, suggesting a potential benefit for immigrants too.

Table 3 shows the percent of Mexican and Central Americans among workers of four industries, in urban and rural locations and in Enclave states, namely those six states with largest share of immigrants<sup>9</sup> and non-Enclave states from 1970 to 2017. In each of the industry chosen the immigrant group is over-represented relative to its average presence in the labor force. In particular in the Agriculture and the Construction sectors, in 2017, 24 and 16 percent of the labor force, was Mexican and Central American. This implies a very high degree of over-representation as Mexican and Central American were only 5.4 % of the labor force. The other two sectors, Manufacturing and Services, include a larger than average percent of Mexicans and Central Americans but not by much. The growth of Mexican presence, especially in Agriculture and Construction, was also substantial, going from 1-4 percent in 1970 to the current values. Panel B of the table indicates also that Mexican and Central Americans are more concentrated in Urban than in rural locations, and in enclave states (by definition).

Table 3: Percent of Workforce Comprised of Mexican and Central American Immigrants by Sector and Location

	Survey Year					
	1970	1980	1990	2000	2010	2017
<b>Panel A: By Sector</b>						
Agriculture and Farming	1.5	4.7	10.5	19.6	27.8	23.8
Construction	0.4	1.1	2.8	7.5	13.1	15.1
Manufacturing	0.8	2.7	4.4	8.5	9.7	7.5
Service	0.7	2.1	4.3	7.5	9.3	7.2
All Sectors	0.4	1.1	2.1	4.4	6.0	5.4
<b>Panel B: By Location</b>						
Rural	0.2	0.4	0.6	1.8	2.8	2.5
Urban	0.5	1.5	2.8	5.2	6.9	6.1
Enclave	1.6	4.2	6.9	11.7	13.3	11.5
Non-Enclave	0.2	0.2	0.5	1.8	3.3	3.1

Note: These figures only include US-born, Mexican, and Central American males between the age of 25 and 64 who had between 1 and 40 years of potential work experience, were not in school or living in group quarters, had positive earnings, worked at least one week during the survey year, and (for immigrants) entered the U.S. at the age of 18 or older. The enclave states used here are based on the share of Mexican and Central American immigrants over the time period 1970-2017.

The earning gap and convergence of Mexicans and Central Americans in different sectors, relative to natives of the same age is shown in Figure 4, in which each panel includes only Mexican and Central Americans working in a sector. Those are, respectively, Agriculture (Panel A), Construction (Panel B), Manufacturing (Panel C) and Services (Panel D). The figures show the initial gap and 30-year convergence

<sup>9</sup>Specifically those are the states with the largest percentage of Mexican and Central American in the Population as of 1970. They are California, Texas, Arizona, New Mexico, Nevada, and Illinois

for each arrival cohort from 1965-69 to 2005-11, using dotted lines for the early cohorts, dashed for the intermediate and a solid line for the most recent with increasing thickness going from old to recent. Three facts emerge. First, both initial earning gap and convergence of earning has not changed systematically over time of arrival of cohorts. Each cohort of Mexican and Central Americans in a sector has started with a similar initial gap and has had similar convergence no matter the years of entry. A thing to notice is that this is a "within sector" convergence. Part of the aggregate convergence can derive from Mexicans changing sector of work (say from agriculture to construction) and it will not be captured in these graphs. Second, agriculture is the employment sector with largest initial earning gap with natives (about 80 log points) and slowest and almost insignificant convergence. This is not a surprise, agricultural jobs have a negative wage differential with most other jobs and they do not show much of a growing earning profile over a worker's career. Personal services do not look much better than agriculture. The third fact standing out is that Mexicans with jobs in the construction sector, show a smaller initial gap and a much faster and continuing convergence over thirty years performing better than in any of the other occupations/sectors. An initial gap of 60 log points is reduced to around 30 after 10 years. Keep in mind that these are gaps relative to the average US natives. If we account for the education level of Mexican and Central Americans and we compare the group more consistently with similarly educated citizens, as we do in Table 4 the results become even more striking. They confirm the advantage of Mexicans in Construction and disadvantage of Mexicans in Agriculture.

Figure 4: Age-Adjusted Convergence for the Relative Weekly Earnings of Mexican and Central American Cohorts by Sector: Initial Gap and Convergence

A: Agriculture and Farming

B: Construction

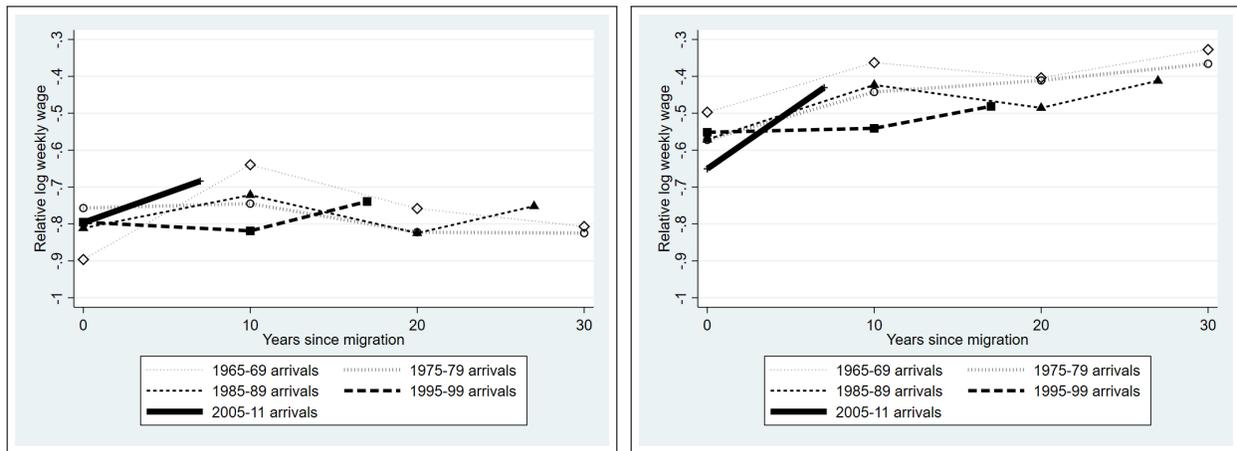
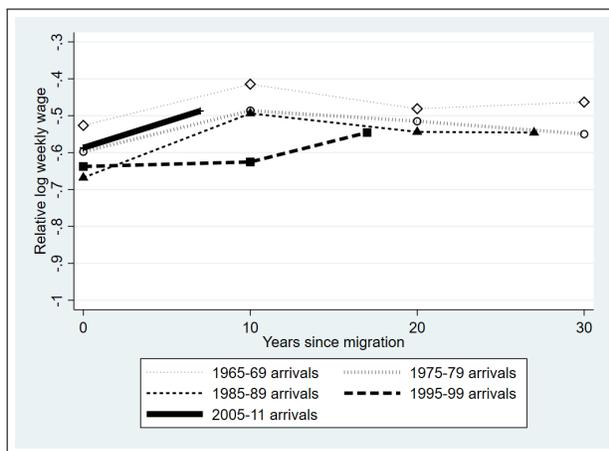


