MEXICAN MIGRATION "MATURITY" AND ITS EFFECTS ON FLOWS INTO LOCAL AREAS: A TEST OF THE CUMULATIVE CAUSATION PERSPECTIVE

James D. Bachmeier
University of California, Irvine

ABSTRACT

This paper examines whether the characteristics and labor market outcomes of recent Mexican immigrants are associated with the "maturity" of the migration flow into local urban and rural areas in the United States. I refine the theory of cumulative causation, which, until now has been used primarily to explain the structural effects of cumulatively caused migration on Mexican *sending* communities in order to formulate hypotheses relevant to the effects on U.S. migrant communities. Using 2000 census data, I develop a measure of migration maturity, and preliminary findings suggest, consistent with the cumulative causation perspective, that variation in recent migrant characteristics and labor market outcomes are significantly related to migration maturity. The implications of these findings will be discussed in the final paper.

INTRODUCTION

Beginning around the early 1990s, Mexican migration to the United States entered what might be referred to as an era of geographic dispersion. In 1990, just 10% of all Mexican-born residents in the United States lived outside of the five traditional receiving states of Arizona, California, Illinois, New Mexico and Texas (Durand, Massey and Capoferro 2005). By 2000, this figure had more than doubled to 21%, and the 2006 Current Population Survey indicates it has now reached 30%.[1] While the dispersal phenomenon has gained increasing attention from social scientists, little systematic research has examined whether Mexican migrants to non-traditional areas differ from their counterparts in traditional receiving areas or whether there are socioeconomic consequences associated with migration to newer areas. In addition, and likely related to this dearth of empirical research, there exists no clearly articulated theoretical framework that might predict whether and why migrants differ depending on their destination, and whether there are socioeconomic consequences associated with the destinations to which migrants are directed. However, the emergence of an increasingly diverse array of local receiving areas for Mexican migrants provides researchers with the opportunity to answer these questions and thereby develop a theory to better understand Mexican migration dispersion.

This paper is motivated by two primary questions related to the composition of recent Mexican migrant in-flows and their labor market outcomes. First, do the demographic, family, human capital, and occupational characteristics of recent Mexican migrants vary as a function of the "maturity" of the migration flow into the local urban or rural area in which they reside? By migration maturity, I mean the extent to which local areas have experienced sustained migration flows from Mexico over time. Secondly, are the group-level labor market outcomes of recent Mexican migrants associated with the maturity of the migration flow into the local area? I

---

[1] Author's estimate using the 2006 March Supplement.

suggest that the theory of cumulative causation, developed over the past three decades by Massey and his colleagues (Massey 1999; Massey, Alarcorn, Durand and González 1987; Massey and Espinosa 1997; Massey, Goldring and Durand 1994), can be refined and utilized in order to develop a framework capable of providing relevant hypotheses to these questions and can ultimately be extended to explain the structural effects of prolonged migration on migrant destination communities. Insofar as the theory has primarily focused on migration's impact on the social structure of migrants' *sending* communities, the theoretical extension proposed in this paper represents a considerable contribution to existing knowledge related to international migration.

THEORETICAL FOCUS AND HYPOTHESES

Consistent with economic perspectives of international migration, the theory of cumulative causation holds that immigration flows tend to be precipitated by macro-structural factors such as, in the case of Mexican migration, strong demand in the U.S. for low-wage labor and concomitant economic disparities between the U.S. and Mexico. The cumulative causation perspective, however, diverges from purely economic interpretations in its primary focus on immigrant social networks as the driving force behind migration flows. Once started, migration flows are sustained by the social ties connecting migrants in the U.S. to potential migrants in sending communities, and over time these ties strengthen to the extent that the migration flow can persist independently of the original precipitating structural conditions (Massey et al. 1994).

