1.0 Introduction

The foreign-born resettlement process now underway in the United States involves the increasing dispersion of immigrants to mid- and small-sized metropolitan and non-metropolitan areas throughout the country that had few immigrants before the 1980s. Several studies have documented the growth of immigrants in new destinations as well as the determinants and consequences of this settlement shift (Goździak and Martin 2005; Iceland 2009; Kandel and Parrado 2005; Lichter and Johnson 2009; Marrow 2011; Massey 2008; Odem and Lacy 2009; Singer 2004; 2008; Zúñíga and Hernández-León 2005). Most previous research focuses on macro-geographic units such as states and metropolitan areas that have relatively large foreign-born populations, rather than on smaller sized places where foreign-born settlements are just starting to emerge. In addition, national origin differences in dispersion have received limited attention (Hall 2013; Kritz and Gurak 2015). It needs to be kept in mind that dispersion starts at different points in time for immigrant groups and initially involves pioneer settlement in places where no group members live. While pioneer settlement is an important part of the dispersion process, we are unaware of studies that examine the empirical correlates of that process for today's immigrants. The pioneer settlement process should differ by national origin given group differences in population size, skill profiles, legal statuses, and settlement patterns. In this paper, we examine the pioneer settlement process of immigrants from ten Asian and Latin American origins to provide insights into a process about which we know little. The ten study groups are the Chinese, Indians, Filipinos, Koreans, Vietnamese, Mexicans, Cubans, Colombians, Dominicans, and Salvadorans.

Pioneer migration is difficult to study because PUMS files, which are widely used to document settlement patterns, lack geographic detail for immigrants living in micro-geographic

areas. Even for Mexicans, the largest foreign-born group, PUMS files have inadequate data to study the characteristics of their non-metropolitan residence places. A study of pioneer settlement not only requires a large foreign-born sample but also geographic and national origin detail for a large number of places that have standardized boundaries at two or more points in time. States do have standardized boundaries but they span large territories and the traditional states, including California, Florida, and New York, have new destination places within them (Henrie and Plane 2008; Pfeffer and Parra 2009). In addition, in 1990, all 50 states already had immigrants from most of the study groups, which means they were not pioneer places.[1] The metropolitan places identified by Singer (2004; 2008) and Fischer and Tienda (2006) as new and emerging foreign-born destinations also had immigrants from most of the study groups in 1990. Due to the need to protect individual privacy, no settlement data by national origin are available in PUMS files for small metropolitan and non-metropolitan areas even though immigrant numbers are growing more rapidly in those areas than they are in traditional gateways.

The only data sources that do have sufficient sample size and detailed national origin and settlement data are the Confidential Use Micro-Data Samples (CUMS) from the 1990 and 2000 decennial censuses. We drew on those data to examine the characteristics of pioneer places and migrants in the 1990s for ten immigrant groups. Pioneer places are group-specific geographic

[1] In 1990, all the Asian study groups except Vietnamese had nationals in 50 states and the District of Columbia. Vietnamese were in all those places except Wyoming. In 1990, the five Latin American groups had nationals in 37 states (including DC). By 2000, all the Asian and Latin American groups except Dominicans had nationals present in all 50 states and DC. No Dominicans lived in North Dakota, South Dakota, Vermont and Wyoming in 2000 (source: IPUMS 5% 1990 and 2000 Decennial Census samples).

areas that had no immigrants from a given origin in 1990 but did have one or more in 2000.[2] Pioneer migrants are immigrants who settled pioneer places in the 1990s. A given labor market may have had immigrants from one or more origins in 1990 but still be a 1990s pioneer place for another group. Moreover, places could have been a pioneer destination for more than one group in the 1990s. While many new immigrants have social networks that they draw on for assistance when they arrive in the USA (Gurak and Caces 1992; Massey 1990; Massey et al. 1987), basically all we know about pioneer settlement is that pioneers did not receive similar assistance because by definition, they had no group members in places they settled.

We limited the study to the ten largest Asian and Latin American origins because most immigrants have come from those regions since passage of the 1965 U.S. Immigration and Naturalization Act and, even with CUMS files, the numbers of immigrants from most other countries are too small to study pioneer migration. The focus on ten groups also represents an effort to balance comparisons of how the pioneer settlement process varies by national origin with the competing need for parsimony. The ten groups constituted 56.4 percent of the U.S. foreign-born population in 2000 and differ markedly in characteristics that correlate with internal migration and settlement, including educational attainment, occupational profiles, family structure, and legal statuses (Bartel and Koch 1991; Frey and Liaw 1999; Kritz and Nogle 1994). While Latin American and Asian immigrants are often aggregated into Hispanic or Asian categories (Fischer and Tienda 2006; Lichter 2012; Massey and Capoferro 2008; Parrado and Kandel 2011), findings based on heterogeneous groupings can be biased if larger groups have

[2] Given that the number of immigrants in a locale changes over time, the choice of none present in 1990 is arbitrary but useful because of its simplicity. We examined alternate cut points (25 and 50) but they produced consistent results. Using the zero-present definition also negates the need to consider outmigration from pioneer places in the 1990s.

divergent socio-economic and residence patterns (Kritz and Gurak 2015). Mexicans, for instance, account for about 60 percent of all Hispanic immigrants, which means that their characteristics largely account for the national Hispanic profile.

We address three questions in the paper. First, what types of labor markets attracted pioneer migrants in the 1990s? Second, what were the characteristics of individual migrants who settled pioneer places in the 1990s? Third, to what extent do these patterns vary for Asian and Latin American immigrants? Although our analysis is primarily descriptive, we address several issues that are central to understanding immigrant integration. One is the role of immigrant social networks in migration and settlement processes, which we examine by exploring the presence of immigrants from other origins and native co-ethnics in pioneer places. We also consider whether pioneer migrants are likely to be recent migrants from abroad, as has been suggested (Marrow 2011), or internal migrants from elsewhere in the USA. To the extent that the economic, social, and demographic characteristics of pioneer places and migrants differ by national origin, it is difficult to make generalized claims for the total foreign-born population.

2.0 Research Insights on Pioneer Settlement

By 1990, immigrants from several Latin American and Asian countries were dispersing to new U.S. destinations although the extent to which that was occurring varied by national origin and tended to be unrecognized at that time (Funkhouser 2000). Most of what we know about the characteristics of immigrants in new destinations comes from case studies. They usually indicate that most immigrants in new destinations are Hispanics, have relatively low education levels, work in low-paying jobs, and are recent arrivers from abroad. To account for new destination settlement, those studies usually point to economic restructuring of food processing, manufacturing, agriculture, and other industries, and the shift of those industries to the South and

rural areas (Goździak and Martin 2005; Grey and Woodrick 2002; Griffiths 2005; Hernández-León and Zúñíga 2000; Jefferds and Millard 2004; Johnson-Webb 2002; Marrow 2011; Millard and Chapa 2004; Odem and Lacy 2009; Zúñíga and Hernández-León 2005). Employers like immigrant workers because they are willing to accept lower wages and are viewed as hard working and cooperative employees who help keep labor costs down (Donato et al. 2008). It is also argued that native workers are unavailable for jobs that immigrants take either because they are unwilling to accept the low wages offered or too few of them live in the new destinations that attract immigrants (Donato et al. 2007; Johnson and Fuguitt 2000; Piore 1979).

While this profile of new destination settlers undoubtedly fits the case study places, it differs from the national profile of new destination settlers based on census data. Research by Kritz and Gurak (2015) and Bump and colleagues (2005), for instance, indicates that immigrants living in new destinations as well as internal migrants who move to new destinations have higher levels of human capital than their compatriots living in traditional destinations. A growing body of research shows that immigrants leaving traditional places are positively selected by education, job skills, and acculturation levels (Bartel and Koch 1991; Frey and Liaw 1999; Gurak and Kritz 2000). According to economic theory, migrants respond to differential wage and employment opportunities in different labor markets and are positively selected because they have the human capital and resources required to move. While some criticize neoclassical economic theory for interjecting more rationality into a decision-making process than is reasonable based on information available to potential migrants (Goodwin-White 2012; Greenwood 1981; 1997; Parrado and Kandel 2011; Ritchey 1976), economic context remains an important element in migration decisions albeit not the only reason that people move (Clark and Maas 2015; Ihrke 2014).

