



THE DEMOGRAPHY OF MEXICO/U.S. MIGRATION

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This paper presents our current state of knowledge the flow of unauthorized migrants into the United States with a focus on the numbers and characteristics of Mexican migrants. It presents available projections on the future growth of that population and the populations of Mexico and the United States. It goes on to describe new features of the migration in terms of origins/destinations, responsiveness to the economy, changes in circulation, and selectivity by education and gender. Our goal is to provide a basic picture of what we know today about the basic demography of Mexican migration using official U.S. and Mexican data sources. Some of these data are readily available in published or online sources, other data we tabulate ourselves using public use microdata, and some statistics are estimates generated by the authors using accepted methodologies.

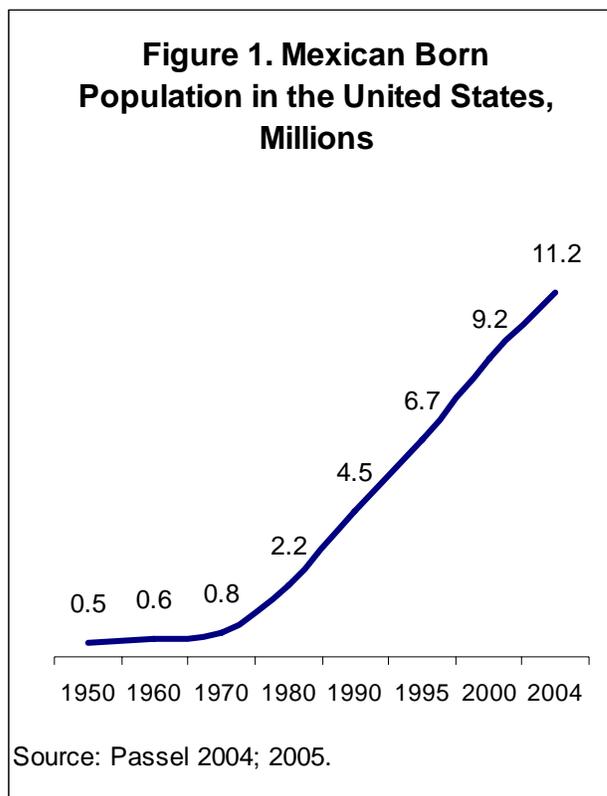
GROWTH OF THE MEXICAN POPULATION IN THE UNITED STATES

The story of Mexican migration to the United States has been one of ebbs and flows following the U.S. acquisition in 1848 of what were previously Mexican territories. Figure one shows that there were very few Mexicans in the United States at that time and even at the end of World War II there were only 500 thousand Mexican born residents of the United States. However, the mid-1960s marked the passage of more liberal legal immigration policies, and the end of the *Bracero* temporary agricultural work program, both of which set in motion a growing volume of legal and illegal migration. By the year

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2004, there were a total of 11.2 million Mexican born persons in the United States.³ So between 1970 and 2004 the Mexican born population grew an amazing 15-fold. As we enter the early years of the 21st century, there is little doubt that the flow of migrants will continue, but there are questions about the magnitude of the future migration flow and its demographic composition, its legal status, its “circularity” or transnational ties, and its choice of where to settle.

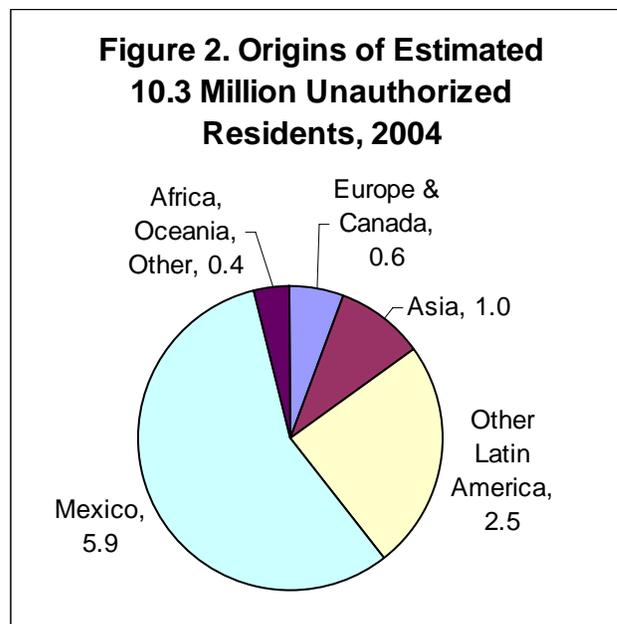


Of course, there is much concern about the growth of the unauthorized population residing in the United States. The U.S. data tend to be more reliable for this purpose and we use here estimates based on a so-called “residual” method that subtracts an estimate of the legal foreign-born population from a total count of all immigrants, with appropriate adjustments for undercount and other sources of error (the estimates are drawn from Passel 2005; a discussion of the methodology is in Passel, Van Hook, and Bean 2004.). The residual

left after subtracting the legal from the total immigrant population suggests that, as of 2004, there were 10.3 million total unauthorized residents, of whom 5.9 million were Mexican. Thus, as shown in Figure two, unauthorized Mexicans are 53 percent of all Mexican-born residents of the United States. In turn, unauthorized Mexicans make up 57 percent of the total unauthorized population and that percentage has remained about the same compared with similar estimates made over the past decade. Unauthorized residents

³ The figures on Mexican-born include an edit to assign persons with country of birth “unknown” to countries based on reported Hispanic origin and country of birth of parents. These data differ slightly from published numbers.

from elsewhere in Latin America, particularly from Central America, make up another 24 percent of the unauthorized population.



There are two important features of this estimate of 10.3 million unauthorized residents that warrant special comment: (1) coverage or undercount of immigrants in the survey and (2) the legal status of U.S. immigrants included in the residual. First, one frequently heard critique of residual estimates is that U.S. surveys miss or undercount the population, especially persons who are unauthorized and that, therefore,

the estimates are suspected of understating the size of the unauthorized population.

However, the estimates presented here incorporate research-based allowances for undercounts of both the legal and unauthorized populations. Consequently, there is no sound basis for thinking that the true number is substantially higher.⁴

This estimate of 10.3 million unauthorized migrants with 5.9 million from Mexico represents the “net” number of *residents*, i.e. persons actually *living* in the United States. It does not include the bulk of Mexican migrants who circulate back to Mexico within relatively short periods, say less than a year. However, we cannot know the size of that

⁴ Although the U.S. decennial Census and Current Population Survey are known to undercount immigrants, the residual estimates of Passel (2005) and Passel, Van Hook, and Bean (2004) explicitly incorporate an allowance for omissions. These corrections are based on the work of Marcelli and Ong (2002) who found that the 2000 Census missed about 10–11 percent of unauthorized Mexican immigrants and 4–8 percent of legal Mexican immigrants. In its residual estimates, the Census Bureau has assumed undercount rates for Hispanics generally to be no more than 6.7 percent or, overall of 15 percent for the residual foreign born (Deardorff and Blumerman 2001). On the basis of these studies, there appears to be no empirical foundation for claims such as 20 million total unauthorized persons in the United States (Justich and Ng 2005). Thus, we are confident in the 10.3 million figure. This already substantial figure, reflects a level of unauthorized migration in line with other estimates using similar methodologies (Bean et al. 2003; Constanzo et al. 2002).

temporary population from U.S. data alone. Finally, some portion of the residual estimate includes persons who are, in fact, “quasi legal” because their presence has been recognized by the U.S. government without giving them permission to have come or to stay permanently. In many cases, these individuals are simply waiting for administrative clearance.⁵ One U.S. Census Bureau estimate, as of the year 2000, places the total “quasi legal” population from all countries at 19.5 percent of the residually estimated population (Costanzo et al. 2002); more recent work with data from 2003 estimates a much smaller share of the residual figure in these quasi-legal categories.⁶

To this point, the discussion has focused on estimates of the resident population or the “stock;” that is the number of persons actually residing in the United States that result from the year-to-year migration of persons or the “flow” from south to north. We turn now to a discussion of the number of persons entering the U.S. each year, or the flow of Mexicans to the United States. We must distinguish between the gross in- and out-flows versus the net flows, where the net flow represents the number settling in the U.S. each year. We note that the population of Mexican born residents of the United States has been growing precisely because the in-migration of new migrants has increased so rapidly but that the picture is somewhat different depending on data sources and definitions.

⁵ Various administrative requirements and bottlenecks mean that it takes time to process applications for immigration benefits. Some individual applicants may enter and stay illegally in the country while waiting for the approval and issuance of resident visa. The U.S. Citizenship and Immigration Services (USCIS) reports on the number of persons whose applications are in process for immigration benefits such as work authorization, permanent residency and naturalization. The processing backlog had reached a high of 3.8 million cases at the outset of 2004, but as of Fall 2004 was reduced to 1.5 million cases (USCIS 2005). However, the “quasi legal” population discussed here includes not only some such persons in the backlog, but many others with more or less “permanent” temporary statuses including TPS or “temporary protected status.” The portion of persons who are Mexican is not known.

