CHARACTERISTICS OF MIGRANTS

The Selectivity of International Labor Migration and Characteristics of Mexico-to-U.S. Migrants: Theoretical Considerations

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Neoclassical Economic Theories of Migration

Neoclassical economic theories of labor migration posit that individuals situate themselves in the labor market and jobs where their expected earnings (net of migration costs) are highest. Earnings are the product of wages and time worked, both of which depend on education and other "human capital" characteristics of individuals. For example, neoclassical theory predicts that either of the following three events would increase Mexico-to-U.S. migration: (1) an increase in wages or employment for Mexican migrants in the United States; (2) a decrease in employment or wages in rural or urban Mexico; or (3) a decline in migration costs or risks, as when relatives or friends assist villagers with entering and finding work in the U.S. It also predicts that the people who migrate to the

U.S. are those with the set of characteristics that bring them higher expected earnings in the U.S. than in Mexico. Other considerations affecting individuals' satisfaction or "utility" at different locales (e.g., proximity to family members, relative deprivation, family income risk) also affect migration propensities in neoclassical models. The association between characteristics of individuals and their likelihood of migrating is frequently referred to as the "selectivity" of migration.

Four variables are key to explaining the selectivity of Mexico-to-U.S. migration from a neoclassical economic perspective. They are: (1) the economic returns to individuals' characteristics (education, sex, age, etc.) at home (e.g., in the Mexican village); (2) the returns to these characteristics in the United States; (3) the returns to these characteristics in competing migrant labor markets in (e.g., urban) Mexico; and (4) the effects of these characteristics on migration costs. Some theories add to this list the variables of risk (and willingness to take risks) and the utility or disutility of migration for family members besides the migrant (i.e., those who remain behind).

For example, consider a young man with little schooling and few assets in rural Mexico. If the returns to his labor are higher in the U.S. than in his home village or other labor markets in Mexico, there will be an incentive for the man to migrate, other things being the same. If the young man lacks family contacts in the U.S. to help finance the trip northward (including the border crossing) and provide job information, however, higher economic returns in the U.S. may not be sufficient to justify the costs and risks of migrating. In this way, migration selects not only on personal characteristics associated with earnings, including schooling, age, sex, and work experience, but also on household and other contextual variables, including family assets affecting individuals' productivity at home and "migration networks," or family contacts at migrant destinations.

Social science research on the determinants of migration using household-level data generally find that human capital (e.g., education) is positively related to the likelihood of out-migration (see Yap, 1977). The selectivity of migration on individual and household characteristics varies across migrant destinations, however. It depends critically on the returns to these characteristics in different migrant labor markets.

For example, in most cases, average schooling levels for immigrants in the U.S. are substantially above those of their countries of origin (Borjas, 1991 and 1994; Demery, 1986). This finding reflects higher economic returns to schooling in the U.S. compared to places of origin as well as other potential migrant destinations (e.g., urban areas in migrants' countries of origin). It also has implications for development. If migrants take (human) capital with them when they migrate, this may have detrimental effects on the productivity of workers left behind.

Mexico-to-U.S. migration appears to be the exception, however. In the 1980 census, Argentine immigrants to the U.S. report an average of more than 13 years of schooling, compared to less than nine years at home. For Brazil, the differential is even greater: more than 15 years of education for immigrants in the U.S. but less than nine at home. Average education in Guatemala is only around three years, but Guatemalan immigrants in the U.S. average around nine years of schooling. Only in Mexico does the average education of immigrants approach that of the country of origin: roughly 6.5 years of schooling for Mexican immigrants in the U.S. compared with an average of around 6.1 years in Mexico (Borjas, 1991).