The increasing role played by immigrant social networks in sustaining migration flows over time carries with it two major consequences. First, as the prevalence of migration in a sending community increases, the probability that a non-migrant will have a relative or acquaintance with migration experience increases, and therefore the processes of selection into

migration flows change. At early stages of a migration flow, "pioneer" migrants tend to be

primarily males of prime working-age, but as the migration flow matures, the family and

demographic profile of migrants becomes more diverse, marked by the increasing participation

by women and children in later-stage migration flows. Massey et al. (1994) have also found that

occupational diversity increases with migration prevalence, but in terms of human capital, the

relationship is less clear.

The second consequence of "network-driven" (Light 2006) migration is that it changes

the social structure of the sending community in considerable and unforeseen ways. Increasing

migration prevalence creates a "culture" of migration (Kandel and Massey 2002) in which

international movement becomes a normal event in the life-course. Eventually, mature migration

flows become exhausted or "saturated" when all potential migrants reside abroad (Massey et al.

1994).

While the body of empirical work buffeting the theory of cumulative causation, and the

specifics of the theory itself are focused exclusively on migrant *sending* communities, it is

possible, with minor modifications, to apply the theory to explain dynamics in migrants'

destinations as well (Leach and Bean 2007). Insofar as migrant destinations in the present era of

migratory dispersal consist of local urban and rural areas receiving in-flows that vary in

migration maturity, we should expect to find more demographic, family, human capital and

occupational diversity in areas fed by more mature flows relative to areas in which Mexican

migration is only a recent phenomenon. Similarly, if late-stage, network-driven migration

produces saturation effects on sending communities, we might expect to find similar saturation

effects in the local destination labor markets. That is, in areas experiencing more mature

migration flows operating relatively independently of prevailing economic conditions in the local

area, the labor market outcomes of recent migrants in these areas will compare unfavorably to those of their counterparts in areas experiencing less mature migration streams.

DATA AND METHODS

To test these hypotheses suggested by the cumulative causation perspective, I use data from the 5% sample of the 2000 Census IPUMS. Because the unit of analysis is the flow of recent Mexican migrants into local rural and urban areas, this is the only available data source with a sample large enough to generate reliable aggregate estimates of the flow composition. Recent migrants are those Mexican-born individuals living in the U.S. in 2000, but reporting residence in Mexico five years earlier. To approximate local urban areas, I use the consolidated metropolitan statistical area (CMSA), and I use non-urban Public Use Micro-Areas (PUMAs) to represent rural local areas.

I include in the analytical sample only those urban and rural areas with at least 75 individual recent migrants to ensure reliable estimates of flow composition and labor market activity. This threshold is similar to those used in previous research undertaking aggregate analyses (see for example, Bean, Van Hook and Fossett 1999). These restrictions yield an analytical sample consisting of 98 urban and 67 rural areas.

There are two primary reasons for using data from only one decennial census as opposed to employing samples from multiple censuses in an over-time analysis. First, given that the dispersal of Mexican migrants is a relatively recent phenomenon, the numbers of local areas receiving substantial in-flows of Mexican-migrants in prior census years is prohibitively low for the type of analyses undertaken here. Secondly, geographic boundaries are not consistent across census years. This is particularly the case for PUMAs, as it is not possible to map PUMA boundaries consistently across census periods using IPUMS data.

Migration Maturity. A key task in testing the cumulative causation perspective entails the creation of an adequate measure of migration flow maturity to approximate how long local areas in the United States have been receiving Mexican migrants. This effort is problematized by the fact that these analyses, for the reasons outlined above, are restricted to one decennial census. Research examining the dynamics of the dispersal phenomenon has often delineated receiving areas based on states, dichotomizing destinations into "traditional" or "gateway" and "new" or "non-traditional" (Durand et al. 2005; Leach and Bean 2007). Traditional destinations tend to be those in the four border states of Arizona, California, New Mexico and Texas, as well as Illinois. All other states, then are classified as new or non-traditional. The problem with this method, however, is that it obscures variation that exists at the local level and ignores the fact that not all local areas in the "gateway" states are traditional or have been receiving in-flows at the same rate or for the same amount of time. Similarly, some local areas that would be classified as "new" under this dichotomy are hardly non-traditional receiving areas. For example, rural areas in the Pacific Northwest such as the Yakima Valley in Washington and the Willamette Valley in Oregon have been receiving labor migrants from Mexico for over fifty years, but under the new-traditional dichotomy employed by previous research, these areas would be inaccurately labeled "new".