⁶ Constanzo et al. (2002) estimate 1.7 million “quasi legal” of three types: the legalizing population waiting to adjust status (900,000); refugees/asylum applicants who are, likewise, waiting for administrative adjustment (600,000); and migrants deported during the decade (200,000). In the residual estimates cited in the text, virtually all of the refugees are in the legal categories. Between June 2002 and May 2003, the Department of Homeland Security (DHS) issued Employment Authorization Documents (EADs) to many persons who fall into the residual population. Some examples include the backlogs noted above as person with applications for green cards pending (about 700,000); persons with applications for asylum pending, those with TPS, and those with TPS applications pending (700,000). Most in the first group will eventually become legal whereas most in the second will probably not. The former group probably includes a significant number of Mexicans but the latter probably includes few (Martin 2006).

There is some agreement that during the 1980s net Mexican migration, combining both legal and not, averaged somewhere about 250 thousand each year. By the early 1990s estimates based on uncorrected Census counts indicate a yearly average migration of about 300 thousand, while estimates based on adjusted figures suggest a larger flow of 370 thousand.⁷ But while, by any estimate, the flow of Mexican migration picked up significantly in the latter 1990s, estimates of the net flow vary dramatically between Mexican and U.S. sources.

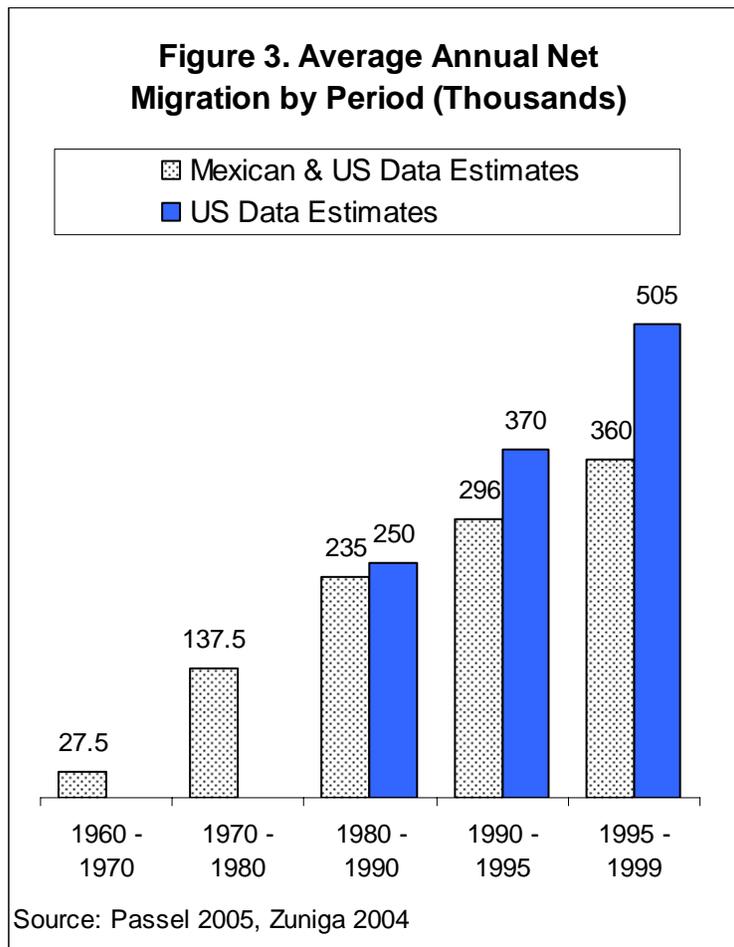


Figure 3 shows that the U.S.-based estimates of net migration for the late-1990s exceed 500,000 per year on average and are about 150 thousand greater than the Mexican-based estimates. It is not clear why the difference is so large, but in order to reach the U.S. population figures of the total Mexican-born population, we must assume that the U.S.-based estimates of net migration are accurate. While it may be that the true value lies in between the two levels, it

seems likely that the higher U.S.-based estimates of net migration more reliably capture the new inflow to what we know is a growing resident population in the United States.

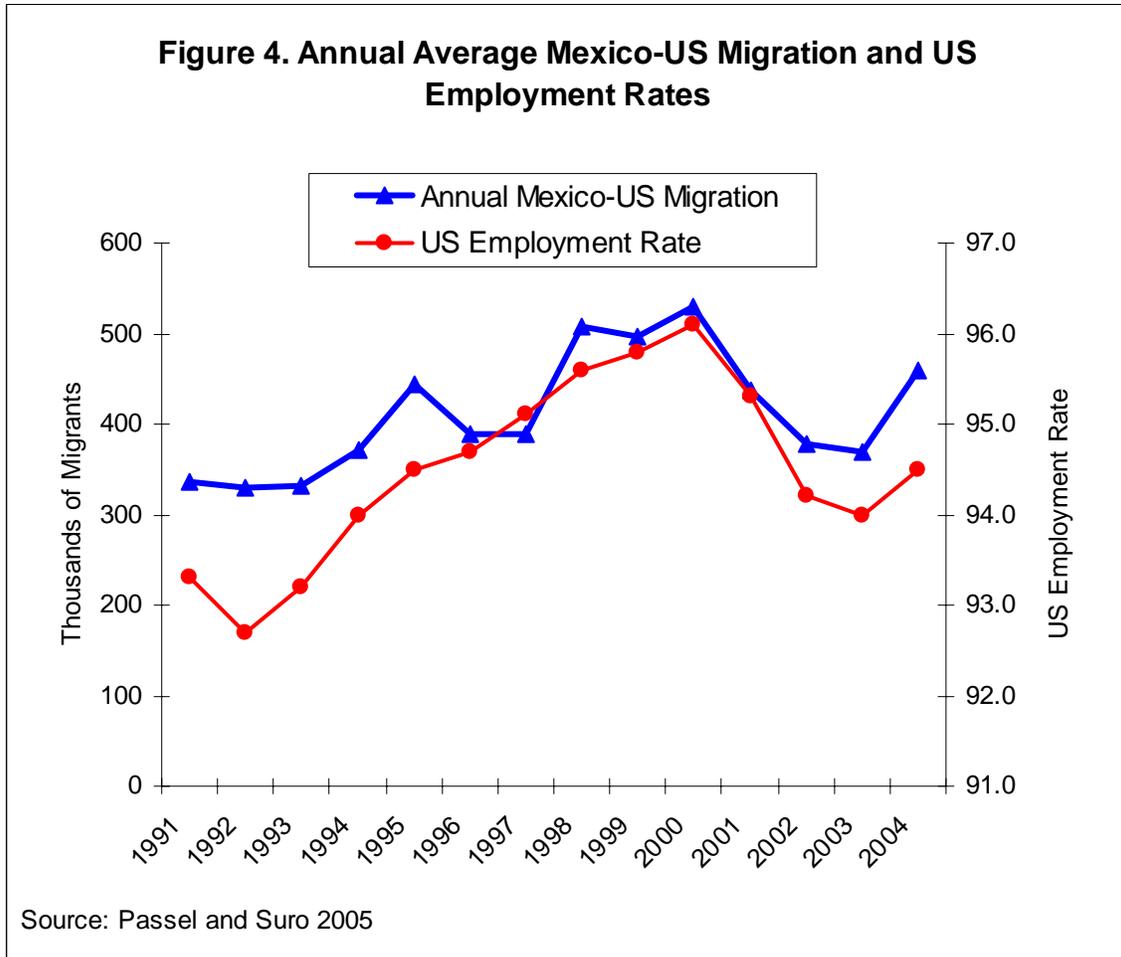
⁷ The estimates through 2004 taken from Zúñiga and Leite (2004) are, in turn, taken from U.S. data-based estimates made by the Binational Study (1997). The estimate for the latter 1990s is made by CONAPO which is Mexico's lead statistical agency.

There are many factors behind the rapid increase in Mexico-U.S. migration during the latter 1990s. One major reason, generally agreed upon by all observers, is the legalization of some two million Mexicans by the Immigration Reform and Control Act of 1986 (IRCA). The new legal status of these formerly unauthorized persons enabled them, in turn, to spur further migration by sponsoring family members and hosting others. Another reason is that there has never been any meaningful worksite enforcement of hiring limitations (IRCA-mandated or otherwise), even while new methods of border enforcement were being implemented. Apparently, the new border regime alone failed to deter migrants who simply found new entry routes; the new regime may even have led increasing numbers of migrants to give up circular migration in favor of U.S. residence. Thus, migration grew because IRCA's generous legalization generated stable networks for increased migration, while IRCA's enforcement regimes failed to control the flow. Indeed, it is estimated that at least 80 percent of all Mexican migrants were unauthorized from the latter 1990s and to date (Passel 2005).

The most obvious reason for the migration surge, however, was the booming U.S. economy. Both Mexican migration and the "new economy" really took off in the latter part of the 1990s as records for economic growth were surpassed through the first year of the 21st century. All Mexico-U.S. employment indicators took off too—plummeting unemployment rates, increasing employment ratios and historic wage gains (Suro and Lowell 2002). The age-old story of supply and demand worked exceedingly well and IRCA's twin success (legalization) and failure (enforcement) provided the social context for an unimpeded supply of Mexican-born workers. Much of the rest of this chapter addresses several of the forces driving the migration, but the power of established migrant networks and economic demand is clearly critical.

This becomes clear if the trend in yearly flow of migration is examined. The migration figures discussed above track the "net" (immigration less emigration) growth of the population over a given interval of several years. A measure of yearly migration, in contrast, captures the flow as it changes year-to-year in response to various forces. The yearly movement measure is a much more sensitive measure of the dynamics of the

migration flow and it reflects short-term changes in the trend of the flow which are lost in the net-migration data by period.



