Characteristics of Migrants: Mexicans in the United States

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Introduction

The objective of this chapter is to present a comprehensive statistical portrait of Mexicans in the United States, summarizing their demographic and socioeconomic characteristics and examining changes in these characteristics over time.[1]

The observed characteristics of migrants are a product of the selectivity of the migration process, reflecting behavioral mechanisms and the influence of personal, household, and societal variables on migration decisions and outcomes. They are the first determinants of international migrants' impacts on both origin and destination countries.

Migrant characteristics partly reflect the characteristics of the population-at-large from which migrants are drawn. For example, if migrants are drawn randomly from a population that becomes increasingly educated over time, the average education of migrants will increase; if randomly drawn from a population that is aging, the average age of migrants will increase, etc.

However, the process that selects people into and out of migration is not random. Forces of labor supply and demand at home and abroad shape the economic returns to skills and other characteristics, encouraging some people to migrate and others not to. Contacts with individuals at migrant destinations reduce both the economic and noneconomic costs of migrating, while increasing the benefits. The spread of "migration networks" may make migration a self-perpetuating process less selective of individual characteristics; as a result, the characteristics of migrants and nonmigrants may become more similar to each other over time. Studies document cases in which statistical differences between migrants and nonmigrants from specific locales in Mexico, which at one time were pronounced, have faded or disappeared. Economic changes in migrant-sending areas may profoundly influence migrant characteristics, e.g., by altering the returns to individuals' specific human capital characteristics in the United States relative to the place of origin or to migrant destinations in Mexico, or by reducing expected incomes in Mexico by a large enough margin to tip the scales in favor of migration for new groups of individuals with new sets of socioeconomic characteristics.

Just as the people who migrate tend to be different from those who do not, so, too, the characteristics of migrants in different migration statuses differ. Characteristics of short-term, temporary migrant workers tend to be different from those of more settled migrants in the United States. Among relatively settled migrants, the characteristics of naturalized citizens (arguably the most settled group) differ from those of noncitizens. Among legal immigrants, characteristics differ by visa type. In many cases, these differences in characteristics by migrant status are striking.

The migration process is dynamic: the forces selecting people into and out of migration change over time. The spread of migration networks, which make migration accessible to an increasingly broad and diverse population in Mexico, is but one example. Data from a variety of sources indicate that socioeconomic and demographic characteristics of migrants vary across migrant cohorts and at different stages of sending areas' migration histories. Migrants, themselves, may change as well—in terms of legal status, labor-market experience, migratory behavior, human capital, etc.

The changing characteristics of Mexico-to-U.S. migrants have important long-run implications for both the United States and Mexico. Changes in who migrates to the United States and who remains in Mexico, as well as in who settles and who eventually naturalizes in the United States and who—eventually or intermittently—returns to Mexico, have potentially far-reaching ramifications for the impacts of Mexican migration on U.S. labor markets and on economic development in Mexico.

The selectivity of migration, and thus migrant characteristics themselves, are inextricably linked to determinants of migration. For this reason alone, migration theory cannot be ignored if one hopes to understand migrant characteristics and

their changes over time. However, there are other compelling reasons not to carry out our statistical analysis in isolation of migration theory. Researchers' theoretical frameworks (and governments' policy priorities) shape the collection of data on migrant characteristics. They determine, for example, whether households in the U.S., households in Mexico, or migrants at the border will be the unit of analysis for data collection. In addition to *who* is surveyed, they also determine *what* information is collected. The U.S. Census, the U.S. Immigration and Naturalization Service, the National Agricultural Worker Survey (NAWS), the COLEF surveys, ENADID, and village surveys in Mexico all provide data on different Mexico-to-U.S. migrant subpopulations and on different variables, often with little overlap. Generalizing from these disparate data sources to construct statistical profiles of different migrant groups requires understanding the theoretical frameworks and policy concerns that "produced" the data. Although *theories* of migration are not the focus of this chapter, we nevertheless draw from theory, where appropriate, to interpret and compare our findings on migrant characteristics derived from different data sources.

We also undertake, wherever possible, comparisons between migrants and other groups as background for later chapters. Assessment of the determinants and consequences of migration requires comparing the characteristics of migrants to the characteristics of other major actors and groups. For example, a full assessment of the determinants and consequences of migration from Mexico to the United States would require not only description of the characteristics of Mexicans who reside in the United States but also comparisons with: (i) Mexicans who remain in Mexico; (ii) in-migrants to Mexico, especially those from the United States; (iii) Mexican out-migrants to countries other than the United States; (iv) nonmigrants in the United States; (v) out-migrants from the United States, especially out-migrants to Mexico; and (vi) in-migrants to the United States from countries other than Mexico.

Unfortunately, data constraints do not permit such detailed comparisons. No single data set from either side of the U.S.-Mexico border provides reliable information on all of the variables or comparison groups that are the focus of our research. Because of this, characteristics of Mexican migrants have to be pieced together from a number of data sources in the United States and Mexico. Data deficiencies sometimes compromise the reliability of estimates, and they put a premium on migration theory and on developing and using statistical techniques capable of addressing related estimation biases (as well as on developing new data collection initiatives).

Our analysis of migrant characteristics is based partly on a review of existing studies. However, it also draws heavily from original analysis using the most reliable data available in the United States and Mexico. Many of our findings are presented here for the first time. The U.S. data we use include U.S. Census data,

INS administrative data on legal immigrants and apprehended unauthorized migrants, preliminary data from the New Immigrant Survey (NIS) of legal immigrants admitted in 1996, agricultural-worker survey data, and data from the Colegio de la Frontera Norte (COLEF)/USC Los Angeles Project. The Mexican data sources include the Mexican government's 1992 National Survey of Demographic Indicators (ENADID), the COLEF Survey of Migration at the Northern Border (EMIF) and Zapata Canyon project, and household surveys conducted by researchers from Mexico and the United States, primarily in rural Mexican communities.

To date, little research has been conducted on the selectivity of international migration, and the research that has been carried out has focused primarily on "human capital" characteristics of migrants: schooling, skills, and demographic traits. We believe that an expanded set of characteristics is appropriate for this study, including characteristics of individual migrants (human capital, or migrant characteristics), of the families from which migrants come (household capital, or family characteristics), and of the migration process, itself ("migration capital," including migration experience of both the individual and the family of which he or she is part). All three sets of characteristics interact in complex ways to shape the impacts of migrants in their communities of origin and abroad as well as influencing future migration propensities.

Major Conclusions

Our major conclusions include the following:

First, the Mexico-born population in the United States is not homogeneous; it is comprised of many different behavioral and legal-status subgroups. Some migrants are short-term, temporary or "circular" (i.e., sojourners, whose habitual residence is in Mexico), while others are relatively long-term or settled (habitual residents of the United States). These largely behavioral categories map imperfectly onto migrant legal-status categories. For example, circular migrants include unauthorized (or undocumented) migrants, legal temporary agricultural (H-2A) workers, and other legal temporary residents, including workers with H-1 visas, students, and tourists. The settled Mexico-born population includes some legal temporary residents and unauthorized migrants who spend long periods of time in the United States, as well as legal permanent resident aliens, some of whom are naturalized citizens. Both these groups are diverse, ranging in skills from agricultural workers to Ph.D. scientists and symphony musicians.

Second, measured characteristics differ—in some cases markedly—not only among these different Mexican migrant subgroups, but also across data sources focusing on different groups (see Table 1).

Table 1
Measurement of Migrant's Legal Status in the United States: Selected Data Sets

Data Set	Naturalized Citizens	Legal Immigrants	Legal Nonimmigrants: Permitted To Work	Legal Nonimmigrants: Cannot Work	Deportable Migrants
A. Samples Drawn in the United States					
Census/CPS	■	■			
INS	■	■	formerly	formerly	formerly
LPS		■	formerly	formerly	■
LA	■			■	■
UC-EDD	■	■		■	■
NAWS		■	■	■	■
B. Samples Drawn in Mexico					
ENADID	■	■	■	■	■
EMIF	■	■	■	■	■
CañonZapata					■
Michoacán	■	■	■	■	
MMP	■	■	■		

NOTES: Subsets identified in the data are denoted by closed rectangles. Missing rectangle denotes the absence of persons in the data set currently in that legal status. The set of deportable migrants includes legal nonimmigrants who violate the terms of their visa and entrants without inspection. The "other Mexican household surveys" discussed in the text resemble ENADID in their information on legal status.

Most short-term, temporary or "circular" migrants are males (73 to 94%, depending on the data source), young (28 to 32 years of age), with low levels of schooling (typically between 5 and 8 years), and a disproportionately strong attachment to U.S. agricultural jobs (up to 53% of circular migrants are employed in agriculture). They have a very high labor force participation rate compared to other U.S. groups (81 to 89%) but low earnings (as little as $185 per week) and high poverty rates (more than one half of families in some circular migrant subgroups have incomes below the poverty line). Very few (as few as 7 percent) speak English well.

Circular migrants tend to be selected from the middle-to-lower ranges of Mexico's socioeconomic hierarchy. This selection process originated with the recruitment of low-skilled Mexican workers by U.S. employers for seasonal jobs, mostly in agriculture. It was facilitated by the long and historically porous border between Mexico and the United States, which put U.S. labor markets within reach of individuals with limited financial resources in Mexico; by an expanding demand for low-skilled migrant workers in both agricultural and nonagricultural sectors in the United States, particularly in the southwest; and by extensive "migration networks" connecting families throughout Mexico with low-skill U.S. jobs.

Characteristics of relatively settled migrants tend to look more like those of the U.S. population as a whole, even though differences between Mexican migrants and the total U.S. population, in many cases, remain significant. On average, compared with circular migrants, the settled-migrant population is more equally balanced between genders (55% male among all Mexico-born persons enumerated in the 1990 Census), slightly older (30 to 31 years of age) and better educated (yet with important differences across legal status and data source—35% of recent legal immigrants are high-school graduates and 15% are college graduates, compared with 26% and 6%, respectively, among recent entrants in the 1990 Census). Settled migrants have a slightly lower labor force participation rate, again varying by visa type and data source, with 85% of the men in the 1990 Census reporting labor force participation and 90% of recent legal immigrant men reporting U.S. employment, and are much less attached to agricultural jobs (4-13 percent employed in agriculture). On balance, relatively settled migrants have higher earnings and higher family incomes than circular migrants (among recent legal immigrants, U.S. annual earnings averaged $19,000 for men and $13,600 for women). However, family incomes are below the median for all U.S. households ($27,000 in the 1990 Census, compared with $38,000 for all U.S. households), and 27 percent lived below the poverty line in 1990 (the poverty rate for all U.S. households was 13%). Between 10 and 29 percent speak English well; among recent legal immigrants, 51% speak English at least "average or so-so."

Among Census-enumerated persons, those who report that they are naturalized (it is known that naturalization is seriously overstated in the Census) tend to look most like the total U.S. population with regard to their socio-demographic characteristics, labor-market experience, and incomes. Just over half (54%) are males, their average age (42 years) is higher than that of the all Americans (34 years), and 32 to 47% have a high school degree or more. More than 40% speak English well. Their average household incomes are $28,000 to $29,000, compared with $38,000 to $39,000 for all U.S. households. One in four naturalization-reporting Mexican migrants lived in households with income below the poverty line in 1990, a slightly lower percentage than for all Mexican migrants.

Both circular and settled migrant groups tend to be dominated by individuals with low levels of skills, relative both to the U.S. population as a whole and to the nonmigrant population in Mexico. However, they contain some highly educated individuals. For example, legal temporary residents (e.g, individuals with H-1 and J-1 visas) are drawn largely from the upper tiers of the Mexican skill ladder. (Legal temporary agricultural (H-2A) workers are the exception.) Some of these individuals are circular migrants. Others are relatively long-term U.S. residents. The number of highly skilled Mexican migrants is small relative both to the number of skilled people in the United States and to the total Mexico-to-U.S. migrant flow; however, it is significant relative to the skilled population in Mexico. Highly educated Mexico-born persons in the United States include Mexicans pursuing university degrees abroad. The subsequent migratory behavior of these individuals is of obvious importance to the two countries and deserving of future research.

There is a marked difference between the educational attainment of Mexico-born persons enumerated in the U.S. 1990 Census reporting entry in 1987 to 1990 and that of recent legal immigrants born in Mexico. As already noted, 35% of recent legal immigrants are high-school graduates compared to 25.7% of the Census-enumerated, and 14.5% of recent legal immigrants are college graduates compared to 6.3% of the Census-enumerated. Similarly, while 28% of the Census-enumerated have completed less than five years of schooling, the comparable figure among recent legal immigrants is 21%. At the upper end of the educational spectrum, while only 3% of the Census-enumerated have postgraduate schooling, 9% of recent legal immigrants do—exceeding the figure for native-born (7%).

Third, characteristics of Mexican migrants change over time. Some of these changes appear to be long term. For example, there is evidence that schooling levels of Mexican migrants are increasing over time, and migrants' origins and destinations are increasingly urban. Long-term changes in migrant characteristics partly reflect changes in the population at large in Mexico from which migrants are drawn, but they may also reflect changes in the selectivity of migration over time. Other changes are short-term, cyclical (i.e., related to recessions and expansions)

or discrete, resulting from exogenous shocks like droughts or floods. For example, one study found that characteristics of migrants change with U.S. business cycles, becoming more feminine, urban, and schooled in periods of economic expansion. Still other changes in migrant characteristics may be law- or policy-induced, for example, the large-scale legalization of migrants under IRCA. There are some indications that migration is becoming less selective and the characteristics of migrants more heterogeneous over time. This could be due to the operation of migration networks, buttressed by the family reunification provisions of U.S. immigration law, which reduce migration costs and risks.

The rest of this chapter is organized as follows: We begin in "The Populations of Interest" by discussing alternative definitions of the populations of interest, highlighting legal and behavioral definitions and noting the lack of easy correspondence between them. Next, in "Theoretical Frameworks, Policy Priorities, and Data" we briefly review the theoretical frameworks that undergird the studies and data from which our work draws. "Data Sources—Deficiences and Constraints" describes data sources, noting their strengths and weaknesses as well as their correspondence with different definitions of the populations of interest; we distinguish between origin-country and destination-country data sources. The heart of this chapter is "Measured Characteristics of Mexican Migrants in the United States," in which we present the characteristics of migrants. This chapter attempts to provide a concise statement of the population of interest, theoretical frameworks, data sources, and major findings. Details appear in the extensive set of research materials in Volume 2, pages 695 to 867, which are referred to frequently in this text.

The Populations of Interest

The first task is to define the populations of interest. What do we mean when we say, "Mexicans in the United States"?

The population whose characteristics are the focus of this study may be defined in several ways, and migrant characteristics may differ across differently-defined populations. The different definitions may be classified into two main kinds, legal and behavioral.

Legal Definitions

Pertinent identifiers include: country of citizenship (both at birth and currently); country of birth; country of last permanent residence; visa history in destination country. Measured characteristics may differ across populations defined by one or another legal criterion. For example, age, sex, and occupation may differ between Mexico-born and Mexico-nationals in the United States, or between

Mexico-born legal permanent residents of the United States and all Mexico-born in the United States.

It is obvious that in studying migrants and their descendants, a key classifying variable is citizenship status at birth. Accordingly, in Volume 2, pages 695 to 698. We review briefly the process of acquiring citizenship and/or nationality at birth in the two countries.

Behavioral Definitions

Pertinent migration types include: temporary migration in youth, long-term seasonal or "circular" migration, permanent residential migration, retiree migration. Moreover, populations may be defined by mother tongue rather than by nativity or citizenship. Again, measured characteristics may differ across migration streams that are differently defined. For example, naturalization patterns may differ between permanent prime-age migrants and retiree migrants.

Interrelation between Legal and Behavioral Definitions

There is no simple correspondence between legal and behavioral definitions, and, indeed, observed behavior may differ from the behavior presumed to be associated with particular legal statuses. For example, legal permanent resident aliens of the United States may behave like temporary or like long-term seasonal migrants, while legal nonimmigrants of the United States may behave like long-term permanent migrants, progressing through a long series of temporary visas.

Theoretical Frameworks, Policy Priorities, and Data

The data available to construct statistical profiles of migrants are the product of surveys designed for specific research and policy purposes. Theory and policy concerns determine the population(s) from which survey samples are drawn. Because of this, they also determine the migrant populations to which the findings of research using these data may be generalized. Theoretical frameworks and their implications for the selectivity of international labor migration and characteristics of Mexico-to-U.S. Migrants are the subject in Volume 2, pages 699 to 708. We briefly outline them here.

Migration research highlights five interrelated themes. First, migration decisions and migrants' activities in the destination country are shaped by an array of factors including the economic and legal conditions at both origin and destination, migrants' information about those conditions, the direct costs of moving, and characteristics

of migrants and their households. Second, migration is selective, reflecting differences in information and in the costs and benefits from migration. Third, migration networks play a key part, as they not only provide information but also affect the benefits and costs of moving. Fourth, migration is a dynamic process, unfolding over time and changing over time as the basic factors and the networks and the ensuing selectivities change over time. Fifth, much Mexico-to-U.S. migration is circular.

The village surveys from which we draw were guided by a household model in which family members allocate their labor time across destinations in such a way as to maximize the household's predicted or expected well-being (see Volume 2, pages 699 to 706). This view of migration may be viewed as a household version of the view enshrined in the Latin saying, *Ubi bene ibi patria*, "Where one is well off, there is one's country." However, it raises the possibility—indeed likelihood—of circular migration and of an on-going involvement of migrants in the affairs of their households of origin in Mexico. In order to raise income, insure against income risks, or gain access to scarce investment funds, households in Mexico participate in migration by sending one or more family members abroad. Often this migration is initially conceived by both household and migrant as temporary and for specific ends. However, there is a tendency for it to become more and more permanent as the migrants' economic and social (i.e., opportunity) costs of returning to Mexico increase and as migrants create new, often mixed-legal-status, households in the United States. This view of migration leads to a survey design focusing on "transnational households" in Mexico and gathering data on all family members associated with each selected household, regardless of whether they are in Mexico or the United States at the time of the survey. It sometimes requires combining village household surveys in Mexico with tracer surveys of migrants in the United States.

Well-being is shaped by many factors: social, economic, religious, political. Moreover, both the household's and potential migrant's future well-being—with versus without migration—are shaped by household and personal endowments and characteristics as well as by the ability to predict future well-being. The benefits from migration will differ across individuals, households, and countries, because of differences in migration costs, differences in the amount and type of benefits and differences in the availability of information. In this way, certain types of individuals, from certain types of households in Mexico, are selected into and out of international migration.