To overcome these shortcomings and simultaneously, to develop a cross-sectional approximation of migration flow maturity, I use information available about the total Mexican-*origin* population residing in the local area. Specifically, the maturity of the migration flow into the jth metropolitan or rural local area is approximated by

$$M_j = \left(\frac{U_j}{F_j} \right) * p\left(L_j \right)$$

where U_j denotes the size of the U.S.-born Mexican-origin population, F_j represents the size of the Mexican-born population, and $p(L_j)$ is the proportion of the Mexican-born population that has lived in the U.S. for more than 10 years. The rationale for the measure is that a large second-generation population, relative to the size of the immigrant population, indicates that a local area has been receiving sustained migration flows for a considerable amount of time. Weighting this ratio by the proportion of the immigrants who are long-time residents (i.e., arriving more than 10 years ago) further distinguishes between flows by measuring their recency. For example, take two areas, A and B, each with a long history of receiving Mexican immigrants, as indicated by their ratio of 2nd to first generation Mexicans. However, if local area A has recently witnessed a resurgence in Mexican migration, due, for example, to economic growth demanding low-skilled laborers, and local area B has not, then the former will have a higher maturity score than the latter, by virtue of its Mexican immigrant population consisting of a relatively larger proportion of long-time residents.

At this point it is worth acknowledging two shortcomings of the measure. First, it lacks an interpretable metric, and thus can only be used in a relative sense. Second, there is no immediate apparent method that can be used to test the validity of the measure. However, when the rural and metro areas are sorted in descending order by their maturity score, one would expect that areas located in the traditional areas of settlement would tend to have higher maturity scores, and this is indeed the case. Though a significant number of local areas outside the "gateway" states report high maturity scores, the majority of those areas with high scores are located in states such as California and Texas. At the same time, there is an absence of local areas located in traditional destination states with relatively low maturity scores. Thus, the

maturity measure proposed above is an improvement over the crude state-level dichotomy, and appears to be a relatively valid measure of migration flow maturity.

Dependent Variable 1: Composition of Recent Migrant Flows. Based on previous research by Massey and his associates, the composition of migration flows can be conceived as representing three distinct, though not unrelated, dimensions. I refer to these as (1) demographic and family, (2) Human capital and (3) Occupation. Under the demographic and family dimension, I examine whether four specific indicators vary with migration maturity: the percentage of the recent in-flow comprised of men, the percentage under the age of 18, the percentage of men married with their spouse present, and the percent of female migrants with minor children. Human capital variables include educational attainment, English-language proficiency, and previous migration experience (measured by whether or not an individual recent migrant reported his or her *first* entry into the United States prior to 1995). Occupational diversity is measured using the entropy index (see Massey et al. 1994).

Bivariate analyses will examine the relationship between migration maturity and each of these items separately. However, for multivariate analyses in which I test the relationship between migration maturity and flow composition net of relevant area-level controls (still to be determined), I will employ Principal Components Analysis (PCA) in order to reduce the separate variables to common dimensions. I will test whether these separate items do, in fact, represent three separate dimensions of migrant flow composition. I will then compute factor scores for each of the factors identified by the PCA results (however many there are) and regress these factor scores on the migration maturity measure and relevant controls in order to determine the independent effect of migration maturity on the flow-composition of recent migrants to local rural and urban areas.

Dependent Variable 2: Labor Market Outcomes. To test whether migration maturity affects the labor market outcomes of recent migrants, in the aggregate, I will draw on the Labor Utilization Framework (Clogg and Sullivan 1983; Licther 1988) and examine the extent to which migration maturity is associated with the underemployment of recent Mexican migrants. Because the Census IPUMS does not include the variables needed to measure underemployment in the sense that it is used by Clogg and Sullivan (1983), I will approximate underemployment with two variables: the rate of labor force participation among recent Mexican migrants and the number of hours worked in the previous year.