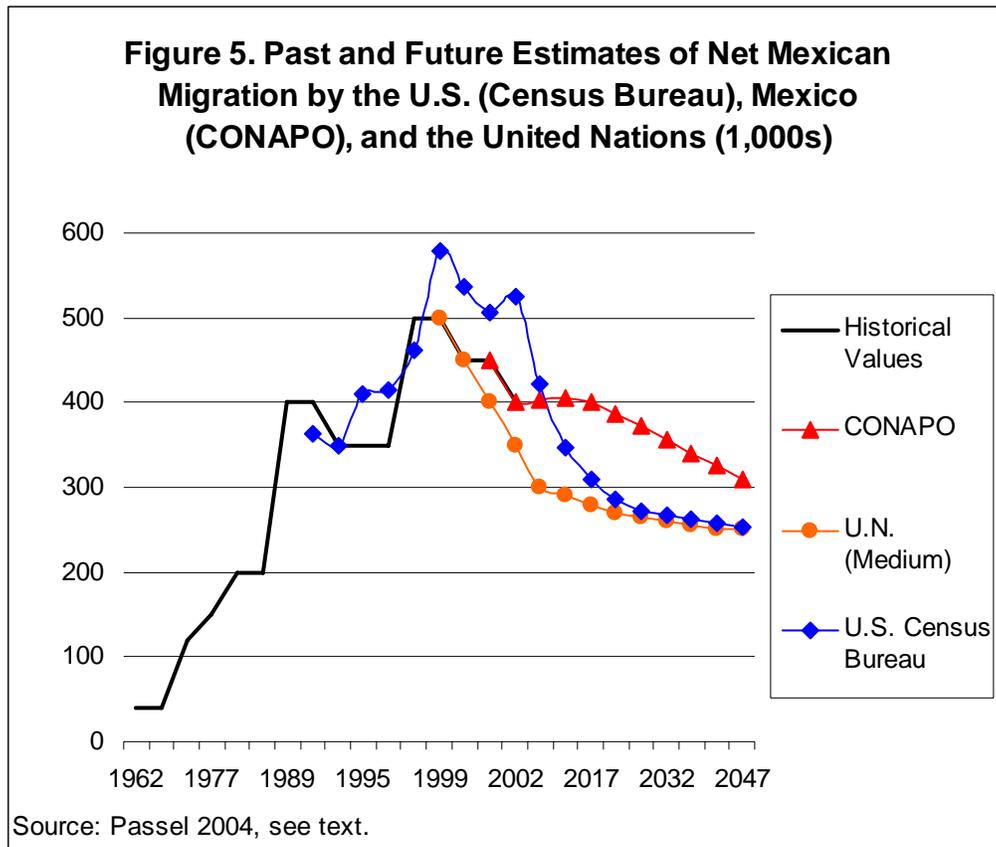
In fact, trends in the flow of incoming Mexican migrants correlate very well with the growth in the U.S. economy and the national rate of employment. The accompanying Figure four shows that Mexican migration increased in line with surging U.S. employment growth through 2000. It then plummeted in 2001 without recovering until U.S. employment growth also bounced back in 2004. The estimates of the yearly trend in flow are derived from averaging several U.S. data sources and, as such, they are a rough indicator of the level of Mexico-to-U.S. migration but reliable indicators of year-to-year

changes.⁸ Of course, the flow is still positive since 2001 so the Mexican population in the United States has continued to grow albeit at a slower rate than in the 1990s. Indeed, it would be unwise to assume that the recent short-term downswing in yearly migration is a leading indicator of an imminent deflation of Mexican migration to the United States. Rather, we can strongly assert that the yearly in-movement tracks the boom and bust of the new economy. And so it may be that this past first-quarter 2005 up tick in U.S. job creation may soon, in turn, generate a recurrent upswing in Mexican migration yet unseen with today's data.

Naturally, the future trend of Mexican migration is of great interest to all stakeholders in Mexico and the United States. Will Mexican migration continue at high levels into the foreseeable future, or are there forces that will moderate future migration? There is a viewpoint that Mexican migration is driven by powerful social forces that have cumulated over time and will not readily dissipate; and that the medium-to-long run likelihood is for ongoing high levels of migration (Massey and Zenteno 1999). However, as we have just seen Mexican migration is responsive to economic forces and most observers hold to the belief that future Mexican migration will, like all other historical instances of mass migration, ultimately slow down. In this scenario, Mexican population growth will continue to slow in the wake of dropping fertility rates and that economic development, at some point, would generate enough jobs to keep job seekers in Mexico (Binational Study 1997). Indeed, Mexico's total fertility rate (TFR) is less than one-third of what it was in 1960 as fertility has dropped from about 7 children per woman to about 2.4 or just over replacement level.⁹ At the same time, the Mexican economy in the immediate years following NAFTA in 1994 grew strongly and appears to be poised to do so again.

⁸ See Passel and Suro (2005) for a detailed description of the methodology. The yearly values for 1992–2004 are a simple average of the estimates available for each year restricted to figures consistent with Census 2000. The averaged estimates are: (a) Census 2000 estimates based on year of arrival for 1992–2000; (b) average ACS estimates based on year of arrival for 1992–2004; (c) average CPS 2000-based estimates based on year of arrival for 1992–2004; (d) average ACS estimates based on residence abroad 1 year ago for 1999–2004; and (e) average CPS 2000-based estimates based on residence abroad 1 year ago for 1999–2004.

⁹ Total fertility rates represent the average lifetime fertility of a woman; and a replacement level TFR is about 2.05–2.1.



In fact, official projections of net migration from Mexico all agree on a declining trend. We consider three sets of projections in Figure 5: those made by the U.S. Census Bureau, projections by CONAPO which is Mexico’s premier statistical agency, and projections by the United Nations (U.N.). CONAPO’s projections are model based, i.e., they project future emigration *rates* based on known associations with forecasted demographic and economic variables. Both the U.S. and U.N. projections are based simply on an assumption of declining numbers of emigrants. But, the CONAPO and the U.N. projections start from levels of migration that are too low because the projections were made before the 2000 U.S. Census made it clear that there were more migrants than had been shown in older data. The U.S. Census Bureau projections take into account the actual higher levels of migration in the first decade of its projection compared with the other two. However, by 2010, the U.S. Census Bureau projections are for lower emigration than those of CONAPO but higher than the U.N. By 2025, the Census Bureau

assumptions differ little from the U.N. assumptions and reflect much lower levels of migration than the CONAPO projections.

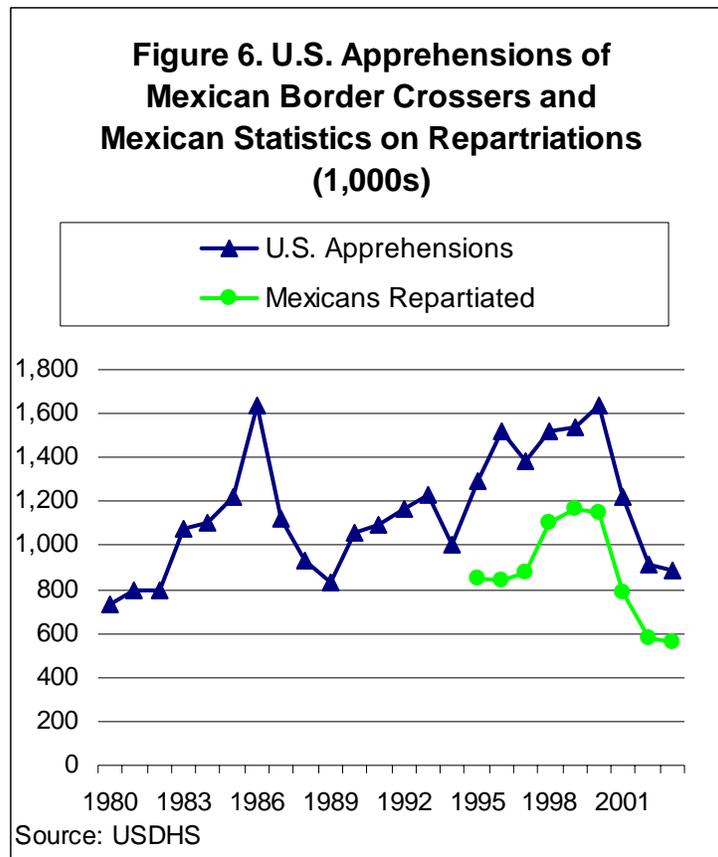
Indeed, from 2025 onward the Mexico's CONAPO projections of out migration remain higher than either the U.S. or U.N. projections, although there is not much difference between the three official projections by the time they reach 2050 (no more than 60 thousand per year). However, there is a large difference between the three projections in terms of the accumulated number of emigrants between 2001 and 2050 (3.2 million for the U.N., 3.7 million for the U.S.; and 4.2 million for CONAPO).¹⁰ But, this focus on the absolute values is somewhat misplaced as each of these official projections is bound to change somewhat in the next round of periodic updates by each organization. Of greater importance, perhaps, is the fact that all three official projections explicitly assume a *declining rate of Mexican emigration* with the greatest reduction in rates forecast to occur in the second decade of the century.

While all projections are virtually certain to be wrong and the exercise is necessarily fraught with hazards, we believe that it is more likely that emigration will begin to decline in the future than to continue to stay high indefinitely or even increase.