The negative selectivity of Mexico-to-U.S. migration with respect to schooling stands in contrast not only to other immigrant groups but also to rural-to-urban migrants within Mexico. Household surveys conducted in Mexico in the 1980s revealed that internal migrants had significantly more schooling than nonmigrants, and that Mexico-to-U.S. migrants had significantly lower levels of schooling than individuals who did not migrate to the United States, including both rural-to-urban migrants and village stayers (Taylor, 1986; Massey, 1987; Massey and García España, 1987; Stark and Taylor, 1991). A typical finding is that average schooling of rural-Mexico-to-U.S. migrants is between 4 and 4.5 years. This pattern appears to be due to high economic returns to schooling for migrants within Mexico, but low returns to schooling both in rural Mexico and in the jobs available to most Mexican immigrants in the United States (Taylor, 1987). In rural Mexico, which has extensive migration networks leading to low-skilled U.S. jobs but where the economic returns to schooling in these jobs are low or nil, the selectivity of international migration strongly favors low-skilled persons. Barriers to legal entry make it difficult for migrants with intermediate levels of schooling to reap high returns in U.S. labor markets.[1]

U.S. Census data generally reveal a continuum of skills for emigrants from Latin American countries, with average schooling lowest for Mexican immigrants, higher for Central American immigrants, and highest for immigrants from the Southern Cone. For example, in 1980, immigrants from Argentina, Brazil, and Canada averaged between 1.2 and 2.7 years more schooling than native U.S. men ages 25 to 64. Immigrants from Guatemala averaged 3.6 fewer years of schooling than native-born U.S. men. Mexican immigrants averaged 6 fewer years of schooling than native-born U.S. men. Of 41 countries of origin in Borjas' (1991) study, Mexican immigrants had less schooling than any other country-of-origin group. In countries other than Mexico, which do not share a long and porous border with the U.S. and do not have extensive networks leading to low-skilled U.S. jobs, international migration is more costly and risky. This precludes much emigration from the low end of the skill distribution, leaving a predominance of brain-drain migrants at the top.

Despite the predominance of low-skilled migrants, there appears to be a significant brain drain at the upper end of Mexico's skill distribution, indicating that the economic benefits from migrating to the United States are sizeable for highly skilled individuals. This outcome is encouraged by U.S. immigration law, which selects migrants on the basis of skills when issuing employment-related visas. As a result, even though most Mexicans, particularly those who enter the U.S. illegally, have low levels of human capital, international migration absorbs a relatively large share of Mexico's educated workforce. In 1994, 843 legal Mexican imigrants reported professional-technical occupations, and 428 described themselves as executives or managers; another 15,290 entered as temporary workers in skilled occupational categories, and 14,773 Mexicans were admitted as students (U.S. INS, 1996). These people constitute a relatively small share of the total flow of Mexicans into the United States and a small share of the skilled U.S. workforce. However, they represent a significant fraction of Mexico's educated workforce. It appears that, although rural-Mexico-to-U.S. migrants have below-average schooling, urban-Mexico-to-U.S. migrants average slightly higher levels of schooling than the national average.[2]

Neoclassical economic theory would predict that migration selects individuals on a wide array of characteristics besides schooling. Traditionally, most of the demand for low-skilled immigrant labor in the United States was in industries with overwhelmingly male workforces (e.g., agriculture). In the past two decades, the demand for female labor in light manufacturing and service (e.g., domestic maid and child care) services in the United States appears to have grown significantly, increasing the economic returns to migration for Mexican women. Village surveys generally find that Mexico-to-U.S. migrants are significantly more likely to be male than non-Mexico-to-U.S. migrants (typically, more than 60-70 percent of Mexico-to-U.S. migrants are males, compared to 30-40 percent of individuals who stay in Mexico, either as nonmigrants or as internal migrants), but that the participation of women in migration is increasing. On average, migrants are also young (first-time migrants usually in their teens, and average age of migrants typically in the late 20s). With few exceptions, Mexico-to-U.S. migrants originate from households in Mexico that are above-average in size—that is, with other family members who can fill in for migrants in household and farm production activities at home. Some studies find that Mexico-to-U.S. migrant households have more physical-capital assets, including landholdings, than non-Mexico-to-U.S.-migrant households, and U.S. migrant households in Mexico almost always average higher income, with or without counting remittances, than nonmigrant households. This suggests that families in Mexico have to reach some minimum wealth or income threshold before they are willing or able to assume the costs and/or risks of sending migrants to the U.S. It also undoubtedly reflects positive effects of past migration

on family assets and incomes. Econometric studies that control for the "feedback" of migration on household incomes reveal that, initially at least, Mexico-to-U.S. migrants tend to originate neither from the very top nor from the very bottom of Mexico's rural income distribution.