Circumstances shaping the costs and risks of migrating include distance and laws governing exit and entry. Important factors increasing benefits and mitigating costs and risks include migration networks, information, experience, and the availability of potential sponsors—relatives or employers.

The migration process is dynamic because many of the factors shift over time. For example, transportation costs may change, laws may change, patterns of rewards to skills may change. The evolution of economies in Mexico and the U.S. may alter the returns to particular skills (e.g., schooling in Mexico) or the mix of skills or worker characteristics demanded by employers of migrants (schooling, gender, etc.). Moreover, individuals and households may alter their own characteristics in order to enhance the probability of success in a migration strategy, investing in migration networks or schooling, developing fictive-kin (*compradazgo*) relations with village families who have relatives in the U.S., taking language courses, or gravitating to social clubs where potential sponsors may be found.

Viewed from a macro perspective, migration may be characterized as a set of localized migration streams, each stream possessing a history that can be traced to pioneer migrants and in which stages or phases can be discerned. Other things being the same, pioneer migrants tend to be more intensely positively selected than those who follow them. Because at any point in time different migration streams may be in different phases, migrant characteristics may differ across migration streams and hence across studies that target different streams. To complicate matters further, a large but unknown part of global migration flows is circular. Migrants often move back and forth across the Mexico-U.S. border as members of "transnational migrant circuits."

Most U.S. data sources (the U.S. Census of Population, CPS, and INS administrative records) are not designed to take into account the circularity of migration flows. The unit of analysis of the Census and CPS is dwellings in the United States, and the universe of individuals included in the Census consists of all who regularly reside in those dwellings. The Census lacks information on characteristics particularly relevant to the study of migration, such as legal status and visa type. It has other shortcomings for analyzing immigrant characteristics, as well, including undercounts of immigrants, particularly unauthorized ones (see the following "Data Sources—Deficiencies and Constraints").

In Mexico, government surveys including the ENADID have similar drawbacks, focusing on fixed households in Mexico and excluding many migrants in the United States who may actively participate in those households. They are guided by a definition of households based on co-residence or propinquity, a criterion that has been questioned in recent migration literature.

A theoretical framework of migration circularity underlies the three Colegio de la Frontera Norte (COLEF) surveys, whose focus is on measuring both northward and southward flows of migrants (see Volume 2, pages 702 tp 708). Circularity is understood as a social process involving interactions of people who orient their migration behavior toward an international labor market. It is a theoretical construct (not a descriptive category) that applies primarily to

international labor migration and not necessarily to all migrants. It is intended to depict the dynamics of social processes of interactions (including the subjective process of learning and deciding about whether or not to migrate internationally) taking place in the structure of an "imperfect labor market," in which wages are shaped by power asymmetries. In this market, labor demand is personified by employers of the host country who interact with a supply personified by migrant workers from a different country.

Circularity suggests a purposeful migratory movement related to the intersubjective meaning of work shared by the main actors (employers and migrant workers) in the complex structure of an international labor market. It is a dynamic result of the interplay between supply and demand in that labor market. This interplay is the "force" that makes people move back and forth across international boundaries. Migratory flows are conceived here as operationalizations of the processes of circularity of international migrations for purposes of empirical research. Migratory flows are understood as being associated in two dimensions, one of time and the other of space. The time dimension is operationalized by (a) the notion of a "migratory career," understood as the time lapsing from the first migration for the purpose of obtaining a job in the other country, to the time one drops out of the circulatory process on a permanent basis, and (b) the notion of a "segment" of that process, equivalent to what is referred to in the literature as "temporary migration."

From such an understanding of circularity comes the use of "sampling of mobile populations," adapted from bio-statistics, which focuses on patterns of empirically defined "migratory flows" (spacial dimension) and empirically defined timing of such flows (time dimension). The same scientific principles on which volumes of migratory species, including blood cells, are measured by biologists, are used in the COLEF studies to measure the socio-economic characteristics of Mexican migrants to the United States.

Similarly, a hallmark of the research design of the New Immigrant Survey is that new legal immigrants, once drawn randomly into the sample, will be followed over time wherever they reside, as will members of their families. Indeed, initial interviews with 28 sampled immigrants were conducted in a total of 20 countries, including Mexico.

Data Sources—Deficiencies and Constraints

Accurate and comprehensive description requires longitudinal information on probability samples of migrants, starting with preparations for the first visit and continuing to the end of life, and including family, educational, and occupational histories as well as visa history. Moreover, to understand the decision to migrate,

data on nonmigrants are also required. Finally, to understand the long-term consequences of migration, data on the descendants of migrants are also necessary.

The data needed to construct a conclusive and comprehensive portrait of migrants between Mexico and the United States do not exist. This report presents the characteristics of migrants as they appear in a variety of data sources. To the extent that these different data sources capture distinct populations—for example, INS administrative data on immigrants cover all persons granted permanent resident status in a given year, whereas U.S. census data cover all persons, of any visa status (adding nonimmigrants and undocumented migrants to legal immigrants) residing in the United States as of a given day and captured by Census enumerators—the portrait may differ by data source.

We distinguish between data based on samples drawn in Mexico and samples drawn in the United States. We shall refer to the former as Mexico data sources and to the latter as U.S. data sources. Notice that we do not say that the data are "collected" in the given country, for, although in most cases the data are collected in the same country in which the sample was drawn, in some research designs, as noted above, migrants are interviewed in both countries, as well as in other countries to which they may move.

Mexico Data Sources

We rely on five key Mexico data sources: the INEGI/ENADID, COLEF's EMIF and Zapata Canyon project surveys, and regional (mostly community) household surveys. Short descriptions are presented here; fuller detail is presented in Volume 2, pages 709 to 735.

INEGI/ENADID

The National Survey of Demographic Indicators (Encuesta Nacional de Indicadores Demográficos, or ENADID), carried out in 1992, provides a basis both for estimating selected migrant characteristics and for comparing characteristics of migrants with those of nonmigrants.[2] It offers advantages, particularly with regard to sample design and methodology, over its precursor, the 1978-79 National Survey of Emigration to the Northern Border and to the United States (Encuesta Nacional de Emigración a la Frontera Norte del País y a los Estados Unidos, or ENEFNEU) by the Centro Nacional de Información y Estadísticas del Trabajo of the Mexican Secretaría del Trabajo y Previsión Social (CENIET, 1978; also see Ranney and Kossoudji, 1983). The ENADID survey's coverage includes both return migrants and individuals who were in the U.S. at the time of the survey. Return migrants responded directly to questions about their migration activities. Information on

sociodemographic characteristics of migrants who were in the U.S. at the time of the survey was provided by other members of the migrants' families in Mexico. Information provided by return migrants includes migration histories, making it possible to analyze changes in some migrant characteristics and in the migration environment over time. The survey also provides information on the domestic units from which migrants originate in Mexico; households in Mexico are the units of analysis for the survey.

The ENADID survey has three chief drawbacks. First, because it relies upon family members in Mexico to report on migrants who are in the U.S. at the time of the survey, information on migrants is limited. The ENADID survey probably is a good source of information on basic sociodemographic information of migrants, but not on specifics of migrants' labor-market experience in the United States, and it misses migrants not considered to be members of households in the sample. Although in theory its universe includes migrants in the United States, in practice it appears that few individuals who were in the United States at the time of the survey were enumerated; coverage included only individuals who had migrated to the United States in the previous five years; and, for those who were enumerated, data were gathered only on a few sociodemographic characteristics. Second, the survey misses entire domestic units that have migrated. If characteristics of individuals in these units differ from characteristics of individuals whose families remain in Mexico, estimates from the ENADID survey will be biased. It is possible, for example, that families with few assets and income possibilities in Mexico are more likely to migrate as complete family units than families having a stronger financial footing in Mexico. The third major drawback of the ENADID survey is that, while rich in demographic information, it lacks the detailed economic information, available in some community surveys (see below), to test for the selectivity of migration or migration impacts. For example, family assets (e.g., landholdings), income, and remittances from internal migrants and Mexico-to-U.S. migrants are not available.

EMIF and the Zapata Canyon Project

The Survey of Migration at the Northern Border (Encuesta sobre Migración en la Frontera Norte, or EMIF), attempts to capture the characteristics of distinct flows of Mexican labor migrants. The theory and methodology for this survey was developed by a team at the Colegio de la Frontera Norte (COLEF) headed by Jorge Bustamante, in collaboration with Jorge Santibáñez y Rodolfo Corona. Its objective is to study the circularity of migration using a method of sampling mobile populations. Labor migrants are identified on the basis of their migratory behavior, that is, their displacement from a city or community of origin to another city or

community for the purpose of working. This is a continuous survey, making it possible to capture variations in total migration flows and in the participation of different population subgroups in migration across the Mexico-U.S. border at different times of the year. Individuals leaving Mexico to work in the U.S. as well as return migrants are surveyed at carefully selected points at or near the border. The survey has been carried out in two stages, the first, from 1993 to 1994, and the second, from 1994 to 1995.[3] The chief drawback of the EMIF is that it focuses on labor migration; non-labor migrants are not enumerated. EMIF data on circular migrants are available for 1993-94 and 1994-95. Unless otherwise noted, findings reported here are from the 1993-94 data set.

While the ENADID survey includes all types of migrants, independent of duration or purpose for migrating to the U.S., the EMIF provides information only on individuals who have worked in the United States or who reveal an interest in migrating to the U.S. for purposes of working. The two surveys also have very different methodologies. The ENADID survey targets individuals at their place of normal residence in Mexico. The EMIF focuses on migrant flows, that is, persons in transit to, or returning from, the U.S. EMIF makes it possible to estimate the volume of migrant flows. In this respect, it is unique.

The precursor to EMIF was the Zapata Canyon project, also conducted by COLEF. During several decades, the largest south-north flow of undocumented migrants across the border was in the Zapata Canyon area, a plateau in U.S. territory with access from the Colonia Libertad in Tijuana. Groups of undocumented workers would gather here, waiting to cross the border under cover of darkness. Researchers systematically observed undocumented migrant flows and recorded them using photographic techniques, here as well as at several other points along the Mexico-U.S. border. After several pilot tests, in September 1987 El Colef researchers began surveying randomly chosen undocumented migrants about to cross the border, using quick interviews based on small questionnaires (3 minutes) in the towns of Tijuana, Mexicali, Ciudad Juárez, Nuevo Laredo and Matamoros, on Fridays, Saturdays and Sundays of every week, from September 1987 to the present. Some findings from this project are presented below. This survey's main drawback is also its main strength: It includes only undocumented migrants, providing valuable data on this difficult-to-survey, clandestine population. It also offers a time-series view not available from most other data sources.

Household and Community Surveys in Mexico

Formal household surveys, usually encompassing one or more small geographic areas, have been the basis for most recent research on characteristics of Mexico-to-U.S. migrants and their evolution over time. Most of these surveys center on villages

or towns in rural Mexico. They have been carried out by researchers in a range of social science disciplines, including sociology, anthropology, and economics. Whereas geographic coverage and sample size are the strengths of the nationally representative data sets discussed above, depth and detail are the great advantage of community survey data.

Household surveys offer potentially the most reliable basis for estimating characteristics of Mexico-to-U.S. migrants from the places covered by these surveys. A good survey design involves random sampling of village households (typically, dwellings) and a survey instrument that gathers information on all close relatives of those living in the household—whether currently in Mexico or in the United States. Even if an entire family moves to the United States (which is rare), data from other households (e.g., containing parents or siblings) may be used to ascertain a person's characteristics if comprehensive lists of family members are assembled as part of the survey. Data from a well-designed village survey should:

- Make it possible to construct a detailed portrait of the characteristics of migrants and of the households and communities from which they come
- Provide a basis to compare those who migrate to the United States with those who do not (the latter include nonmigrants and internal migrants)
- Provide a means to correct for sample selection bias when estimating, for example, migrant earnings, remittances, and net income contributions to village household incomes.

Surveys of small numbers of households (50-100 households per community are typical of community surveys in Mexico) are relatively easy to reproduce. Because of this, community household surveys offer some of the most reliable—and in some cases, the only—basis for analyzing changes in migrant characteristics over time.

The major disadvantage of using household surveys to estimate migrant characteristics is that it is not obvious how to generalize from surveys of small places (e.g., villages, rural towns or urban neighborhoods) to the migrant population at large. The best bet for individual researchers at this time is to replicate surveys in many places situated in diverse settings, and to compare findings across surveys. This approach has been adopted by several sociological and economic researchers in Mexico. Unfortunately, most of their research has focused on states that traditionally have sent large numbers of migrants to the United States. Because of this, the communities canvassed by these surveys tend to have a high prevalence of migration. Estimates of migrant characteristics from these data may represent characteristics of migrants from "old" migrant-sending areas (e.g., Michoacán) better than from "new" ones (e.g., Oaxaca) if the types of individuals who are

selected into migration change over time. Community survey questionnaires reflect specific research interests of those who carry out the surveys. The breadth and detail of data vary from survey to survey.

The alternative to replicating surveys of places in Mexico is to carry out more geographically expansive and coordinated surveys (e.g., the ENADID study) or to conduct surveys of migrants at points of entry and exit between the two countries (EMIF). Not only do these surveys sample different subpopulations of migrants, but they also illustrate the difficulties inherent in obtaining a very high level of detail on a large number of variables in surveys covering very large geographic areas and in which expanding the survey questionnaire comes at a high cost (ENADID) or simply is impractical for a universe in transit (EMIF). As a result, to date there is nothing approaching a national Mexican data set from which to reliably estimate the array of Mexico-to-U.S. migrant characteristics in which we are interested, analyze the selectivity of Mexico-to-U.S. migration, or assess impacts in Mexico or the United States. The level of detail required to address many of the questions with which our research is concerned can be found only in data sets covering a few villages or towns.

The two major community-focused surveys we utilize are from the Mexican Migration Project (Durand and Massey) and the Michoacán Project (Fletcher, Orlove, and Taylor). The Mexican Migration Project provides cross-sectional data from random samples of households surveyed in 1982-83 and 1987-91 in 19 communities in the Mexican states of Jalisco, Michoacán, Guanajuato, and Nayarit, areas that have traditionally sent large numbers of migrants to the United States. Within each community, 100-200 households were randomly selected and interviewed, resulting in a total sample size of 3,400 households across 19 communities. Detailed socio-demographic data were gathered, together with migration life histories.

The Michoacán project provides time-series data on 30 households from each of two Michoacán communities over three different years (1982, 1988, and 1992), together with cross-sectional data on 200 households in four communities (1,820 individuals) in 1992. The focus of this survey was more economic (and somewhat less demographic and qualitative) than the Durand-Massey survey: The survey provides detailed data on incomes from all sources, the allocation of family time across all income-producing activities, including migration, as well as sociodemographic characteristics of all family members (whether present or not at the time of the survey) and household assets. The Mexico Migration Project and Michoacán survey data sets have been the source of information for most of the statistical studies of Mexico-to-U.S. migration and its impacts in rural Mexico that have appeared in major economic, sociological, and demographic journals over the past decade.

U.S. Data Sources

We rely on four main U.S.-side data sources: (i) the decennial Censuses and the Current Population Surveys, including microdata as well as published tabulations (such as the historical time series published in *Historical Statistics of the United States*); (ii) information on legal immigrants, including official government information (microdata compiled by the U.S. Immigration and Naturalization Service (INS), tabulations published by the INS in its *Annual Report* (published 1943 to 1977) and the successor *Statistical Yearbook* (published since 1978), and tabulations published by the U.S. Department of State in its annual *Report of the Visa Office*), a special microdata sample assembled from INS data by the General Accounting Office (GAO), and preliminary data from the New Immigrant Survey; (iii) farmworker survey data, and (iv) information from the COLEF/USC Los Angeles Project. Brief summaries are presented here; fuller detail is provided in Volume 2, pages 735 to 745.

Foreign-Born in the Decennial Censuses and the Current Population Surveys of the United States

The U.S. decennial censuses and the Current Population Surveys (CPS) are among the major sources of data used by researchers to study the characteristics of migrants. Public-use microdata files are available for the Censuses of 1900, 1910, and 1940 through 1990.

Data drawn from the decennial Censuses and the Current Population Surveys of the United States share several strengths and weaknesses. The major strength is the richness of information on the foreign-born, including socioeconomic and demographic information such as schooling, labor force participation, occupation, earnings, and knowledge of English. Additionally, the censuses have large sample size for the migration-relevant characteristics, enabling examination of relatively small subgroups. The principal shortcomings of these data are their cross-sectional nature and the absence of information on the migrant's legal status. Cross-sectional data are vulnerable to biases arising from emigration selectivity as well as from the confounding of cohort and experience effects. With respect to visa status, the only information available on the foreign-born is whether they are naturalized; thus, we cannot distinguish between the occupational and other behavior of immigrants and that of legal nonimmigrants (with and without permission to work) and undocumented (or deportable) migrants. Moreover, Census information on naturalization is problematic. The Census also suffers from problems related to undercounts of immigrants, raising questions about differences in characteristics between immigrants enumerated in the Census and CPS and those missed.

Legal Immigrant Samples Based on Administrative Records of the INS

Samples based on administrative records of the INS constitute the major source of information about legal immigrants. These data are of two main types: (i) administrative records covering new legal immigrants and new naturalized citizens; and (ii) surveys of samples drawn from INS records.

INS Administrative Data.

Data collected by the INS as part of its administrative work provide an important complement to census data. The strengths and weaknesses of INS data are also complementary to those of census data. The principal strength is the rich detail on legal status, coupled with information on country of birth, country of last residence, country of chargeability (for immigrants holding numerically restricted visas), and country of citizenship. The principal weakness is the absence of information on schooling, earnings, and other pertinent socioeconomic variables.

In this report we utilize microdata from three annual cohorts of new permanent resident aliens (FY 1977, 1982, and 1994), two of which (FY 1977 and 1982) are matched to subsequent naturalization data, and from a data set compiled by the General Accounting Office which provides information on the sponsors of new immigrants admitted in FY 1985 as the spouses, parents, and children of U.S. citizens. As well, we utilize time series from data published in the INS annual reports.

INS data on legal immigrants include, for the subset who is adjusting status from a nonimmigrant status, the type of nonimmigrant visa and the year of its inception. As a supplement to this information, it would be useful to have information about the larger population of legal temporary residents. At any given time, an unknown number of Mexico-born persons are in the United States as temporary visitors. The wide range of available visa types covers a variety of permissible durations of stay and includes both visas that proscribe employment and visas for the express purpose of employment. It would be useful to have a time series of the number of persons holding such visas. Unfortunately, INS data record arrivals rather than persons, and "nonimmigrants in several classes of admission, especially students, intracompany transferees, and visitors for business, often enter (and leave) many times in any given year" (INS 1994 Statistical Yearbook, p. 101). Thus, for example, while the 1994 INS Statistical Yearbook reports 14,773 arrivals of Mexico-born persons holding student visas, that number is an upper bound, and the true but unknown number may be considerably smaller.