CROSSING AT THE BORDER

The United States began a new strategy of border enforcement starting in 1994 with "Operation Hold the Line" in El Paso. Since then, starting next in San Diego and expanding most recently to Arizona, the strategy of deterrence has had marked effects on the nature of cross-border movement. However, as we have seen in the foregoing data, changes in border enforcement do not seem to have deterred migrants from moving to the United States. Instead, migrants have changed their major entry points away from the sites of the new deterrent efforts and are crossing over other, inland routes.

¹⁰ The differing underlying fertility, mortality, and emigration assumptions also lead to significant differences in the projected Mexican population 129.6 million for CONAPO, 140.2 million for the U.N. (medium); and 147.9 million for the U.S. Census Bureau.



Nevertheless, data collected by both U.S. and Mexican authorities related to apprehensions of border crossers are consistent with the ACS/CPS trends reported above. There is increasing movement in the 1990s and a decline following the 2001 U.S. recession. The U.S. border apprehension data are problematic as measures of in-flow to the U.S. or total crossers for several important reasons: (a) they include only individuals who are caught at

the border; (b) they count many of the same individuals multiple times as they are recaptured attempting multiple entries; and (c) they do not include the unknown share of migrants who escape detection altogether. So, while they are not at all reliable counts of individuals entering the United States, they are thought, nonetheless, to reflect changes in the underlying volume of the flow and are regularly analyzed to that end.

What these data in Figure 6 show is that apprehensions increased following the 1982 economic recession in Mexico to a peak in 1986, only then to decline in the aftermath of IRCA for three years.¹¹ The number of apprehensions has then increased throughout the 1990s, especially in the latter 1990s, and peaked in 2000. Once again, the effects of the 2001 U.S. recession appear in this data series as apprehensions fell precipitously in 2001 through 2003. Mexican data, that count individuals who are returned by U.S. agents to

¹¹ Most observers believe the decline was real, since IRCA removed many individuals from the unauthorized inflow by giving them legal status in the U.S. and thus permitting them to cross legally. Beyond this impact, any “IRCA-effect” was mostly psychological and very short lived (Bean et al. 1990; Massey Durand and Malone 2002).

Mexico, show the same trend of increasing movement in the latter 1990s and a sharp decline in movement after 2000.¹² Both data series reinforce the analysis of downward trends thus far with the same caveat that short-term declines do not necessarily prefigure continuing future declines.

Many observers of the border region point to several disturbing developments over the past decade. Of greatest concern has been the number of deaths occurring as migrants attempt to cross into the United States through routes that are in remote desert regions (Nevins 2003; CLINIC 2004). The most comprehensive data over the past two decades show a decline from about 350 deaths in 1988 to about 175 in 1994; thereafter the number of deaths has again increased to a little over 300 per year in 2002, or about the same level as prevailed in the latter 1980s (Eschbach, Hagan and Rodriguez 2003).¹³ The new enforcement efforts are associated with an increased proportion of all deaths due to dehydration and exhaustion as migrants attempt to cross through arid and difficult terrain. Some analysts claim an increasing *rate* of mortality, although that is not reflected in deaths per apprehension (Massey et al. 2003).¹⁴ And substantial efforts to combat deaths have been carried out by both the U.S. and Mexican governments by posting warnings, creating rescue and signal stations, and through the efforts of border agents. Indeed, the new deterrent strategies are not themselves responsible for migrant deaths *per se* as fatalities of similar magnitude are an historical fact. A different enforcement regime would probably lead to different patterns of mortality but at similar levels, so the ultimate solution lies in policies that reduce unauthorized crossings (Eschbach et al. 2003). Regardless, border crossing deaths are deplorable and all efforts made to reduce mortality at the border should be of the highest priority.¹⁵

¹² The Mexican repatriation counts are less than the U.S. apprehension counts most likely because they include only individual Mexicans caught at the border who are returned to Mexican authorities.

¹³ Eschbach et al.'s (2003) data, while the best available, are thought to be conservative, i.e., they too low to the extent that deaths in remote areas are undercounted. Mexican and U.S. authorities collect data on deaths from different sources, as do other parties that independently attempt to tabulate border deaths. Still, the volume of deaths from the different sources is, broadly speaking, within the same order of magnitude.

¹⁴ Deaths per apprehension hit a high of 0.6 in 1988 and then continuously sank to a low of 0.2 in 1999; only to then rise to 0.4 in 2003 as the overall number of apprehensions fell precipitously (authors' tabulations using Eschbach et al. 2003 and UCSIS data).

¹⁵ Indeed, the larger concern should be that mortality rates in border communities are higher than elsewhere. Note, too, that accidents are the second leading cause of male death in Sister Communities on

Although deaths at the border do not seem to have increased significantly, research leads to different findings regarding the impact of border enforcement on smuggling and crime. Since Operation Hold the Line in El Paso, the new deterrent methods have moved unauthorized crossers away from residential areas and reduced petty crime in traditional crossing areas (Bean et al. 1994). Thus, while the “good news” is that border enforcement has been associated with reductions in overall crime rates, the bad news is that the increased *volume* of Mexico to U.S. migration during the 1990s has been associated with increased violent crime.

Unfortunately, enforcement efforts seem to have had an ever smaller impact on reducing crime in recent years (Coronado and Orrenius 2003) as there have been suggestions that an increased incidence of smuggling, both of people and drugs, has become ever more resistant to enforcement efforts. Indeed, given the difficulty of crossing the border in the face of new enforcement efforts, it is not surprising that the share of migrants who use smugglers has increased as has the cost of smuggling (Massey et al. 2003). Still, a statistical analysis of smuggling activities found that increased border enforcement has had a very minimal effect on the price of smuggling. Smuggling prices have increased by no more than 30 percent since the mid-1990s, during which time enforcement effort tripled. Yet, the likelihood that smugglers are intercepted has increased only marginally (Gathmann 2004).¹⁶ Enforcement’s greatest impact appears to have been in moving migrants to attempt entry through new, lower-surveillance entry corridors (Orrenius 2004). Indeed, estimates suggest that as many as 20,000 U.S. border agents, or a little more than double the current staffing, would be necessary to have a significant deterrent effect along the entire 2,000 mile border (Bean et al. 1994; Gathmann 2004; see also Guzman et al. 2002).

the Mexican side of the border, and the third leading cause of male death on the U.S. side; see PAHO 1999. The problem is exacerbated by the growing financial stress of the un-reimbursed care of unauthorized persons in border emergency rooms (MGT of America 2002).

¹⁶ Gathmann (2004) analyzes Mexico survey data from the Mexican Migration Project (see also Massey et al. 2003).

SETTLEMENT IN THE UNITED STATES

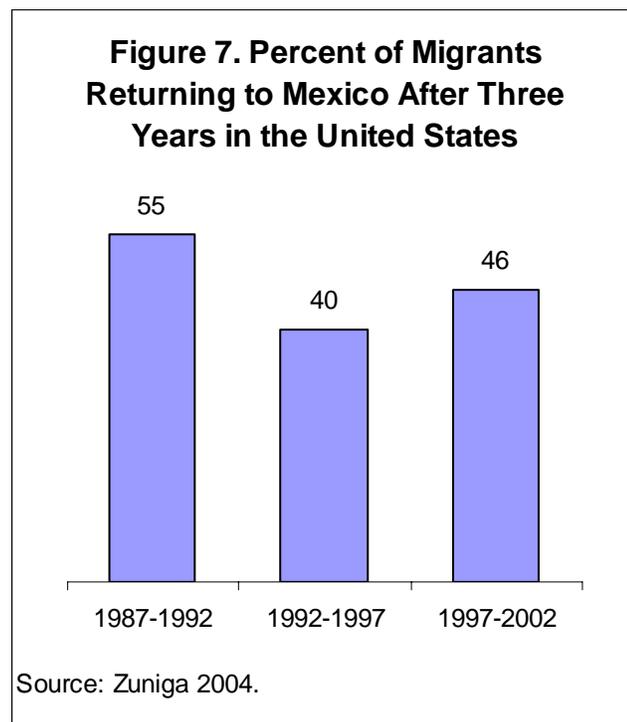
The reasons for the rapid growth of the Mexican-born population in the United States over the last three decades, but especially in the 1990s are not well understood. Large numbers of Mexicans have been coming to the United States for many decades, as evidenced in part by the large numbers of apprehensions at the border, but the Mexican population in the U.S. did not really begin to grow until the mid-1970s. It is not clear from the available data that the numbers of people crossing the border have increased at anywhere near the same rate as the population in the U.S. has increased. There is some indication, in fact, that the increased enforcement efforts at the border have the contradictory effect of *reducing* circular migration between the United States and Mexico, leading to a build-up of Mexican migrants in the United States.

Mexican migration to the U.S. has historically often been temporary, especially during the period of the Bracero work program in the 1940s and into the 1970s when most unauthorized workers were found in agriculture. These primarily male workers came for only short periods, often less than a year and/or no more than a couple of years, to earn what they could and then return home. But the increased border enforcement starting after IRCA, and especially in the early 1990s, has made border crossing more difficult and dangerous. It is reasonable that many migrants who previously may have moved back and forth choose to stay in the United States after making it across the border. So the increasing population of migrants in the latter 1990s would partly reflect, not new migration, but rather more people staying. Interviews with migrants reinforce the perception that they wish to avoid crossing the border more than necessary (Reyes 2004). And research finds that rates of return migration did decline, particularly following IRCA through 1994 but little since then (Massey 2005; see also Massey et al. 2003; Reyes et al. 2002).