Migration Selectivity and Changing Characteristics of Mexico-to-U.S. Migrants

Although socioeconomic differences between migrants and nonmigrants are significant initially, migration network theories (Massey; Stark, Taylor, and Yitzhaki, 1986) predict that these differences narrow as networks of family contacts at migrant destinations expand and the psychological and economic costs and risks of migration progressively decline. This finding helps resolve discrepancies among community studies with respect to some key variables. For example, in contrast to findings reported on pages 748 to 750 (Table 1; also, see Lopez, 1986 and Mines, 1981), some studies have found that migrants are primarily landless workers (Cornelius, 1976; Stuart and Kearney, 1981). Married men dominate the migrant workforce in some towns (Weist, 1973; Cornelius, 1976; Dinerman, 1982), but in others the participation of women and children more closely resembles that of men (Reichert, 1979; Fernandez, 1988; Cornelius, 1990). Without a nationally representative data set, a theory of how average migrant characteristics vary through space and over time is essential for situating and making sense of findings from these community studies.

Massey and Durand (1992), in the sociological literature, and Taylor (1992b) and Stark, Taylor, and Yitzhaki (1988, 1986), in the economics literature, have attempted to incorporate findings from surveys of places into general theories about the process of migration. They emphasize "migration networks" and the diffusion of these networks across sending-area households and individuals as the key variables shaping and reshaping characteristics of migrants over time.[3]

Findings from several community studies in Mexico suggest that migration becomes less selective and more representative of migrant-sending areas over time. This appears to be due to the spread of migrant network connections, which provide information to prospective migrants and offer direct assistance that lowers the material and psychic costs and risks associated with (especially unauthorized) migration across borders. Characteristics of Mexican immigrants increasingly resemble those of the general population as the spread of migration networks within and across communities makes migration less selective. It also makes the origins of Mexican immigrants increasingly diverse, as new networks, fortified in some cases by direct recruitment, materialize in communities that have not traditionally

been major suppliers of migrants to the United States. Because of this, differences in characteristics between migrants and nonmigrants fade over time.

A consensus is beginning to emerge that estimates of migrant characteristics are sensitive to the stage of the migration process at which surveys are conducted. The socioeconomic and demographic profile of migrants from individual villages evolves over time, as does the participation of villages and regions in U.S. migrant streams, in ways that reflect changes in the way individuals are selected into (and out of) migration. The migration selection process shapes the characteristics of migrant flows into U.S. labor markets. This means that estimates of migrant characteristics are a function of the place and time at which surveys are carried out. A survey of migrants from an "old" migrant-sending area generally yields different findings than a survey of migrants from a "new" sending area, and surveys of the same migrant-sending areas produce different findings at different points in time. A statistical portrait of Mexico-to-U.S. migrants cannot be constructed from existing household survey data in isolation of the process that selects people into and out of migration, nor in isolation of the ways in which this process evolves over time.

The ideal way to test for changes in migrant characteristics at different stages of the migration process is to utilize matched longitudinal data, as in the Michoacan Migration Project. Alternatively, 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 simply as the number of people with international migratory experience divided by the total number of people alive. The disadvantage of the Massey et al. approach is that it imposes a temporal interpretation when explaining differences in communities at given points in time, by assuming that communities have different migration-prevalence levels because they are at different points in a migration process. It is possible for two communities with long histories of migration to have significantly different levels of migration prevalence. The strength of the Massey et al. approach is that it makes it possible to comπpare characteristics of migrants and nonmigrants in communities with different migration-prevalence levels using cross-sectional data. This is important, in light of the paucity of matched longitudinal data on migrant households. Massey et al. uncover definite patterns of convergence in characteristics between migrants and nonmigrants at different levels of community migration prevalence.