Speculating on why U.S. immigrants move internally, Brown and colleagues (2007) argued that there are three additional factors beyond wages and robust economies that influence migration decisions: migration chains, distance-decay, and intermediary actors. Given our focus on pioneer migration to places where immigrants from a given origin had no settled compatriots in 1990, by definition pioneers could not have received support from compatriots at destination. However, immigrants can build social ties to non-compatriots and natives that serve similar functions. Out-group ties can develop in communities where immigrants live as well as in work places, churches, and schools. Distance decay occurs because costs, social ties, and limited information about opportunities elsewhere discourage immigrants from moving longer distances (Eldridge and Jones 1991; Olson and Olson 2000). A host of intermediary actors, including labor recruiters, refugee settlement agencies, government agencies, churches, and NGOs often play a role in channeling immigrants to new destinations. Labor recruiters can also channel low-wage workers to non-metropolitan areas (Donato, Stainbeck and Blankson 2005; Hernández-León and Zúñíga 2000; Johnson-Webb 2002; Piore 1979). Some argue that the seasonal migrations of Mexican and Caribbean agricultural workers, which initially were stimulated and managed by labor recruiters, evolved into permanent settlements in non-metropolitan areas as immigrants developed ties to natives in those areas that allowed them to find year-round employment (Lichter 2012; Villatoro 1998). Brown and colleagues (2007) focused on how refugee settlement agencies dispersed immigrants throughout the country and found that refugees often retain ties to their initial settlement places that influence subsequent settlement patterns.

To explore these issues, we estimate two types of models. The first set of models use aggregate data to identify the characteristics of places that attracted Asian and Latin American pioneers in the 1990s. The second set of models use individual data from the 2000 Census to

estimate the demographic, migration, socio-economic, and assimilation characteristics of migrants who settled pioneer places in the 1990s. For the aggregate analysis, we estimated zero-inflated Poisson (ZIP) models for each group that regressed the number of immigrants that settled pioneer places between 1990 and 2000 on labor market demographic, economic, and co-ethnic conditions. The ZIP models simultaneously estimate the structural characteristics of labor markets that remained empty or unoccupied by each group in 2000 although we do not focus on the unsettled places in this paper. In general, those models are less informative than those estimating pioneer settler counts. For the individual analysis, we estimated logistic regression models for each origin group that compared the characteristics of pioneer migrants to their compatriots settled elsewhere.

3.0 Data and Analytic Strategy

To study pioneer settlement in the 1990s, we use Confidential Use Microdata Samples (CUMS) from the 1990 and 2000 censuses because they are the only national-level databases that have both a large number of cases for immigrants from different national origins, and sufficient geographic detail to study immigrants' pioneer residence places throughout the country. Decennial CUMS files are 16 percent samples of the population and available for analysis at Census Bureau Research Data Centers.[3] Our geo-units consist of 741 labor markets that Tolbert and colleagues (2006; 1996) constructed from 1990 census data by using cluster analysis to identify contiguous counties that had close economic and social linkages and commuting patterns. The 741 spatial units cover the entire country and have standardized boundaries in 1990

[3] All data and analyses done at Census Research Data Centers have to undergo a disclosure avoidance process to assure protection of respondents' privacy. The Census Bureau's Disclosure Review Board reviewed and approved the statistics used in this paper.

and 2000. The labor markets with large populations approximate standard metropolitan statistical areas (SMSAs) while ones with small populations span larger territories in non-metropolitan areas. The large number of geographic units combined with detailed data on immigrants' national origins, individual characteristics, and settlement places permit study of the aggregate- and individual-level correlates of pioneer settlement.

Table 1 shows the number of immigrants from each origin settled in four types of geographic areas in 1990 and 2000. Settled labor markets already had group members in 1990 and continued to have group members in 2000 (columns b and d). Pioneer labor markets had no group members in 1990 but did in 2000 (column c). Unsettled areas had no group members in 1990 and 2000. Turnover labor markets had group members in 1990 but none in 2000 (column d). The settled, pioneer, and unsettled labor markets sum to 741, the total number of geographic areas, but the turnover areas are a subset of the unsettled areas. To compile the aggregate data base needed to estimate the ZIP models, we calculated demographic, economic, spatial, and co-ethnic indicators for 741 labor markets using 1990 and 2000 CUMS data. Although it would be informative to extend the analysis beyond 2000 by drawing on American Community Survey (ACS) data, that extension would not be straightforward due to sample design and measurement differences between the decennial census and the ACS (Grieco and Rytina 2011). Data reliability becomes more of an issue in the ACS because the five-year samples, which are the largest ones available, have less than half the number of foreign-born cases as the 2000 decennial census. [4]

[4] A comparison of geographic areas settled in the 2000 CUMS and the 2005-2009 ACS CUMS showed that a large number of geographic areas that had foreign born in 2000 had none in the ACS. While this can occur through the churning process described in this paper, given the large number of differential places, it is more likely that some portion of the emptying process is due to sample design differences and measurement error in the datasets. The differential

Some research suggests that internal migration may have declined since 2000 (Molloy, Smith and Wozniak 2011) and that foreign- and native-born migration flows may now be diverging (Ellis, Wright and Townley 2014) but we expect that our findings for pioneer places and migrants would be similar because other research indicates that immigrant dispersion beyond the traditional gateways has continued since 2000 (Kritz and Gurak 2015).

The zero-inflated Poisson (ZIP) group models predict the determinants of two outcomes for 1990 unsettled labor markets: (a) the count of immigrants in the settled pioneer places, and (b) the characteristics of places that remained empty or had no pioneers in 1990 and 2000 (findings for the unsettled places are available from the authors). While standard Poisson models are useful for count outcomes that range from zero to some not very large number and that have a relatively small number of zero counts, those conditions do not hold for our samples because most groups, except Mexicans, had a large number of unsettled labor markets in 2000. When the zero counts are relatively numerous, standard Poisson models reduce the impact of non-zero counts, which, in turn, increases standard errors and biases coefficient estimates (Long and Freese 2006). Poisson ZIP models overcome this problem by estimating separate models for the zero and non-zero units. In the ZIP model, the first equation estimates the non-zero count of immigrants from each origin that settled each pioneer place in the 1990s, and a second one estimates a logistic model predicting differences between the unoccupied and settled labor markets. The model is constrained to 1990 unsettled labor markets (Table 1, column c) and the logit part of the model compares unsettled labor markets (column d) to settled ones (columns c).

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measurement of internal migration in the decennial and ACS surveys also reduces the number of pioneers in the ACS CUMS.

4.0 Overview of Immigrant Group Dispersion

Group dispersion across space differs from concentration in space. "*Spatial dispersion*" refers to the percent of places settled by members of a given group while "spatial *concentration*" refers to the percent of group members living in specific places. Figure 1 shows the spatial dispersion statistics for the ten groups in 1990 and 2000. Mexicans were the most spatially dispersed of the ten groups - in 1990 they already had nationals in 89 percent of the labor markets. In 1990, over half of the 741 labor markets also had some Filipinos (82.6%), Koreans (80.2%), Indians (68.3%), Chinese (62.3%), Vietnamese (61.7), Cubans (52.9), and Colombians (51.4). Spatial dispersion gained momentum in the 1990s and by 2000, nine groups had nationals in over 60 percent of the areas. Only Dominicans lived in fewer than half of the labor markets. Spatial concentration, however, is not inconsistent with spatial dispersion. In 2000, concentration levels were high even for spatially dispersed groups. The percentage of immigrants from each origin living in their group's top five settlement areas ranged from a high of 87 percent for Dominicans to a low of 38.5 percent for Indians. Cubans and Salvadorans also had high spatial concentrations, 81 and 71 percent, respectively, while Mexicans (45%) and Vietnamese (46%) were less concentrated. All the groups were less spatially concentrated in 2000 than in 1990. Mexicans and Salvadorans had the biggest drop in concentration in the 1990s (13 and 11 percentage points) and Cubans had the smallest drop (3 points).