Nevertheless, most of the available research on the changing settlement process is incomplete. Changes in stay are followed only through the early-to-late 1990s and inference with regard to new enforcement efforts causing changes in settlement relies on

timing—specifically that changes in return migration, i.e., those occurring after 1993, reflect the new enforcement, it is argued. Little nod is given to the fact that the boom in migration seen in the late 1990s better coincides with the timing of the huge boom in U.S. labor demand of the “new economy.” Further, statistical analysis of legalization or border enforcement finds, in contrast, that changes in return and migration are most highly correlated with IRCA’s legalization and stabilization of family members in the United States (Riosmena 2004; Reyes 2004).

Indeed, Mexican data shown in Figure 7 demonstrate that return migration remains fairly high, as measured by return migration within a three-year period, and that return rates have actually increased in the most recent period despite stepped up enforcement efforts. These figures are based on Mexican data taken at different points in time. The strong up-tick in return migration from the 1992-1997 to the 1997-2002 period suggests that border enforcement, which was increasing



most notably precisely during this period, is not the primary driver of changes in Mexican circular migration (Bean and Lowell 2004). Return is most often addressed with Mexican data because there are simply no U.S. data that capture temporary migration.¹⁷ The Mexican Census and intercensal surveys are large, random samples that regularly ask a number of questions about the length of migrants’ stay outside of Mexican and their

¹⁷ Of course, using just Mexican data introduces a selectivity bias into the analysis. One attempt to address this combines Mexican and U.S. data. It found that the rates of net stay for *all* migrants in the United States decreased between 1992 and 1997, while rates of return increased for working migrants (Lowell and Bean 2002). This supports the observation that IRCA’s legalization stabilized family members residing in the United States while the new economy created a boom in job opportunities for primarily young, male Mexican workers.

movement back from the United States. Again, if only the early to the mid-1990s is considered it does appear that migrant rates of return declined.

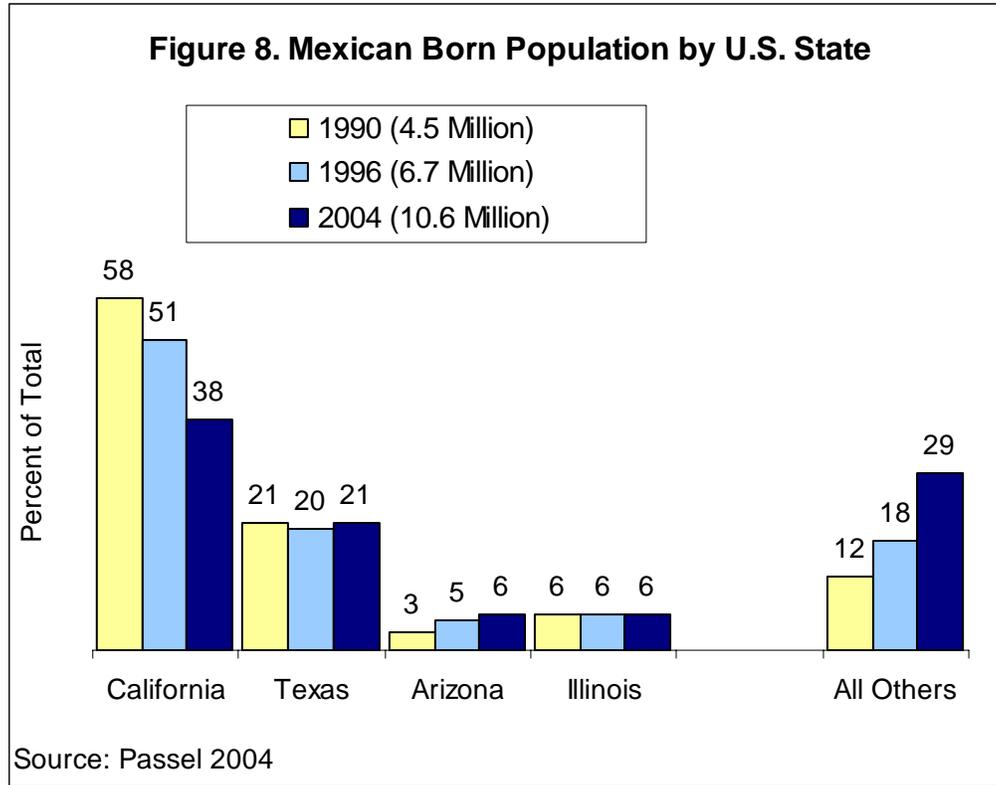
If one looks at the longer term trend in rates of circulation, however, it becomes obvious that the largest drop in the return to Mexico of migrants in U.S. urban areas took place in the 1980s especially after IRCA (Massey et al. 2003). At the same time, the return rate to Mexico of agricultural workers in truly temporary or seasonal jobs has remained fairly high (Reyes 2004). There are four main reasons for decreases in return migration from historical levels: (a) increases in urban employment of migrants in year-round and permanent jobs; (b) an associated long-term growth of Mexican communities in the United States; (c) IRCA's legalization program that strengthened family networks—a finding agreed upon by almost all experts; and (d) border enforcement in the last decade, but to a much smaller degree than the controversial emphasis on the phenomenon.

PATTERNS OF DISPERSION AND CONCENTRATION

For the past century, most Mexican migration has originated in a few rural sending communities in central Mexico and has gone to well-known places in Texas or California or Chicago. But, both the origins and destinations of Mexican migrants have become more varied over the past one to two decades. Especially in the United States, the new patterns of dispersed settlement create challenges to often small communities facing rapid population growth and stresses on housing and schools (Gozdziak and Martin 2005). Yet, despite the growing literature into the newer dispersed patterns of migration, Mexican migrant communities, often in cities in traditional states of settlement, are increasing and have reached historic levels.

New Settlement in the United States

Researchers began to notice that in the later part of the 1980s a growing number of immigrants were moving to states and small localities where they had not been going before. Theorists had expected that immigrants would continue to concentrate in the central cities a few major states and a few metropolitan areas. But Figure 8 shows that



while the number of *all* immigrants in six core states grew 60 percent in the 1970s, further growth slowed to only 28 percent in the 1990s. In contrast, "new settlement" areas in other than traditional states grew by 45 percent in the 1980s and by an astonishing 94 percent in the 1990s (Passel and Zimmerman 2000).

The roots of today's new settlement patterns extend back to the 1980s. In some cases, businesses actively recruited immigrants into new communities.¹⁸ During the 1980s corporate oligopolies emerged in the processing of beef, pork, chicken, and fish. Industries began to relocate from the North Central states (especially in cities) to the South and South Central states to be closer to the feedlots and to employ nonunion, lower-wage labor (Broadway and Ward 1990; Stull et al. 1995). Located in small, rural communities with little local labor, processing companies in new locations recruited

¹⁸ In other cases, government programs sought to disperse new immigrants to new communities with growing economies. The Office of Refugee Resettlement (ORR), for example, provided grants to voluntary resettlement agencies to encourage dispersion to such places as Fargo, North Dakota, Charlotte, North Carolina, and Lincoln, Nebraska. Thus, Asian refugees were often the first wave of labor in new settlement areas, establishing new rural-based industries, and were later replaced by more plentiful Mexican workers.

immigrant workers from California and Texas, as well as directly from Mexico. Over time, recruitment activities lessened to the point where, today, active recruitment is often not needed because immigrant networks draw newcomers (sometimes encouraged by hiring bonuses for friends and relatives).

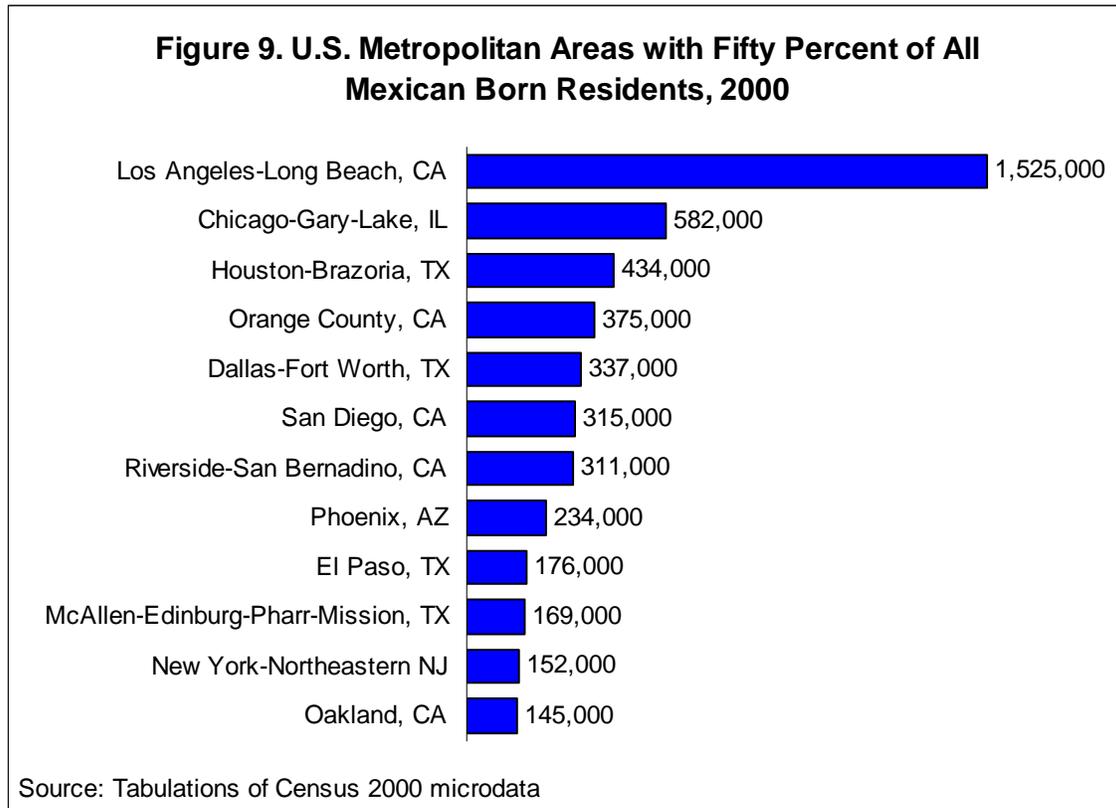
Early movement encouraged at first by recruitment was later reinforced by IRCA's legalization program. Data from the newly legalized population around 1990 revealed several Mexican settlement zones with distinct demographic and employment patterns that already presaged the patterns seen in the later 1990s (Lowell 1992). The job stability (if not income security) created by the new legal status permitted families to reunite and deepen the settling out process.