The "New Economics" of Labor Migration

Recent theoretical work on the economics of migration offers additional clues about why characteristics of Mexico-to-U.S. migrants differ from those of nonmigrants and why both change over time. The new economics of labor

migration (NELM; see Massey, Arango, Hugo, Kaouaci, Pellegrino, and Taylor, 1994 and Stark, 1981), suggests four categories of economic motives for migration:

(1) *Expected Income*. Migration (and migrant remittances) are a means to increase incomes of migrants and of their households of origin in Mexico.

(2) *Risk*. Allocating some family members' time to migration provides a way to spread household income risk, by securing access to a new income source that is not highly correlated with local (e.g., crop) incomes. That is, migrants represent an insurance policy for their households in Mexico. The same holds for individuals who are able to spread their work time during the year or across years between Mexico and the United States.

(3) *Market Imperfections*. In the absence of well-functioning capital markets in migrant-sending areas, migrants represent financial intermediaries who enable their households of origin to invest in new activities or technologies.

(4) *Relative Income*. "Investing" in migration is a means for households to improve their relative income position within the reference group (e.g., the village).

These motives for migration are important for explaining changes in immigrant characteristics over time. Motive (1) suggests that migrants originate from poor households with few assets and low productivity (although there are limits to this; see Motive 3, below), and that U.S. migrants tend to be individuals with human capital (skills, schooling) or "migration capital" (e.g., family contacts) for which there is a high economic return in the U.S. (and not human capital for which there is a large economic return in Mexico). Motive (2) suggests that migrants originate from areas where local incomes are risky, or (as emphasized by the NELM) from households that are experiencing economic changes (e.g,. adopting new technologies, changing production activities) that increase (subjective) income risks. However, because migration itself is inherently risky, it also suggests that migrants and their families are able to insure against migration risks, and/or that they have access to "migration networks" that provide migration insurance to them. Motive (3) suggests that migrants have little access to local capital or else that their households of origin have large capital needs relative to capital availability (e.g., if they are investing in new production activities or technologies). However, because migration is costly, it also suggests that families who send migrants abroad have sufficient capital to finance what generally is a costly migration venture, or else have networks of relatives or friends who can finance migration costs from the U.S. side of the border. Motive (4) suggests that migrants originate from households that are relatively deprived within their reference groups (e.g., villages).

The interplay of (1)-(4) suggests that, initially at least, migrants:

- Are individuals with characteristics that make them relatively more productive in the U.S. labor markets to which they have access and less productive in Mexico (i.e., less able to generate income at home.
- Come neither from the poorest households (which cannot afford the costs of international migration) nor the richest households (which lack the expected income and relative income incentives to migrate) in their places of origin.
- Come neither from the least secure households (which would not be willing to take on the risks of migration) nor from the most secure households (which would not depend on migrants for income security).

In the medium- to long-run, the expansion of migration capital, or networks, reshapes the selectivity of migration by influencing the economic returns, costs, and risks of migration. If access to networks becomes diffused across households at different income levels, lower income households may begin sending migrants abroad. Successful migration investments by some families affect the relative income position of others in the local reference group. And, if migrants represent financial intermediaries facilitating investments in new economic activities at home, the absolute and relative income positions of migrant families will tend to rise over time. Finally, catastrophic events in Mexico, such as the economic crisis of the 1980s and 1990s, create incentives for new groups of individuals, with new characteristics, to enter the migration stream. This probably accounts for the rising schooling levels of Mexico-to-U.S. migrants from the Michoacan households depicted in Table 1 on pages 748 to 750.