The ten groups also differ in the number of pioneer places they settled in the 1990s. Salvadorans settled the largest number of places (194; Table 1, column c) followed by the Chinese (157), Colombians (146), Dominicans (139), Indians (134), and Vietnamese (133). Mexicans, Filipinos, and Koreans settled fewer labor markets, partly because there were fewer places left for them to settle given that they already occupied over 80 percent of the labor

markets in 1990. Nonetheless, they continued to disperse and by 2000 only 25 of the 741 areas had no Mexicans (Table 1, col d + col e). Immigrant groups not only settled new areas but also left places that had some group members in 1990. This pattern occurred in five labor markets for Mexicans but was a more common event for other groups: over 40 places that had Colombians, Cubans, and Dominicans in 1990 had none in 2000 (col e, Table 1). While some 1990 settled areas had fewer group members in 2000, population growth was the norm for all ten groups in settled areas. These changes indicate that there is considerable churning in the pioneer settlement process.

In total, there were 31,301 pioneers from the 10 groups (population weighted N) in 2000, ranging from a low of 1,187 for Filipinos, to a high of 8,022 for Salvadorans (Table 2, col. b). They constituted less than one percent of each group's total population (Table 2, col. c). The pioneers who settled unoccupied places in the 1990s could have come from other U.S. places or abroad but for nine groups (all but Mexicans), most of them – 65 to 87 percent - moved from elsewhere in the USA (Table 2, columns f to i). Mexican pioneers were as likely to come from abroad as elsewhere in the USA. Given that the numbers of pioneer migrants are relatively small (Table 2, col. b), it is not surprising that the numbers who settled a single pioneer place were also relatively small - 74 for Koreans, 78 for Cubans, 79 for Filipinos, up to a high of 587 for Mexicans and 598 for Salvadorans (Table 2, col. d).

5.0 Specification of the Poisson Zip Models

The Poisson ZIP models estimate the number of pioneers that settled each group's pioneer labor markets in the 1990s. Because the models are limited to each group's unsettled places in 1990 (Table 1, col. c), their sample sizes vary. Mexicans, for instance, had settled all but 78 labor markets in 1990 and, therefore, their Poisson ZIP sample size is 78. Dominicans, on the other

hand, had 521 unsettled labor markets in 1990, which means their Poisson sample was 521. The models include several economic, social, and demographic indicators. Because gravity models show that internal migration decreases with distance (Boyle et al. 2003; Lee 1966; Stouffer 1940; Tolnay et al. 2005), one indicator specifies the distance between each origin group's potential settlement places and the nearest of its top five gateways. Distance decay occurs because distance increases travel costs, reduces migrant's access to reliable information about opportunities in alternative destinations, and makes it more difficult for migrants to draw support from compatriots and friends left behind (Olson and Olson 2000). For the aggregate analysis, it is not possible to measure distances actually moved by individual immigrants, but the measure of a place's proximity to each group's top five gateways captures access to people and resources in immigrants' co-ethnic communities.

Other indicators include a labor market measure of the 1990 total population size (native- and foreign-born) that should correlate positively with pioneer settlement. Given the preferences of Asian and Latin American immigrants for large metropolitan areas, it is reasonable to expect that they will prefer places with larger populations because they have resources that immigrants find attractive, including bilingual and immigrant services and labor markets with a range of skilled and unskilled job opportunities. In addition, most metropolitan areas have larger foreign-born populations, which can ease the incorporation process for newly arriving pioneers even if they have no compatriots settled there. Given that the ZIP models estimate pioneer counts in labor markets settled in the 1990s, the presence of compatriots in 1990 could not have been a factor that attracted pioneer immigrants. However, pioneer settlers may be attracted to places with larger foreign-born populations from other origins. An underlying mechanism for this

process would be pan-ethnic links between pioneers and pan-ethnic immigrants from other origins that have similar functions as compatriot social networks.

To explore that possibility, the models include three context indicators that tap the presence of immigrants from other origins in 1990. The first measure is the size of the total foreign-born population in each labor market. This measure by definition excludes immigrants from the index group given that the model is limited to labor markets with no group members in 1990. The second measure is the number of foreign born from the group's pan-ethnic origin (Hispanic or Asian) residing in the 1990 labor market. These two measures partition a labor market's immigrant population into immigrants from the same pan-ethnic origin and ones from other places. For Mexicans, Cubans, Salvadorans, Dominicans and Colombians, the second measure is a count of foreign-born persons who indicated that they were Hispanic on the census Hispanic identity question and for the Asian groups it is a count of foreign-born persons who indicated that they were Asian on the census ancestry question. The measure produces a different pan-ethnic population for each group. For Filipinos, for instance, the pan-ethnic measure includes all non-Filipino Asians while the total foreign-born measure includes non-Asian foreign born. For the Hispanic models, the pan-ethnic measure specifies the count of Hispanics from other Hispanic origins and the total foreign-born measure consists of non-Hispanic foreign born. The third ethnic composition measure specifies the number of native-born persons from each group's pan-ethnic origin that resided in the labor market. The native-born measure was based on census ancestry data and was defined the same way as the foreign-born pan-ethnic measure was, except it can include native-born members of the index group. There were insufficient native-born cases for most groups to construct indicators that only included people of the same origin. Given that there are composition differences between the Hispanic and Asian foreign- and

native-born populations, this measure is not ideal. Second and higher generation ancestors were more prevalent for Mexicans because they have a longer history of immigration to the United States. The native-born Asian population includes more people of Japanese heritage than are present in the Asian immigrant population.

There are four economic indicators in the models. The first is the mean wage of all labor market workers, native- and foreign-born, who were employed full time in 1989. Immigrants usually find places with higher wages attractive (Frey and Liaw 2005; Gurak and Kritz 2000). To explore whether housing costs discourage settlement, the models include a measure of mean annual labor market rent. We expected this measure to be negatively related to pioneer settlement. The third measure is the percent of the adult population that completed four years of college in 1990. Differential education composition across labor markets is closely associated with opportunity structures (Moretti 2012) and immigrant groups do differ considerably in their education profiles. The fourth economic measure is the percentage change in employed persons between 1990 and 2000. This indicator allows evaluation of whether the pioneer places that attracted settlers in the 1990s had robust and growing economies. The models also include the share of the labor force employed in agriculture because that industry has been singled out as one that attracts immigrants to new destinations (Kandel and Cromartie 2004; Zúñiga and Hernandez-León 2005). We explored the importance of other industrial measures but did not include them in the final models because most were insignificant, possibly because the industries that attract immigrants vary considerably by national origin and the numbers of pioneers employed in different sectors is small.

The distance, economic, and social indicators described above tap factors that may attract immigrants but as Brown and colleagues (2007) noted, labor markets differ in subtle ways. To

explore whether there are other context attractants, we included an indicator of native-born population change based on reasoning that increases in native-born numbers would be a proxy for other amenities that pioneers might also find attractive. While Donato and colleagues (2007) found that some immigrants, particularly unskilled ones, moved to places that the native born were leaving in the 1990s, for immigrants as a whole it is more likely that they move to places that have opportunities and amenities that also attract natives.[5] Although the Poisson ZIP models include measures of employment growth and wages, places have other non-economic locational factors that natives and immigrants might take into account when they relocate, including climate, state and local taxes, and social services. The covariates for the logistic part of the ZIP models, which predict the correlates of no pioneer settlement, can be the same or different from those employed in the ZIP model. If the same covariates are used, the expectation is that factors that are positively associated with higher pioneer counts will be negatively associated with zero counts.[6]

5.0 Macro Characteristics of Pioneer Labor Markets Settled in the 1990s

Table 3 shows the findings from the Poisson portions of the ZIP models. The coefficients specify the relationship between the counts of pioneer migrants and the characteristics of pioneer labor markets. Model Vuong tests indicate whether the ZIP models significantly improved model fit

[5] Donato found that 59 out of 2,285 non-metropolitan counties gained foreign born but lost native born in the 1990s.