Outside of food processing and manufacturing, new settlement areas can also be found in the more traditional agricultural sector, particularly in specialized niches. The forces that have driven this dispersal process are complex. Growers in labor-intensive crops have cast a broader net to find workers; there has also been a heretofore unprecedented "settling out" of new immigrants in diverse places. The "Latinization" of agriculture has occurred in the apple groves of Washington State, the mushroom sheds of New England, the orange groves of southern Florida, the grape and row crops of California (Taylor et al. 1997).

The greatest shift in settlement of Mexican immigrants has been away from the traditional concentration in California. In 1990, 58 percent of Mexican migrants in the U.S. could be found there. In spite of growing *numbers* of Mexican immigrants living in California, only 38 percent of all Mexican residents in the United States lived there in 2004. Other traditional Mexican states of settlement, Texas, Arizona and Illinois, have not lost much of their share of the Mexican-born population, relatively speaking. Rather, there has been extraordinarily large growth of the population residing in all other than the four traditional states of Mexican settlement, as the share in these areas increased from 12 percent in 1990 to 29 percent in 2004. In absolute terms, the growth of the

Mexican-born population outside the traditional areas was even more astounding as their numbers increased tenfold from about 400,000 to 3.9 million.

The pace of population growth away from California was particularly notable in the latter half of the 1990s based on the available data. Further, there is a self-perpetuating aspect to this new settlement pattern. The greater dispersion of Mexican migration means that there are more places where employers hire Mexican labor, more contacts for Mexican migration networks, and more places where Mexican families can put down roots.



Scale and Concentration in the United States

While the new dispersion has captured the limelight, there is a parallel story about the growing size of the Mexican population and its concentration in a rather few places as shown in Figure 9. At first blush this may sound contradictory. It is, however, a result of the fact that most of the new dispersion of Mexicans is primarily a story of small populations in rural areas and smaller U.S. cities spread over many states. So as the total

population grew during the 1990s, a growing share of Mexicans now live in new settlement areas but in rather small, individual agglomerations. Meanwhile, the size or scale of the Mexican population, primarily in well-known cities in traditional settlement states, grew rather large. Half of all Mexican migrants lived in just 12 U.S. consolidated metropolitan areas at the time of the 2000 U.S. Census. In contrast, it takes 75 metropolitan areas to account for half of the *total* U.S. population.¹⁹

Los Angeles alone has 1.5 million Mexican-born residents, double the number that lived there at the start of the decade, and by itself still 14 percent of all Mexicans in the United States.²⁰ Chicago is next in line with 580,000 Mexicans—clearly a very large number—many of whom live in just a few areas of the metropolis. Of the top 12 Mexican metros, 11 are in traditional states of settlement; the only exception is the concentration of Mexican residents in the New York City area. So it is fair to say that, even while Mexican migrants go to more dispersed destinations, the Mexican-born population is also concentrated in a few metros where their numbers have grown to a scale reflective of the total population growth of the 1990s.

Emergent New Origins in Mexico

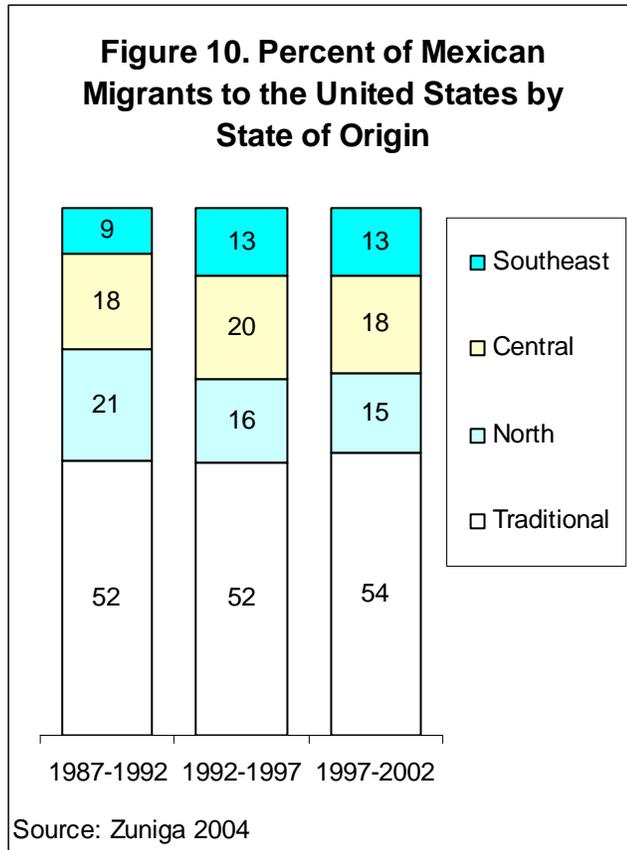
Coupled with the emergence of new settlement areas in the United States has been a dispersal of origins from new states within Mexico. However, the trend toward new origins in Mexico has not been as dramatic as the one seen in new destinations in the United States. Although research based on a small sample in the United States suggests somewhat dramatic shifts in origins (Cornelius 1991, Marcelli and Cornelius 2001), other research using various Mexican source data going back to the 1920s finds, at least as of 1992, there was no long-term shift away from the historical concentration of emigration from Western Mexico (Durand and Massey 2000). Indeed, research that aggregates migrants using Mexican data by state of origin suggests that there has been rather little increase in the number of migrants coming from other than the traditional source states.

¹⁹ Authors' tabulations from U.S. 2000 Census microdata.

²⁰ Myers (2005) notes that some 400 thousand long-term residents of Los Angeles left during the 1990s (pre-1990 arrivals from *all* countries not just Mexico). Despite the significant growth of the Mexican population, he characterizes Los Angeles as an “ebbing gateway” city which has meant some lessening of poverty and increasing homeownership for the average foreign-born resident.

Over half of all Mexicans reporting a migration to the United States have come from traditional states, in three different samples over time. On the other hand, while the share of Mexican migrants coming from southern and southeastern Mexican states has remained relatively small, there has been an increase in over the past 15 years (from 9 to 13 percent).

Many observers believe there is an emergent trend for Mexicans to leave from new origins—both in that they are coming from new, often southern states, and because other evidence suggests a growing number of urban as compared with rural-origin migrants (Binational Study 1997). We can see new emerging states in Figure 10 which were not important ten years ago but started playing a role during the recent period. Veracruz is the most representative new state followed by the state of Hidalgo (see Appendix Table 1). The southern states of



Puebla and Oaxaca were already important in 1992 and showed a significant increase during the decade. In the Northern region the case of Nuevo Leon is also remarkable. So while the regional origins of Mexican migration appear somewhat stable, there is a trend for new states to send migrants. To be sure, this appears to be a slight shift at the national level, albeit one that can have dramatic impacts at the local level of origin and it is a trend that bears watching.

