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Immigrant Clusters and Homeownership in Global Metropolises: Suburbanization Trends in San Francisco, Los Angeles, and New York

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Working Paper 2004-02

**Immigrant Clusters and Homeownership
in Global Metropolises:
Suburbanization Trends in San Francisco,
Los Angeles, and New York**

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Immigrant Clusters and Homeownership in Global Metropolises: Suburbanization Trends in San Francisco, Los Angeles, and New York

Ayşe Pamuk

Abstract

The premise of this paper is that immigrant homeownership patterns in global metropolitan housing markets are profoundly influenced by international migration dynamics and that homeownership for immigrants is realized in *ethnic clusters* in varying degrees and in unexpected locations of metropolitan regions. Research shows that ethnic clusters are increasingly emerging in different places and particularly in suburban areas of global metropolises as a result of some immigrants following networks of kin and friends along migration chains and bypassing inner cities altogether. In contrast to earlier theories on immigrant residential settlement patterns that view ethnic neighborhoods as disadvantaged “zones-in-transition,” some of these newer clusters have unexpectedly high homeownership rates.

To address the question of where immigrant homeownership is realized, 2000 Census data are used to spatially locate major immigrant groups—Chinese, Mexicans, and Filipinos—in three global metropolitan regions: San Francisco, Los Angeles, and New York. The unit of analysis is the census tract. Geographic Information Systems (GIS), a spatial analysis tool, is used to identify clusters of Chinese, Mexicans, and Filipinos. Building on past research by Logan, Alba, and Zhang (2002) on Los Angeles and New York, and Pamuk (2004) in San Francisco, an ethnic cluster is operationalized as areas with high concentrations (core) of an immigrant group and areas with a slightly lower concentration that are contiguous to it.

Based on an analysis of 2000 Census data, the central finding—the suburbanization of immigrant clusters—has important policy implications for what future global metropolitan regions will look like. The dispersed suburban location of immigrant clusters and varying homeownership rates require rethinking traditional theories of residential segregation and spatial assimilation.

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Ayse Pamuk

Introduction

The unprecedented wave of immigration into the United States over the past four decades is fundamentally changing the urban fabric of major metropolitan regions (Frey, 2001; Borjas 2002; Camarota and McArdle, 2003). Immigrants comprised 11.1 percent of the United States population in 2000, and the foreign-born population grew 57.4 percent in the 1990s (Singer, 2004). The volume and composition of post-1965 immigration into the United States, the residential settlement patterns of new immigrants, and the housing conditions of new arrivals are of central importance to public policy.

Because of lending institutions' historical redlining of central city regions populated by minorities (Hillier, 2003) and past discrimination in mortgage lending (Turner and Skidmore, 1999), residential segregation by race and ethnicity in major US cities is very pronounced. More recently, increased flows of immigration from Asia and Latin America have added greater complexity to residential patterning and brought about intense debate about the impacts of immigrants on localities (Frey, 1995; Harwood and Myers, 2002).

While economic resources largely determine where new arrivals settle, immigrant households also contemplate trade-offs with respect to: proximity to co-ethnics who speak the same language, access to employment opportunities, and housing quality. To better understand the contemporary settlement patterns and housing outcomes of immigrants, this paper provides an empirical analysis of immigrant clusters in three major US metropolitan regions, using 2000 Census data with a focus on three major groups—China-born, Philippines-born, and Mexico-born immigrants.

Metropolitan level analysis is essential to understanding contemporary immigrant settlement patterns. An analysis of immigrant clusters at the metropolitan (MSA) level in 2000 reveals distinct immigrant clusters outside of central cities—in the suburbs. The clear empirical pattern of suburban immigrant clusters in the three metropolitan areas discussed here is congruent with Alba et al.'s (1999) findings of suburbanization of immigrant groups based on their analysis of the 1990

Census. The analysis of 2000 Census data shows that the location of immigrant groups in the suburbs is now a permanent, though still little understood, feature of residential settlement patterns in global metropolitan regions of the United States.

The analysis reported here directly builds on earlier work on immigrant clusters in San Francisco (Pamuk, 2004), New York (Logan, Alba, and Zhang, 2002), Los Angeles (Allen and Turner, 1996), and on the literature on immigrant housing (Schill, 1998; Myers, 1999; Borjas, 2002). An analysis of spatial clustering patterns of immigrants in San Francisco (at the county level) by Pamuk (2004) found distinct Chinese, Filipino, and Mexican clusters. A similar methodology is applied here (building on earlier work by Alba et al., 1997, and Pamuk, 2004) to comparatively examine the spatial distribution of immigrants in San Francisco, Los Angeles, and New York at the metropolitan (MSA) level.