[6] The logistic model added the percent of adults with less than a high school degree, the percent of the labor market that consisted of native-born whites, and a measure that combined the annual wage and annual rent measures into a single variable, measured as the percentage ratio of the mean wage to annual rent. Given that the sets of places that received no group members are large and diverse, except for Mexicans, the logistic part of the ZIP models had less predictive ability. The models are available upon request from the authors.

over standard Poisson models with no adjustment for the large number of cells with zero counts (see bottom 2 rows of Table 3). Except for Mexicans, those tests were significant at the .001 level. The Mexican Vuong test was also significant but at the .01 level, which means that even though that group only had a small number of unsettled labor markets (20) in 2000, the use of the ZIP model was appropriate.

All model covariates were significant for several groups albeit the direction of the relationships and significance levels differed. As expected, distance between the pioneer place and the nearest of a group's top five gateways was negatively related to the count of pioneer settlers for six groups, but that relationship was positive and significant for Mexicans and Filipinos, and not significant for Colombians and Vietnamese. The insignificant coefficient for Mexicans likely reflects the relatively small number of pioneer places (78) available for them to populate in the 1990s. In addition, given Mexicans' widespread dispersion in 1990 throughout the country, their pioneer places could be closer to labor markets that already had Mexican settlements. The positive estimate for Filipinos is one of many indications that they have different settlement dynamics than do other groups. The negative relationships, on the other hand, which were robust for most groups, are consistent with the pattern of regional dispersion that occurred for European immigrants in the previous century (Lieberson 1963; Lieberson and Waters 1987).

The analysis provides strong support for the idea that immigrants moving to new destinations continue to prefer places with larger populations. All else equal, pioneers from nine groups settled in places that had relatively large populations in 1990. Only Cuban pioneers were indifferent to population size. Pioneers from four Asian groups (Indians, Koreans, Filipinos, and Vietnam) favored labor markets with higher wages but four Hispanic groups (Colombians,

Dominicans, Mexicans, and Salvadorans) did not. The differential skill profiles of Asians and Latin Americans could underlie these findings. While groups with high skill profiles, such as the Asian groups, are able to compete for jobs in places with higher wages, those with lower skill profiles may find it easier to obtain jobs in low-wage labor markets. To assess the wage effects fully it would be useful to look at wages in specific sectors that employ immigrants from different origins. Mexicans and Salvadorans, two of the groups that have grown rapidly in new destinations, do have lower education levels and often take jobs in agriculture, food processing, services and other industries that pay low wages (Griffiths 2005; Zúñíga and Hernández-León 2005).

While we expected lower housing costs to attract pioneer settlers, we found no support for that thesis. All five Hispanic groups and the Chinese had higher counts of pioneer settlers in places with higher housing rents. That relationship was not significant for the other four Asian groups. This pattern indicates that immigrants find places with higher housing costs attractive for other reasons. Those reasons remain unclear, especially for groups with lower average incomes, but the attraction to places with higher rents may reflect tight housing markets due to growth prior to 1990. That housing costs were insignificant for most of the Asian groups suggests that higher economic resource levels neutralize the impact of this factor. The Hispanic groups, in contrast, may rely on shared housing to manage housing costs.

Several studies have found that change in the size of the employed population correlates positively with immigrant settlement and retention (Gurak and Kritz 2000; Kritz and Gurak 2001) and destination choices (Kritz and Gurak 2012) but that pattern did not hold for pioneers. Only two groups (Salvadorans and Vietnamese) had positive and significant coefficients but six others (Chinese, Colombians, Dominicans, Indians, Koreans, and Mexicans) had negative and

significant ones. Given the small numbers of pioneers in most places and the wide variations in population size of pioneer places, we considered the possibility that the employment change relationship to destination choices was non-linear. Exploratory models provided some support for the non-linear expectation but not enough to counter the conclusion that for most groups, employment growth appears to deter pioneer settlement. Some studies have noted that immigrants move to places with stagnant or even declining native-born populations (Donato et. al. 2007). Since employment growth correlates positively with population growth, which is controlled for and positively associated with pioneer settlement of most groups, it is possible that there was insufficient remaining variance to detect whether employment change also shapes pioneer settlement.

Labor markets with more college-educated residents did attract pioneers from most origins, as expected. That finding may occur because those type of labor markets have higher concentrations of governance, education, cultural, and other institutions. For six groups (Colombians, Filipinos, Indians, Mexicans, Salvadorans, and Vietnamese), the percent of the adult population with college degrees correlated positively with pioneer settlement. However, Cubans had a negative relationship and three groups had insignificant coefficients. Since the positive coefficients occurred for groups with very different education profiles, this suggests that the relationship is not produced by a fit between group profiles and place educational levels, but rather by what opportunities are available in different labor markets that allow immigrant groups to establish economic niches.

Most pioneers settled in labor markets that had smaller employment shares in agriculture. For eight groups that relationship was negative and significant. Only Filipino pioneers were significantly more likely to settle in places with more agricultural employment. However, that

relationship is not likely due to any tendency to work in agriculture given that Filipinos have almost no presence in that sector outside of Hawaii. Many Filipinos work as nurses or other health technicians in non-metropolitan and small urban places because those areas have difficulty finding native workers. While recruitment of immigrants for agricultural and food processing work has been linked to immigrant dispersion, it was not an important part of the pioneer settlement process in the 1990s even for groups such as Mexicans and Salvadorans, which have larger shares of their populations working in the agriculture than other groups do.

To determine whether other economic factors also attract pioneer settlers, we included a proxy indicator, namely the percent native-born population change in the 1990s, based on reasoning that if natives are moving to an area, it likely has economic conditions that also attract immigrants. Six groups (Chinese, Colombians, Dominicans, Indians, Koreans, and Salvadorans) had positive and significant relationships but Mexicans, Filipinos, and Vietnamese had negative ones. For Filipinos this exception and the finding that few other economic measures were significant highlights their distinctive settlement dynamics. The divergent finding for Vietnamese could be rooted in their origins as a refugee group and the remaining ties that Vietnamese have to places where they initially settled. The Mexican exception could stem from their widespread distribution throughout the country and their small number of unoccupied labor markets (78) in 1990.

Since previous research indicates that immigrant settlement choices are highly responsive to social networks, we included three ethnic composition measures in the ZIP models to determine whether pioneer settlements responded to the presence of immigrants from other origins or to native-born pan-ethnics. The most robust finding for the co-ethnic measures was for the immigrant pan-ethnic population. Pioneer settlers from nine origins were significantly more

likely to settle places that had larger numbers of foreign-born persons from their pan-ethnic origin (i.e. from other Hispanic or Asian origins) in 1990. Filipinos were again the exception (not significant). On the other hand, the relationship between 1990 foreign-born population size and pioneer settlement was weak. That measure in the ZIP models represents the size of the population of immigrants from origins other than pioneers' pan-ethnic origins. A significant and positive relationship occurred for only one group (Filipinos) but significant and negative ones for four others (Mexicans, Salvadorans, Dominicans, and Chinese). The findings from these two measures suggest that there are networks between immigrants from the same region that shape settlement choices but those are less common between immigrants from different world regions.

The presence of native-born co-ethnics was significant and positive, the expected direction, for Mexicans but it was negative and significant for five groups - Cubans, Dominicans, Colombians, Indians, and Vietnamese. Since the native-born measure includes all Asians or Hispanics, the Mexican finding is not surprising given that most native-born Hispanics are Mexicans and some of them undoubtedly did live in pioneer places that attracted Mexican pioneers in the 1990s. However, the native-born measure had less meaning for Dominicans, Cubans, and Colombians who are mainly settled along the Atlantic Coast. The native-born Asian population includes large numbers of Japanese rather than large numbers of immigrants from the origins of the study groups. We explored whether the use of a more focused native-born co-ethnic measure would produce different results and found that for all origins except Mexico, the numbers of native-born persons from the same origin in pioneer places was too small to permit reliable model estimation. Cubans and Dominicans, for instance, only had nine native-born ancestors in pioneer places in 1990 and other groups had fewer. While the Mexican finding suggests that cross-generational ties can influence settlement choices, those are only likely to

occur if second and higher generations continue to increase in size and disperse to new destinations.