Analytical Strategy. I will estimate multiple regression models using ordinary least squares estimation in order to determine the net effects of migration maturity on the composition and labor market outcomes of recent Mexican migrants. Relevant literature will be consulted in order to identify an adequate list of local area control variables that might confound the relationship between migration maturity and these two outcomes.

PRELIMINARY RESULTS AND EXPECTED FINDINGS

Basic preliminary analyses indicate that variation in the composition and labor market activities of recent migrants from Mexico is consistent with the cumulative causation perspective in that variation is a function of the relative migration maturity into local urban and rural receiving areas. In Figures 1a and 1b I have grouped local areas into maturity quintiles based on their score on the maturity measure defined earlier. Local areas in the first quintile are the least mature and those in the fifth quintile the most mature. In both urban and rural areas, the demographic and family related profiles of recent migrants appear to vary as a linear function of migration maturity. For example, only about 27% of recent migrants to the least mature rural areas are women compared with 51% of migrants to areas in the most mature quintile. In both

urban and rural areas, migration flows tend to be comprised of more women and more whole families as migration maturity increases. However, this pattern is stronger in rural as opposed to urban areas. Figures 2a and 2b repeat the same exercise for the human capital variables and these results do not suggest that human capital attainment varies substantially with migration maturity. This is consistent with results reported by Massey et al. (1994).

With respect to labor market outcomes, as implied by extending the logic of the cumulative causation the local receiving area, labor market outcomes for recent migrants seem to deteriorate as the migration flow matures. Presumably, this is due to the "crowding" or saturation effects of the local ethnic economy stemming from the cumulatively caused nature of late-stage migration flows. For example, among recent migrants to urban areas 86% of men of working-age (16-64) in the least mature areas participated in the labor force in 2000 compared with only 74% of their counterparts in the most mature local urban areas. I anticipate that these relationships will hold in more rigorous multivariate models.

REFERENCES

Bean, Frank D., Jennifer Van Hook and Mark A. Fossett. 1999. "Immigration, Spatial and Economic Change, and African American Employment." in *Immigration and Opportunity: Race, Ethnicity and Employment in the United States,* Frank D. Bean and Stephanie Bell-Rose, eds. New York: Russell Sage.

Clogg, Clifford C., and Teresa A. Sullivan. 1983. "Labor Force Composition and Underemployment Trends, 1969-1980." *Social Indicators Research* 12: 117-52.

Durand, Jorge, Douglas S. Massey, and Chiara Capoferro. 2005. "The New Geography of Mexican Immigration." *New Destinations: Mexican Immigration in the United States.* New York: Russell Sage Foundation.

Kandel, William and Douglas S. Massey. 2002. "The Culture of Mexican Migration: A

    Theoretical and Empirical Analysis." *Social Forces* 80(3): 981-1004.

Leach, Mark A. and Frank D. Bean. 2007. "The Structure and Dynamics of Mexican Migration

    to New Destinations in the United States." In *New Faces in New Places: The Changing*

    Geography of American Immigration, ed. Douglas S. Massey. New York: Russell Sage

    Foundation.

Lichter, Daniel T. "Racial Differences in Underemployment in American Cities." *American*

    Journal of Sociology 93(4):771-792.

Light, Ivan. 2006. *Deflecting Immigration: Networks, Markets, and Regulation in Los Angeles.*

    New York: Russell Sage.

Massey, Douglas S. 1999. "Why Does Immigration Occur? A Theoretical Synthesis." In *The*

    Handbook of International Migration: The American Experience, Charles Hirschman,

    Philip Kasinitz, and Josh DeWind, editors. New York: Russell Sage Foundation.

Massey, Douglas S., Rafael Alarcorn, Jorge Durand and Humberto González. 1987. *Return to*

    Aztlan: The Social Process of International Migration from Western Mexico. Berkely,

    CA: University of California Press.