In San Francisco, when MSA-level percentages are used to identify Chinese clusters—i.e., the Chinese population as a percentage of the total MSA population, rather than the Chinese population as a percentage of the total county population—we find a less finely-grained depiction of clustering patterns, but a larger number of clusters. For example, while the county-level analysis identifies three distinct Chinese clusters in San Francisco, the MSA-level analysis identifies nine distinct clusters in the region.¹ Likewise, many more Filipino and Mexican clusters emerge in the MSA-level analysis.

As expected, in a larger geographic context (MSA), we find slightly different clustering patterns. While the shape and number of clusters should be sensitive to the geographic scale of analysis, the results related to housing conditions in immigrant clusters should be robust. In other words, if the underlying *processes* at work that determine housing conditions in immigrant clusters are the same, then we should expect to find similar *outcomes* even at different geographic scales (county-level versus MSA-level) and in different metropolitan regions.

Following a brief overview of major theories concerned with immigrant clustering patterns, this paper explains the methods, definitions and data sources used. Next, an overview of immigrants and housing market conditions in the three global metropolitan regions analyzed is provided. Then the empirical evidence of clusters in 2000 in the three case study regions is presented in a comparative framework. Finally, the policy and theoretical implications of these findings are discussed.

Theories of the spatial distribution of immigrants

Many of the earlier theories of the spatial distribution of immigrants in the US have focused on central cities because earlier waves of immigrants were predominantly located in inner city neighborhoods. Chicago School sociologists in the 1920s argued that the location of new ethnic groups in congested, central city “zones-in-transition” is a temporary condition followed by moves to working-class districts soon after socio-economic situations of immigrants improve (Park, Burgess & McKenzie, 1925).

While this earlier model has some validity, recent definitions of clustering focus on the evidence of changing patterns of ethnic residential clustering in major metropolitan regions. A prevalent definition states that ethnic clusters are comprised of “spatially clustered networks of businesses owned by owners of the same minority” (Portes, 1995, p. 27). This includes areas where an immigrant group is concentrated, along with an “ethnic institutional infrastructure” (Alba et al., 1997, p. 886) or ethnic economy (Light, 2000). Emerging literature on transnationalism, flexible citizenship, and ethnic identity strongly suggest that immigrants are drawn to ethnic neighborhoods because of the rich social and institutional infrastructure that responds to quality of life needs that are transnational in scope and unavailable elsewhere (Ong, 1999; Smith, 2001). On the other hand, geographic clustering of ethnic groups can also arise as a result of discrimination in housing markets (Massey & Denton, 1993) and in mortgage lending (Turner & Skidmore, 1999)—a pattern of forced clustering.

At present, the spatial assimilation model developed by Massey (1985) provides the most powerful contemporary argument to explain the persistence of ethnic clusters in inner cities over time. According to this theory, spatial assimilation follows cultural and economic assimilation. Immigrant clusters are more likely to be located in central cities and to be inhabited by recent arrivals who have relatively few economic resources, are likely to live in overcrowded or poor-quality housing, and experience linguistic isolation. The theory predicts immigrants leaving inner city ethnic clusters as soon as their cultural assimilation has advanced and household economic conditions have improved. In this conceptualization, ethnic clusters are *transitory* sites serving only a temporary sheltering purpose for “strangers from a different shore” (Takaki, 1998).

Under the spatial assimilation theory, as a major immigrant group completely “assimilates” into US society—as in the case of white ethnic groups like Italians, Germans, and Irish (Alba et al., 1997) in the late nineteenth century—ethnic clusters tend to lose their original sheltering

function for that particular group and become populated by the next immigrant group and so on. The persistence of Chinatowns in central cities (e.g., New York and San Francisco) certainly confirms that a steady flow of low-income and linguistically isolated Chinese have kept these neighborhoods replenished with new arrivals. The disappearance of Manilatown in San Francisco, on the other hand, marks a different phenomenon including the changing makeup of immigration from the Philippines (Laguerre, 2000; Takaki, 1998), and different residential choice decisions of relatively better off Filipino immigrants. In other words, the trajectory of immigrant neighborhoods appears highly sensitive to the economic and demographic characteristics of immigrant flows from different countries in different time periods, which in turn, is highly influenced by immigration policy designed to regulate the flows of immigrants.

Immigration laws can strongly influence clustering patterns. The volume and composition of immigration was fundamentally changed following the passage of the 1965 Hart-Cellar Immigration Act and subsequent changes in immigration policy. In terms of sheer size, while in the 1950s only about 250,000 immigrants entered the US annually, by the 1990s almost a million legal immigrants were admitted to the US annually and at least an additional 300,000 enter and stay in the country illegally (Borjas, 2002). More importantly, the demographic make-up of the new immigrant population has changed. There is far greater diversity among immigrants today than in the past in terms of race and ethnicity, English language attainment, educational levels, and economic resources. As a result, as research increasingly shows, the newest waves of immigrants are exhibiting different settlement and assimilation patterns and housing conditions than previous groups.