6.0 Characteristics of Immigrants Who Settled Pioneer Labor Markets by 2000

To determine how the demographic and socio-economic characteristics of pioneers compared to those of compatriots settled elsewhere, we estimated ten logistic regression models that predicted residence in a pioneer labor market in 2000. Model indicators included migration status (recent immigrant from abroad; internal migrant; already in pioneer place in 1995), demographic status (male; never married), education (no high school degree [ref], high school degree/some college, college degree, and advanced degree), current activity (attending school or employed), and acculturation (English only or very well, citizenship, age at U.S. arrival, and years in USA). The comparison group includes all immigrants from the same origin aged 19 and older who lived in other labor markets including traditional gateways.

The migration status indicators from the 2000 Census cover a five-year window from 1995 to 2000 but do not indicate the timing of settlement for internal migrants who settled pioneer labor markets prior to 1995. We do know, however, that immigrants living in pioneer places in 2000 moved there sometime in the 1990s and, for pioneer settlers only, we can distinguish internal migrants and recent immigrants in the pre- and post-1995 periods based on where they lived in 1995. Pre-1995 recent immigrants from abroad are people who were already in the USA in 1995 and post-1995 recent immigrants arrived later. Pre-1995 internal migrants are people who were in the labor market in 1995 but could not have been there in 1990 because those places had no group members in 1990. For the comparison group, however, we do not know whether people migrated between 1990 and 1995. Therefore, for the logistic models we only use post-1995 internal migration information. This has the effect of underestimating the

impact of internal migration relative to recent immigration because all pioneers are included in the outcome category. For all groups except Mexicans, the descriptive statistics in Table 2 (columns f to i) indicate that internal migrants outnumbered recent immigrants in the pre-1995 period. In spite of the underestimation of internal migrants, the logistic models show that pioneer settlers were significantly more likely to be internal migrants than recent immigrants were and that internal migration, not recent immigration, was the driving force behind pioneer settlement (see Table 4). The internal migration odds ratios were positive and significant for all ten groups and ranged from 2.0 (Koreans) to 11.5 (Dominicans) and the difference between the internal migration and recent immigrant coefficients was significant for eight groups. Except for Colombians and Koreans, the internal migration odds ratios were more than double the magnitude of the coefficients for recent immigrants.

The demographic, education, and acculturation indicators reveal several other group differences between pioneers and non-pioneers. Cuban, Mexican, and Salvadoran men, for instance, were more likely to be pioneer settlers but Filipino and Korean women outnumbered men in pioneer places. Never married Chinese, Dominicans, and Salvadorans were significantly more likely to be pioneers but marital status was unimportant for other groups. School attendance was negative and significant for Salvadorans, Dominicans, and Vietnamese but not significant for other groups. The three groups with negative coefficients have lower college enrollment rates than other groups, which suggest that if they do attend school, they enroll in programs located in their traditional communities. While Dominicans and Colombians with advanced degrees were more likely to be pioneers than their compatriots with no high school degree were, Asians from four origins (all but Filipinos) with advanced degrees, as well as those with college degrees, were significantly less likely to be pioneers. For Dominicans there is even

a positive and significant difference between nationals with a high school degree/some college and those with no high school degree. There were no education cleavages among Mexican, Cuban, and Salvadoran pioneers. While the findings for Asians is consistent with Ellis and Goodwin-White's finding that educated Asians prefer traditional places (2006), the reasons for the mixed findings for the Hispanic groups are less clear. Pioneers also had more English language fluency than non-pioneers. That relationship was positive and significant for six groups. Citizenship, in contrast, was only positive and significant for Colombians and Mexicans but it was negative for Vietnamese.

Employment status was positive for all ten groups but only significant for Chinese, Cubans, Mexicans, and Salvadorans. Duration of U.S. residence correlated with decreased pioneer settlement of Mexicans and Salvadorans supporting Lichter and Johnson's argument (2009) that Hispanics are moving to a small set of new destination counties for low wage jobs. Others argue that many Hispanics are moving to new destinations directly from abroad or shortly after U.S. arrival (Marrow 2011). The finding that duration of U.S. residence correlates with increased pioneer settlement of Cubans, Dominicans, Chinese, and Indians indicates a different dispersion dynamics that is consistent with assimilation tenets, which hold that immigrants leave traditional gateways after becoming more acculturated and learning about employment and other opportunities beyond the gateways.

The models summarized in Table 4 predict an outcome that contrasts pioneers from each origin with all group members living elsewhere. Because most groups are spatially concentrated, this strategy is open to the criticism that this may not be the important cleavage within groups. Rather, pioneers may be similar to other new destination immigrants and the important cleavage may be between immigrants in traditional and dispersed places. We explored that possibility by

estimating a parallel set of models that dropped persons living in one of the group's top five gateways. This limited the contrast group to adults that had a more dispersed settlement pattern and permitted further assessment of group cleavages in dispersion. Even though this approach greatly reduces sample sizes, the findings for that comparison (Appendix A) are consistent with those summarized in Table 4. The internal migrant coefficients remain positive and significant except for Koreans, and they are larger than the recent immigration coefficients. Fewer coefficients are statistically significant than in the Table 4 models, but the dominant pattern remains. The findings reported for education and English ability are similar in both tables. Highly educated Dominicans and Colombians are significantly more likely to be pioneers than their lesser educated compatriots, but highly educated Chinese, Indians and Vietnamese are less likely to be pioneers. For five groups, those with a better command of English have higher odds of pioneer settlement.

We also explored whether there were significant difference between immigrants that had different dispersion levels in 1995. We had to drop recent immigrants from these models because they were not in the USA in 1995. We also dropped persons already living in their pioneer places of residence in 2000 given that the outcome is pioneer settlement between 1995 and 2000. Immigrant's 1995 labor market was classified as "dispersed" if it contained less than one percent of the group's national population, "emerging" if it contained between one and four percent, and "gateway" if it had more than four percent of a group's 1995 national population. We estimated two sets of models that included these measures and the covariates in Table 4: the first was for all adults who resided in the USA in 1995, and the second was for adults who resided in non-gateways in 1995. Table 5 shows the estimates for these two sets of models. The results are consistent with a stage migration process in which people move to emerging places and then a

subset moves on to more dispersed or pioneer places. For the models that included gateway residents (Table 5: Model A), residence in dispersed labor markets in 1995 correlated positively and significantly with pioneer settlement for nine groups (all but Indians). Moreover, Colombians, Filipinos, Vietnamese, and Koreans residing in emerging labor markets in 1995 were significantly more likely to live in pioneer places in 2000. In the second set of models (Model B), which drops the gateway residents, immigrants from nine of 10 groups (all but Koreans) were significantly more likely to live in pioneer places if they were in dispersed versus emerging places in 1995.

7.0 Conclusion and Discussion

This analysis provides basic descriptive information about the nature of immigrant dispersal to pioneer places in the United States. By drawing on underutilized databases, the Confidential Use Micro-Data samples from the 1990 and 2000 censuses, we were able to examine the associations between the characteristics of both pioneer places and pioneer migrants with settlement in pioneer places for immigrants from ten Asian and Latin American origins. The analysis illustrates that many processes operated similarly across origin groups, but it also uncovers considerable heterogeneity across groups in this understudied migration process.

Three place characteristics operate similarly across most groups. Two of these had similar effects for nine of the ten groups (and were insignificant for the tenth). Places with larger total populations in 1990 attracted higher numbers of pioneer settlers, as did places with larger populations of co-ethnic foreign born in 1990. We cannot determine the degree to which this latter effect is due to pan-ethnic networks or to other processes, but it is very likely that knowledge about the characteristics of places that influence settlement decisions spreads through multiple networks and other linkages that involve more than the strong links between kin and

friends. The effect of a third place characteristic was almost as consistent: The percent of the labor force working in agricultural jobs was negatively related to larger pioneer settlement counts for eight groups, though one group, Filipinos, had a significant positive association. Since Filipinos do not fill agricultural positions in the labor force, it is clear that recruitment into agricultural jobs was not driving pioneer settlement in the 1990s.