Massey, Douglas S., and Kristen E. Espinosa. 1997. "What's Driving Mexico-U.S. Migration? A

    Theoretical, Empirical and Policy Analysis." *American Journal of Sociology* 102(4):939-

    999.

Massey, Douglas S., Luin Goldring and Jorge Durand. 1994. "Continuities in Transnational

    Migration: An Analysis of Nineteen Mexican Communities." *American Journal of*

    Sociology 99(6):1492-1533.

FIGURES

Figure 1a. Demographic Profile of Recent Mexican Arrivals to Rural Areas

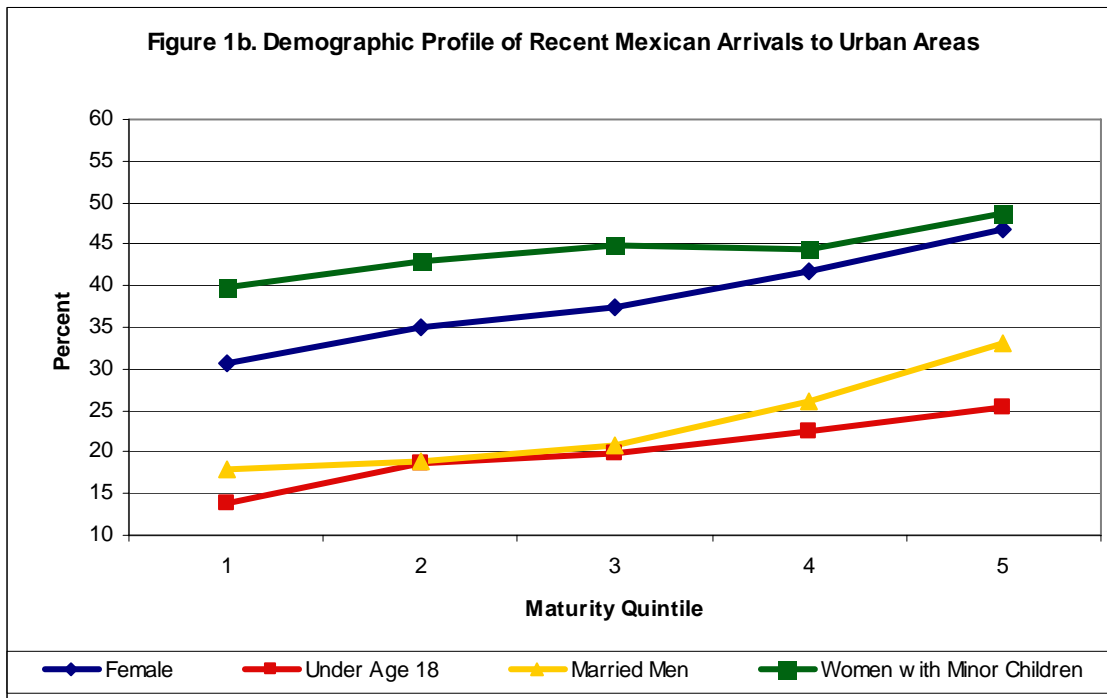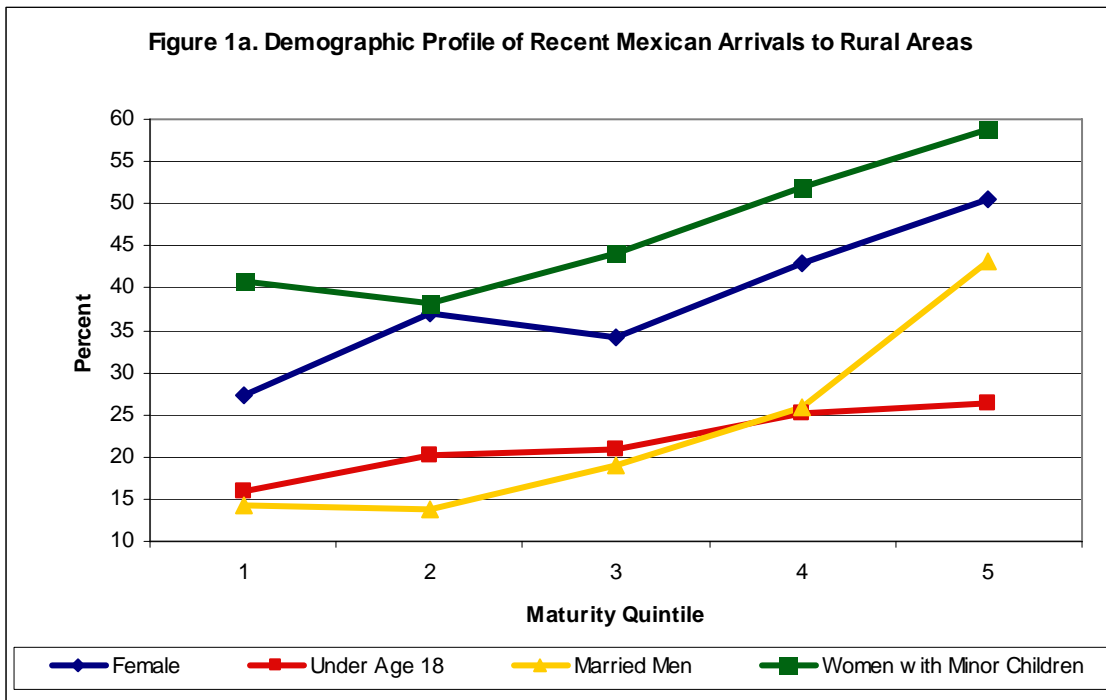Figure 1b. Demographic Profile of Recent Mexican Arrivals to Urban Areas