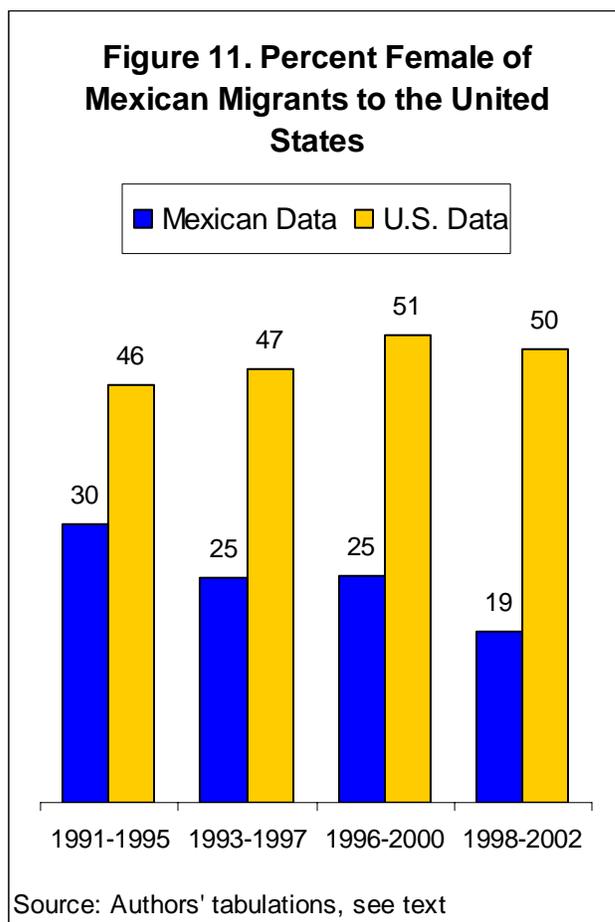
FEMALE MIGRATION

The long dominance of males among U.S. migrants from Mexico has been thought to be changing, especially among the younger generations where the duration of stay has shortened and in some cases, couples migrate together. In the first instance, females did appear to be more prevalent in the migration flow following IRCA which made sense in light of legalization's effects on family reunification (Bean et al. 1990; Marcelli and Cornelius 2001). But that tendency has not played itself out in an ongoing feminization of the flow over the balance of the 1990s. Rather, there appears to have evolved a tendency, consistent with increasing rates of migrant return in the latter 1990s, for relatively lower female migration but higher rates of stay.

There are many reasons for the historical male domination of migration. In rural Mexico, temporary male migration dates to the late 1800s, spurred especially by the recruitment of U.S. employers. Today, male migration often prevails because having "a wife at home is cost-efficient, conforms to gender norms, and also enables men to move back and forth without losing standing in village and kinship structures" (Kanaiaupuni 2000). In some rural areas, so many males migrate that households where the husband is absent are the norm. The absence of males unfortunately, is often accompanied by a lack of economic protection for women and children, and sometimes by family abandonment (Szasz 1999). But legalization may have changed that pattern. In addition, young, single women especially from urban areas might create new trends as they may choose to migrate to search for more freedom, to seek a wider marriage market, to escape from monotonous housework, or to have more independence from their parents (Szasz 1999).

How many females show up in migration statistics depends on whether one looks at U.S. or Mexican data sources. Statistics from U.S. households show that the number of Mexican born women living in the United States is not too far away from the number of males. According to the 2000 U.S. Census, the female population represented 45 percent of the Mexican born adult population. However, males are between 70 and 80 percent of migrants in Mexican data (Durand and Massey 2000). Several factors explain the

differences between the Mexican and U.S. sources. Because Mexican data sources capture only the migration information of households still in Mexico, males who dominate circular migration flows are most likely to be counted. Once women leave they are more likely to stay in the United States, and when women leave Mexico often the whole household is gone, so women completely “disappear” from the Mexican surveys. In short, Mexican women are more likely to be found in the U.S. data that best captures migrants who intend long-term residence.



As Figure 11 shows the U.S. and Mexican data taken together suggest a trend toward increased female residency in the United States and, *relative to males*, decreased participation in migration over the course of the 1990s.²¹ The U.S. data show an increase of females from 46 to 50 percent of all migrants arriving in five-year periods between 1990 and 2002.²² At the same time, various Mexican data sources show a decrease of females from 30 to 19 percent of migrants in the same five-year periods.

One possible explanation of these divergent trends is that while females have been relatively less likely to migrate from Mexico; females who do migrate to the United States have a greater tendency to remain. This pattern is at least consistent with the findings discussed above that, as the Mexican data indicate, circular or

return migration has increased since 1997. Males being more mobile than women are most likely driving the increased rates of return. Indeed, Mexican data readily substantiate the common-place observation that women are more likely than males to stay resident abroad in the United States. As of 2002, surveyed Mexican households reported

²¹ Authors' tabulations of the U.S. March Current Population Survey from various years; and of the Mexican Conteo de Población 1995 (INEGI 1996), ENADID 1997 (INEGI 1997), CENSO 2000 (INEGI 2000), and the ENE 2002 (INEGI 2002).

²² We did not find substantive differences in the trend of relative female migration by age group.

that 66 percent of women migrants compared with 52 percent of males had *not* returned to Mexico after 1.5 years.²³ That would mean both that women have been likely *a declining share of the Mexican flow*, as the Mexican data on the sex of migrants show; and women *are an increasing share in the United States*, as the U.S. data on the sex of migrants shows.

Indeed, Mexican women have several characteristics that are systematically different from men: they tend to be younger, less mobile, and more dependent on social networks and family ties than males. Around 50 percent of migrant women are in the age group from 15 to 24, compared to only 40 percent of male migrants.²⁴ And no more than 20 percent of female migrants, a clear minority, fit the profile of a potentially independent migrant, i.e., moved on their own, married with no spouse present, or moved either before or without their parents or husbands (see Cerruti and Massey 2001). Only about just 7 percent of female migrants are the heads of their households compared with 29 percent of male migrants. Further, 51 percent of females report that they migrated to the United States to seek a job as compared with almost all, 92 percent, of male migrants. Mexican data also indicate that 61 percent of females but 76 percent of male migrants are unauthorized which, in turn, is consistent with differences in mobility and job seeking.

EDUCATION AND GENDER OF MIGRANTS

On average, those Mexicans who choose to immigrate are better educated than those who choose not to leave home. Immigrants to the United States have characteristics that help them take on the challenges and costs of international mobility. For example, they tend to be risk takers and they tend to be younger, and better off than non-migrants. Education too fits into this profile of migrants to the United States with; however, notable differences that tend to favor the emigration of well-educated Mexican women. And

²³ Authors' tabulations of Mexican ENE 2002 data. This phenomenon also shows up in either U.S. or Mexican data when comparing, *at one point in time*, the female share of migrants by prior year of departure/arrival. Females are an increasing share of earlier arriving cohorts and a lesser share of the most recent arrived cohort. This reflects the fact that males are highly represented in the dynamic, circular migration flow and are captured as "recent migrants," but they have higher rates of return than females and so drop out of earlier-arrived cohorts of more stably-resident women.

²⁴ Unless otherwise attributed, figures in this paragraph are based on the authors' tabulations of ENE 2002 microdata.

while the greatest *number* of Mexican migrants in the United States has little education, if we look at the combined populations of Mexicans in Mexico and the United States, the greatest share of Mexicans in the United States are from the well-educated Mexican population.

Mexican data shows that the majority of Mexican residents have completed no more than a primary or six years of education and only about 5 percent have completed a college education.²⁵ Although substantial improvement has occurred over the past two to three decades in Mexico, women are less educated than men in Mexico²⁶. Nearly two thirds (63 percent) of women in Mexico have completed no more than a primary education compared with a lesser 58 percent of men. At the upper extreme, just 3 percent of Mexican women have completed a college degree or just half the 6 percent of men who have done so. These data show that Mexican women living in Mexico are less educated on average than are males residing in Mexico.

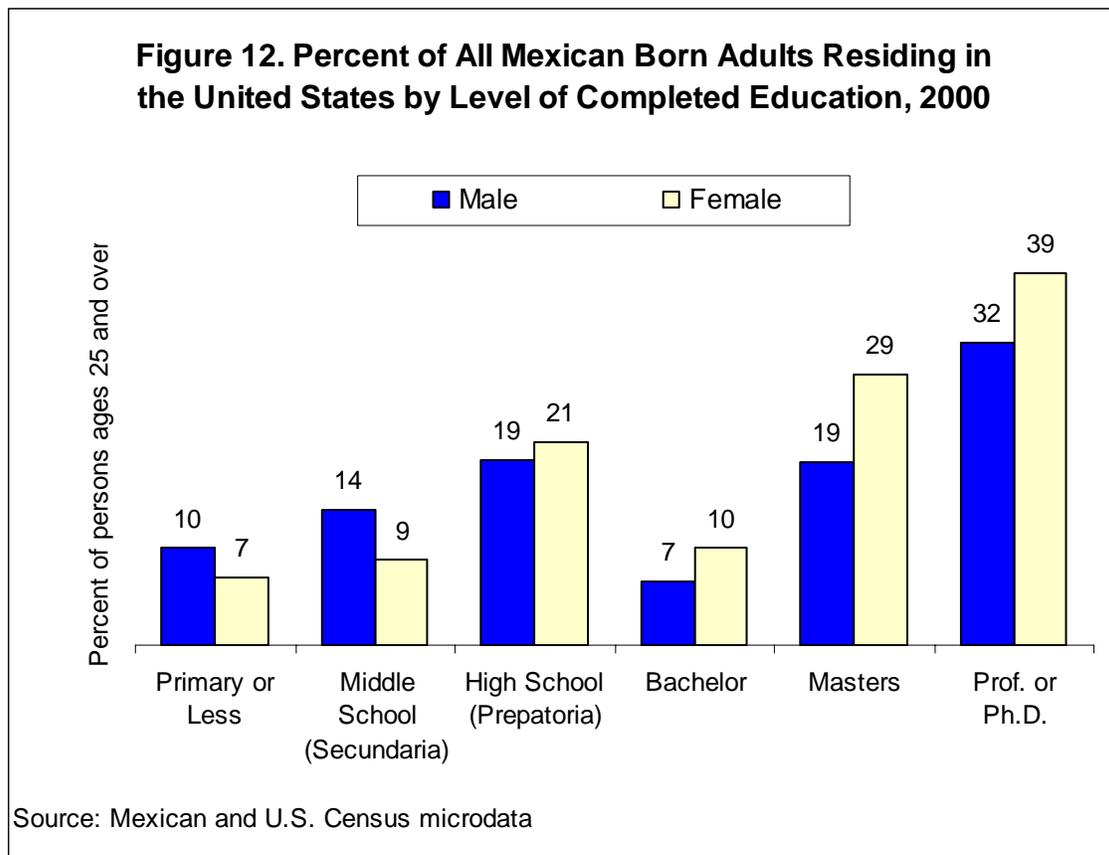
The U.S. data on Mexican migrants in the United States reflect the overall levels of education in Mexico. In particular, they reflect the well-known fact that migrants are considerably less educated than U.S. natives. Under half of both male and female Mexican migrants in the United States have completed no more than a primary school education. And only about 13 percent of Mexican adults in the U.S. ever complete a high school education. In contrast, 85 percent of U.S. native adults complete high school (Stoops 2004). In the U.S. data, however, female migrants are better educated than are male migrants.²⁷ At the upper extreme, 5 percent of Mexican women migrants have completed a college education compared with 4 percent of Mexican male migrants in the United States and 27 percent of U.S. native adults. These comparisons reinforce the commonly known observation that Mexicans in the U.S. are substantially less educated than U.S. natives, but they also point to the lesser-known fact that Mexican-born females in the U.S. are educated at least as well as Mexican-born males.