Surveys of Samples Based on INS Administrative Data

The principal weakness of INS administrative data—the lack of information on schooling, earnings, and other variables—can be overcome by collecting that information from individuals randomly selected from the administrative data. Such a design loses none of the strengths of designs based on INS administrative record, overcomes the deficiencies, and, when embedded in a longitudinal data collection framework, overcomes as well the problems associated with cross-sectional data, such as emigration selectivity and confounding of cohort and experience effects.

In this report we draw on a special study carried out by the GAO on the immediate-relative immigrants of FY 1985 and on two main INS-based sample surveys. These are the special two-wave survey of the IRCA legalized population, LPS-1 and LPS-2, and the baseline interview data from the New Immigrant Survey Pilot Study.

GAO Study

As was noted above, INS data do not include information on an immigrant's sponsor. The General Accounting Office assembled a microdata set containing information on the U.S. citizen sponsors of a probability sample of immediate relatives who became permanent resident aliens in FY 1985. The GAO data include information on whether the sponsor was him/herself an immigrant and on his/her country of birth. If the sponsor was an immigrant, then information is also provided on the date of admission to immigrant status and the date of naturalization. The data thus make it possible to distinguish not only between birth-citizens and naturalized citizens but also, within birth-citizens, between those born in the United States and those born abroad to U.S. citizen parents.

Legalized Population Surveys

The Legalized Population Surveys, LPS-1 and LPS-2, represent two rounds of a longitudinal survey of a sample of persons legalized under Section 245A of the 1986 Immigration Reform and Control Act. These are persons who had lived in the United States continuously since January 1, 1982, had applied to the INS for legalization, and had been granted legalization in the first phase of the IRCA program (i.e., had been granted legal temporary resident status). During the first round, carried out in February to June of 1989, a total of 6,193 persons were interviewed. The second round selected for interview a subset of the initial interviewees; a requirement for participation in the second round was successful admission to legal permanent resident status. Thus, the population covered by LPS data represent a

subset of unauthorized migrants who were in the United States in 1989. It is not necessarily representative of the entire unauthorized migrant population either before or after 1982. Nevertheless, the Mexican subset of the LPS sample provides an important complement to other data sources to estimate characteristics of Mexican migrants, and it includes some variables (e.g., on remittance behavior) not available in other data sets.

NIS Pilot Study

To improve the data base on immigrants, a program of comprehensive, multicohort, longitudinal surveys of new legal immigrants to the United States based on probability samples of INS records was recently developed. This program—the New Immigrant Survey—is designed to monitor changes across cohorts, with new samples drawn periodically, and to monitor adaptation over time, interviewing sample members at regular intervals over the life cycle and also obtaining information about and from their children. To test the design, and in particular to assess the cost-effectiveness of alternative methods of locating and tracking immigrants—with the aim of maximizing both initial and longitudinal response rates—a Pilot Study is being carried out. The Pilot Study includes a baseline interview and follow-up interviews over the course of a year. The sample is a probability sample drawn from among the set of persons who became new permanent resident aliens during July and August of 1996. In this report we draw on preliminary results from the baseline interview of the Pilot Study, which collected information on schooling, English language skill, labor force participation, and earnings both in the United States and abroad.

Farmworker Survey Data

Almost two thirds of all seasonal agricultural service (SAS) workers are foreign born, and over two-thirds are of Hispanic origin. In California, 92 percent of SAS workers are foreign born, and 80 percent are from Mexico (US Department of Labor, 1993). Because of this, farmworker surveys are an important source of data on Mexican migrants, especially undocumented migrants. Year of entry in U.S. Census data has been used as a proxy for legal status in some research on Mexican migrant impacts and labor-market performance in the U.S. (e.g., Bean, Lowell and Taylor, 1988). However, direct estimates of characteristics of unauthorized Mexican migrants are complicated by a lack of data. Besides INS border apprehension data, U.S. data to estimate characteristics of undocumented migrants in the United States have come primarily from farmworker surveys. Because farmworker surveys sample both legal and undocumented migrants and attempt to ascertain the legal status of

migrants, they provide a potentially reliable source of data to estimate the characteristics and labor-market performance of these two groups and a basis for comparison with native workers (Mines and Martin, 1986; Taylor and Espenshade, 1987; Taylor, 1992a).

The UC-EDD Survey of California Farmworkers was carried out by the University of California, Davis (UC) and the State of California Employment Development Department (EDD) in August 1983. The usable sample includes 554 male farmworkers in 37 counties; workers in all crops and production-related activities were interviewed in each survey area. The survey was designed to obtain as representative a statewide sample of farmworkers as possible, given the well-documented difficulties inherent in studying this population. The data provide information on farmworker human capital and other sociodemographic characteristics, including immigration status and country of origin; on the type of work and commodity in which farmworkers were employed at the time of the interview; and on farmworker earnings. Just over 80 percent of all farmworkers in the survey were Mexican-born, and 29 percent were undocumented.

The National Agricultural Workers Survey (NAWS) was carried out in response to the legislative requirement under IRCA that the Secretaries of Agriculture and Labor determine annually if there is a shortage of Seasonal Agricultural Service (SAS) workers. The NAWS collects comprehensive job history information on SAS workers to estimate fluctuations in the labor supply. It also gathers sociodemographic and earnings data, similar in most respects to the UC-EDD survey. Only farm workers employed in SAS labor are interviewed for the NAWS. More than 2,000 such workers were interviewed in fiscal year 1990.

The main concerns surrounding the research use of farmworker survey data have concentrated on difficulties in sampling a mobile and in many cases illegal population of farmworkers. This raises questions especially about the self-selectivity of interviewees and reliability of information provided by respondents about their immigration status. If undocumented migrants misrepresent themselves as legal immigrants in these surveys, this will tend to reduce estimated differences between legal and undocumented migrants in terms of socioeconomic characteristics and labor market impacts and performance. Despite this limitation, studies using farmworker survey data reveal significant differences between the two Mexican migrant groups.

The second major limitation of farmworker survey data is that they are sector specific. Although they may provide a reliable means to sketch a statistical portrait of Mexican migrants in agricultural labor markets, they are not generalizable to the Mexican migrant population outside of agriculture, because characteristics and labor market performance of Mexican migrants selected into farm work differ from those of Mexican migrants in other sectors. This limitation is compensated for partly by

the fact that agriculture serves as a traditional port of entry for many new Mexican migrants, and as such, it offers a window into changing characteristics of what probably is the most disadvantaged segment of the Mexican migrant population in the U.S. Although there are other immigrant- and unauthorized-migrant-intensive sectors in the U.S., no data collection effort in those sectors approaches the scale and rigor of farmworker surveys.

A third unfortunate limitation is that the most recent comprehensive data on Mexican immigrant farmworkers in the U.S., the NAWS, have not been made available for public use—all studies using these data have been carried out either in-house, at the Department of Labor, or else by a small group of non-DOL researchers authorized to use the data for research purposes. The DOL would not make NAWS data available to us for this project. Because of this, most of our information on characteristics of Mexican-migrant farmworkers comes from the 1985 UC-EDD Farmworker survey.

The Los Angeles Survey (COLEF)

The Mexican Migrant Survey was undertaken jointly by COLEF and a team of researchers from the University of Southern California (USC). It's design is based on the same methodology of "sampling of mobile populations" followed in EMIF. Ethnographic field work helped identify four kinds of places through which internal streams of migrants usually flow within the city of Los Angeles: a) shopping centers within the Los Angeles SMSA (Standard Metropolitan Statistical Area) where the highest percentages of people of Mexican origin are found, b) soccer fields, c) food wagons near work centers where Mexican migrant workers are concentrated, and d) "quadrants," places where migrant workers gather, generally at specified street corners, seeking day work. Interviewers were sent to a randomly selected sample of places and food wagons, where they surveyed randomly chosen migrants.

Towards a Typology of Data Sources

As the foregoing description of data sources suggests, the data sources we use cover many different subsets of Mexico-born persons in the United States. Table 1 provides a representation of the types of migrants, by legal status, that can be identified in our data sources. The data sources are grouped by the country where the sample was drawn. The table identifies the major types of foreign-born persons—naturalized citizens, legal immigrants, legal nonimmigrants with permission to work, legal nonimmigrants without permission to work, and deportable migrants (which includes legal nonimmigrants who violate the terms

Table 2
Characteristics of U.S.-born Immigrant and Unauthorized Immigrant and Farm Workers (1985) UC-EDD Survey Data

Variable	Sample Mean			
	Full Sample	U.S. Born	Mexican Immigrants	Unauthorized Immigrants
Skill (1=skilled job)	0.10	0.17	0.10	0.04
Sex (1=male)	0.75	0.83	0.75	0.83
Foreign-born (1=foreign born)	0.98	0.00	1.00	0.99
Illegal immigrant (1=illegal)	0.26	0.17	0.27	1.00
Education (yrs.)	4.86	6.11	4.83	4.22
U.S.farm experience (yrs.)	12.58	11.06	12.62	8.22
Years since ommigration	14.67	12.89	14.71	9.86
U.S. citizen (1=yes)	0.06	0.00	0.06	0.10
Commodity:				
Tree fruit	0.13	0.00	0.13	0.15
Nuts	0.04	0.11	0.04	0.05
FLDVEG	0.01	0.06	0.01	0.01
FFRUIT	0.43	0.28	0.43	0.33
Other	0.11	0.11	0.11	0.07
Characterstics of county in which worker was interviewed:				
Share Illegal	0.29	0.36	0.29	0.33
Per capita income	7418.10	7010.40	7427.80	7254.40
Average rent (monthly)	218.93	204.85	219.26	211.86
Share in:				
So. San Joaquin Valley	0.21	0.56	0.21	0.33
No. San Joaquin Valley	0.32	0.17	0.32	0.33
Sacramento Valley	0.10	0.06	0.11	0.10
Central Coast	0.12	0.06	0.12	0.10
North Coast	0.06	0.06	0.06	0.06
Inland So. Calif.	0.11	0.11	0.11	0.39
Average weekly earnings	189.82	225.61	225.61	190.20
Average hourly wage	5.23	4.57	5.25	5.10
Share hired by farm labor contractor		0.26	0.26	0.27
Sample Size	770	18	752	203

Source: Analysis of UC-EDD Survey Data. The survey is described in detail in Mines and Martin (1986).

of their visa as well as entrants without inspection). As shown, and as discussed earlier, the only group of foreign-born that can be distinguished in census and CPS data is that of naturalized citizens; all others, including legal immigrants, legal nonimmigrants, etc., are lumped together in one group.

An alternative way to categorize data sources is by migration-behavior criteria, i.e., data sources representing relatively settled Mexican migrant populations and households and those representing less permanently settled populations of circular migrants. Data sets specifically designed to gather information on flows of circular migrants include the EMIF, Zapata Canyon and Los Angeles projects. The ENADID data focus primarily on return migrants; thus, they would tend to fall into this group, as well. Data sources that could be considered as largely focusing on relatively settled migrant populations and households include the United States Census and CPS, INS administrative data, the LPS, and data from community surveys in Mexico. These data sources may be interpreted as providing information on the stock of migrants in the United States more than on the flow of migrants across the border. Of course, relatively settled migrants also emigrate.

Although findings on migrant destinations vary widely from one data source to another, they are often similar within these two groups of data sets. We therefore refer to these behavioral categories when presenting our findings on migrant characteristics.

The data sources not only fall along a continuum from representing more settled to less settled, circular migrant populations; they also cover different points in time. Surveys focusing on migrant flows and surveys focusing on migrant stocks yield different findings at different points in time. We emphasize this time dimension of surveys, particularly when it may offer insights into how the characteristics of migrant stocks or flows change over time.

In this chapter we follow the convention of using the terms “foreign-born” and “migrant” as generic terms, that is, encompassing all Mexico-born persons in the United States. We use the term “immigrant” to refer to legal immigrants (i.e., permanent resident aliens—”green card” holders) and “nonimmigrant” to refer to legal nonimmigrants. Persons who do not migrate are called “nonmigrants.”

Measured Characteristics of Mexican Migrants in the United States

Mexico-to-U.S. migrants have tended to be selected from the middle-to-lower ranges of the socioeconomic hierarchy; from rural areas and agricultural jobs in Mexico; and for low-skill jobs in the United States. (For an historical overview of Mexican-migrant characteristics from Mexican authors, see Volume 2, pages 769 to 778) This selection process originated at the start of this century with the

recruitment of low-skilled Mexican workers by U.S. employers for seasonal jobs, mostly in agriculture. It has been facilitated by the long and historically porous border between Mexico and the United States, which puts U.S. labor markets within reach of individuals with limited financial resources, by an expanding demand for low-skilled migrant workers in both agricultural and nonagricultural sectors in the United States, particularly in the southwest; by direct contracting, and by extensive migration networks connecting families throughout Mexico with low-skill U.S. jobs. This selectivity is evident in the youthfulness and low skill levels of Mexican migrants, relative both to other migrant groups and to the U.S. population at large.

In this section, we present a summary of migrant characteristics; fuller detail is provided in the tables in Volume 2, pages 747-778.

Migration Patterns: Origins in Mexico and Destinations in the United States

Places of Origin in Mexico

Although migrants originate from throughout Mexico, the west-central region (Michoacán, Guanajuato and Jalisco) traditionally has had the highest levels of out migration.[4] Gamio found that, in 1926, 54.3 percent of all monetary remittances from the United States were directed to this zone. This indicator of migrant origins coincides with findings from other researchers, although the importance of this region appears to have diminished over time.

Virtually all of the data available to identify migrants' places of origin in Mexico are from surveys that we regard as representing relatively unsettled, circular migrants (ENADID, EMIF, and Zapata Canyon Project). Sources of data on relatively settled migrant populations either do not offer information on migrant origins within Mexico (U.S. Census and INS data) or else represent only selected places of migrant origins (community surveys in Mexico).

Data from the 1992 ENADID indicate that the west-central zone accounted for only 36.9% of all migrants who had resided or worked in the U.S. and 38.9% of those who had lived in the U.S. over the previous five years. The traditional migrant-sending states had been joined by Zacatecas, Durango, Mexico City, Chihuahua, Tamaulipas, Guerrero, and the State of Mexico, in that order, as the most important sources of Mexican migrants for the United States. Together, these ten states accounted for over 70 percent of the migrant total. The share of migrants in the total populations of migrant-sending states varied. It was highest in Zacatecas, where 9.7 percent of the population surveyed in ENADID had lived or worked in the United States. It was 8.3 percent in Durango, 8.2 percent in Michoacán, and 6.5 percent in Jalisco. In contrast, the share was only 0.9 percent in Mexico City and 1 percent in the State of Mexico.

ENADID data reveal that shares of recent migrants (those reporting living in the U.S. between 1987 and 1992), were highest for individuals born in Michoacán (3.05%), Durango (2.85%), Zacatecas (2.7%) and Colima (2.5%). At the other extreme, the smallest shares of recent migrants in migrant-sending states were in Tabasco (0.01 percent), Quintana Roo (0.04%), Chiapas (0.07%), and Campeche (0.08%).

A broader picture of migrant sources can be constructed by dividing Mexico into six regions, based on the geographic distribution of migrant birthplaces, using ENADID data:

I. The regions of greatest out-migration, with 37.8% of all migrants, composed of Guanajuato, Michoacán, Jalisco and Colima.

II. The northern-border states—Baja California including Baja California Sur, Sonora, Chihuahua, Coahuila, Nuevo León and Tamaulipas—which account for 20.8% of all migrants.

III. The six states located in between regions I and II—Sinaloa, Durango, Nayarit, Zacatecas, San Luis Potosí and Aguascalientes—with 21.5% of the total.

IV. The five interior states in and surrounding the Valley of México—the Federal District, State of México, Querétaro, Hidalgo and Tlaxcala—with 9.2% of all migrants.

V. Oaxaca, Guerrero, Puebla and Morelos, with a combined share of 8.2%.

VI. The six southwestern states—Veracruz, Tabasco, Chiapas, Campeche, Yucatán and Quintana Roo—accounting for only 2.4% of the migrant total.

If one considers only recent migration, the weight of Region I increases to 39.9%.

The EMIF data indicate that the importance of Region I in circular migration flows is smaller, however. Region I accounts for 37.4 percent of migrants returning from the United States and 27.7% of deported migrants in the EMIF data.

Findings from EMIF data on migrant origins for 1993-94 reported here are based on place of birth, while those for 1994-95 are based on place of residence prior to migration, not birthplace. ENADID data on recent migrants show flows from region III exceeding those from region II (19.2 percent, compared with 16.8 percent). Among deported migrants, however, region II leads region III (22% versus 20.4%). In the EMIF data on migrants returning from the United States, like in the ENADID data set, the share of those from region IV is larger than the share from Region V (11.9 percent, versus 9.7 percent). However, in flows of those en route to the United States and in the deported-migrant sample (EMIF), the Region-V share

is greater than the Region-IV share (e.g., for deported migrants, the shares are 16.3 percent for Region V and 10.2 percent for Region IV), despite Region V's greater distance from the border. In the most recent EMIF data, the Region-V states of Guerrero and Oaxaca rank seventh and eighth, respectively, as sources (places of prior residence) of north-bound migrants, but they do not rank in the top ten states for returning migrants.

Many people migrate internally before migrating to the United States, as evidenced by comparing places of origin defined by birth with those defined by residence prior to migration. When one uses the residence instead of the birthplace criterion, the weights of Regions I, III, and V decrease, while those of Regions II and IV (the border and the Valley of Mexico) increase substantially (EMIF). The share of migrants originating from Region I decreases from 37.8 to 33.8 percent, and the share from Region III declines from 21.5 to 16.1 percent. Meanwhile, the share increases from 20.8 to 29.1 percent in Region II and from 9.2 to 12 percent in Region IV.

The Zapata Canyon project gathered data on the state in which migrants lived prior to migrating (as opposed to birthplace). They reveal that, on average between 1988 and 1996, Michoacán and Jalisco were the largest suppliers of undocumented migrants in the Tijuana sector, where far and away the largest flows of migrants crossed the border—they represented 14 and 12 percent, respectively, of undocumented migrants crossing at this point. However, these two states generally do not dominate at the other border-crossing areas targeted by the survey. They tie for second (with 9.4 percent) behind Sinaloa (13.8 percent) in Mexicali, but they do not figure prominently farther east, in Ciudad Juarez, Nuevo Laredo, or Matamoros. Moreover, the data reveal that Mexico City surpassed both these regions in 1995 as the principal source of undocumented migrants at the Tijuana crossing. This is probably because of the use of residence prior to migration rather than birth place to determine migrant origins in this survey. Migration from Oaxaca and Guerrero increased during the period covered by the Zapata Canyon project. Other states in the Southeast of Mexico with Indian populations as poor as, or poorer than, the Mixteco and Zapoteco of Oaxaca and Guerrero show no significant migration to the United States. One of the most striking features of the Zapata Canyon findings is the diversity of Mexican migrants' origins, particularly at the westernmost crossings, but also the shift towards urban origins and the increasing importance of Oaxaca and Guerrero as migrant sources between 1988 and 1996.