The associations between the other place characteristics and pioneer settlement are more mixed. The most dramatic example of heterogeneity is the case of mean wage of full-time workers. There are eight significant coefficients, but four are positive and four are negative. This heterogeneity reflects very different underlying dynamics for Hispanics and Asians: Four negative associations are for Hispanic groups, while the four positive ones are for Asian origin groups. The findings for mean annual rent provide a similar though less dramatic picture. Six groups had higher pioneer settlement counts in places that had higher rents in 1990 and no group had a significant negative association. While this appears to reflect a relatively homogenous pattern across origins, the significant associations occur for all five Hispanic groups and only one Asian origin. This suggests that Hispanics tended to settle in places that were growing rapidly prior to 1990 and thus had pressure on their rental markets, while Asians were settling in a more diverse set of places.

This pattern of a dominant trend accompanied by noteworthy exceptions occurred for several other place characteristics. Another strong example of heterogeneity in the mechanisms attracting pioneer settlers is the case of change in the native-born population. Nine coefficients were significant but three of these were negative. The negative associations were for a Hispanic origin group (Mexicans) and two Asian ones (Filipinos and Vietnamese). This mixed pattern supports the conclusion that, in general, pioneer places that attracted natives also attracted

pioneer settlers; but the exceptions indicate that more was going on. A similar situation occurred for distance from a group's top gateways. For six groups the expected negative association, indicating that pioneer places tended to be relatively close to gateways, emerged. However, two groups, Mexicans and Filipinos, had significant positive associations. Places having higher percentages of their adult populations college educated attracted higher numbers of pioneer settlers for six groups, but one (Cubans) had a negative association. The exceptions do not negate a dominant pattern, but they do demonstrate that settlement patterns often vary across origin groups.

A similar pattern of homogenous and differing associations emerged from the analysis of how individual characteristics were associated with settling in a pioneer place by 2000. The dominant consistent association was for migration status. Internal migration was more important than recent immigration for all ten groups. All pioneer settlers moved to their pioneer places sometime in the 1990s but the analysis makes it clear that the dominant pattern was to move to the pioneer place from somewhere else in the United States rather than from abroad. Support for the importance of internal migration for pioneer settlement come from the findings for type of residence in 1995 for those already living in the United States in 1995. For all ten groups, residing in a dispersed place in 1995 was strongly associated with pioneer settlement. This finding (with only one insignificant coefficient estimate) held when those living in gateways in 1995 were removed from the analysis making the referent "moderately dispersed places" rather than gateways and moderately dispersed places. Consistent with this pattern of multi-stage migration to pioneer places is the finding that for most origins the association between strong English ability and pioneer settlement is positive. The estimated association is positive,

significant for six groups, and insignificant for the other four. The positive coefficients are for three Hispanic and three Asian groups.

Despite the high level of similarity across origins in the migration dynamics of pioneer settlement, strong evidence for heterogeneous processes also emerges from the individual analysis. The clearest case of divergence involves educational attainment. For two Hispanic groups (Dominicans and Colombians) higher educational attainment is strongly linked with pioneer settlement. The opposite is true for four Asian groups (all but Filipinos): higher educational attainment for them is associated with the avoidance of pioneer settlement. The Dominican and Colombian pattern suggests that for the highly educated, a small share of their group, educational attainment opens opportunities that are most available in dispersed places, including pioneer places. The Asian pattern may reflect the concentration of opportunities for these groups with higher average educational attainment is found in larger metro areas. The underlying dynamics require a more thorough examination, but it is clear that for the groups in our study they differ markedly for some Hispanic groups and most Asian groups. A less dramatic example of heterogeneity concerns gender. Five of the ten coefficients for Male were significant. Mexicans, Cubans, and Salvadorans residing in pioneer places tended to be males; immigrants from the Philippines and Korea who resided in pioneer places in 2000 tended to be females.

In addition to underscoring the importance of origin heterogeneity in pioneer migration, our findings underscore the importance of social networks in pioneer settlement. Brown and colleagues (2007) identified social networks as an important factor that influences migration. They also highlighted the importance of national origin and geographic selectivity in the pioneer settlement and dispersion process. Recognizing that national origin groups were settled in very different parts of the country in 1990 and that pioneer migrants tended to select pioneer places

located at relatively short distances from one of their traditional gateways, a dispersion process emerges that is more regionalized than commonly depicted in national-level studies of the total foreign–born population. That finding is consistent with the pattern observed by Lieberson (1987; 1988) for European immigrant groups in the past century, namely that regions where groups settled initially still had large ancestry groups from the same origins decades later.

Because we used restricted-access census data for this analysis, we cannot identify the locations of the settled and unsettled labor markets. There are several Federal laws that protect individual privacy and prevent the Census Bureau and other federal agencies from releasing data that would allow identification of individuals. Our data are particularly sensitive given that they are for pioneer migrants from different national origins who settled pioneer places where few of their compatriots live. Appendix B, however, has some highly aggregated summary statistics for the pioneer places. Column A in that Appendix indicates that 100 percent of Mexican and Filipino pioneers settled in non-metropolitan areas. In general, Asian pioneers were more likely than Hispanics pioneers to move to non-metropolitan areas. Dominican pioneers were the least likely to settle in non-metropolitan areas but still more than half of them made that move (55%). The average size of the total populations of the pioneer labor markets also varied.[7] Filipino, Mexican, and Korean pioneers settled non-metropolitan places with the smallest populations (47-51,000) and Salvadoran and Dominican pioneers settled in places with larger populations (124-176,000). Not surprisingly, the population sizes of the metropolitan places settled by pioneers were larger, especially for Salvadorans (397,000), Dominicans (358,000), and Colombians

[7] While the statistics are for 741 geo-units, keep in mind that the non-metropolitan labor markets may include more than one urban area, several towns, and hamlets as well as rural areas. The population figures are for the geo-unit, not the place within the unit where immigrants actually live. Foreign- and native-born of all ages are included in the population statistics.

(293,000). Asians, in contrast, were moving to smaller size metropolitan areas. Column F shows that the average size of foreign-born populations in the pioneer places was relatively small, ranging from 200 in places settled by Mexicans to 5,000 in places settled by Dominicans. Except for Mexicans, the Hispanic groups selected pioneer places with larger foreign-born populations. Another issue we examined was whether pioneers from different origins were going to the same pioneer places. While the information shown in Column G suggests that many pioneers are going to the same states, particularly Georgia, Kentucky, and Texas, when we looked at the labor market settlement distributions by national origin, we discovered that there no areas that received pioneers from all origins. While there were 1,254 pioneer places (Table 1, col. c), the top number of groups that went to a single labor market was seven. On the other hand, 170 of the pioneer places received pioneers from only one origin.

Our findings underscore the need to be sensitive to national origin heterogeneity when examining settlement and dispersion patterns. In contrast to studies based on the total foreign born or pan-ethnic groupings of Asians and Hispanics, it is possible to obtain a more nuanced picture of immigrant heterogeneity by drawing on confidential census or, in the future, ACS data. Not only is it clear that there are sharp differences between Mexicans and Caribbean Hispanic groups (Cubans, Dominicans, and Colombians), Asian groups also differ in their settlement and dispersion trends. Our findings provide strong support for the idea that immigrants decide where to live based on their social ties to friends and relatives. At the same time, our analysis showed that there is a great deal of churning in pioneer places and that many immigrants move on over the course of a decade. Further study is needed on a host of issues but an important issue that needs continued monitoring is whether immigrants will stay in the dispersed communities that they are now settling and how their presence in places that have had

few immigrants until recent decades will change those places. It is clear that the national population is already changing as immigrants bring diverse cultures and races to the USA. While this analysis did not address assimilation issues, we did look at indicators commonly used in assimilation studies and found that English language fluency was positively associated with pioneer settlement of most groups. That finding suggests that immigrants from most origins who venture out to places where they have no compatriots have communication skills that allow them to interact with natives in those places. Another finding, namely that the immigrants from most origins who move to pioneer places tend to be internal migrants and resided in the country longer is consistent with the idea that the knowledge that immigrants learn about economic and other opportunities in potential pioneer places persuade them to explore places beyond the gateways.