²⁵ Authors' tabulations from Mexican Census 2000 microdata.

²⁶ In Mexico, current enrolment levels in grades 7-9 and 10-12 are even by gender. But among the population that has left school, the gender gap remains.

²⁷ Author's tabulations from U.S. Census 2000 microdata.

Combining the Mexican data with the U.S. data permits us to calculate rates of out migration or probabilities of leaving Mexico by education level and gender. Figure 12 shows that about 9 percent of all persons born in Mexico who have completed no more than a primary education are living in the United States. At the upper extreme, about 36 persons of all persons born in Mexico who have completed a doctoral (Ph.D.) or professional degree live in the United States. In other words, a Mexican Ph.D. is almost four times as likely to move and remain in the U.S. as is a Mexican with a primary education.



This “selectivity” of Mexican migrants, i.e., highly educated Mexicans are more likely to migrate than are lesser skilled Mexicans, may seem implausible. This is confusing at first blush as it is well-known that the greatest *number* of Mexican migrants is not well educated. But the educational pyramid of Mexico has a very broad base. Even a small percent of this large numerical base moving to the United States generates a large number

of migrants. Thus, even though there are a large number of Mexican immigrants with little education in the United States, they are only a small fraction of those who could have moved. On the other hand, there are rather few highly educated persons in Mexico, and because they are likely to migrate, a much higher share of them end up in the United States.

Educational selectivity is greatest for female migrants at most educational levels and particularly so among the college educated. This result comes from research which finds that whereas men's migration declines with education, the relationship is positive for women (Kanaiaupuni 2000). To demonstrate this pattern we compute the proportion of Mexican-born persons of a given educational level who reside in the United States.²⁸ About 10 percent of Mexico's women with bachelor's education reside in the U.S. as compared with 7 percent of Mexico's males with the same. Even more strikingly, 29 percent of Mexico's women with a masters and 39 percent of those with a Ph.D. reside in the United States, as compared with a lesser but still significant 19 percent of Mexico's males with a masters and 32 of those with a Ph.D..

College educated persons are the most prized asset of any nation in today's post-industrial economy and they are the workers who are increasingly favored by employers over the past three decades. Our analysis shows that on this basis Mexican migration has its greatest effect on Mexico in terms of a loss of a substantial loss of the best educated. This is rather the opposite conclusion reached by most observers.

CONCLUSIONS

The latter 1990s saw a significant increase in Mexican migration, above and beyond the already substantial growth seen in the prior two and one-half decades. Practically all observers agree that the major impetus behind the 1990s boom in migration was facilitated by two decades of migration that set the stage; and the 1987-88 U.S.

²⁸ These are measures of "cumulative loss," e.g., the numerator is all Mexican-born migrants of given education in the U.S. and the denominator is sum of Mexicans in Mexico and the U.S.

legalization that anchored men and their families in the United States. Legalization enabled the now-legal U.S. residents to sponsor generous numbers of legally approved, as well as unauthorized Mexican migrants in subsequent years.²⁹ Yet other observers also attribute some of the migration growth to border enforcement that induced some migrants to stay in the U.S. rather than return to Mexico because it made crossing more difficult. But rates of return migration have increased in 1997-2002 while border enforcement intensified its buildup. In reality, the spike in migration that occurred in the latter 1990s, between 1996 and 2000 for the most part, can be readily traced to the booming U.S. “new economy.” The decades-old demand for Mexican labor deepened in metropolitan areas such as Los Angeles with a market that restructured for low-skill labor, as well as in a diverse array of states where demand for Mexican labor had also begun to emerge in the late 1980s.³⁰

The trend toward diversity of migrant destinations in the United States accelerated in the 1990s and more than one quarter of all Mexican migrants live in other than the four major states of settlement by 2004, or more than double the share in 1990. At the same time, the Mexican population in Los Angeles doubled to 1.5 million in 2000 and half of all Mexican migrants live in just 12 U.S. metropolitan areas. So dispersion to new states has gone hand in hand with a growing scale in the number of migrants who tend to concentrate in a rather few cities. Although there has been much discussion about a parallel dispersion of migrants leaving Mexico from new sending areas, we find regional origins are stable, but that some state-level evidence points at a shift. Shifting origins is thus more of a trend worth watching than putting on the same scale as the new dispersion of destinations. Likewise, there has been much speculation about the feminization of Mexican migration. However, we find at best that female migrants in the latter 1990s are somewhat less likely to participate in the northward flow while being somewhat more likely to settle in the U.S. than male migrants. The final trend that we investigate is that of migrants’ education which indicates, pace most assumptions, that Mexican migrants

²⁹ The U.S. provided special numbers for legal family reunification with legalized persons, as well as the so-called 245-I provisions of U.S. law which permitted additional unauthorized residents within the U.S. to petition for legal admission.

³⁰ Research also indicates that while NAFTA did not restrain potential migration, it also did not appear to stimulate it (Bean and Lowell 2004).

are disproportionately drawn from the better educated college and especially post-baccalaureate populations. While Mexican migrants represent a large population with low-skills relative to the U.S. population, migrants represent a large population with high-skills relative to the Mexican population.

While we review projections on the future of Mexican migration, we leave an elaboration of that discussion to a later chapter. The major governmental projections agree that migration will begin to taper off in the coming decade, but that trend is merely the result of assumptions, it is by no means a prediction and it is far from certain that it will occur. But the fact that trends in Mexican migration are responsive to economic conditions in Mexico and the United States suggests that future declines are quite possible. Indeed, most research finds that migration responds more to economic conditions in Mexico than have tended to trump conditions in the U.S. So as Mexican demographic growth slows, there is a real opportunity for home-based demand to create enough formal-sector jobs attractive to potential migrants. Of course, if the U.S. offers large-scale legalization to Mexican migrants that may well echo the past IRCA-legalization and generate follow-up migration, although it may induce some to restart a pattern of circular mobility. And if a large-scale guest worker program leading to residency is instituted that might also deepen employer demand for low-skilled labor and increasing migration of both a temporary and permanent nature.

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Appendix Table 1. Percent of Mexican Migrants to the United States by State of Origin

State	1987-1992	1992-1997	1995-2000	1997-2002
Guanajuato	8.8	11.2	10.5	15.1
Jalisco	12.0	14.0	11.8	10.7
Michoacán	15.0	6.3	9.6	10.3
SLP	2.8	5.5	3.9	5.6
Zacatecas	5.2	4.2	4.7	4.8
México	6.6	6.0	8.6	4.6
Oaxaca	2.3	3.5	2.0	4.3
Puebla	2.5	4.8	3.0	4.0
Hidalgo	1.4	2.5	3.8	3.8
Veracruz	1.0	2.3	3.8	3.6
Durango	4.6	4.9	2.7	3.2
Chihuahua	4.5	3.8	4.1	3.0
Guerrero	4.6	5.6	2.7	2.8
Sinaloa	2.9	2.1	2.1	2.4
Sonora	1.6	1.3	1.0	2.4
Nuevo León	0.4	3.0	3.7	2.1
Morelos	2.6	2.0	2.1	2.0
Tamaulipas	3.4	2.8	1.7	1.9
Chiapas	0.4	0.3	0.5	1.8
DF.	4.3	3.8	6.0	1.8
BCN	3.1	1.5	1.3	1.7
Querétaro	1.9	1.5	2.2	1.7
Nayarit	2.2	2.1	1.7	1.6
Coahuila	2.1	1.5	1.9	1.5
Aguascalientes	1.0	1.8	2.1	1.4
Tlaxcala	0.3	0.4	0.5	0.6
Colima	1.3	0.6	0.8	0.4
Tabasco	0.1	0.1	0.2	0.3
Yucatán	0.6	0.5	0.4	0.3
Campeche	0.1	0.1	0.1	0.2
BCS	0.2	0.1	0.3	0.1
Quintana Roo	0.1	0.2	0.3	0.1
Total	100.0	100.0	100.0	100.0

Source: Authors' tabulations of various microdata Mexican ENADID, 1997 AND 1997, Mexican Census 2000; ENE 2002.