Rural Versus Urban Origins

Migrants traditionally originated from rural areas in Mexico[5]. Although this trend has weakened, a slightly larger share of migrants continues to originate from

rural areas. ENADID data put the rural share at 59.1% for individuals living in the United States in the previous five years. EMIF data place the rural share at 61.7 percent. Only among deported migrants is the urban-origin share higher than the rural share (58.7%).[6]

The classification of migrant origins as rural versus urban is sensitive to whether birthplace or residence is used as the classifier, because many internal migrants shift their place of residence from a rural birthplace to an urban area, and some of these individuals subsequently migrate to the United States. Using residence as the criterion, the urban share in ENADID rises from 40.7 percent to 47.4 percent.

ENADID data indicate marked differences in rural versus urban origins across regions. While the Valley of Mexico and border regions have small shares of rural migrants (32.1 percent and 38 percent, respectively), in other regions the rural share is over 60 percent, reaching 73.1 percent in the six Region-III states.

Destinations in the United States

U.S. destinations of Mexican migrants are available both from surveys of circular migrants and from data on relatively settled migrant populations.

For historical, geographic, and labor-market reasons, Texas was the leading destination for Mexican migrants prior to the 1920s. Gamio (1930), drawing from U.S. Census data, estimated the share of Mexican migrants going to Texas at 68.7%, followed by Arizona (13.7%), California (7.8%) and New Mexico (6.4%). The 1920 Census showed Texas' share falling to 52.5%, while California's share more than doubled (to 18.8%), exceeding Arizona (12.8%). New Mexico's share fell to 4.2%. Meanwhile, Colorado became a migrant destination, with 2.3% of the total. Based on money orders sent to Mexico in 1926-1927, California took first place (36.2%), followed by Texas (15.7%), Illinois (12.2), Indiana (5.1%), Arizona (4.8%), Michigan (3.4%), Pennsylvania (1.8%) and New Mexico (1.4%).[7] The geographic distribution of migrants suggested a high proportion employed in agriculture, in towns and small cities, with a smaller proportion working in industrial jobs in cities like Chicago, Los Angeles, San Antonio, and the outskirts of Pittsburgh (Gamio, 1930). Overall, there was a significant dispersion of migrants in this early period. Nevertheless, most migrants appear to have returned to Mexico—some during the recession years of 1921-22 and others during the Great Depression following 1929 (Fonseca: 1986).

During the Bracero Program, Mexican migrants fanned out across a broad geographic area: Texas, California, Arizona, Indiana, Delaware, Michigan, Arkansas, Montana and Washington, among other states. Nevertheless, the importance of the southwest, particularly California, continued (Fonseca, 1986; Trigueros, 1994;

Alarcón and de la Peña, 1989). Following the end of the Bracero Program, migrant destinations remained diverse, but migrants became increasingly concentrated in California and Texas. In the 1978 ENEFNEU survey, California was the premier destination (47.3%), followed, in a distant second, by Texas (27.4%) and then Illinois (7.4%), New Mexico (2.7%) and Arizona (2%).

The predominance of California and Texas has continued, both for relatively settled migrants and for circular migrants. INS data indicate that the top two destinations for the Mexico-born men and women of the 1977, 1982, and 1994 legal-immigrant cohorts were California and Texas. Illinois was the third choice in all three years. Secondary but substantial contingents chose Arizona, New Mexico, and the state of Washington.

The EMIF found that, among circular migrants crossing the border from the south with prior migration experience, 42.3 headed for California, followed by Texas at 30 percent, New Mexico (4.4 percent), Arizona (4.2 percent) and Florida (3.1 percent).

Most deported migrants (81.9%) were in the United States only for a few hours; thus, we have information on destinations for only 18.1% of these cases. Nevertheless, their destinations are consistent with those from other data sources. California is first with 44% of deported migrants, followed by Texas (31.9) and Arizona (12.7%).

The findings presented above—especially from data on deported migrants—may be biased in favor of the U.S. border states; apprehensions are less common in states farther from the border than in the border area, where INS surveillance is highest. Because of this, the U.S. destinations of migrants—including circular migrants—may be more dispersed than indicated above.

Among cities, according to the EMIF, Los Angeles is the single most important destination for circular migrants, claiming a share between 6.2 and 7.9 percent, depending on the flow. It is followed by San Antonio, the Texas Valley, Houston, Dallas-Fort Worth and El Paso, with shares of 4.2 to 5.4%; Fresno, California (3 to 4.3 percent); and Phoenix (2.9 to 7.3%).

The importance of California and Texas as destinations for circular migrants is widespread across regions of origin in Mexico, but it varies depending on migration traditions and family migration networks. In the EMIF data, among migrants originating from the south and among deported migrants, California is the primary destination for regions I, III, IV and V and is most important in regions I and V (for region V, California draws 77% of those who migrate and 76.2% of deported migrants). Texas ranks first as a destination for migrants from the border region in all three flows enumerated by EMIF (south-north, north-south and deported migrants). Texas also ranks first for regions III and IV, if measured by return (north-south) flows (60.7 percent in the latter region). The dispersion of migrants across

U.S. states is greatest for the Valley of México region. The concentration of migrants in a small number of states is greatest for migrants originating in regions I and V.

Micro-regional studies in the state of Michoacán indicate that communities tend to specialize in terms of migrant destinations. Migrants from Napízaro and Puácuaro, two communities in the Pátzcuaro region, go almost entirely to the San Fernando Valley north of Los Angeles. Migrants from Chavinda, a small community near Zamora, migrate to the San Joaquin Valley, Salinas Valley, the San Francisco Bay area, and a barrio in Central Los Angeles (Alarcón, 1986:345). For migrants from Jaripo, the poles of attraction are Los Angeles, Oxnard, San José, and San Joaquín county (Fonseca and Moreno;1988). The chief destinations for migrants from Gómez Farías are Watsonville and the San Francisco area (López Castro, 1986).

Return Behavior

Data on return migration behavior are scarce. Since the United States discontinued exit review in 1957, it has not been possibly to directly measure emigration from the United States. Indirect estimation suggests high levels of emigration among legal permanent residents as well as among the broader Mexico-born population. The Los Angeles project offers insights into migration circularity and migrants' plans to return to Mexico for migrants in the United States. A significant share of all migrant cohorts (27 to 43 percent) report that they plan to migrate back and forth between Los Angeles and their place of residence in Mexico. The share is higher, on average, for more recent cohorts (those last entering the United States after 1986) than for older cohorts. Among those last entering the United States after 1986, more than two thirds (67 percent) report they plan to stay in the United States, compared with only 27 percent of the most recent (1993-94) cohort. These findings suggest that circularity decreases with time in the United States. A recent study using the Mexican Migration Project data concluded that most migrants eventually return to Mexico (Public Policy Institute of California, 1997). These findings are influenced by return behavior of past migrant cohorts (e.g., *bracero* workers), however. Their relevance for predicting return behavior of the current cohort of migrants in the United States is not clear. Increased U.S. border enforcement may discourage return migration by making re-entry into the United States more difficult.

Demographic Profile of Migrants

The demographic profile of Mexico-to-U.S. migrants differs for sojourners and settlers; and it varies significantly across data sources and also over time.

Traditional sojourner flows were dominated by young, solo males. For example, Dagodag (1975), analyzing INS I-213 forms for apprehended migrants, found that over 90 percent of all apprehended immigrants were 40 years of age or younger, 92 percent were males, and 62 percent were single. In contrast, the legal-immigrant cohort of FY 1995 was 57% female, as wives of IRCA-legalized persons became permanent resident aliens.

Gender

The importance of males in Mexico-to-U.S. migration persists, although there is a trend toward more female migrants, and women dominate among new legal immigrants. Variation in gender patterns across migrant type and data source and over time is substantial, sometimes dramatic.

Most Mexico-based data sources show the share of males among Mexican migrants to be large. The few women interviewed by Gamio in the 1920s traveled to the United States to accompany their husbands or families. More recently, the ENEFNEU (1978-79) found that 83.9% of migrants to the United States were males. The ETIDEU (1984) placed the share of males at 89.1%.

Post-1990 estimates of the share of males among Mexican migrants range from 44 to more than 90 percent. High to very high proportions of males are found in surveys of circular migrants. In the EMIF data, women constitute only 1.88% of the return migrant flow and 5.6% of the south-north flow. Although the share of women is larger in the deported-migrant sample, it is nevertheless low (10.7%). The 1995 EMIF data found that the proportion of women in the north-bound flow (4 percent) was significantly lower than in the returning flow (10 percent). They also found that return rates were higher for men whose permanent residence is a rural community in Mexico than for men living in Mexican urban areas. The Zapata Canyon project found similarly high concentrations of males in undocumented-migrant flows for most years covered by the survey (97 percent in 1996). The ENADID found that 21.8% of the Mexican population that had ever lived or worked in the United States were women. The share for those who had lived in the United States over the previous five years was 23.9%, suggesting that the female share is increasing.[8] Among those who worked in the United States, the female share was 16.7%.

The share of women in circular-migrant cohorts decreases with cohort age. Women are 51.5% of migrants younger than 12 years of age, 30.7 percent of migrants aged 15 to 19, and only 12.3 percent of migrants in the 45 to 49 age group (ENADID, recent migrants).

The participation of women in migration also differs by region. In the ENADID data, it is lowest in region V (16.5%), followed by regions I (19%), II (20.2%) and

the Valley of México (20.3%). The highest female shares are in the border region, where women make up 26.9 percent of all migrants.

The 1985 UC-EDD farmworker survey indicates a gender composition of Mexican migrants that is similar to that constructed from some Mexican data sources. It found that males constituted 75 percent of all Mexican immigrant farm workers and 83 percent of unauthorized Mexican farm workers in California.

For the most part, shares of females among Mexican migrants are higher when estimated from data on relatively settled migrant populations. The proportion male among the migrants in the Michoacán surveys was .63 in 1983 and .56 in 1993. Thus, more women are joining the migration stream. This increasing participation of females in migration over time mirrors cross-section findings from the Mexican Migration Project. In the 19 communities surveyed by Durand, Massey, et al., the proportion male among migrants making their first trip was 73 percent. However, the greater the migration prevalence in a sending community, the lower the proportion male. The male share ranged from 93.3 percent at the lowest levels of community migration prevalence to 55.7 percent at the highest migration prevalence levels.

Disproportionately large male migrant shares are at odds with U.S. Census data, which put the share of males among all Mexican immigrants at 55.1 percent in 1990. This share varies slightly by immigration status and by period of entry. It is lower for pre-1980 immigrants (52.8 percent) than for 1980-89 immigrants (57.5 percent). It is also lower for naturalized citizens of Mexican origin (53.7 percent) than for noncitizens (55.5 percent). The single most male-dominated legal-status/period-of-entry category is the naturalized, 1980-89 cohort, which was 59.7 percent male. It no doubt reflects the effects of IRCA's legalization programs. The least male-dominated group is the naturalized, pre-1980 group (51.4 percent). All in all, Census data show Mexican immigration to be much more gender-balanced than do most Mexico-side or farmworker data sources.

INS data show that, among Mexico-born legal immigrants, women actually outnumbered men for eight consecutive years between 1964 and 1971, and they outnumbered men again in 1993 and 1994 (Table 3). Extreme peaks (e.g., 79 percent male in 1991) and valleys (e.g., 43 percent male in 1995) appear due to special legislation, such as IRCA legalization and the subsequent legalization of dependents. The LPS data indicate a male share of 59 percent among newly legalized migrants from Mexico. Nor surprisingly, this male share is almost identical to that of the naturalized, 1980-1990-entrant cohort in the 1990 Census.

Also visible in INS data on legal immigrants is the strong attractiveness of Mexico-born men as spouses for U.S. citizen women. For every year in which data were available except 1994, the proportion men among the Mexico-born immediate-relative spouses of U.S. citizens substantially exceeded fifty percent, fluctuating

between 56 and 62 percent in the years 1971-1979 (Volume 2, page 766, Figure 2), subsequently increasing to 63 percent in 1982 and to almost 70 percent in 1985, but dropping to 49.4 in 1994. In contrast, the majority of spouse immigrants from other countries are women, reflecting patterns of travel and military duty.

In short, large discrepancies in estimates of migrants' gender ratios appear to reflect differences in the subpopulations represented by each survey. For example, the Census and CPS capture more relatively settled immigrant families, in which the gender balance is close to 50-50, while the EMIF and ENADID focus on circular migrants, who by all accounts appear to be predominantly males.

Age

There is little variability in estimates of the average age of Mexican migrants across data sources. All post-1990 data, with the exception of INS data, yield estimates of the average age of Mexican migrants that are in the 29-to-33-year range. Mexico-born migrants to the United States are young, younger than nonmigrants in Mexico (with some exceptions), younger than migrants to the United States from other countries, and younger than the U.S. population at large. This relative youthfulness may reflect a number of distinct factors, including the presence of young pioneer migrants in early-stage localized migration streams and the presence of children in cohorts of legal immigrants (both children in migrating families and children sponsored by U.S.-citizen parents).

In 1970, Samora found that 85.8 percent of all first-time migrants were 30 years old or younger (Samora, 1971: 90). In 1978-79, according to ENEFNEU, the share of migrants younger than 30 years had fallen to 54.7%. In 1984, however, according to the ETIDEU, this share was 74.2%, with an average age of 26.2 years.

Estimates from more recent data sources indicate that the average ages of Mexican migrants are only slightly higher today. In ENADID, the average age of the population that migrated between 1987 and 1992 was 29.5 years. It was 31.6 in the population that worked in the United States and 19.4 in the population that did not. EMIF data find an average age of 31.7 years for the north-south flow of circular migrants. Deported migrants are younger: 25.4 years. Returning migrants are significantly older than outmigrants from Mexico.

Age differences between migrant flows originating in rural versus urban areas in Mexico are small in the EMIF data. Rural-urban age differences are larger in the ENADID data. Male migrants from rural areas averaged 32.5 years of age, compared with 26.8 years for migrants of urban origin. For female migrants, average ages were 30.2 years for rural and 23.3 for urban.

Age differences across regions of origin are also small. ENADID data show the youngest migrants originating from the Oaxaca-Guerrero region (25.1 years)

and the oldest from the northern region (26.9 years in region II and 26.1 in region III). Here, as in the EMIF data, the youngest groups of migrants hail from the regions that are newest to migration (regions IV and V, both with average ages of 28 years), and the oldest are from the more traditional migrant-sending regions (I and III, with average ages of 33 and 32 years, respectively). Among deported migrants, the picture is different; the lowest ages are associated with region III (24.6) and the highest with region V (27.7).

Average age of all (not only recent) migrants in the Michoacán surveys was 29 years in 1983 and 32 in 1993. The 1983 migrants were somewhat younger than nonmigrants, whose average age was 32, but the 1993 migrants were considerably older than nonmigrants, whose average age was 20. Unauthorized migrants, who comprised just over 58 percent of all 1993 migrants, were younger (28.5 years), on average, than documented migrants (37 years). In the 19 communities studied by Massey and Durand, the average age of migrants in the United States at their most recent trip was 29 years.

The 1990 U.S. Census of Population shows a median age for Mexican migrants of 31.5 years, compared with just under 34 years for the U.S. population as a whole. Median ages differ both by legal status and by period of entry into the United States. Median age in 1990 is strikingly higher for Mexican immigrants who reported they were naturalized U.S. citizens (41.7 years) than for noncitizens (30.4 years). Mexican immigrants are concentrated in the prime working-age groups. In the 1990 Census, 71.4 percent are between the ages of 20 and 54, compared with only 50.4 percent of the total U.S. population.

INS data show legal Mexico-born immigrants to the United States to be a young group at admission to permanent residence, with lower mean and median age than immigrants born elsewhere in every admission cohort since 1971. This may reflect larger family size as well as larger number of minor children of U.S. citizens. Mean age is higher among women than among men, but the difference is small except in 1994 (Table 3). In the LPS, average age for newly legalized migrants was 30 years, very close to the median age for the naturalized 1980-90 migrant cohort in the 1996 CPS but higher than that of the naturalized 1980-90 cohort in the 1990 Census.

Average age is higher for female than male migrants. In the U.S. Census of 1990, women born in Mexico have a median age of 31 years, compared with 29.3 for men. Among naturalized citizens, average ages for men and women are 28.8 and 29.4, respectively. A similar pattern emerges from the 1996 CPS, despite slightly higher ages. The median ages for men and women are 30.8 and 32.4, respectively;[9] for the non-naturalized group, median ages are 29.9 and 30.9, respectively. In the EMIF, average ages of migrants returning to Mexico are 32.6 for women and 31.7 for men; for deported migrants the average is 27 for women and 25.7 for men.

Table 3
Age Distribution, Legal Immigrants: Fiscal Years 1971, 1977, 1982, 1994

Subset	Summary Characteristics					
	Mean	S.D.	Q(.25)	Q(.5)	Q(.75)	Maximum
A. FY 1971 Legal Immigrants (N = 370,478)						
Men born in Mexico	20.97	14.06	13	18	27	69
Men born elsewhere	26.32	15.44	15	27	34	95
Women born in Mexico	21.05	16.39	9	18	29	74
Women born elsewhere	26.59	15.82	17	25	35	90
B. FY 1977 Legal Immigrants (N = 462,315)						
Men born in Mexico	22.58	13.19	14	23	29	98
Men born elsewhere	28.86	17.76	16	27	39	99
Women born in Mexico	23.26	14.94	13	23	31	95
Women born elsewhere	30.55	18.53	18	27	41	99
C. FY 1982 Legal Immigrants (N = 594,131)						
Men born in Mexico	23.74	12.26	17	24	29	98
Men born elsewhere	26.75	16.27	15	25	35	98
Women born in Mexico	24.56	15.12	14	23	32	95
Women born elsewhere	28.37	17.48	16	26	37	98
D. FY 1994 Legal Immigrants (N = 804,416)						
Men born in Mexico	20.59	14.06	11	18	25	95
", excl. legalization dep.	23.38	15.19	13	20	28	95
Men born elsewhere	30.10	17.66	17	29	40	99
Women born in Mexico	25.82	15.49	14	24	34	98
", excl. legalization dep.	27.32	16.22	16	25	36	98
Women born elsewhere	31.58	18.01	19	29	42	99

NOTES: Figures for 1977, 1982, and 1994 are calculated from the INS microdata public use files; 1971 figures are calculated from a one-in-one-hundred sample of the immigrant cohort. Cohort sizes refer to the complete cohorts; missing data on sex or age may slightly reduce the size of the populations/sample on which calculations are based. Data for 1982 include 2300 Silva case adjustments. Data for 1994 exclude 6,022 IRCA-legalized persons but includes 34,074 legalization dependents. The minimum age observed in all groups in all years is zero, which represents infants less than one year old. Q(.) denotes the quantile function; thus, Q(.25) denotes the 25th percentile and Q(.5) denotes the median.