Table 4 shows the comparison of initial log earning gap (panel A) and relative earning growth (Panel B), by sector, when comparing Mexicans with US-natives workers of similar age (Columns 1,3,5 and 7) or when adjusting for education and comparing them with natives of similar age and schooling level (Columns 2,4,6 and 8). Even adjusting for education, the Construction sector shows the lowest initial gap (around 30 log points) and fastest relative growth per decade (around 20 log point in the first decade) and significantly faster for the last arrival cohort. Once controlling for education, Mexicans in manufacturing also seem to perform relatively well, especially with a quite fast relative growth in the first decade (20-25 log points per decade). The performance of Mexican agricultural workers, becomes significantly better when compared with similarly educated natives, which is a sign that the negative selection of workers in agriculture and the slow growth of wage of low educated, which is true for natives too, is a big part of the story of under-performance of workers in that sector.

C: Manufacturing



D: Services

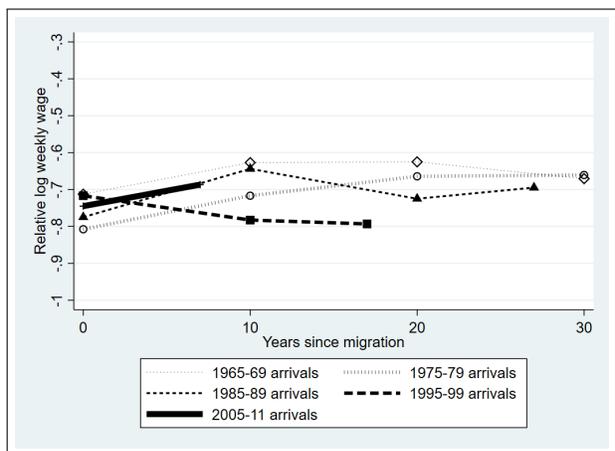


Table 4: Age-Education-Adjusted Relative Weekly Earnings of  
Mexicans and Central American Immigrants by Sector:  
Initial Gap and Convergence After First 10 Years

	Agriculture		Construction		Manufacturing		Misc. Services	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Panel A</b>								
<i>Relative Entry Wage</i>								
1965-69 arrivals	-0.753*** (0.033)	-0.606*** (0.020)	-0.449*** (0.047)	-0.339*** (0.036)	-0.478*** (0.032)	-0.409*** (0.025)	-0.654*** (0.037)	-0.570*** (0.025)
1975-79 arrivals	-0.733*** (0.034)	-0.500*** (0.021)	-0.534*** (0.041)	-0.325*** (0.034)	-0.592*** (0.031)	-0.393*** (0.024)	-0.816*** (0.036)	-0.612*** (0.025)
1985-89 arrivals	-0.803*** (0.036)	-0.490*** (0.022)	-0.581*** (0.041)	-0.337*** (0.031)	-0.686*** (0.038)	-0.448*** (0.030)	-0.779*** (0.036)	-0.536*** (0.024)
1995-99 arrivals	-0.833*** (0.020)	-0.489*** (0.013)	-0.605*** (0.020)	-0.317*** (0.017)	-0.702*** (0.017)	-0.423*** (0.013)	-0.746*** (0.018)	-0.481*** (0.012)
2005-11 arrivals	-0.872*** (0.014)	-0.461*** (0.013)	-0.746*** (0.014)	-0.368*** (0.017)	-0.641*** (0.015)	-0.289*** (0.011)	-0.817*** (0.013)	-0.459*** (0.012)
2012-17 arrivals	-0.860*** (0.002)	-0.424*** (0.008)	-0.562*** (0.003)	-0.149*** (0.013)	-0.506*** (0.002)	-0.209*** (0.003)	-0.609*** (0.003)	-0.262*** (0.007)
<b>Panel B</b>								
<i>Relative Wage Growth in First 10 Years</i>								
1965-69 arrivals	0.010 [0.854]	0.147*** [0.000]	0.079 [0.161]	0.207*** [0.000]	0.072 [0.162]	0.243*** [0.000]	0.041 [0.457]	0.184*** [0.000]
1975-79 arrivals	-0.026 [0.618]	0.114*** [0.002]	0.082 [0.122]	0.209*** [0.000]	0.086* [0.093]	0.237*** [0.000]	0.094* [0.093]	0.224*** [0.000]
1985-89 arrivals	0.022 [0.679]	0.117*** [0.003]	0.105* [0.060]	0.197*** [0.000]	0.134** [0.021]	0.253*** [0.000]	0.076 [0.166]	0.169*** [0.000]
1995-99 arrivals	0.046 [0.245]	0.129*** [0.000]	0.094** [0.016]	0.176*** [0.000]	0.118*** [0.003]	0.227*** [0.000]	0.006 [0.862]	0.099*** [0.000]
2005-11 arrivals	0.161*** [0.000]	0.201*** [0.000]	0.261*** [0.000]	0.313*** [0.000]	0.107*** [0.000]	0.165*** [0.000]	0.099*** [0.000]	0.120*** [0.000]
<i>N</i>	9,425,202	9,425,202	9,423,810	9,423,810	9,423,649	9,423,649	9,426,230	9,426,230
Basic Specification	X	-	X	-	X	-	X	-
Educ-Age-Year FE	-	X	-	X	-	X	-	X

Standard errors in parentheses. P-values in brackets.