Figure 1: Spatial Dispersion of Asian and Latin American National Origin Groups in 741 Labor Markets in 1990 and 2000 (percent of areas settled)

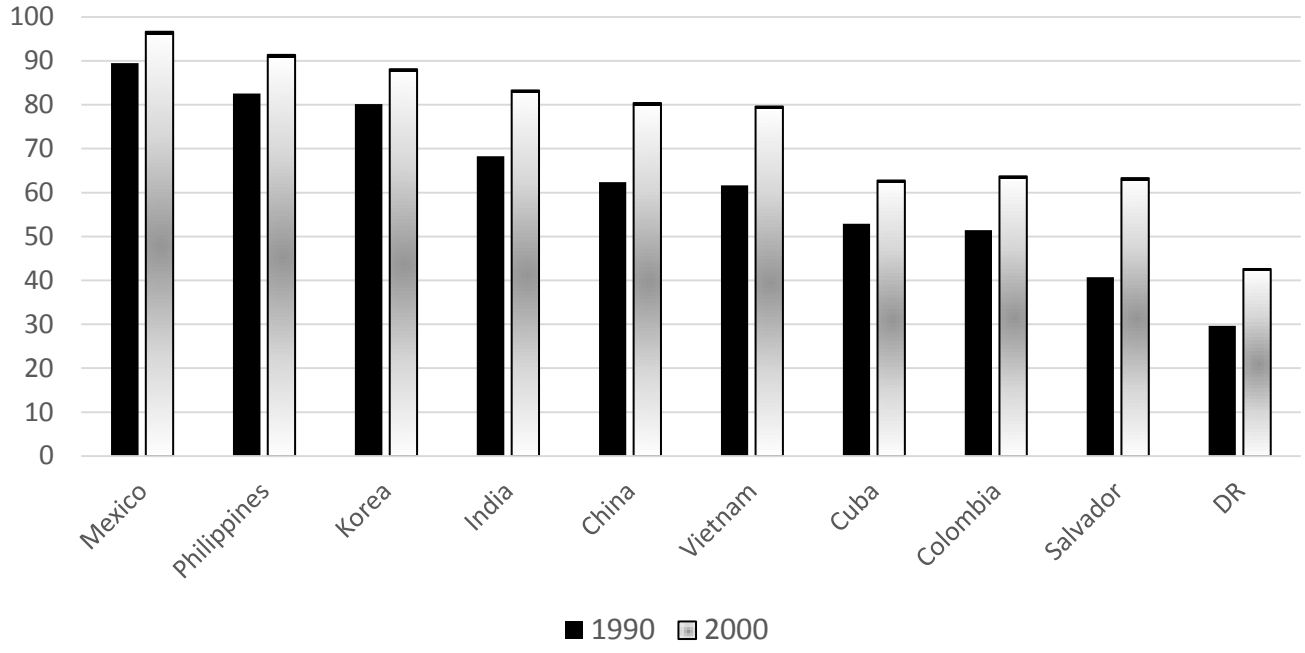

Table 1: Labor Market Settlement Patterns in 2000 Based on Change between 1990 and 2000 by National Origin[a]

	1990 Settled Labor Markets[b]		2000 Pioneer Labor Markets[b]	2000 Unsettled Labor Markets[b]	1990-2000 Turnover Labor Markets[b]
	N	%	N	N	N
	[a]	[b]	[c]	[d]	[e]
Mexico	663	89.5	58	20	5
Cuba	392	52.9	121	228	48
Colombia	381	51.4	146	214	55
Salvador	302	40.8	194	245	27
Dominican Republic	220	29.7	139	382	43
Philippines	612	82.6	84	45	19
Korea	594	80.2	88	59	29
India	506	68.3	134	101	23
China	462	62.3	157	122	23
Vietnam	457	61.7	133	151	25

[a] Sources: Confidential long-form files of the 1990 and 2000 Decennial Censuses.

[b] Columns a, c and d sum to 741 or the total number of geographic areas or labor markets. Turnover labor markets (column e) are a subset of areas in column d that had group settlers in 1990 but that had none in 2000.

Table 2: Population Characteristics of Pioneer Labor Markets (LMs) in 1990 and 2000 by National Origin[a] (weighted population statistics)

	Total National Population, 1990 [a]	Total Number of Group Members Who Settled in All Pioneer LMs, 2000 [b]	% of Group's National Population in Newly Settled LMs, 2000 [c]	Largest Number of Group Members Who Settled in a Single Pioneer LM, 2000 [d]	Total National Population, 2000 [e]	1990-1994 Number of Internal Migrants[b] [f]	1994-2000 Number of Internal Migrants [g]	Number of Arrivers from Abroad 1990-1994[b] [h]	Number of Arrivers from Abroad, 1994-2000 [i]
Mexico	4,262,900	4,980	0.05	587	9,960,000	652	1,803	702	1,823
Philippines	914,419	1,187	0.09	78	1,318,889	366	464	197	160
Cuba	737,934	1,459	0.17	79	858,235	772	496	57	134
China	680,233	3,481	0.29	164	1,200,345	1,271	1,347	240	623
Korea	564,355	1,278	0.15	74	852,000	686	285	130	176
Vietnam	538,604	3,308	0.34	389	972,941	1,001	1,154	686	466
Salvador	465,289	8,022	0.99	598	810,303	2,078	3,353	1,035	1,556
India	454,893	3,309	0.33	181	1,002,727	1,257	1,082	222	748
DR	344,046	2,212	0.33	203	670,303	608	991	179	434
Colombia	286,530	2,065	0.41	138	503,659	727	613	130	595

[a] Sources: Confidential long-form files of the 1990 and 2000 Decennial Censuses.

[b] 1990-1994 internal migrant status is estimated for pioneer settlers because we know that no nationals lived in the pioneer place in 1990. The "arrivers from abroad in the 1990-1994 period" satisfied two conditions: the 2000 census classified them as residents of the 1995 pioneer place; and they arrived in the USA between 1990 and 1995.

Table 3: Aggregate Zero-Inflated Poisson (ZIP) Models of counts of pioneer settlers in 2000 labor markets that had no same-origin group members in 1990

Table 4: Logistic regressions of residence in a Pioneer Labor Market (LM) in 2000 on migration status, demographic, education and assimilation measures, by origin (weighted using probability weights) for immigrants 19 and older in 2000 (Odds Ratios)

	Mexico	Cuba	El Salvador	Dominican Republic	Colombia	Philippines	China	India	Vietnam	Korea
Distance from group's nearest top 5 gateway, log[b]	.200***	[-0.103]	-.407***	-.143***	.063	[.281]	-.327***	-.208***	.042	-.552***
1990 Total population of labor market, log[b]	.704***	.030	1.255***	.873***	.304***	.624***	.774***	.606***	.158***	.138*
1990 Mean wage of full-time workers, log[b]	-.368**	.177	-4.278***	[-.461]	-1.666***	.455*	.005	.546***	.407**	.554*
1990 Mean annualized housing rent, log	.407***	.836***	2.592***	.915***	.868***	-.162	.403***	-.132	.006	.129
% of adult population with college degrees	.011**	-.017*	.054***	.001	.019***	.015*	.004	[.007]	.010*	-.001
% change of employed labor force, 1990 to 2000	[-.131]	-.177	.264**	-1.472***	-.651***	.136	-.397***	-.209*	.973***	-.620***
% of labor force in Agriculture	-.131***	-0.038***	-.003	-.027**	-.025***	.012*	-.012**	-.014***	-.011***	-.018***
% change of native-born population, 1990 to 2000	[-.003]	-.003	.003*	.037***	.015***	-.012***	.011***	.006***	-.017***	.011***
1990 Total foreign-born population, log[b]	-1.015***	-.019	-1.219***	-.619***	-.026	.175***	-.144***	-.035	-.047	.035
1990 Total foreign-born co-ethnics, log[b, c]	.316***	.191***	.658***	.513***	.214***	.020	.118***	.164***	.392***	.214***
1990 Total native-born co-ethnics, log [b, d]	[.012]	-.087***	-.008	-0.202***	-.137***	.008	.005	-.025**	-.163***	-.008
N LMs empty in 1990	78	349	439	521	360	129	279	235	284	147
N LMs newly settled in 2000	58	121	194	139	146	84	157	134	133	88
Model significance	***	***	***	***	***	***	***	***	***	***
Vuong test	**	***	***	***	***	***	***	***	***	***

[a] Levels of statistical significance: *** .001, ** .01, * .05, and [] .10 level.