Among recent migrants enumerated by ENADID, however, the average age of women is less than the average for men: 26.9 versus 30.3 years, although for those who worked in the U.S. the gap is smaller, 30.7 compared with 31.8 years.

Among legal immigrants, age varies importantly across visa categories (Table 4). Average age is a full 10 years higher among immigrants admitted as siblings of U.S. citizens (in the 41-45 age range) than among employment-based immigrants (in the 31-34 age range). This difference may reflect both differences in the waiting time for visa issuance (e.g., visas are immediately available in all the skilled and professional employment categories except that for religious workers, for whom the wait has been only one or two years, but there is a 10-year waiting period for sibling visas and for the unskilled "Other Worker" visas) and differences in age at application (employment-based applicants in the unskilled category would be younger than other employment-based applicants, who must satisfy substantial educational and experience requirements). The youngest immigrants, excluding children, are those admitted as spouses of U.S. citizens (average age of 27 for men and 29 for women). Of course, the oldest are those admitted as parents of U.S. citizens (average age 63 for men and 60 for women).

The Mexican community surveys and INS data indicate that migrant ages may be increasing slightly. Average age of migrants rose from a mean of 29 in 1983 to a mean of 32 in 1993 in longitudinal studies in Michoacán. In the INS data, mean age of women increased from 21 in 1971 to 26 in 1994; mean age of men increased from 21 in 1971 to 24 in 1982, but it was less than 21 in 1994. Among these legal immigrants, increases in age may reflect longer waits for visa issuance and/or reduced family size. The Zapata Canyon data reveal decreasing shares of undocumented migrants in the "under 20" and "20-24" year-old groups, and a sharply rising share in the "25-29" group, between 1988 and 1996.

Marital Status

Data sources which include information on marital status uniformly indicate that most migrants are not single. For example, the ENADID found that 65.5% of those who went to the United States in the previous five years were either married or in union out of wedlock. There are differences in marital status between sexes, however: the average was 68.6 percent for men and 54.3 percent for women. The share of separated, divorced or widowed was higher for women: 14.8 percent, compared with 2.4 percent for men. The share of singles was similar for the two sexes: 27.9% for men and 31.1% for women. In the return flow of circular migrants enumerated by EMIF, the share of singles was also well under 50 percent, although it was different for men than for women. The share of singles was 40% for women and 33% for men. The only region of origin for which the share of singles exceeded

Table 4
Age Distribution, FY 1994 Legal Immigrants, by Visa Category

Subset	Summary Characteristics						
	Mean	S.D.	Q(.25)	Q(.5)	Q(.75)	Maxi-mum	N
A. Employment Visas, Except Third Pref "Other Workers" and Fourth Pref: Principals							
Men born in Mexico	32.62	8.47	27	31	38	68	641
Men born elsewhere	36.97	8.45	31	35	42	86	21,940
Women born in Mexico	33.29	6.89	29	33	37	57	100
Women born elsewhere	34.67	7.71	29	33	39	77	10,183
B. Employment Visas, Except Third Pref "Other Workers" and Fourth Pref: Spouses							
Men born in Mexico	34.05	8.41	27	34	37	61	41
Men born elsewhere	38.43	8.83	32	37	43	92	5,345
Women born in Mexico	32.00	7.58	27	31	37	57	465
Women born elsewhere	35.27	8.16	29	34	40	76	18,768
C. Employment Visas, Third Preference "Other Workers": Principals							
Men born in Mexico	32.32	6.98	27	30	36	55	194
Men born elsewhere	36.38	8.70	30	34	41	69	1,438
Women born in Mexico	34.03	8.70	29	32	37	66	73
Women born elsewhere	39.61	9.36	32	38	45	82	2,431
D. Employment Visas, Third Preference "Other Workers": Spouses							
Men born in Mexico	32.76	5.05	29	32	38	40	21
Men born elsewhere	41.66	10.59	33	40	49	85	938
Women born in Mexico	31.44	7.32	26	30	36	58	117
Women born elsewhere	35.48	8.41	29	34	40	73	876
E. Sibling Visas: Principals							
Men born in Mexico	43.06	11.50	34	43	51	76	1,026
Men born elsewhere	46.08	9.56	39	46	53	83	9,502
Women born in Mexico	42.19	11.66	34	42	51	80	1,071
Women born elsewhere	46.13	9.82	39	45	53	84	9,362
E. Sibling Visas: Spouses							
Men born in Mexico	45.02	11.48	36	45	53	77	525
Men born elsewhere	48.64	9.62	42	48	55	87	5,656
Women born in Mexico	40.76	10.19	33	40	48	70	702
Women born elsewhere	42.50	8.76	37	42	48	77	7,026

Table 4 (Continued)

Subset	Summary Characteristics						
	Mean	S.D.	Q(.25)	Q(.5)	Q(.75)	Maximum	N
F. Spouses of U.S. Citizens							
Men born in Mexico	27.04	7.14	23	25	29	84	9,786
Men born elsewhere	32.04	8.56	26	30	36	91	48,943
Women born in Mexico	29.26	9.05	23	27	33	85	10,041
Women born elsewhere	31.31	10.00	25	29	35	96	76,470
G. Parents of U.S. Citizens							
Men born in Mexico	63.09	10.14	56	63	70	95	1,742
Men born elsewhere	64.45	8.49	59	64	70	99	18,112
Women born in Mexico	60.17	10.41	53	60	67	98	3,199
Women born elsewhere	61.97	9.17	56	62	68	99	33,313
H. Minor Children of U.S. Citizens							
Boys born in Mexico	12.06	5.36	8	13	17	20	2,732
Boys born elsewhere	12.29	5.24	8	13	17	20	17,364
Girls born in Mexico	11.57	5.28	7	12	16	20	2,550
Girls born elsewhere	12.06	5.20	8	13	16	20	17,299
I. Adopted Children of U.S. Citizens							
Boys born in Mexico	4.46	5.45	0	2	7	19	48
Boys born elsewhere	1.94	3.27	0	0	3	19	3,492
Girls born in Mexico	3.66	4.48	0	2	6	17	47
Girls born elsewhere	1.93	3.30	0	0	2	19	4,613

NOTES: Figures are calculated from the INS microdata public use files. Q(.) denotes the quantile function; thus, Q(.25) denotes the 25th percentile and Q(.5) denotes the median.

50 percent was region IV, where 53 percent of male migrants and 46.9 percent of female migrants were single.

In the LPS, 53 percent of newly legalized migrants from Mexico were married. The National Agricultural Worker Survey (NAWS) found that, in California, where 82 percent of all Seasonal Agricultural Service (SAS) workers are from Mexico, 66 percent of all SAS workers and 70 percent of male workers were married in 1991. (Separate estimates for the SAS workers who were Mexican migrants are not available.)

In the Michoacán surveys, 62% of all undocumented workers and 82 percent of all documented workers were married. The 1990 U.S. Census of Population reports that 59 percent of the Mexican-born male population and 61 percent of the Mexican-born female population 15 years or over was married. The married shares were only slightly lower for noncitizens than for those reporting as naturalized citizens. They were lowest for the most recent cohorts of noncitizens from Mexico. For example, among noncitizens, 45 percent of men and 58 percent of women entering the United States between 1980 and 1990 were reported as married in the 1990 Census.

The NIS Pilot Study of the 1996 legal immigrant cohort indicates that among those immigrants aged 25 years and older, the proportion married was higher for males than for females—92% versus 85%. This may reflect, in part, the larger numbers of males than of females admitted as spouses of U.S. citizens.

Schooling

At a time when the Mexican population had a very low average schooling level, especially in rural areas, Gamio found that migrants averaged fewer than five years of schooling and included a large share of illiterates. Despite significant increases in public spending on education during the 1960s, Samora found that 28 percent of migrants he surveyed never had attended school, and 90 percent had not completed primary education (Samora, 1971: 90). It appears that migrant education levels improved by the 1980s; in the 1984 ETIDEU data the share of illiterates was 14 percent for males and 17.6 percent for females.

All data sources provide evidence of less schooling among Mexican migrants than in the U.S. population as a whole and among other immigrant groups. Nevertheless, U.S. data sources as well as the ENADID find numbers of highly schooled individuals that are significant relative to the skilled population of Mexico and evidence of increasing average schooling among migrants over time. Moreover, estimates of average schooling using post-1990 data sources are uniformly higher than those based on earlier data, among both relatively settled migrant populations as well as circular migrants, and legal immigrants appear to have substantially higher schooling than unauthorized migrants.

The ENEFNEU (1978-1979) found an average schooling level among migrants of 4.9 years, slightly higher than that of the Mexican population over 14 years old (4.7 years). 34.3% had studied fewer than 4 years, and only 24.6 percent had studied 7 years or more. By contrast, in the U.S. population as a whole, only 3.4 percent had 4 years or fewer of schooling, 14.1 percent had between 5 and 8 years, and 82.5% had more than 8 years (CENIET, 1982).

The ENADID survey estimated that well over half (61.4 percent) of all persons 11 years or older who lived in the United States at any time during the 5 years prior to the survey had six years of schooling or fewer. 87.4 percent had 9 years or fewer of schooling. On the whole, women were better schooled than men: 55 percent of female migrants and 63.1 percent of male migrants had primary schooling or less; 9.1 percent of women and 4 percent of men had studied beyond high school (p*reparatoria*).

The EMIF data on circular migrants show an average of 7.6 years of completed schooling for women and 6.26 for men headed for the United States; for returning migrants, the averages are 7.09 years for women and 5.9 for women, and for deported migrants, 6.88 for women and 6.53 for men. These numbers indicate that, overall, female migrants are better schooled than male migrants, despite the fact that in the Mexican population as a whole schooling levels are lower for women than for men. ENADID found wide variability across regions of origin; for example, 19.1 percent of the migrants from the top three states had not completed a single year of school, compared with 3.8 percent of those from the northern border area. These regional differences are attributable in large part to differences in urbanization; the share of Mexicans who had not completed any schooling was considerably larger in rural (9.7 percent) than in urban (1.6 percent) areas. The EMIF data show average schooling levels of 5.96 years for migrants of rural origin and 7.02 years for migrants of urban origin in the northward migrant flows.

The ENADID study shows lower schooling levels for labor migrants than for migrants who did not work in the United States. Among recent migrants, 6.5 percent of those who worked and 3.6 percent of those who did not work had never attended school. The shares with some college education were 3.7% for labor migrants and 17.4% for nonlabor migrants. This may reflect students migrating to the United States to complete their studies.

Low average schooling among Mexican migrants is documented by U.S. farmworker data. The UC-EDD farmworker survey found that Mexican immigrant farmworkers had an average of 4.8 years of schooling; unauthorized migrant workers averaged 4.2 years. In California, the NAWS found that the median level of education among all SAS workers (of whom 82 percent were Mexico-born) was sixth grade in 1991. This includes all education received abroad and in the United States. Most farmworkers originate from rural communities in Mexico.

Schooling estimates from rural community surveys in Mexico mirror the low schooling levels found in farmworker surveys. Among the migrants in the Michoacán surveys, average schooling was only 4.1 years in 1983, but it increased to 5.8 years in 1993. Average schooling among nonmigrants decreased over the same period, from 4.5 to 4.3 years. Thus, while in 1983 migrants had less average schooling

than nonmigrants, the reverse was true in 1993. Undocumented migrants had significantly more schooling than legal migrants in 1993 (just under 7 years, compared with just under 5 years for legal migrants). This finding partly reflects increasing schooling levels in the populations of migrant-sending areas in Mexico—undocumented migrants made up most of the recent-migrant flow. However, it also reflects changes in the ways in which transnational migration selects on schooling. In the early 1980s, relatively well-educated villagers were likely to migrate, but their destinations were urban areas of Mexico rather than the United States, where returns to schooling for undocumented migrant workers were low.

In the Massey-Durand survey of 19 Mexican communities, average schooling among migrants at the time of their first trip to the United States was 5.8 years. These data, like data from the Michoacán surveys, suggest that schooling levels and the heterogeneity of migrants with respect to education are increasing over time. Migrants from the highest migration-prevalence communities averaged more than 50 percent more years of completed schooling (and nearly twice the educational diversity) than migrants from the lowest migration-prevalence communities. An upward trend in high school graduates among undocumented migrants is one of the most salient findings from the Zapata Canyon project.

The 1995 EMIF data reveal that north-bound migrant flows are better educated than returning flows. The share in the low-education (0-to-6-year) category is lower for north-bound migrants. The share in the higher education (7-or-more-year) category is higher for out-migrants from Mexico than for returning migrants. Nevertheless, for migrants originating in urban areas of Mexico, the north-bound flow is less educated, on average, than the returning flow.

U.S. Census data indicate that, among the Mexico-born population aged 25 or older and enumerated in 1990, 28.2 percent had less than a fifth-grade education, compared with 2.7 percent for the U.S. population as a whole. More than three-quarters lacked a high-school diploma, compared with just over 18 percent of the U.S. population; 11.6 percent were high school graduates with no further schooling, and 2.1 percent were college graduates with no postgraduate education, compared with 30.0 and 13.1 percent, respectively, of the U.S. population. The proportion of Mexico-born persons in the United States holding doctorate degrees was 0.14 percent, compared to 0.76 percent for the United States as a whole. The absolute number of Mexico-born doctorates, however, was 3,824, a rather large number for a small country. Note that Census data do not reveal whether these are persons undergoing further training or engaged in postdoctoral work with nonimmigrant visas as opposed to permanent residents of the United States.

Overall, the 1980-89 cohort of Mexican immigrants had higher levels of schooling than the pre-1980 cohort in the 1990 U.S. Census. The share with less than a fifth-grade education was lower for the more recent immigrant group (26.9,

compared with 29.0), and in most cases the shares with post-secondary schooling were higher for the more recent group, as well. At the upper end of the educational spectrum, 4.4 percent of recent (1980-89) Mexican migrants had a Bachelors, Masters, Professional School, or Doctorate degree, compared to just over 20 percent of all U.S. residents 25 years or older. Recent migrants were more than twice as likely as pre-1980 migrants to have a professional degree (1.2 percent, compared with 0.4 percent), more than two thirds as likely to have a Masters degree (0.7 percent, compared with 0.56 percent), 50 percent more likely to have a Doctorate degree (0.17, compared with 0.12), and more than one fifth as likely to have a Bachelors degree (2.4 percent, compared with 1.9 percent). Naturalized citizens almost always have smaller shares in the low-education categories and larger shares in the high-education categories than noncitizens; however, these differences are not large in most cases.

Among persons reporting they were naturalized citizens, the share with less than a high-school education is lower in the 1996 CPS (52.9 percent) than in the 1990 Census (67.5), and the share with at least a Bachelor's degree is higher in the CPS (6.5 percent, compared with 4.9 percent in the Census). Differences between the Census and the 1996 CPS are particularly large in naturalized, 1980-89 entrants with college degrees; the share with a Bachelor's degree is 7.5 percent in the CPS and 2.0 percent in the census. However, the CPS data also indicate low average schooling among Mexican migrants entering the United States after 1990. Seventy-four percent of the post-1990 group had less than a high-school education, compared with 69 to 70 percent of the pre-1990 cohorts.

Migrant cohort-specific schooling levels differ sharply between the 1990 Census and 1996 CPS. For example, for both immigrant-status groups, the share of 1980-89 entrants who are high-school graduates is higher in the 1996 CPS than in the 1990 Census. The same is true for the share of high-school graduates among pre-1980 entrants.

Average schooling for newly legalized migrants in the LPS was 6 years, and 59 percent had 6 or fewer years of schooling. Only 5 percent had more than a high-school education.

NIS data on the FY 1996 cohort of legal immigrants indicate that Mexico-born legal immigrants—or at least those admitted to permanent residence in 1996—are considerably better educated than previously thought. Among persons aged 25 and older, 35% are high school graduates and 14.7% are college graduates, compared to 26% and 6.3%, respectively, among comparably-aged recent entrants enumerated in the 1990 Census (Table 5). Moreover, 9.1% of the legal immigrants have completed 17 or more years of schooling, compared to 3% of those enumerated in the 1990 Census. School enrollment rates among persons 18 to 24 years of age are also higher among legal immigrants than among the census-enumerated—25%

Table 5
Schooling Distributions and School Enrollment Rates, Persons Born in Mexico: NIS 1996 Cohort and 1990 Census Recent Entrants (Entered 1987-90)

Schooling Characteristic	NIS 1996 Cohort	U.S. 1990 Census
A. Years of Schooling Completed, Persons Aged 25 and Over		
Less than 5 years	21.2	28.1
5-8 years	29.5	28.6
9-11 years	14.6	17.6
12 years	11.0	11.1
13-15 years	9.1	8.3
16 years	5.7	3.3
17-18 years	5.3	1.1
19+ years	3.8	1.9
Mean years	8.9	–
Median	7.0	–
B. School Enrollment, Persons Aged 18 to 24 Years	25.4	15.7

NOTE: 1990 Census figures for foreign-born are drawn from published tabulations (1990 CP-3-1).

SOURCE: Jasso, Massey, Rosenzweig, and Smith (1997).

versus 16%. Thus, the U.S. Census, given that it includes both legal and unauthorized migrants, provides a portrait of schooling that seriously understates the schooling of legally admitted permanent residents.

The FY 1996 legal immigrants born in Mexico have a rate of college graduation approaching that among the native-born—15% compared to 20%—and a higher rate of advanced schooling than the native-born—9% compared to 7% (Tables 5 and 6). On the other hand, legal immigrants born in Mexico have a substantially larger proportion with low levels of schooling than either immigrants born elsewhere or the native-born U.S. population—65% without a high-school education compared to 34% among all the FY 1996 legal immigrants and 23% among the native-born U.S. population in 1990.