\*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

## 6.2 Convergence in Rural and Urban Areas

In spite of their heavy presence in agricultural jobs, as most jobs are non-agricultural, the concentration of Mexicans and Central Americans is larger in urban areas. It is useful to see, therefore, if urban location of Mexicans is associated to better wage performance relative to natives. Figure 5 show the earning gap and convergence to natives of similar age, separately for Mexicans in urban and rural areas. The initial gap is smaller for urban Mexicans, however the convergence does not seem significantly different. Except for the first cohort, which was small and show a rather noisy estimate of convergence, the other cohorts seem to perform similarly over time.

Figure 5: Age-Adjusted Convergence for the Relative Weekly Earnings of Mexican and Central American Cohorts by Location: Initial Gap and Convergence

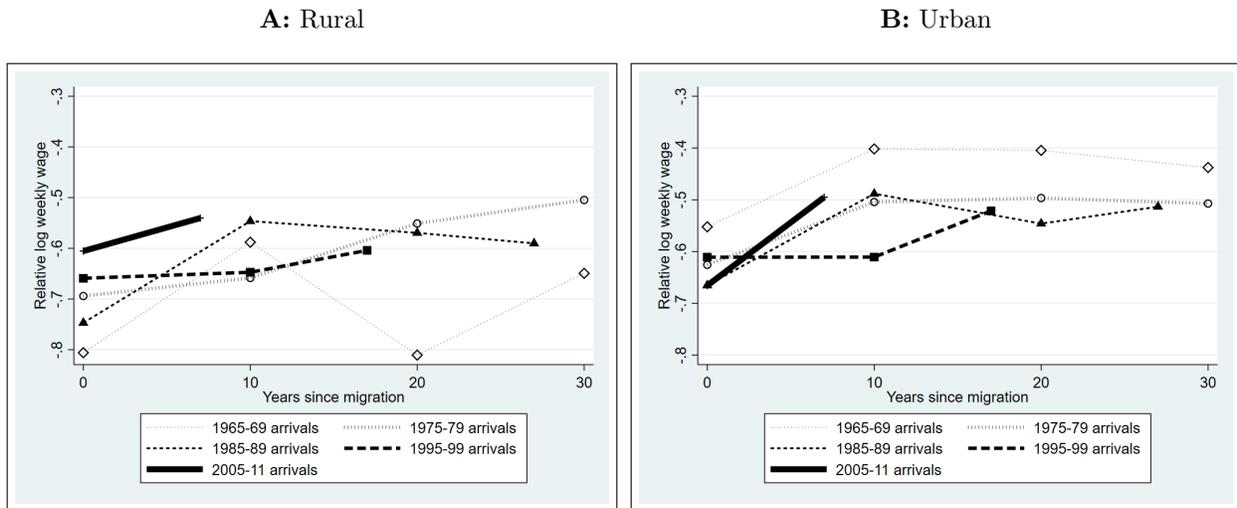


Table 5 below shows the adjustment of gap and convergence for rural and urban Mexicans, when we compare them to similarly educated natives. The results confirm a smaller initial gap of urban Mexicans but similar rate of earning growth. Urban location may provide some initial advantage in earning for Mexicans but it is not so clear that it produces a sustained advantage for their wage profile. It would be interesting to separate urban location between fast growing and declining ones as the dynamic of wages may be very different among them (as noted by Moretti, 2013) to see if the “divergence” between those two types of urban areas is also reflected in the probability of convergence of Mexican and Central American immigrants.

Table 5: Age-Education-Adjusted Relative Weekly Earnings of  
Mexicans and Central American Immigrants by Location:  
Initial Gap and Convergence After First 10 Years

	Rural		Urban	
	(1)	(2)	(3)	(4)
<b>Panel A</b>				
<i>Relative Entry Wage</i>				
1965-69 arrivals	-0.720*** (0.0433)	-0.625*** (0.0298)	-0.481*** (0.0449)	-0.413*** (0.0291)
1975-79 arrivals	-0.722*** (0.0451)	-0.521*** (0.0306)	-0.612*** (0.0422)	-0.425*** (0.0289)
1985-89 arrivals	-0.714*** (0.0514)	-0.447*** (0.0357)	-0.663*** (0.0466)	-0.441*** (0.0344)
1995-99 arrivals	-0.704*** (0.0229)	-0.406*** (0.0169)	-0.668*** (0.0228)	-0.419*** (0.0249)
2005-11 arrivals	-0.647*** (0.0152)	-0.320*** (0.0124)	-0.743*** (0.0163)	-0.434*** (0.0255)
2012-17 arrivals	-0.512*** (0.00284)	-0.147*** (0.00513)	-0.531*** (0.00363)	-0.243*** (0.0236)
<i>N</i>	9,112,492	9,112,492	9,331,676	9,331,676
<b>Panel B</b>				
<i>Relative Wage Growth in First 10 Years</i>				
1965-69 arrivals	0.047 [0.476]	0.207*** [0.000]	0.073 [0.257]	0.213*** [0.000]
1975-79 arrivals	0.093 [0.188]	0.232*** [0.000]	0.084 [0.183]	0.212*** [0.000]
1985-89 arrivals	0.097 [0.184]	0.193*** [0.001]	0.107 [0.110]	0.197*** [0.000]
1995-99 arrivals	0.079* [0.092]	0.171*** [0.000]	0.098** [0.034]	0.180*** [0.000]
2005-11 arrivals	0.067*** [0.001]	0.170*** [0.000]	0.204*** [0.000]	0.249*** [0.000]
Basic Specification	X	–	X	–
Educ-Age-Year FE	–	X	–	X

Standard errors in parentheses. P-values in brackets.