Figure 2a. U.S. Experience and Human Capital of Recent Mexican Arrivals to Rural Areas
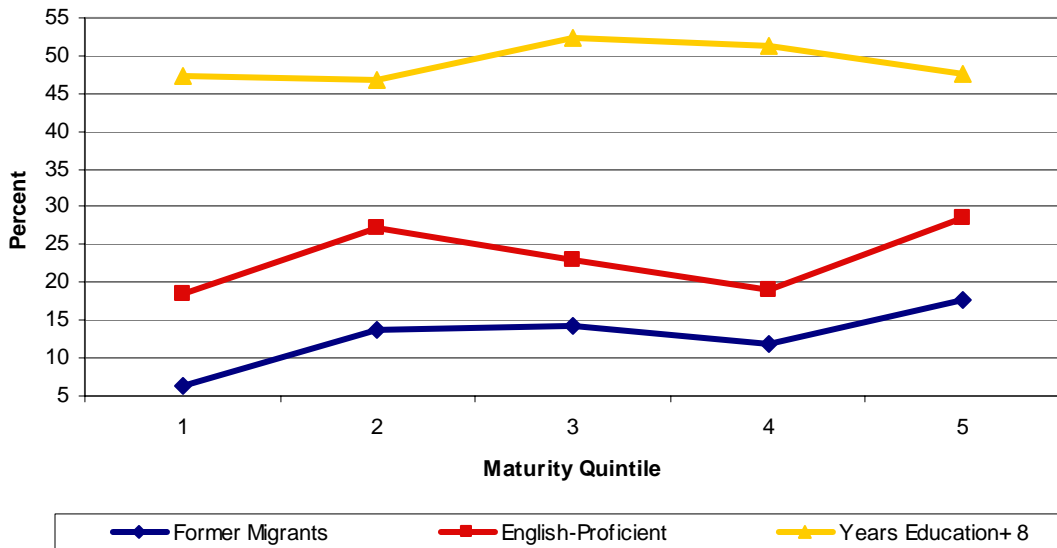

Figure 2b. U.S. Experience and Human Capital of Recent Mexican Arrivals to Urban Areas

Figure 3a. Labor Force Participation among Recent Mexican Arrivals to Rural Areas

Figure 3b. Labor Force Participation among Recent Mexican Arrivals to Urban Areas