Table 6
Schooling Distributions and School Enrollment Rates: NIS 1996 Cohort, 1990 Census Foreign-born (Entered 1987-90), and 1990 Census Native-born

Schooling Characteristic	NIS 1996 Cohort	Foreign-born 1990 Census	Native-born 1990 Census
A. Years of Schooling Completed, Persons Aged 25 and Over			
Less than 5 years	6.8	12.1	1.8
5-8 years	12.7	11.9	6.9
9-11 years	14.1	12.9	14.3
12 years	12.4	17.6	31.1
13-16 years	32.9	32.8	38.8
17-18 years	12.1	7.5	4.7
19+ years	9.0	5.2	2.4
Mean years	12.7	–	–
Median years	13.0	12.0	12.0
B. School Enrollment, Persons Aged 18 to 24 Years	38.2	37.8	42.9

NOTE: 1990 Census figures are drawn from published tabulations (1990 CP-3-1 for the foreign-born, 1990 CP-3-2 for the native-born).

SOURCE: Jasso, Massey, Rosenzweig, and Smith (1997).

Schooling levels among legal immigrants also differ substantially across visa categories, and patterns among the Mexico-born are qualitatively similar to patterns among those born elsewhere (Table 7). In general, and as expected, immigrants with employment-based visas have the highest schooling levels—averaging 16 years for both Mexico-born and the 1996 cohort as a whole. Immigrants admitted as parents of U.S. citizens have the lowest average schooling, 7.5 years on average for the cohort as a whole and 4.5 years for the Mexico-born. Immigrants admitted as spouses and siblings of U.S. citizens have intermediate average schooling levels, with spouses higher, reflecting screening implicit in their selection as mates by U.S. citizens. Although the qualitative patterns are similar, there are some quantitative differences. For example, the difference between the average schooling of

Table 7
Years of Schooling Completed Among Mexico-born and All Immigrants Aged 25 Years and Over at Admission, by Visa Class: NIS 1996 Cohort

Visa Class	All Immigrants		Born in Mexico	
	Mean	S.D.	Mean	S.D.
Spouse of U.S. citizen	13.6	4.6	12.7	4.9
Parent of (adult) U.S. citizen	7.5	5.1	4.5	4.3
Sibling, principal and spouse	13.4	5.4	7.5	2.1
Employment, principal and spouse	16.1	4.3	16.0	6.1
Refugee/asylee, principal and spouse	13.1	4	-	-
Diversity, principal and spouse	14.5	3.3	-	-
Other	11.1	4.7	7.3	3.9
All Immigrants 25 and over	12.7	5.1	8.9	5.5

NOTE: Figures are for all immigrants in the NIS 1996 cohort (July and August 1996) who were aged 25 years and over at admission to permanent residence.

Mexico-born spouses and spouses born elsewhere is smaller (not quite one year of schooling) than the difference between sibling immigrants born in Mexico and those born elsewhere (almost six years different in average schooling).

English Language Skills

Not surprisingly, information on English-language skills is available primarily from U.S.-side data sources. Data from the 1990 U.S. Census indicate that, among Mexico-born persons aged 5 years and older, 71 percent report not speaking English "very well." As would be expected, the percentage with poor English skills is larger for those who entered the United States during the ten-year period prior to the Census (78.5 percent) than for those who entered before 1980 (63.2 percent).

In the 1990 Census, English language deficiency is lower among those who report they are naturalized citizens (57.5 percent) than among noncitizens (74.6 percent). It is highest for the 1980-89 cohort of non-naturalized migrants (80 percent). The LPS found that it was higher still for the newly legalized group of migrants

from Mexico; only 10 percent of these migrants reported speaking English well. English language deficiency appears to be particularly high among farm workers. The 1990 NAWS found that only 7 percent of Mexican-born farmworkers could speak English, and only 4 percent could read it. Mexicans represented 57 percent of the total U.S. workforce in seasonal agricultural services (SAS) and 92 percent of the foreign SAS workforce in 1990.

The NIS data on FY 1996 legal immigrants indicate that over half of those aged 18 years and older speak English "average or so-so" or better (Table 8). As would be expected, immigrants with previous experience as unauthorized migrants have lower proficiency in English—while 51% of those with EWI experience report speaking English "not very well" or "not well at all," 44% of those without measured EWI experience do so.

Marriage and Family

Immigrant Spouses, Parents, and Minor Children of U.S. Citizens

Information on marriage and family for Mexican migrants is available almost exclusively from U.S. Census and INS data. The largest single component of normal-flow legal immigration of the Mexico-born consists of the immediate relatives—spouses, minor children, and parents—of adult U.S. citizens. The largest component

Table 8
English Language Skill Among Immigrants Born in Mexico Aged 18 Years and Over at Admission, by Whether They Ever Entered the United States Without Inspection (EWI): NIS 1996 Cohort

English Language Proficiency	All	No EWI Experience	Some EWI Experience
Speaks English "very well"	9.1	12.9	5.6
Speaks English "fairly well"	9.7	16.7	5.6
Speaks English "average or so-so"	32.9	26.2	38.1
Speaks English "not very well"	17.9	13.2	21.4
Speaks English "not well at all"	30.3	30.9	29.3

NOTE: Respondents classified as having EWI experience met at least one of two criteria: (i) their first trip to the United States was without legal documents, or (ii) adjustment to permanent residence was from an EWI status.

of immediate-relative immigration consists of the spouses of U.S. citizens. Mexico is the leading source of spouses of U.S. citizens.

While the number of visas under the preference system is limited both worldwide and per country (20,000 prior to the Immigration Act of 1990; 7 percent of the total annual family-sponsored and employment-sponsored preference limits subsequently—e.g., 31,627 for FY 1996), the number of immediate relatives has no ceiling. In FY 1985 (the only year for which data are available on the nativity of the U.S.-citizen sponsors), 73 percent of all Mexico-born immediate relatives were sponsored by native-born U.S. citizens. In contrast, worldwide, 64 percent of all immediate relatives were sponsored by native-born U.S. citizens.

Immediate-relative immigration from Mexico has exceeded 20,000 every year since FY 1978 and has exceeded 30,000 every year since FY 1982 except for FY 1992 and FY 1995; it peaked during Fiscal Years 1986-1988, when it exceeded 40,000 per year.

Spouses of U.S. Citizens

Most of the immediate relatives from Mexico are spouses of U.S. citizens; the spouse flow alone exceeded 30,000 in FYs 1986-1988. Time series data indicate a strong decline since FY 1989, to lows of 15,350 in FY 1992 and, after an upturn, to 13,841 in FY 1995.

Sex Ratio Among Spouses and Sponsors

As noted above, INS legal-immigrant data indicate that marriage to a U.S. citizen is predominantly an activity involving U.S. women and Mexican men. In the period FY 1971-1979, the proportion husbands fluctuated between 56 percent and 61.8 percent. Microdata from the FY 1982 cohort indicate that the proportion husbands was 63.4 percent, and a probability sample drawn by the General Accounting Office (GAO) for the FY 1985 immediate-relative immigrants indicates that the proportion husbands in 1985 was 69.85 percent. However, the proportion husbands declined to 49.4% in 1994, and in the NIS cohort of 1996 to 44.2%.

Nativity of U.S. Citizen Sponsors of Spouses

The GAO data also indicate that a substantial majority of the U.S. sponsors of spouses in FY 1985 were U.S. citizens by birth—almost 78 percent (Table 9). Among the male sponsors of Mexican brides, 73.17 percent were born in the United States, and an additional 4.88 percent were U.S. citizens by birth, born to Americans abroad; among the female sponsors of Mexican husbands, 74.74 percent were born in the United States, and an additional 2.11 percent were born abroad to U.S. parents. For

Table 9
Sex and Citizenship Type of the U.S. Citizen Sponsors of Immediate Relatives, for All Immediate Relatives and Those Born in Mexico: Evidence from the GAO FY 1985 Immediate-relative Immigrants File

Sponsor's Citizenship Type	Spouses	Own Children	Adopted Children	Parents
A. All Immediate-relative Immigrants				
Birth-citizen, Born in U.S.	76.28	52.57	97.89	2.91
Birth-citizen, Born Abroad to U.S. Parent(s)	4.02	12.64	0	1.65
Birth-citizen, Place of Birth Not Known	0.18	0	0	0
Naturalized Immigrant	19.52	34.79	2.92	95.44
Total Sponsored Immigrants	124,093	25,778	9,286	38,986
B. Immediate-relative Immigrants Born in Mexico				
Birth-citizen, Born in U.S.	74.26	48.48	0	6.67
Birth-citizen, Born Abroad to U.S. Parent(s)	2.94	24.24	0	6.67
Birth-citizen, Place of Birth Not Known	0.74	0	0	0
Naturalized Immigrant	22.06	27.27	0	86.67
Total Sponsored Immigrants	28,957	6,425	137	2,464
C. Immediate-relative Immigrants Born in Mexico, Sponsored by U.S. Men				
Birth-citizen, Born in U.S.	73.17	48.00	0	11.11
Birth-citizen, Born Abroad to U.S. Parent(s)	4.88	20.00	0	0
Birth-citizen, Place of Birth Not Known	2.44	0	0	0
Naturalized Immigrant	19.51	32.00	0	88.89
Total Sponsored Immigrants	8,730	4,868	NA	1,479

Table 9 (Continued)

Sponsor's Citizenship Type	Spouses	Own Children	Adopted Children	Parents
D. Immediate-relative Immigrants Born in Mexico, Sponsored by U.S. Women				
Birth-citizen, Born in U.S.	74.74	50.00	0	0
Birth-citizen, Born Abroad to U.S. Parent(s)	2.11	37.50	0	16.67
Naturalized Immigrant	23.16	12.50	0	83.33
Total Sponsored Immigrants	20,227	1,557	NA	985

NOTE: All figures are sample estimates except the total numbers of immigrants in Panels A and B. All naturalized-citizen sponsors of Mexico-born immediate relatives were themselves born in Mexico except for 13.64 percent of the women sponsors of spouses, of whom two-thirds were born in Germany and the remaining one-third in Cuba. Of the birth-citizens born abroad who sponsored Mexico-born immediate relatives, all were themselves born in Mexico.

both Mexico-born spouses of U.S. citizens and those born elsewhere, the NIS Pilot Study registers smaller proportions of native-born sponsors—66% of the sponsors of Mexico-born spouses and 52% of sponsors of spouses born elsewhere are native-born U.S. citizens.

Nativity of U.S. Citizen Sponsors of Parents and Minor Children

Not surprisingly, the overwhelming majority of sponsors of Mexico-born parents—almost 87 percent in the GAO data—are naturalized citizens (Table 9). Almost half of all sponsors of minor children (excluding orphans) were born in the United States, and an additional 24 percent were born abroad to U.S. parents.

Migrant Families and Family Size

As noted above, ENADID and EMIF data place the share of Mexican migrants who are single at between 28 and 40 percent, depending upon the data source and gender, with female migrants being significantly more likely to be single than male migrants.

LPS data on the IRCA (Section 245A)-legalized aliens indicate that the Mexico-born had the highest average household family size—3.8 persons, compared with 2.8 for the rest of the group.

The 1990 Census data show 18.8 percent of Mexican immigrant households having only 1 or 2 persons, 47.7 percent having more than 5 persons, and 17.4 percent having 7 or more persons. The share of small (1-or-2-person) households is larger for pre-1980 immigrants (20 percent), but the share of large (7-or-more-person) households is similar across migrant-cohort groups. Noncitizen households are less likely to be small (16.6 percent are 1-2-person households) and more likely to be large (18.8 percent have 7 or more persons) than households headed by persons reporting themselves naturalized.

Fertility

Mexico-born women enumerated in the U.S. Census have higher fertility than the U.S. average in all age groups. Mexico-born women 15 to 24 years of age averaged .63 children ever born, compared with .30 for all U.S. women in this age group, and women 25 to 34 years of age averaged 2.13 children ever born, compared with 1.33 for all women. Mexico-born women 35 to 44 years old averaged 3.29 children ever born, compared with 1.96 for all U.S. women. In the 25-34-year age group, fertility is lower the more recent the year of entry. Children ever born for this age group range from 2.32 for pre-1980 entrants to 1.69 for 1987-90 entrants. There is no discernible fertility pattern by year of entry for the oldest group. For the youngest group, children ever born is .56 in the pre-1980 entry cohort, peaks at .85 in the 1982-84 cohort, then declines to .52 in the 1987-90 cohort.

Among legal immigrants in the FY 1996 cohort, the average number of children is 2.5, with an average of 2.2 children residing in the United States and the rest abroad.

Naturalization

Traditionally immigrants from Mexico had low naturalization rates, rates exceeded by immigrants from every country except Canada. Annual naturalizations hovered between 6,000 and 10,000 during the 1960s and 1970s, but in the decade after the preference category system of visa allocation was extended to the Western Hemisphere—effectively augmenting the sponsorship privileges of citizens with roots in this hemisphere—naturalizations more than tripled. Since then, naturalizations have continued to increase, to 39,310 in 1994 and 67,238 in 1995 (see Figure 3 in Volume 2, page 767). Note that these figures understate the number of

naturalizations, as the data do not include children under the age of 16 who derive naturalization from their naturalizing parents.

Naturalizations are expected to continue to increase, due to the confluence of several factors: (i) the backlog pressure on the categories of spouse and minor children of permanent resident aliens, intensified by the IRCA legalizations; (ii) the Green Card Replacement Program, initiated in 1992, which requires that permanent resident alien cards issued before 1978 be replaced and which, given that the requisite investment of time and money is no more for applying for naturalization than for replacing the green card, has led many immigrants to choose naturalization; (iii) initiation of an expiration date, 10 years after issuance, on green cards issued since 1988, which is also likely to lead immigrants to choose naturalization over green-card renewal; (iv) recent U.S. legislation which dramatically reduces the civil rights and social entitlements of non-naturalized immigrants; and (v) recent amendment of the Mexican Constitution which provides that Mexican nationals who become naturalized citizens of another country do not forfeit Mexican nationality.

Overall, in the period 1961-1995, a total of 470,515 Mexican nationals naturalized; this number omits children deriving U.S. citizenship from the naturalization of their parents. Interestingly, more women than men have naturalized—almost 21,000 more in the 1961-1995 period. Time series data indicate that the proportion male was less than half in every year since 1961 except, trivially, in 1964 and 1965 and in 1990-1993.

Naturalization rates have also increased steadily, and, although lower than worldwide averages, have overtaken the rates for immigrants from Canada and Germany. Among Mexico-born immigrants aged 16 and over at admission, 17.6 percent of the 1977 cohort and 11.9 percent of the 1982 cohort had naturalized by October 1993; the corresponding figures for the worldwide cohorts are 41.5 and 37.6 percent (INS 1994 Statistical Yearbook, pp. 132-133).

The 1990 U.S. Census counted almost 1 million Mexico-born persons who reported that they were naturalized citizens of the United States. This number constitutes 22.4 percent of the total enumerated Mexico-born population but, of course, a larger fraction of the relevant population—i.e., the total Mexico-born population in the Census includes persons who are not eligible to naturalize, not only legal immigrants who are too recently arrived to have met residency requirements but also nonimmigrants and undocumented migrants. This figure, however, is thought to be a serious overestimate (Clark and Passel 1997).

Participation in Migration Networks

U.S. immigration law virtually enshrines migration networks, given that the majority of non-refugee visas are allotted to relatives. The main visa categories

that do not require a network are the employment categories and the spouses of U.S. citizens—though networks may underlie the former and may emerge from the latter.

Nearly all data on migration networks are from community studies in Mexico. Sixty-seven percent of all individuals enumerated by the 1993 Michoacán survey had at least one immediate family contact in the United States. Those with kin networks averaged 1.6 contacts each. In one village included in the longitudinal Michoacán survey, the share of individuals with at least one family contact in the United States increased from 56 percent in 1983 to 80 percent in 1989.

Characteristics of Migrant-Sending Households in Mexico

Information on characteristics of migrant-sending households in Mexico is available from community survey data. Migration networks, or access to family contacts in the United States, are almost universally found to be the most important single household variable influencing migration and one of the households' most important economic and social assets. "Ownership" of migration networks and past migration experience are fundamental characteristics of migrant households in Mexico. The most detailed data on these as well as other characteristics of migrant-sending households come from community studies in Mexico. It is not possible to generalize findings from surveys of small numbers of communities to the population-at-large of migrant-sending households. Nevertheless, some patterns emerge that provide insights into changes in characteristics of migrant-sending households at different points in the migration process and differences in characteristics between households that send migrants to the United States and those that do not. The verdict on whether and to what extent these findings can be generalized will have to await the availability of new community-survey data from Mexico.

Mexican Migration Project data suggest that landlessness is positively related to the likelihood of undertaking a first trip to the United States. That is, controlling for personal characteristics, first-time migrants are significantly more likely to come from households with limited or no landholdings than from large-holder households. They are also more likely to have fathers with U.S. migration experience. The probability of taking subsequent trips, however, was found to be unrelated to these household characteristics. It depended entirely on the individual's migratory experience and on migration networks (Massey, 1987). A comparison of land ownership across the 19 communities surveyed in the Mexican Migration Project suggests that migrants are more likely to come from landless households in communities with high levels of migration prevalence. These data

also indicate that, although the vast majority of migrants come from households in Mexico that do not own businesses, the share that do is not negligible—particularly at the lowest (9.3 percent) and highest (8.1 percent) community migration-prevalence levels.

The Michoacán Project data reveal significant differences in household characteristics between migrants and nonmigrants. The 1983 surveys found that Mexico-to-U.S. migrants, on average, came from larger families (9.1 adult members 13 years of age or older compared with 8 for non-Mexico-to-U.S. migrants), with above-average landholdings (7 hectares, compared with 5 for nonmigrants), and relatively wealthy households (3,470 in 1982 pesos, compared with 2,190 for nonmigrants). However, for the most part they were not the most privileged families in migrant-sending villages. In fact, controlling for household income and wealth, migrants were significantly more likely to come from households that were "relatively deprived" within their village reference group—i.e., located at the bottom-to-middle of the village income distribution. Even for otherwise similar households, migration behavior is not uniform across socioeconomic (e.g., village) settings.

The larger, 1983 Michoacán study, like its predecessor, found that both undocumented and documented migrants originate from households in Mexico with above-average family size (11 and 12 family members for the two migrant groups, respectively, compared with 10.7 for the full sample). They also come from families with above-average education (.86 and .84 members with some secondary schooling, compared with .76 for all households); with more family members with migration experience (5.6 and 7.3 members, respectively, compared with 3.4 for all households); larger landholdings (1.9 and 2.4 hectares, compared with 1.4 for all households); and more wealth, as indicated by the value of animal herds (5,309 and 8,781 in 1992 pesos, compared with 4,148 for the full sample). The differences between migrant and nonmigrant households implied by these numbers reflect both the selectivity of migration on family characteristics and impacts of past migration experience on the accumulation of family assets. For example, one study (Taylor, 1992) found a significant positive effect of past migration on the accumulation of livestock.