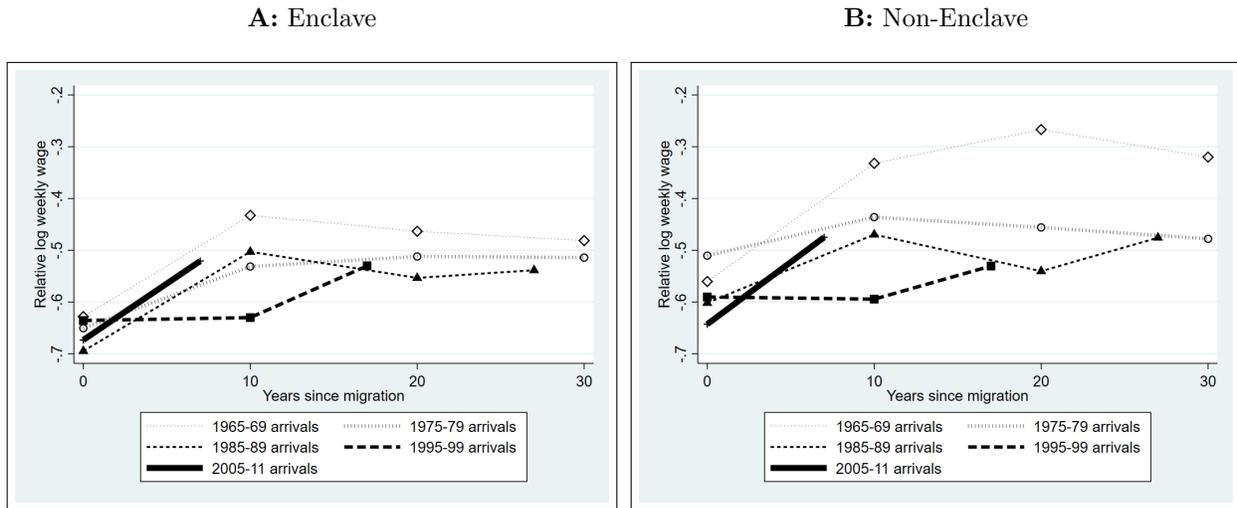
\*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

### 6.3 Convergence in Enclave vs. Non-Enclave States

Some studies identify in the local crowding of immigrants a reason for slower integration (e.g. Borjas 2015). If immigrants live in an enclave with a large share of co-ethnics they may be less inclined to learn English, integrate and they may remain marginal to some job and career opportunities. Other studies, however (such as (Piil Damm, 2009)) using a more careful causal identification, find that living in an enclave significantly increases earning. In recent work on German refugees Battisti et al. (2016) find that while living in enclaves may provide initial employment advantage to new immigrants, in the long run it may reduce their investment in human capital hurting their earnings potential in the long run.

In order to test whether there is some association between living in enclave and gap and convergence of earnings, we separate Mexican and Central Americans between those living in the 6 states with larger share of their group in the population. We call those "enclaves". This is a rough categorization as one would like to check enclaves in smaller geographical units, such as counties or metropolitan areas. However, it will provide some preliminary evidence. As usual we show the representation of convergence to native with similar age, in Panels A and B of 6, and we show the gap and growth in the first ten years for the same comparison and adjusting for education in Table 6.

Figure 6: Age-Adjusted Convergence for the Relative Weekly Earnings of Mexican and Central American Cohorts by Enclave Region: Initial Gap and Convergence



Both the figure and the adjusted coefficients in the Table do not show a large or significant difference in initial gap between Mexicans located in enclave or non-enclave states. Possibly, a worsening of the initial gap is visible in enclave states, which may reveal some crowding of Mexicans in some jobs, especially in the more recent decades. Several studies emphasize how the potential strongest labor market competition for new immigrants are other immigrants and this finding may be partially consistent with that observation.

Summarizing the main finding relative to the assimilation of Mexican and Central Americans in the US, over the last five decades we can say that: (i) Recent arrival cohorts did not do worse than previous ones, in initial gap or relative earning growth (ii) There is a significant earning gap with similar natives (in the order of 40 log points at arrival) and it is only reduced but not eliminated in 30 years. (iii) There is small employment gap with natives and in fact after 20 years in the country Mexican and Central Americans are employed at rate higher than natives with similar age. (iv) Those in the construction sector, and in part those in urban areas, do better in terms of gap and convergence than those in other sectors.

The picture revealed by this analysis is one of a group coming to the US for working in manual/physical intensive type of jobs and assimilating rapidly, in terms of being employed, but lagging behind in terms of earnings. Jobs in a sector like construction, abundant, with a significant upward potential and usually in urban locations may be well suited to promote economic success of immigrants. This could be an important consideration in thinking of allowing job-related visas for less educated immigrants.