The Theory of Circular Migration and Imperfect Migrant Labor Markets

It is well known that many of the workers involved in immigration flows into the United States return to their country of origin. In the case of migration from Mexico to the United States, which has persisted for over a hundred years, not only has there been a return flow but it has included the majority of migrants. These workers return to Mexico after a migratory "career" that involves alternating stays in the receiving areas in the United States and in their home communities in Mexico. Such a migratory "career" can continue for several years, but it generally ends with an aging worker's definitive return to Mexico. Obviously this is not true in every case. A growing proportion of migrants is choosing to remain permanently in the United States. Perhaps the decision to remain in the United States or to

return definitively to the home community is a function of the intensity of the interaction between the sending community and the receiving community, reflected in the number of family members that the first-time migrant has in the United States. That is, the fewer family members a migrant has in the United States, the more likely it is that he will return definitively to Mexico.

Data obtained from the Cañón Zapata project support these hypotheses. They reveal a process of circular migration from Mexico to the United States which is clearly related to the geographical proximity of these two countries. By circular migration it is understood here, the process by which an individual alternates stays in Mexico and the United States, for more than six months, between his or her family residence and job residence, until either age, success or failure, makes him or her to permanently establish his family residence at some point of his or her circulatory route, either in Mexico or in the United States.

The notion of circular migration holds methodological and theoretical implications. Methodological, because of at least two reasons, a)length of stays in the United States might be increasingly long, returns to Mexico become increasingly short and job residence becomes permanent as a result of family reunification. Then, new entries to the United States from Mexico might increase the volume of the migratory flow giving to the observer the impression of an increase in immigration to the United States, when in fact he or she is observing an increase in the intensity of a circulatory movement, including Mexican citizens who might have moved on a permanent basis to the United States. On the other hand, b)when measured properly, circulatory migration might become an indicator of the intensity of the interactions between structural conditions and factors located at the two sides of the border, which are associated to the phenomenon of international migration between the two countries. Theoretical, because of at least two reasons. First, the definition of a migrant should no longer depend on his or her position in the map but on his or her engagement in an international labor market. Traditional definitions of a migrant require his or her crossing of a geographical boundary for certain period of time. The notion of a circulatory migration should be made operational from the theoretical assumption that a migrant is a person who is no longer a permanent resident of his or her home town because of a decision that implies to join an international labor market by responding to a perceived labor demand in another country. This means that a migrant is a migrant from the moment he or she has left home with the intention of looking for a job in another country.

The other reason is, that as a consequence of the above, for the purpose of an estimate of the number of international migrants, their numeration should begin when they join the migratory circle, regardless of whether that person has crossed an international border or not. The migratory circle includes the geographical space between the last permanent residence and the place of migratory destiny. The

latter could be of various types—from an attempted destiny to an actually reached one. The analyst's selection of the type of migratory destiny might depend on the scope of the analysis. The important implication here is to include all persons who are in the international migratory circle in the enumeration of international migrants, whether or not they have left the country of origin or reached the country of destination.

Notes

1. One exception to the negative selectivity of international migration with respect to schooling comes from an analysis of one of the newest Mexico-to-U.S. migrant groups, the Mixtecs from Oaxaca (Zabin and Hughes, 1995). It found that, of those who migrated internally to farm jobs in the Mexican states of Baja and Sinaloa, those who went on to migrate to the United States were significantly more likely to be males (84 percent), single (38 percent), and better educated than those who remained as internal migrants in Mexico. (55 percent of the latter were males, 21 percent were single, and average schooling was 2.7 years.) The low mean education of both migrant groups in this sample probably reflects low average schooling levels at these migrants' place of origin in Oaxaca.

2. This conclusion is deduced from (1) the finding from rural household surveys that Mexico-to-U.S. migrants have less schooling than individuals who do not migrate to the United States, and (2) Borjas' (1994) finding that average schooling levels of Mexican-born immigrants in the U.S. (taken from the U.S. Census) are slightly higher than average schooling in Mexico.

3. Taylor (1992) and Stark, Taylor, and Yitzhaki (1986, 1988) emphasize the spread of family migrant contacts, or migration networks, in their theory of changing effects of migration on rural income inequalities. Durand and Massey (1992) emphasize the importance of "social capital," or networks of contacts with family and friends in the United States, in their "cumulative theory of migration."