[b] Along with the distance and wage variables, all independent variables that are counts are logged (natural log).

[c] For Mexicans, Cubans, Salvadorans, Dominicans, and Colombians this measure is the count of foreign-born Hispanics in a labor market in 1990. For Asian-origin groups it is the count of foreign-born persons of Asian ancestry. By definition, these totals cannot include foreign-born persons from the same national origin as the index group. [d]

	Mexico	Cuba	El Salvador	Dominican Republic	Colombia	Philippines	China	India	Vietnam	Korea
Recent Immigrant (RI)[a]	4.088***	2.918***	2.617***	6.494***	3.792***	1.657	2.194***	1.539**	2.265***	1.580
Internal Migrant (IM)[a]	10.926***	7.806***	11.577***	11.474***	5.406***	6.079***	6.611***	3.598***	5.607***	1.972**
Male (=1)	1.424***	1.410*	1.238**	0.882	0.852	0.637**	1.104	0.957	1.220	0.669*
Never Married (=1)	0.862	1.115	0.783**	0.631*	1.237	0.839	0.610**	1.315	0.956	0.599
No High School degree	---	---	---	---	---	---	---	---	---	---
High School degree/some college	0.873	0.880	1.031	1.527*	1.457	0.977	1.019	0.811	0.973	0.628
College Degree (4 year)	0.946	0.955	0.957	2.499***	1.553	0.749	0.606*	0.462***	0.562**	0.334***
Advanced Degree	0.971	0.910	1.272	3.572***	2.243***	1.712	0.670*	0.636**	0.429*	0.514*
Attending School	0.772	0.634	0.628**	0.589*	1.247	0.944	1.099	0.826	0.630**	1.365
Currently Employed	1.311*	1.540*	1.169*	1.222	0.779	1.135	1.328*	1.047	1.120	1.198
English Only, Very Well or Well	1.060	1.824**	0.860	2.072***	2.590***	5.243**	0.999	1.518*	1.025	2.446**
Citizen (=1)	1.373*	0.720	1.129	1.077	1.610*	0.870	0.882	1.209	0.739*	0.842
Age Arrived in USA	1.010*	0.993	0.991*	0.994	1.010	0.995	0.987**	1.018***	0.999	1.002
Years in USA	0.971***	1.035***	0.966***	1.020*	1.016	0.976	1.015*	1.023***	1.001	1.021
Model Significance	***	***	***	***	***	***	***	***	***	***
RI-IM Significance	***	**	***	**	ns	***	***	***	***	ns
Pseudo R2	.070	.075	.105	.129	.059	.056	.048	.027	.046	.025
Sample N (rounded, unweighted Ns)	1,046,300	99,333	94,900	73,100	54,100	165,100	139,300	119,000	117,000	94,500

Levels of statistical significance: *** .001, ** .01, * .05

Table 5: Logistic Regressions of Residence in a Pioneer Labor Market in 2000 on Dispersion Level in 1995 by National Origin, (odds ratios)[a]

	Mexico	Cuba	El Salvador	Dominican Republic	Colombia	Philippines	China	India	Vietnam	Korea
Model A: All immigrants residing in the United States in 1995, persons 19 or older in 2000										
Gateway 1995 (ref)	---	---	---	---	---	---	---	---	---	---
Emerging LM 1995	1.125	0.537	0.965	1.124	2.930**	11.049***	0.926	1.262	3.506***	5.095***
Dispersed LM 1995	4.425***	5.189***	3.919***	8.661***	7.339***	23.474***	7.866***	3.596	7.721***	8.084***
Model B: Same as Model A with those living in gateway LMs in 1995 dropped										
Emerging LM 1995 (ref)	---	---	---	---	---	---	---	---	---	---
Dispersed LM 1995	3.879***	9.961***	3.955***	7.896***	2.511**	2.175*	8.692***	2.940***	2.218***	1.611

Levels of statistical significance: *** .001, ** .01, * .05

[a] In addition to the 1995 settlement indicators, Models A and B included sex, marital status, education, school attendance, employment status, English competence, citizenship status, age of U.S. arrival, and years in USA. Both models exclude immigrants not residing in the U.S. in 1995 and pre-1995 internal migrants. The full models are available from the authors.

Appendix A: Logistic Regressions of Residence in a Pioneer Labor Market in 2000 on Migration, Demographic, Education and Assimilation Status, by National Origin for Immigrants 19 and Older in 2000 Who Reside Beyond the Top 5 Gateway Labor Markets (odds ratios)

	Mexico	Cuba	El Salvador	Dominican Republic	Colombia	Philippines	China	India	Vietnam	Korea
Recent Immigrant (RI)[a]	3.204***	1.534	1.787***	2.922***	2.463***	1.427	1.513*	1.193	1.958**	1.120
Internal Migrant (IM)[a]	6.757***	2.372***	4.025***	2.743***	2.660***	4.065***	3.545***	2.449***	3.865***	1.328
Male (=1)	1.355**	1.324	1.156	0.866	0.873	0.684*	1.117	0.956	1.191	0.758
Never Married (=1)	0.884	1.163	0.828*	0.784	1.341	0.922	0.733	1.362*	0.998	0.719
No High School degree	---	---	---	---	---	---	---	---	---	---
High School degree/some college	0.877	0.846	0.993	1.233	1.421	1.040	0.947	0.812	1.045	0.772
College Degree (4 year)	0.948	0.778	0.942	1.881*	1.338	0.745	0.554**	0.465***	0.684	0.516*
Advanced Degree	0.966	0.682	1.227	2.518***	1.871*	1.490	0.525***	0.597**	0.494*	0.695
Attending School	0.836	0.744	0.736*	0.639	1.128	1.015	1.011	0.788	0.698*	1.277
Currently Employed	1.250*	1.447*	1.063	1.070	0.720*	1.093	1.261	1.040	1.071	1.177
English Only, Very Well or Well	1.056	1.194	0.834*	1.455*	2.026***	4.808**	0.798	1.481	0.992	1.804
Citizen (=1)	1.306	0.865	1.043	1.021	1.502*	0.913*	0.945	1.205	0.831	0.778
Age Arrived in USA	1.011**	0.997	0.993	0.992	1.009	0.998	0.989*	1.019***	1.004	1.007
Years in USA	.979**	1.027**	0.970**	1.008	1.013	0.978	1.013*	1.021**	1.005	1.017
Model Significance	***	***	***	***	***	***	***	***	***	***
RI-IM Significance	***	ns	***	ns	ns	***	***	***	**	ns
Pseudo R2	.048	.027	.048	.044	.033	.040	.032	.022	.031	.011
Sample N (rounded, unweighted Ns)	602,600	19,400	27,400	9,700	19,400	84,600	58,800	74,200	62,800	47,700

Levels of statistical significance: *** .001, ** .01, * .05.

Appendix B. Summary Statistics for Pioneer Places in the 1990s by National Origin

	% of Pioneer migrants who settled non-metropolitan areas	1990 Average size of non-metro places settled	1990 Average size of metro places settled	% of pioneers who settled places that NO other groups settled	1990 Average size of FB populations in CZs that pioneers settled	2000 top two pioneer settlement states
	col a	**col c**	**col e**	**col f**	**col g**	**col h**
Mexico	100	50,000	na	4.0	200	Georgia, Kentucky
Cuba	80	82,000	195,000	7.0	2000	Texas, Georgia
Salvador	75	124,000	397,000	30.0	2500	Virginia, Georgia
Dominican Republic	55	176,000	358,000	44.0	5000	Georgia, Virginia
Colombia	80	94,000	293,000	10.0	2000	Georgia, South Carolina
Philippines	100	47,000	na	9.0	900	Texas, Mississippi
China	89	80,000	176,000	5.0	900	Kentucky, Georgia
India	99	72,000	113,000	5.0	1100	Kentucky, Texas
Vietnam	90	70,000	142,000	15.0	900	Kentucky, Nebraska
Korea	94	51,000	145,000	2.0	500	Kentucky, Tennessee

Note. The table shows rounded statistics, which the Census Bureau Disclosure Review Board requires to protect individual privacy. The “na” in column e means not applicable because all pioneers in the group settled in nonmetropolitan places.

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