Table 6: Age-Education-Adjusted Relative Weekly Earnings of  
Mexicans and Central American Immigrants by Enclave Region:  
Initial Gap and Convergence After First 10 Years

	Enclave		Non-Enclave	
	(1)	(2)	(3)	(4)
<b>Panel A</b>				
<i>Relative Entry Wage</i>				
1965-69 arrivals	-0.536*** (0.054)	-0.448*** (0.035)	-0.494*** (0.024)	-0.452*** (0.017)
1975-79 arrivals	-0.650*** (0.043)	-0.450*** (0.029)	-0.480*** (0.040)	-0.362*** (0.028)
1985-89 arrivals	-0.698*** (0.048)	-0.461*** (0.035)	-0.581*** (0.041)	-0.379*** (0.029)
1995-99 arrivals	-0.705*** (0.025)	-0.445*** (0.023)	-0.629*** (0.017)	-0.369*** (0.015)
2005-11 arrivals	-0.751*** (0.017)	-0.434*** (0.019)	-0.711*** (0.012)	-0.393*** (0.019)
2012-17 arrivals	-0.570*** (0.003)	-0.270*** (0.015)	-0.484*** (0.002)	-0.176*** (0.018)
<i>N</i>	9,588,212	9,588,212	9,465,090	9,465,090
<b>Panel B</b>				
<i>Relative Wage Growth in First 10 Years</i>				
1965-69 arrivals	0.086 [0.224]	0.226*** [0.000]	0.096* [0.057]	0.208*** [0.000]
1975-79 arrivals	0.103 [0.124]	0.228*** [0.000]	0.024 [0.653]	0.167*** [0.000]
1985-89 arrivals	0.126* [0.077]	0.211*** [0.000]	0.056 [0.304]	0.161*** [0.001]
1995-99 arrivals	0.119** [0.019]	0.202*** [0.000]	0.062* [0.075]	0.147*** [0.000]
2005-11 arrivals	0.195*** [0.000]	0.240*** [0.000]	0.182*** [0.000]	0.242*** [0.000]
Basic Specification	X	–	X	–
Educ-Age-Year FE	–	X	–	X

Standard errors in parentheses. P-values in brackets.

\*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

## 7 Comparison with the Other Largest Groups: Chinese and Indian Immigrants

One important and novel finding of this paper is that the more recent cohorts of Mexican and Central American immigrants did not perform worse, rather they performed better, than earlier ones in terms of earning gaps. Certainly, they have been migrating into an economy where the wage of less educated Americans have been deteriorating relative to the wages of high skilled Americans. This wage evolution has also hurt them in absolute terms, but does not seem to have penalized them more than natives. This is an interesting finding, as several studies had pointed to a deterioration in the assimilation of immigrants (Borjas 2015). We show however, that focusing on a homogeneous group of immigrants and comparing them to similar natives, this is not the case.

In particular we find that the Mexican and Central American cohorts arrived in 1995-99 and in 2005-09 seem to be performing better than the previous ones. In a country where immigration is becoming more contentious it is interesting to show that recent immigrants are actually improving their labor market performance. Moreover these are cohorts of arrival where the share of undocumented is high and several studies show that they may further improve their wage dynamics if they may have access to regularization.

Is this true also of other large group of immigrants? Are more recent generation of immigrants from a specific country doing better than previous cohorts from the same country? We consider in this section Chinese and Indians, which are the two largest national groups after Mexicans. Their immigration flows have become larger than that of Mexicans in the last decade. Both groups have a much larger share of highly educated individuals migrating to the US, both relative to Mexicans and relative to the US population. Table 7 shows the share of people with high school or less, some college and college degree among the three groups (Mexicans and Central Americans, Indians and Chinese immigrants).

Table 7: Percent of Immigrants with High-School and College Education

	Survey Year					
	1970	1980	1990	2000	2010	2017
<b>Panel A</b>						
<i>With a High School Diploma or Less</i>						
Mexicans and Central Americans	89.4	89.9	87.3	86.4	84.5	81.6
Chinese	49.4	40.6	36.5	31.8	32.1	28.0
Indians	10.7	12.3	17.5	16.9	13.1	12.6
Natives	69.2	55.2	44.2	39.1	35.4	33.2
<b>Panel B</b>						
<i>With At Least Some College</i>						
Mexicans and Central Americans	10.6	10.1	12.7	13.6	15.5	18.4
Chinese	50.6	59.4	63.5	68.2	67.9	72.0
Indians	89.3	87.7	82.5	83.1	86.9	87.4
Natives	30.8	44.8	55.8	60.9	64.6	66.8
<b>Panel C</b>						
<i>With a Bachelor's Degree or Higher</i>						
Mexicans and Central Americans	4.3	3.8	4.2	4.6	5.6	7.2
Chinese	41.4	49.6	50.2	58.0	59.2	62.9
Indians	83.5	78.6	72.0	73.5	78.7	81.0
Natives	17.0	24.8	27.9	30.9	34.2	36.6

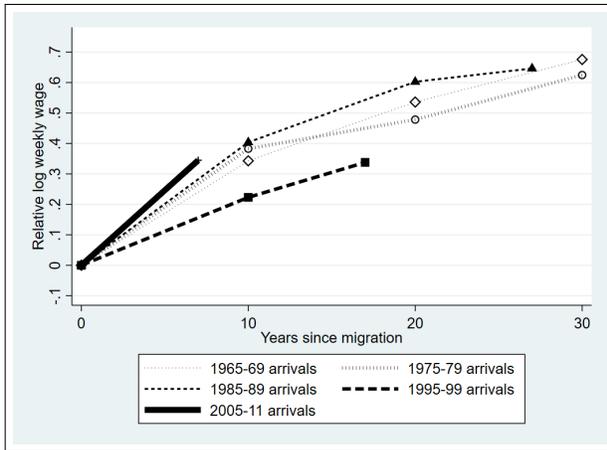
Note: These figures only include males between the age of 25 and 64 who had between 1 and 40 years of potential work experience, were not in school or living in group quarters, had positive earnings, worked at least one week during the survey year, and (for immigrants) entered the U.S. at the age of 18 or older.