A common characteristic of migrant households in Mexico is their receipt of remittance income from migrants in the United States. The LPS found that 66 percent of newly legalized Mexican migrant families remitted, and average remittances to Mexico were $1,304, or seven percent of the total income of Mexican migrant families in the United States. Average remittances to Mexico were higher than to any other region. For example, average remittances were $1,144 to Central America, $930 to other western hemisphere countries, and $874 to eastern hemisphere countries. Mexico Migration Project data on 22 migrant-sending communities show that, in the 12 months prior to the survey, household heads who were

migrants remitted an average of US $2,383, and non-heads remitted an average of $2,100. Returning migrants who were household heads brought back an average of $1,392 in savings; non-heads brought back an average of $858 (Massey and Parrado, 1994). Most surveys that gather data on migrant remittances do not provide information on total incomes in surveyed households, making it impossible to ascertain the share of remittances in total incomes of migrant-sending communities. Nevertheless, available evidence suggests that migrant remittances and savings represent an important share of total income in many migrant-sending households and regions. For example, income remitted by migrants in the United States accounted for 17 to 20 percent of total household income in the Michoacán Project villages, both in 1982 (Stark, Taylor and Yitzhaki, 1986) and 1988. Studies of villages in other regions of Mexico suggest typical international remittance shares on the order of 15 to 25 percent; e.g., see Taylor and Yunez (1995).

Labor-Market Characteristics

Migrants' occupational configurations, both in Mexico and in the United States, differ markedly by data source and by gender. In general, data on circular migrants show a stronger attachment of migrants to agricultural work, both in the United States and in Mexico, prior to migrating. Data on relatively settled populations indicate that most Mexican migrants are employed outside of agriculture, particularly in manufacturing and services. Data from nearly all sources suggest an increasing diversity of employment, both before and after migration, over time, as well as growing orientation towards urban jobs.

Work in Mexico Prior to Migration

At the start of the 1900s, agricultural workers were predominant in migrant flows. This trend continued during the Bracero Program. In the years following the Bracero Program, however, the share of agricultural workers in migrant flows has diminished. In 1971, Samora found that only 57% of migrants had worked in agriculture prior to migrating. The ENEFNEU survey found a similar share of agricultural workers (58.5%); 15.1% had held industrial jobs and 23.5% had worked in services. These shares contrasted with those for the Mexican population as a whole (39.3%, 21.4%, and 38.7%, respectively). The ETIDEU found that by 1984 the share of the primary sector had fallen to 39.4 percent. Only 5.6 percent of women worked in agricultural jobs, 30.6 percent worked in industry, and 60.2 percent in services (mostly domestic).

Most migrants had work in Mexico prior to migrating. In the ENEFNEU, only 20% did not work and only 3.2% were openly unemployed in Mexico prior to

migrating. The share without work was higher in the 1994 EMIF: 27.4% of returning migrants, 21.3 percent of deported migrants, and 32.4 percent of migrants en route to the United States did not work during the 30 days prior to migrating from Mexico. In the large majority of cases, migration cannot be attributed to an absence of employment in Mexico.

EMIF data show a relatively high share of agricultural workers in circular migrant flows. More than half of all male migrants in both the south-north and north-south flows worked in agriculture prior to migrating (57.6 and 55.2 percent, respectively). This share is lower in the deported-migrant flow (35.5 percent). About 25.6 percent of returning migrants and 21.4 percent of south-north migrants were in industrial jobs prior to migrating. The shares in service-sector jobs for the two flows were 19.2 percent and 18.3 percent, respectively. Activities associated with the urban sector absorbed more of the deported-migrant flow prior to migrating: 33.9 percent were in industrial jobs (20.5 percent in construction), and 30.5 percent were in service-sector jobs. The shares of undocumented migrants employed in farm work and in urban jobs, respectively, were 39 percent and 56 percent in the Zapata Canyon project data for 1996. Both of these shares were appreciably lower—and the share unemployed in Mexico higher—in 1988 than in 1996.

The high share of migrants employed in construction jobs prior to migrating—16 to 17.4%—suggests that the migration propensity is higher for this group than for other workers in manufacturing. Construction jobs in Mexico are characterized by a high degree of instability, low wages and poor working conditions.

In the EMIF study, 61.8% of women migrating northward worked in Mexico prior to migrating. The shares for deported and returning migrants were 46.2% and 38.9%. Most female migrants worked in services (68 percent of returning migrants, 64 percent of deported migrants, and 44 percent of north-bound migrants; see EMIF). Among north-bound female migrants, previous employment was nearly equally divided between industrial and service (41 percent) jobs. Sectors of employment prior to migrating vary across region. For example, agriculture employed 66.7%, 61.4% and 45.6%, respectively, of north-bound migrants, return migrants, and deported migrants born in rural areas.

Occupations of Return Migrants in Mexico

The majority of return migrants do not do agricultural work. The ENADID data reveal that most return migrants in urban areas of Mexico (61 percent) are wage workers, while most return migrants in rural areas are either self employed (32.3 percent) or non-agricultural wage workers (38 percent). Only 19.5 percent of return migrants in rural areas and 6.5 percent in urban areas are agricultural wage

workers. Non-remunerated work absorbs 9 percent of return migrants in rural areas and 3 percent in urban areas. Very few (1.1 percent in rural zones and 3.7 percent in urban zones) are businessmen (*empresarios*).

Predictably, the most urbanized regions (II and IV) have the largest shares of nonagricultural workers among return migrants. Regions III and V have the largest shares of non-remunerated workers (11.8% and 9.4%, respectively, similar to those regions' agricultural-worker shares). These are regions where subsistence farming is predominant. Among women, all regions display a high level of unemployment prior to migration. The highest is region III (73 percent) and the lowest, Oaxaca-Guerrero (63.7 percent). The largest share of women in nonagricultural jobs is found in the border zone (74.6 percent), due no doubt to the presence there of *maquiladoras* employing large numbers of female workers.

Work in the United States[10]

Work is a primary motivation for migrating to the United States. Of those who have lived in the United States, 81.5% have worked there (ENADID). The EMIF found that 88.8 percent of voluntarily returning migrants had worked in the United States. In addition, the ENADID survey found over 1 million people who declared having worked in the United States without living there. The labor-migrant share is higher for men (91.6 percent) than for women (53.8%). The LPS found a labor market participation rate of 95 percent for Mexican men and 63 percent for women, with unemployment rates of 2.3 percent and 6.6 percent, respectively. Average hours worked per week were 44 for men and 40 for women.

Data on employment of Mexican migrants in the United States reveal an increasing diversity of jobs over time. At the end of the 1800s and up through the end of the Bracero Program, Mexican migrants were employed primarily in agriculture.

The ENEFNEU study fount that, in 1978-79, only 37.1 percent of migrants worked in the agricultural sector; 24.8 percent were employed in industry and 37.6 in services (CENIET, 1982, 144). ETIDEU data show a larger share in agricultural jobs (45%), reflecting a relatively high incidence of farm work for undocumented (deported) migrants, the population represented by that survey.

Nevertheless, Census and CPS data reveal high levels of unemployment for Mexican migrants. The 1990 Census reports an unemployment rate of 11.3 percent for Mexican migrants, compared with 6.3 percent for the U.S. population at large. The 1996 CPS reports a larger unemployment gap: 21.9% unemployment for Mexican migrants, compared with 5.9% for the population as a whole. Of course, Census and CPS data include substantial numbers of persons without permission to work, some of whom may simply be obeying the law—for example, spouses of a variety of legal nonimmigrants, such as students (F visas), temporary workers

(H and O visas), intracompany transferees (L visas), artists and entertainers (P visas), religious workers (R visas), and treaty traders and investors (E visas). Thus, the increase in unemployment among Mexico-born persons enumerated in the CPS in 1996, relative to the 1990 Census, may reflect increasing numbers of legal nonimmigrants. It may also reflect increasing numbers of persons who may be working illegally and reporting that they do not work.

Data sources differ sharply on the distribution of migrant jobs across sectors. EMIF data show that more than half (52.7 percent) of all returning migrants were agricultural workers in the U.S., with industry (24.6 percent) running a distant second. Two thirds of the migrants reported in industrial jobs worked in construction. Of the 22.7% who worked in services, 5.8% held domestic-service jobs. The largest share of deported migrants worked in services (47.6 percent); 32.1 percent of deported migrants had been agricultural workers.

The agricultural employment share is larger in EMIF data than in most other data sources, including the U.S. Census and INS data and data from community studies in Mexico. This may reflect greater tendency towards agricultural work among circular migrants than among more settled ones. Today, although Mexican migrants are the majority of U.S. farmworkers, U.S. agriculture absorbs far less than half of all Mexican immigrants.

Among the migrants in the 1983 Michoacán survey, 90 percent worked in light manufacturing and service jobs in and around California's San Fernando Valley. This was in contrast to the older cohorts of returned migrants, who worked almost exclusively in U.S. agriculture—first as *braceros* and later as undocumented migrants. In one of the villages, a Purépecha (Tarascan)-speaking community that was almost entirely bypassed by the Bracero Program, households did not participate heavily in Mexico-to-U.S. migration at the time of the 1983 survey; only a handful of individuals from this village worked in the United States in the early 1980s, almost all as H-2 workers harvesting tobacco in Virginia. By 1993, many households in this village had family members working in the United States, mostly in manufacturing and service jobs in Southern California, a few harvesting apples in Washington and Oregon, but no H-2(A) workers in the Eastern United States.

The Zapata Canyon project data show evidence of an upward trend in urban-sector employment for undocumented migrants, particularly in construction and services.

INS microdata on the FY 1977, 1982, and 1994 immigrant cohorts indicate that approximately half of the prime-age men are in the operators-fabricators-laborers classification (Table 10). The proportion in farming-forestry-fishing was highest in 1982 (9.9 percent) and lowest in 1994 (4.9 percent). The combined executive and professional classification was also highest in 1982 (7.0 percent) and lowest in

Table 10
Occupational Distributions, Immigrants Born in Mexico, Aged 21-65 at Admission to Permanent Residence: FY 1977, 1982, 1994 Cohorts

Summary Occupation Group	FY 1977 Cohort		FY 1982 Cohort		FY 1994 Cohort	
	Men	Women	Men	Women	Men	Women
A. Percent reporting an occupational title and percent students, all immigrants aged 21-65 years at admission						
Percent reporting occupational title	98.00	22.49	96.49	32.52	84.38	44.71
Percent students	0.72	0.66	1.18	1.77	0.75	0.41
Number aged 21-65 years	13,426	11,589	19,018	13,105	15,836	33,319
B. Percent in summary occupation groups, immigrants aged 21-65 years at admission reporting an occupational title						
Managerial and professional specialty occupations	6.61	7.64	6.96	7.39	4.75	2.64
Technical, sales, and administrative support occs.	3.92	10.90	3.11	14.41	4.74	10.71
Service occupations	12.10	18.76	9.99	25.65	15.13	21.82
Farming, forestry, and fishing occupations	8.10	2.80	9.87	4.34	4.90	9.84
Precision production, craft, and repair occupations	15.20	3.11	13.26	2.39	15.09	3.09
Operators, fabricators, and laborers	54.06	56.79	56.81	45.82	55.39	51.89
Average occupational earnings, 1979$	16,617	16,149	16,492	16,144	16,251	15,614

NOTE: Panel B earnings figures for 1977 exclude 3 cases for which detailed occupation could not be unambiguously ascertained.

1994 (4.75 percent). The proportion employed in service occupations fluctuated between 10 and 15 percent. Among women, the proportion reporting an occupational title increased steadily, more than doubling between 1977 (22.5 percent) and 1994 (44.7 percent).

The 1977 and 1982 INS data, which include naturalization information, suggest both that those who naturalize are drawn from among the more highly skilled and that those who naturalize experience occupational upgrading during

the years between admission to permanent residence and naturalization (Table 11). Moreover, among women, labor force participation at admission not only is associated with subsequent naturalization but also increases between admission and naturalization.

Data on IRCA (Section 245A)-legalized aliens provide a somewhat different picture; this is not surprising given the population (illegal aliens) and given that information about occupation pertains to the week before application for temporary residence under the legalization program. Only 2 percent are in the executive and professional category, and 28 percent are in the service occupations.

The 1990 Census reports that manufacturing, services, and construction absorb well over half (58 percent) of all employed Mexican immigrants 16 years or older. Another 17.5 percent work in retail trade. Only 13 percent are reported working in the "agriculture, forestry, and fisheries" sectors. This sector's share is lowest for naturalized citizens who entered the United States prior to 1980 (8.3 percent) and highest for noncitizens entering the United States between 1980 and 1989 (15.7 percent). The corresponding agricultural, forestry, and fisheries share for the employed U.S. workforce 16 years or older was 2.7 percent. In the LPS, the largest sector share by far for newly legalized migrants was in manufacturing (34 percent), followed by sales (24 percent) and services (20 percent). Agriculture claimed only 9 percent of IRCA (Section 245A)-legalized aliens from Mexico. The vast majority of agricultural-worker legalizations were through the Special Agricultural Worker (SAW) program, not under Section 245A. SAWs were not enumerated in the LPS.

Overall, the Census shows employed Mexican immigrants as more likely than the U.S. population as a whole to work in agriculture, forestry, and fisheries jobs; in construction (10.4 percent, compared with 6.2 percent); and in manufacturing (26.6 percent, compared with 17.7 percent). It shows them less likely than the U.S. workforce as a whole to be employed in services (20.6 percent, compared with 32.7 percent); transportation, communication, and other public utilities (3.3 percent, compared with 7.1 percent); finance, insurance, and real estate (2.1 percent, compared with 6.9 percent); and public administration (1 percent, compared with 4.8 percent). The employment shares in the other major sectors (retail and wholesale trade and mining) are similar for Mexican immigrants and the U.S. workforce at large.

Both the 1990 Census and the 1996 CPS data suggest a negative association between time in the United States and employment in agriculture—or else a high rate of return migration for agricultural workers from Mexico. In the CPS, the agriculture, forestry, and fisheries share is 18.6 percent for 1990-96 entrants, 12.3 percent for 1980-89 entrants, and 8.9 percent for pre-1980 entrants. It is highest for naturalized citizens in the 1990-96 group (41.6 percent), reflecting the effects

Table 11

Occupation of Legal Immigrants Born in Mexico Aged 21-55 Years at Admission, with Percent Distributions at Admission and at Naturalization, by Sex: FY 1977 and 1982 Cohorts

Summary Occupation Group	FY 1977		FY 1982	
	Men	Women	Men	Women
A. Occupation at Admission, All Immigrants				
Managerial/Professional	6.4	1.7	7.2	4.3
Technical/Sales/AdminSupport	3.9	2.5	3.0	4.9
Service Occupations	11.9	4.1	9.6	8.1
Farming/Forestry/Fishing	7.9	0.7	9.5	1.4
PrecisionProduction/Craft/Repair	15.0	0.7	16.2	3.3
Operators/Fabricators/Laborers	53.2	13.1	51.7	12.9
B. Occupation at Admission, Immigrants Who Later Naturalized				
Managerial/Professional	9.5	3.5	10.7	6.2
Technical/Sales/AdminSupport	6.2	5.1	5.4	8.9
Service Occupations	13.2	5.4	11.4	9.6
Farming/Forestry/Fishing	4.6	0.3	4.8	0.8
PrecisionProduction/Craft/Repair	14.6	0.9	16.3	5.5
Operators/Fabricators/Laborers	49.3	13.7	46.9	12.3
C. Occupation at Naturalization, Naturalized Immigrants				
Managerial/Professional	12.7	6.3	11.8	7.5
Technical/Sales/AdminSupport	8.0	12.8	8.1	16.7
Service Occupations	19.1	15.7	15.0	16.6
Farming/Forestry/Fishing	2.0	0.8	2.6	0.6
PrecisionProduction/Craft/Repair	14.7	3.8	10.9	3.0
Operators/Fabricators/Laborers	29.6	13.5	25.4	10.3

NOTE: Percentages shown are based on all persons in the age group.

Table 12
Characteristics of the Mexican Legalized Population in 1987

Social and Demographic Characteristics	
Age (Median, April 30, 1987)	30
Sex (% Males)	59%
Marital Status (% Married)	53%
Household Family Size (Persons)	3.8
Education (Median Years)	6.0
English Language Proficiency (% Speaking English Well)	10%
Work Characteristics	
Labor Force Participation (and Unemployment) Rate	
Males	96% (2.3%)
Females	65% (6.6%)
Total	83% (3.6%)
Industry of Employment	
Agriculture	9%
Construction	10%
Manufacturing	34%
Sales	24%
Services	23%
Hours Worked/Wk. Among Those Working	
Males	44
Females	40
Total	43
Mean Hourly Wage	$7.14
Median Earnings	$8,435
Family Income	
Mean	$17,551
Median	$14,875
Family Remittances	
Mean	$1,304
Median	$500
Share of...	
Income Remitted	7%
Families Remitting	66%

Source: INS Legalized Population Survey (INS 1990)

of the Special Agricultural Worker (SAW) legalization program. It is lowest for the pre-1980 naturalized group (3.2 percent). Employment shares in services are higher for older immigrant cohorts. For example, in the 1990 Census, the service sector absorbed 18.6 percent of 1980-89 entrants and 22.4 percent of pre-1980 entrants; in the CPS, 15.4 percent of 1990-96 entrants, 21.5 percent of 1980-89 entrants, and 28.7 percent of pre-1980 entrants 16 years or older who were employed worked in services. In most cases, employment profiles of "older" Mexican immigrant cohorts are more similar to the average U.S. profile than are employment profiles of "younger" cohorts.

Sector of employment differs sharply across sexes. The EMIF found that most returning female migrants (62.6 percent) worked in U.S. service jobs (33.9 percent in domestic services). 28.7 percent were in industrial jobs, and only 8.7 percent worked in agriculture. It is noteworthy that the industrial-job share for returning female migrants exceeds that for returning male migrants in the EMIF data.

Migrants originating from rural areas in Mexico are more likely to have worked in U.S. farm jobs (58 percent of returning migrants and 46.3 percent of north-bound migrants) than are migrants from urban areas (46.6 percent of returning migrants and 38.7 percent of north-bound migrants). Among returning migrants, both industrial and service-sector shares are higher for urban than for rural-origin migrants. Among north-bound migrants, however, industrial-sector and domestic-service employment are higher for rural than for urban-origin migrants.