It appears clearly from the Table that Chinese and, even more, Indian Immigrants have always been selected among very highly educated. This very strong selection makes them more educated on average than natives. Those two groups have had very different jobs than Mexicans, with large concentration in high tech

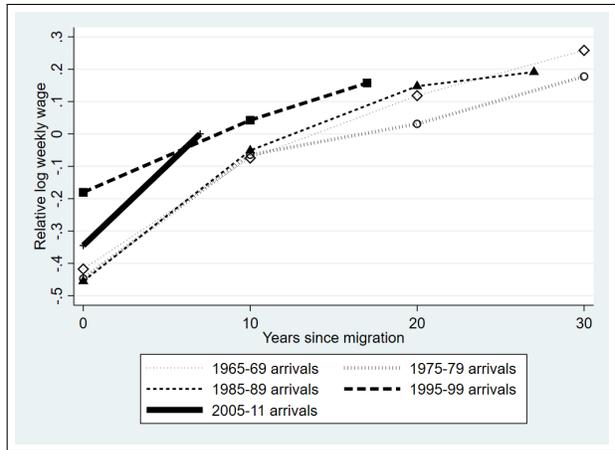
jobs, Engineering, Science and professional occupations. Still it is very interesting to see how subsequent cohorts of these immigrants compare to similar natives. Figure 7 and 8 show the convergence and initial gap and convergence of earnings and employment rates for Chinese immigrants relative to natives. In both cases we see that this group starts with relatively small gaps relative to natives and it overtake natives in terms of performance within 20-30 years of stay in the US. The graphs also show that the performance of most recent cohorts, arrived in 1995-99 and 2005-09 are the best overall.

Figure 7: Age-Adjusted Convergence for the Relative Weekly Earnings of Chinese Cohorts

A: Normalized Convergence



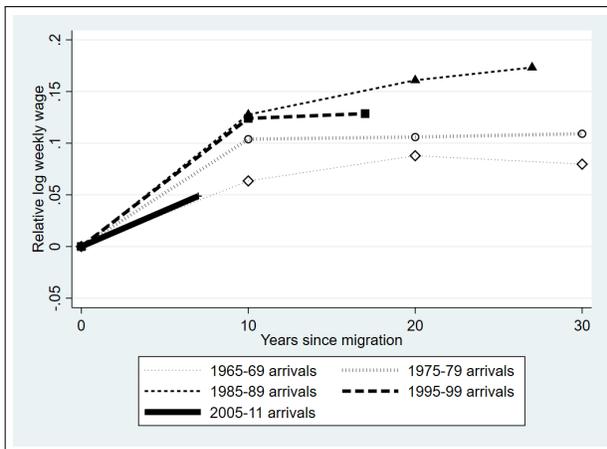
B: Initial Gap and Convergence



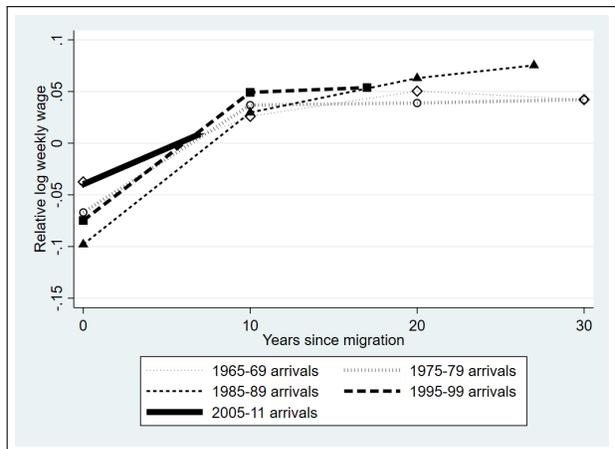
**Note:** In Figure 7A, the relative log weekly earnings for each cohort is normalized to zero at the time of the entry.

Figure 8: Age-Adjusted Convergence for the Relative Employment of Chinese Cohorts

A: Normalized Convergence



B: Initial Gap and Convergence



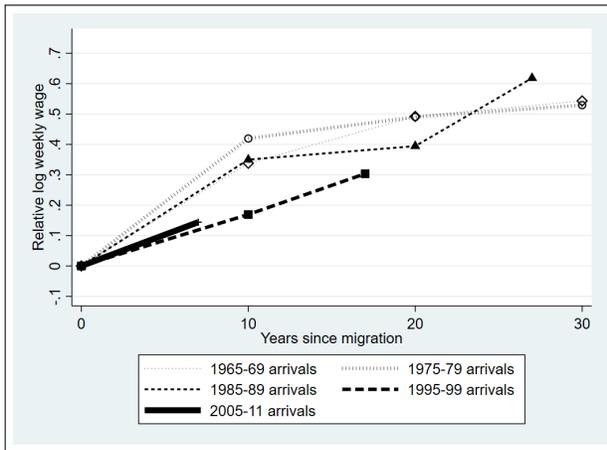
**Note:** In Figure 8A, the relative employment rate for each cohort is normalized to zero at the time of the entry.

Figures 9 and 10 show the same graphs with earning gap and convergence for Indians and in this case we see even smaller initial gap and even faster convergence and overtaking natives' earnings and employment rates. For this group, actually, the recent cohorts of arrival already start at par or with an advantage in earnings and probability of working relative to natives and continue to improve their relative performance over time.

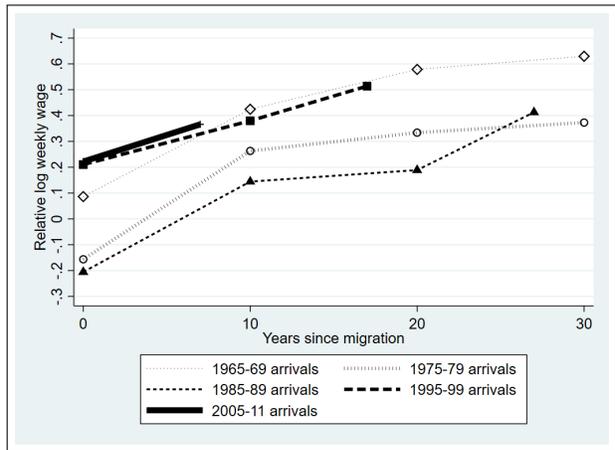
So the analysis of Indians and Chinese immigrants confirm that labor market performance of immigrants who arrived in the last two decades has been quite good. This suggests (i) that the quality of the more recent immigrants in terms of labor market skills is not worse than that of previous ones, when we compare within country of origin. (ii) possibly the slowing in the inflow of new immigrants in the recent years may have helped somewhat such convergence.

Figure 9: Age-Adjusted Convergence for the Relative Weekly Earnings of Indian Cohorts

A: Normalized Convergence



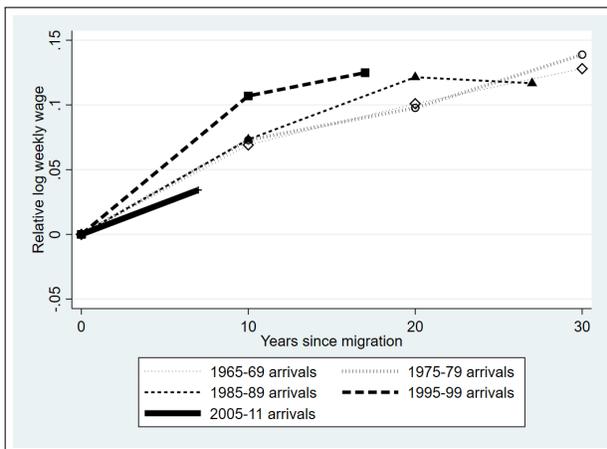
B: Initial Gap and Convergence



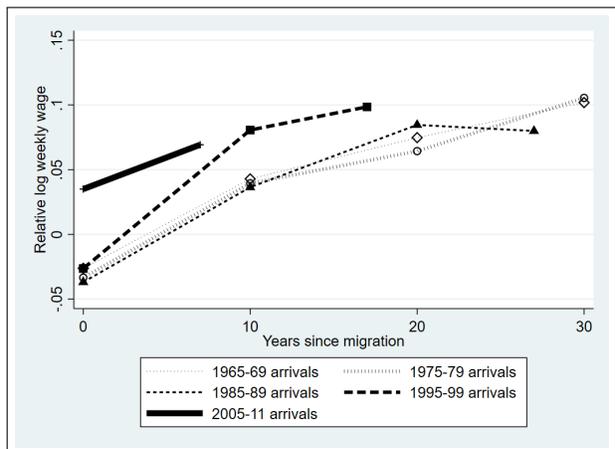
**Note:** In Figure 9A, the relative log weekly earnings for each cohort is normalized to zero at the time of the entry.

Figure 10: Age-Adjusted Convergence for the Relative Employment of Indian Cohorts

A: Normalized Convergence



B: Initial Gap and Convergence



**Note:** In Figure 10A, the relative employment rate for each cohort is normalized to zero at the time of the entry.

## 8 Conclusion

Assimilation of low skilled immigrants, is a very important issue often dominating the debate about immigration. Several receiving countries claim that immigrants are and remain a burden to the receiving country because they do not have skills that can be integrated in the labor market, and hence their employment rate is low and their earnings lag behind those of similar natives.

In the US, where immigrants have been coming to the country in large numbers since 1965, and where immigration has actually slowed in the recent decades, there are anecdotes and some research showing that more recent immigrants have had a harder time assimilating in the labor market.

In this paper we analyze whether such a characterization is true for Mexican and Central American immigrants, traditionally a group of low educated immigrants earning low wages. This is also a very large group of immigrants, comprising almost 6% of the US labor force, hence their success is very important to the US economy and society as a whole. While we do find an initial earning gap and only incomplete convergence after 30 years of stay, we also find that recent cohorts of Mexicans and Central Americans, that arrived in the late nineties and 2000's have not performed worse than earlier ones, that arrived in the seventies and eighties. Moreover, we find that in terms of employment probability, Mexican and Central Americans outperform natives of similar age after 20-30 years in the country. In particular, focusing on the entry cohort 1995-99 and 2005-09, they seem to perform particularly well in terms of initial gap and employment when compared to similar US citizens.

In finding these results we also discover that the appearance of worsening quality of more recent cohorts is a result of looking at all immigrants together. Once we focus on a group by country of origin, and we compare with similar US citizens, we find recent cohorts performing well, relative to earlier ones, also for other immigrant groups. Another important methodological discovery is that there is likely large and systematic recall error in the Census in codifying the year of entry of immigrants, so the cohort of arrival method used in this literature can include very large measurement error and systematic bias.

Finally we also identify some groups of Mexican and Central American immigrants that performed especially well, with smaller initial gap and faster performance. Those employed in the construction sector and in urban areas seem to start at higher earnings and have stronger wage progression, relative to natives, than the others. Employment in agriculture, instead, is associated with worse performance, and with lowest level of education of immigrants.

In looking for some ideas that can inspire policies, given the high demand for labor in the construction sector and the good opportunities that it affords to immigrants one could think of visas liked to these type of jobs. This paper also suggests that there is no basis in the data to claim that new immigrants are of lower labor-market quality relative to earlier ones. Considering specific countries of origin, subsequent cohorts of immigrants have actually performed similarly in the US. Moreover, in spite of all hurdles, the US labor market does a very good job in getting immigrants a job. However, the poor earning performance of low skilled workers, in general, has had a disproportionate impact on Mexicans and Central American, who are heavily represented in those groups.