Comparison of Migrants' Occupations in Mexico and the United States

International migration more often than not is associated with mobility across employment sectors. In fewer than one half (48 percent) of all cases does sector of work prior to migration coincide with sector of work in the United States (EMIF, returning migrants). Most agricultural workers in Mexico (67 percent) do not change sector of employment when they migrate to the United States, but most industrial workers and service workers do. For example, only 22.8 percent of service workers who migrated to the United States held service jobs there. However, 79.6 percent of domestic-service workers in Mexico did not change sector when they migrated. More than half of all industrial workers who migrate end up in U.S. agriculture, but only 27 percent of service workers do.

Earnings and Income

Data on earnings in 1995 from the 1996 CPS indicate that among persons 25 years and older reporting earnings or self-employment income, the mean and median for the Mexico-born were $15,612 and $13,020 versus $30,641 and $24,001 among

Table 13
Comparison of Selected Characteristics of the Mexican Legalized Population in 1987 and 1992

Social and Demographic Characteristics	Average 1987	Average 1991
Age (Median, April 30, 1987)	30	
Sex (% Males)	59%	57%
Marital Status (% Married)	53%	
Household Family Size (Persons)	3.8	
Education		
Median Years	6.0	
6 or Fewer Years (%)		57
12 or More Years (%)		17
English Language Proficiency (% Speaking English Well)	10%	27%
Work Characteristics		
Labor Force Participation (and Unemployment) Rate		
Males	96% (2.3%)	93%
Females	65% (6.6%)	62%
Total	83% (3.6%)	80% (7%)
Industry of Employment		
Agriculture	9%	7%
Construction	10%	10%
Manufacturing	34%	27%
Sales	24%	27%
Services	23%	24%
Hours Worked/Wk. Among Those Working		
Males	44	41
Females	40	37
Total	43	40
Mean Hourly Wage	$7.14	$8.11
Median Earnings	$8,435	$12,091
Family Income		
Mean	$17,551	
Median	$14,875	$19,112
Family Remittances		
Mean	$1,304	$783
Median	$500	

Table 13 (Continued)

	Share of...	
Income Remitted	7%	
Families Remitting	66%	51%

Source: INS Legalized Population Survey, INS (1992)

the native-born. Comparable figures from the 1990 Census are $14,138 and $12,776 among the Mexico-born and $24,408 and $22,365 among the native-born (all figures in current dollars). Thus, the ratio of median earnings among the Mexico-born to median earnings among the native-born declined from 57% in 1989 to 54% in 1995; the estimated decline using mean earnings is steeper, from 58% in 1989 to 51% in 1995. This relative decline in earnings may be due in part to changing legal-status and/or gender composition among the employed Mexico-born included in the Census and CPS.

Among the new legal immigrants of the FY 1996 cohort, average earnings among persons 25 years and older were $19,129 among men and $13,619 among women. Among those age 18 and older, the comparable figures are $18,694 and $14,798. This compares with average earnings for the entire U.S. working population aged 18 and above in 1995, based on Current Population Survey data (Current Population Reports, Consumer Income, Money Income in the United States, 1995, P60-193, Table 9) of $33,259 and $10,414, respectively. The Mexico-to-native earnings ratios are 0.56 among men and 1.4 among women. These ratios suggest not only that legal immigrants have higher earnings than unauthorized migrants but also that, while legal-immigrant men display the classical pattern of lower earnings at entry, possibly reflecting their relative youth and lack of U.S. experience compared to the native-born, Mexico-born legal-immigrant women out-earn their native-born counterparts, on average.

Data limitations make it difficult to directly ascertain differences in earnings between legal and undocumented Mexican migrants. Insight can be gained, however, from the UC-EDD farmworker data and from surveys including formerly unauthorized migrants, such as the Legalized Alien Population Surveys and the New Immigrant Survey Pilot Study.

Research utilizing UC-EDD farmworker data found that undocumented migrants were significantly less likely than otherwise comparable legal workers to hold relatively skilled, machine operator and foreman jobs, and those who did hold skilled jobs had significantly lower earnings than legal workers in those jobs. Estimated weekly earnings for legal workers were $236 in relatively skilled

("primary") jobs and $185 in less skilled ("secondary") jobs. Moreover, weekly earnings for undocumented workers were not significantly different ($176-$177) in the two types of jobs.

The first round of the Legalized Population Survey collected information about earnings of the legalized persons (persons approved for the first-step legal temporary resident status) at the time they applied for legal temporary residence (i.e., between May 1987 and May 1988). Median prelegalization earnings (1987/1988) among the LPS newly legalized migrants were $8,435, a figure substantially lower than the median earnings of Mexico-born in the 1990 Census, $12,776, which includes both unauthorized and legal migrants. If those unauthorized migrants who were not eligible for legalization (e.g., newcomers) or who chose not to apply or who applied but were denied legalization have lower earnings than the IRCA legalized aliens, then the difference between with the average earnings of unauthorized and legal migrants is even larger.

The NIS Pilot Study includes information concerning entry without inspection at the first trip to the United States and also concerning whether adjustment to permanent resident status was from an EWI status. Accordingly, sample members can be classified into two groups, those with some EWI experience and those with none. Because full migration histories were not collected in the Pilot Study, the latter group includes individuals who may have EWI experience during an intermediate trip. Thus, the measure is conservative, and any differences between the two groups understate the true differences between persons with and without EWI experience. Among persons aged 18 and older, average male earnings for the group without EWI experience was $21,867 and for the formerly unauthorized, $17,709. The comparable figures among women were $12,393 and $17,461, respectively. Thus, while, as expected, among men average earnings is lower for the formerly unauthorized, the opposite is true for women. Moreover, U.S. earnings do not differ appreciably between the sexes among the formerly illegal, while among immigrants with no EWI experience, a large gender gap is observed (a ratio of female to male earnings of 57 percent). In a nutshell and putting it roughly, the formerly illegal of both sexes earn the same, and this amount lies halfway between the earnings of legal women and legal men. These results suggest that both selection mechanisms and earnings patterns by legal status may be gender-specific. Future research on this topic is warranted.

Turning to income, according to the U.S. 1990 Census, the mean household income among households with a Mexico-born head was $27,122, or about 70 percent of the U.S. mean of $38,453. Median household incomes for the two groups were $21,926 and $30,056, respectively.

Households with a Mexico-born head are much more likely than all U.S. households to be found at the bottom of the income distribution, and they are

much less likely to be found in the highest income ranks. Twenty-seven percent of all Mexican-headed households had incomes below the federal poverty line in 1990, compared with 13 percent of all U.S. households. The shares of Mexican migrant households are higher than those of all U.S. households in the lowest 5 income ranges reported in Table 1, Volume 2, page 750. They are lower in all of the remaining (upper) income ranges.

The shares of households in the lowest income groups are lower for the pre-1980 cohorts than for the 1980-89 cohort, and the shares in the highest income groups are higher for the "older" cohorts. This suggests that there are some economic returns to U.S. experience and/or that there is a positive selectivity of settlement on earnings—that is, low-income individuals and families are more likely eventually to return to Mexico. In contrast to migrant year-of-entry cohorts, shares of households in different income groups are remarkably similar between the two migrant-status groups.

The CPS data reveal a concentration of new (1990-96) migrant households at bottom of the income spectrum. The share of the 1990-96 household cohort with incomes less than $5,000 is 10.6 percent, double the shares of the 1980-89 and pre-1980 groups. The shares of households in the $5,000-$9,999 and $10,000-$14,999 income groups are also high for the 1990-96 group.

Both average and median incomes are higher for U.S. households in the 1996 CPS than in the 1990 Census, but the opposite is the case for Mexican-migrant households. The mean for all U.S. households is $38,453 in the Census and $44,938 in the CPS. The mean for Mexican-migrant households is $27,122 in the Census and $26,481 in the CPS. The U.S. median household income is $30,056 in the Census and $34,076 in the CPS, while that of Mexican-migrant households is $21,926 in the Census and $20,601 in the CPS. Thus, even though the real increase, after adjusting for inflation, may be smaller for the total U.S. population, it is clear that households headed by Mexico-born persons experienced a decrease in income. Of course, this may reflect changing household composition (e.g., fewer adults) or changing visa-status composition (e.g., a larger proportion of men working without permission).

The hypothesis that unauthorized migrants have lower household income than legal immigrants can be examined by comparing migrants legalized under IRCA Section 245A to the entire population in the Census or CPS. The first round of the Legalized Population Survey also collected information on family income of the legalized persons. Average prelegalization family income (including income contributions by all family members in the household) was $17,551 (median income: $14,875), substantially less than the comparable figures in the 1990 Census (average, $27,122; median, $21,926), which include both unauthorized as well as legal migrants (U.S. INS 1992). As discussed above with respect to earnings, if those unauthorized migrants who were not eligible for legalization

(e.g., newcomers) or who chose not to apply or who applied but were denied legalization have lower average family income than the IRCA legalized aliens, then the difference between with the family incomes of unauthorized and legal migrants is even larger.

Conclusions

Our findings indicate that Mexico-to-U.S. migrants, unlike international migrants from most other countries, have tended to be selected from the middle-to-lower ranges of the socioeconomic hierarchy, in a selection process originating with the recruitment of low-skilled Mexican workers by U.S. employers and facilitated by the long and historically porous border between Mexico and the United States, which puts U.S. labor markets within reach of individuals with limited financial resources in Mexico; by the expanding demand for low-skilled immigrant workers in the United States; and by extensive "migration networks" connecting families throughout Mexico with low-skill U.S. jobs.

Characteristics of Mexican migrants are not static, however; they change over time. Some of these changes appear to be long term. For example, there is evidence that schooling levels of Mexican migrants are increasing over time, that migrants' origins and destinations are increasingly urban, and, overall, that characteristics of Mexican migrants may be increasingly heterogeneous. These partly reflect changes in the population at large in Mexico from which migrants are drawn but may also reflect long-term changes in the selectivity of migration, including the influence of migration networks. Other changes are short-term, cyclical (i.e., related to recessions and expansions in the two countries) or discrete, resulting from exogenous shocks like droughts. Changing labor market conditions in the United States are instrumental in shaping migration flows and observed characteristics of migrants, given the importance of work as an objective of migration. Still others may be law- or policy-induced, for example, the large-scale legalization of migrants under IRCA. There are some indications that migration is becoming less selective over time, as shown in the Michoacán and Mexico migration surveys. This could be due to the operation of migration networks, buttressed by the family reunification provisions of US immigration law, which reduce the costs of migration for an individual prospective migrant.

The low average skill level of Mexico-to-U.S. migrants obscures the participation of highly educated individuals in migration. Even though the number of highly skilled Mexican migrants is small relative both to the number of skilled people in the United States and to the total Mexico-to-U.S. migrant flow, it is significant relative to the skilled population in Mexico. The presence of highly educated individuals among Mexico-born persons enumerated in the Census may reflect in part Mexicans

pursuing higher education in the United States. The subsequent migratory behavior of these highly educated individuals is of obvious importance to the two countries and deserving of future research.

We have focused on the characteristics of migrants, but full comprehension of the migration phenomenon must consider the migrants' legacy for their families and for their places of origin and destination. Mexico and the United States are deeply intertwined. Many Mexicans have American relatives and ancestors, and many Americans have Mexican relatives and ancestors. This is particularly visible in border areas but extends geographically following historical migratory flows. This intertwining is found across the broadest socioeconomic spectrum of each country and reaches into artistic, literary, scientific, and governmental circles. The migrants' legacy includes migrants' children, wherever they may settle, but it also includes the enlarged perspectives of individuals in transnational families and societies. Studying the migrants' legacies would seem to be an important task for future research in both countries.

Of course, perceived characteristics often differ sharply from the actual characteristics of a given population (see Volume 2, pages 819 to 867). Such discrepancies may be endemic to migration, given that migrants are often viewed very differently in the origin and destination countries, as well as by different groups within countries. The challenge is to distinguish between actual characteristics, as defined and measured through scientific procedures, and perceived characteristics that may or may not have empirical foundation.

Because migration is dynamic and conditions in both the United State and Mexico change, understanding Mexican migration to the United States requires continual monitoring. We recommend establishing a bilateral program of longitudinal research on successive cohorts of new migrants. This binational study is an important first step in that direction.

Notes

NOTES: Subsets identified in the data are denoted by closed rectangles. Missing rectangle denotes the absence of persons in the data set currently in that legal status. The set of deportable migrants includes legal nonimmigrants who violate the terms of their visa and entrants without inspection. The "other Mexican household surveys" discussed in the text resemble ENADID in their information on legal status.

1. At the inception of this study, our intention was to encompass not only Mexicans in the United States but also Americans in Mexico. Unfortunately, the study of Americans in Mexico is seriously neglected by scholars in both countries. Of course, there is a large American presence in Mexico—ranging from American clubs to a network of American

schools—as American visitors to Mexico quickly learn. According to data collected by the U.S. Department of State, Mexico is the leading country of residence for Americans abroad, attracting 20 percent of the total: 522,274 civilian Americans (excluding employees of the U.S. government and family members of U.S. government and military personnel) resided in Mexico as of May 1, 1993. The second largest contingent is found in Canada—335,490, or 13 percent of the total.

The ENADID data set described includes U.S.-born individuals residing in Mexico (including U.S.-born children of Mexican migrants). These data, in particular, merit further study.

2. The ENADID represents the most important and complete macro-social treatment of demographic behavior in Mexico. It integrates the three aspects of demographic dynamics (fertility, mortality, and migration). It is the first national-level study, covering practically every zone in the country. For purposes of our research, it encompasses the following units of analysis: dwellings, domestic and foreign members of these dwellings, habitual residents of these dwellings, and persons from these dwellings who left to live in another country between 1987 and the date of the survey (additional information is available in Volume 2, pages 769 to 778).

3. For these few characteristics—sex, age, birthplace by state—individuals who recently have migrated to the United States are very similar to return migrants.

4. See the methodological appendix elaborated by the National Population Council (Consejo Nacional de Población—CONAPO).

5. Massey, Goldring, and Durand (1994) propose an index of community "migration prevalence" as a basis for comparing communities that are apparently at different stages of the migration process. For a given community at a given point in time, international "migration prevalence" is defined as the number of people with international migratory experience divided by the total number of people alive.

6. Naturalization appears to be seriously overstated in U.S. Census and CPS data—e.g., over 100,000 Mexico-born persons in the 1990 Census report that they entered in 1985-1990 and that they are naturalized—even taking into account the fact that the Census question on period of entry refers to the "latest year he/she came to stay," so that admission to permanent residence might predate reported period of entry and be consistent with the reported naturalization. For comprehensive analysis of the measurement of naturalization in Census and CPS data, see Passel and Clark (1997).

7. As pointed out by diverse sources, this out-migration had its origins in the recruitment of workers by North American employers for jobs in agriculture and railroad construction.

8. See, for example, Samora (1971), the findings of the ENEFNEU (1978-79) study reported in Zazueta and Corona (1979), and the findings of ETIDEU (1984) in CONAPO (1986).

9. Colima is included because of its geographic location and because, although in relation to the total migrant flow its weight is small, migrants represent 5.7 percent of its resident population.

10. South Baja California's share is minimal, with only 0.2 percent of all migrants coming from that region (0.95 percent of the region's resident population).

11. In the Samora study, 84% of the sample originated from rural areas. In the ENEFNEU this percentage was lower—69.8%. Nevertheless, it was greater than that observed for the total Mexican population in 1978 (53 percent).

12. It is possible that this predominance is related to age (deported migrants are younger) and the demographic growth of this region, in which the urban population is predominant. It also may be affected by a relative importance of migration networks in rural versus urban communities, with the result that urban-origin migrants find themselves less protected by these networks when they enter the United States to work.

13. According to the U.S. Census, presented by Gamio (1930).

14. It is likely that the large weight for the northern states is due to the rising demand there for low-skilled workers, relatively high wages for these workers, and perhaps also to the fact that, in the border states, many of the Mexicans interviewed no longer maintained economic ties with families in Mexico. Unfortunately, this indicator of migrant populations is very sensitive to remittance behavior.

15. The ENEFNEU was carried out by the Centro Nacional de Información y Estadísticas del Trabajo (CENIET) of the Secretaría del Trabajo y Previsión Social, between December 1978 and January 1979. Its sample size is 62,500 housing units in 115 localities, randomly selected. It gathered information on approximately 300,000 individuals (CENIET, 1982: 57).

16 INS data also suggest that immigrants who choose to live in the Southwest are less likely to subsequently naturalize than their counterparts who settle elsewhere (Table 2).

17. It is likely that the different weights of females in the ENEFNEU is due to this survey's inclusion of migrants with and without documents. It is common for women to migrate with documents.

18. The differences result from both the type of data and the ways in which these data were collected. The EMIF only captures labor migrants, while the universe for the ENADID, in theory at least, is the total Mexican population. Moreover, the fact that the EMIF is carried out at the border, at the moment of the border crossing, reduces the share of females: A number of micro-regional studies have shown that women normally migrate only when they have documents, and these make it possible to travel directly between places of origin and destinations in the United States (i.e., by air). Finally, stays in the United States typically are longer for women than for men. This reduces the probability that women will be picked up in surveys of circular migrants at the border.

19. Information on sex is not available for the immigrant cohorts of Fiscal Years 1980 and 1981.

20. Sex-specific counts of spouses of U.S. citizens were published in the INS annual reports until 1979. The figures for 1982 and 1994 are based on the microdata public-use files, and the figure for 1985 is estimated from the GAO data.

21. In the total registered population the difference is greater: 34.2 for women, 31.8 for men.

22. In the total population, average age is 34.9 for women and 32.8 for men.

23. In the ETIDEU the average is the same overall and 4.6 for women.

24. Information on average schooling from the EMIF was provided by Dr. Jorge Santibáñez of the COLEF.

25. It is possible that many of those with high schooling levels worked simply as research or teaching assistants during their post-graduate studies.

26 Difficulties in comparing Census and CPS findings make it inadvisable to infer increases or decreases in schooling levels between 1990 and 1996 from these comparisons.

27 Respondents classified as having EWI experience met at least one of two criteria: (i) their first trip to the United States was without legal documents, or (ii) adjustment to permanent residence was from an EWI status. Because the NIS Pilot Study did not collect complete migration histories, the measure of EWI experience yields an underestimate, and hence measured differences between the two subgroups understate the true differences.

28. It should be pointed out that this is based on small samples: 9,687 north-bound migrants and 2,972 voluntarily returning migrants. Among deported migrants the number is much larger: 25,588.

29. The ENADID does not provide information on migrants' type of work activity in the United States.

30. There is some evidence of increasing diversification of employment for Mexican migrants by 1920, particularly in the eastern and midwestern parts of the United States; see Santibáñez, 1930 and Gamio, 1930 y 1969. However, there was a reconcentration in agriculture under the Bracero Program (Fonseca, 1986).