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# Appendix

## A Immigrants from All Countries of Origin

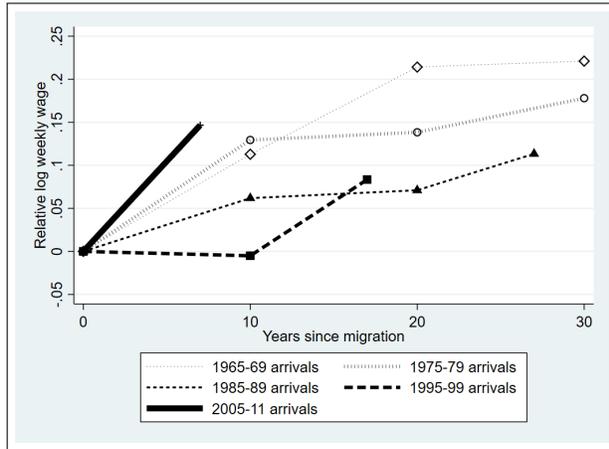
Table A.1: Population Estimates for Immigrant Cohorts from All Countries of Origin

Cohort	Survey Year					
	1970	1980	1990	2000	2010	2017
1940-49 arrivals	469,900	294,400	93,825	33,057	4,614	...
1950-59 arrivals	470,433	565,860	380,513	209,748	88,845	20,609
1960-64 arrivals	262,633	364,980	366,504	230,666	122,046	65,707
1965-69 arrivals	305,867	475,240	492,705	415,161	216,945	145,199
1970-74 arrivals	...	542,840	655,610	685,112	438,549	244,009
1975-79 arrivals	...	522,460	821,808	999,741	781,653	525,469
1980-84 arrivals	...	...	980,188	1,335,060	1,231,820	908,067
1985-89 arrivals	...	...	795,780	1,525,156	1,527,099	1,289,933
1990-94 arrivals	...	...	...	1,394,542	1,619,325	1,574,265
1995-99 arrivals	...	...	...	1,399,333	1,980,930	1,965,073
2000-04 arrivals	...	...	...	...	1,980,982	2,149,228
2005-11 arrivals	...	...	...	...	1,426,514	2,055,325
2012-17 arrivals	...	...	...	...	...	1,665,752

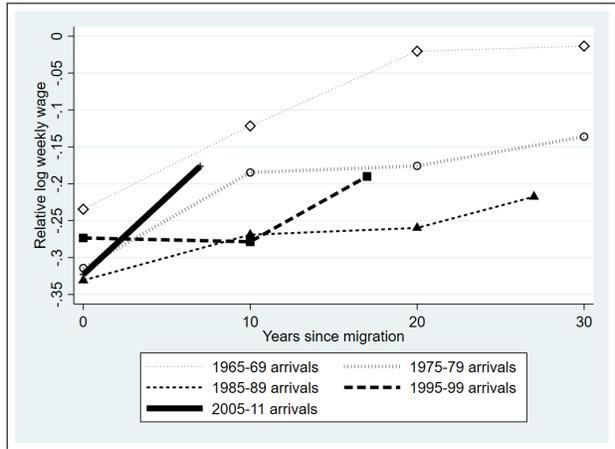
**Note:** These figures estimate the population of immigrant males from all countries of origin between the age of 25 and 64 who had between 1 and 40 years of potential work experience, were not in school or living in group quarters, had positive earnings, worked at least one week during the survey year, and whose year of entry into the U.S. is able to be identified.

Figure A1: Age-Adjusted Convergence for the Relative Weekly Earnings of Immigrant Cohorts from All Countries of Origin

**A:** Normalized Convergence



**B:** Initial Gap and Convergence



**Note:** In Figure A1A, the relative log weekly earnings for each cohort is normalized to zero at the time of the entry.

Table A.2: Age-Adjusted Relative Log Weekly Earnings of Immigrant Cohorts from All Regions of Origin by Census Cross Section

Cohort	1970	1980	1990	2000	2010	2017
1950-59 arrivals	0.037*** (0.000)	0.032*** (0.002)	0.100*** (0.003)	0.147*** (0.010)	...	...
1960-64 arrivals	-0.058*** (0.001)	-0.041*** (0.001)	0.046*** (0.004)	0.074*** (0.004)	0.594*** (0.019)	...
1965-69 arrivals	-0.235*** (0.001)	-0.122*** (0.000)	-0.020*** (0.003)	-0.014** (0.005)	0.196*** (0.010)	...
1970-74 arrivals	...	-0.223*** (0.001)	-0.124*** (0.002)	-0.128*** (0.006)	-0.057*** (0.004)	0.161*** (0.012)
1975-79 arrivals	...	-0.314*** (0.001)	-0.185*** (0.000)	-0.176*** (0.005)	-0.136*** (0.004)	-0.118*** (0.007)
1980-84 arrivals	...	...	-0.285*** (0.001)	-0.236*** (0.002)	-0.206*** (0.006)	-0.188*** (0.010)
1985-89 arrivals	...	...	-0.331*** (0.001)	-0.269*** (0.002)	-0.260*** (0.005)	-0.218*** (0.011)
1990-94 arrivals	...	...	...	-0.269*** (0.003)	-0.271*** (0.003)	-0.168*** (0.010)
1995-99 arrivals	...	...	...	-0.273*** (0.004)	-0.279*** (0.001)	-0.190*** (0.006)
2000-04 arrivals	...	...	...	...	-0.349*** (0.003)	-0.224*** (0.003)
2005-11 arrivals	...	...	...	...	-0.323*** (0.004)	-0.176*** (0.003)
2012-17 arrivals	...	...	...	...	...	-0.103*** (0.005)
<i>N</i>	945,579	2,002,074	2,373,285	2,708,438	1,653,425	557,077

Standard errors in parentheses are clustered at the cohort level.

\*  $p < .1$ , \*\*  $p < .05$ , \*\*\*  $p < .01$