At the city and metropolitan scale, recent research on the spatial distribution of immigrants in New York, Los Angeles, and San Francisco (Allen & Turner, 1996; Logan et al., 2002; Beveridge, 2002; Pamuk, 2004) confirms that immigrants are now spatially clustered in ways that may no longer neatly fit theoretical models derived from the settlement patterns of earlier waves of immigrants in the late nineteenth century. The ethnic geography of global metropolitan regions is undergoing fundamental changes that are not yet fully understood.

This paper contributes to the literature with a comparative empirical analysis of immigrant clustering patterns in the three global metropolitan regions of San Francisco, Los Angeles, and New York with an analysis of 2000 Census data. The hypotheses are that global metropolitan regions are becoming increasingly heterogeneous as a result of international migration, that new and different forms of spatial ethnic

clustering are emerging, and that there are significant and unexpected variations in homeownership rates across immigrant clusters. Furthermore, theories emphasizing the positive aspects of clustering provide compelling explanations for the powerful draw of new arrivals to immigrant clusters.

Ethnic clusters are capable of providing dense social networks in which immigrants can use their stock of social capital to get ahead (Portes and Sensenbrenner, 1993). Ethnic clusters can also nurture occupational niches (Waldinger, 2001). In fact, the combination of dense social relationships built on immigrants' social capital and the rise of particular occupational niches are known to have accelerated economic transactions and productivity among high-tech Chinese and Indian professionals in California's Silicon Valley (Saxenian, 2002).

Clustering can also co-exist with affluence. Research shows that new immigrants increasingly bypass low-income ethnic clusters in inner cities and settle in more affluent locations following networks of kin and friends along migration chains (Mahler, 1995; Horton, 1995; Wood, 1997; Logan et al., 2002). Monterey Park in the Los Angeles metropolitan region is a widely cited example of a middle-income suburb populated by immigrants who have directly migrated to this area from Hong Kong and Taiwan. (Horton (1995) details the evolution of Monterey Park.) As Light (2002) explains, Chinese property developers and real estate firms have actively orchestrated the development of Monterey Park by marketing it in Hong Kong and Taiwan as "the Chinese Beverly Hills." Light discusses in detail this intentional creation and transformation of ethnic clusters by property developers in Los Angeles. Ethnic banks also play an important role. Suburbanization of jobs is another important factor. New ethnic clustering patterns in an era of globalization clearly call for rethinking the formation and functioning of immigrant clustering patterns in global metropolises.²

To what extent does the latest (1990s) wave of immigrant settlement patterns follow the dispersal trajectory predicted by the spatial assimilation model? How can we explain the emergence of suburban immigrant clusters populated with recent arrivals rather than more established immigrants as the spatial assimilation theory would predict? Overall, the ethnic geography of major metropolitan areas connected to the global economy—where the immigrant population is most pronounced—is exhibiting increasing complexity, requiring greater nuance when characterizing contemporary immigrant clusters. The empirical analysis finds different types of clustering patterns. In the case of San Francisco, the fact that immigrant clustering is occurring in an affluent inner city (rather than suburban) setting is itself a distinct phenomenon (Pamuk, 2004). The emergence of an affluent immigrant

cluster in an inner city setting in this case is closely linked to neighborhood changes stemming from the tech-driven economic growth and wealth in the 1990s and economic restructuring resulting from the globalization of economic activities (Pamuk, 2004).

As mentioned above, this paper shows a clear pattern of suburbanization of immigrant clusters in the three metropolitan regions and argues that the suburbanization of immigrant clusters is largely an overlooked phenomenon in the literature except in the context of limited-scope, narrative ethnographic studies of places such as Monterey Park in the Los Angeles region (Horton, 1995), the Elmhurst-Corona neighborhood in the New York metropolitan area (Sanjek, 1998), Chinese ethnoburbs (Li, 1998), Chinatowns (Lin, 1998; Zhou, 1992), and Indian communities in central New Jersey (Kalita, 2003). Standard analyses of housing dynamics and homeownership rates in major metropolitan areas lack explicit consideration for ethnic clustering patterns. Recent research, however, has pointed out the significant role ethnic clusters can play in homeownership patterns not only because immigrants as a large demographic group will increase overall demand for housing in major metropolitan areas (Joint Center for Housing Studies, 2002), but also because ethnic clusters appear to be playing an important and little understood independent role in increasing homeownership rates among some immigrants. As Borjas (2002, p. 9) points out, immigrants tend to live in metropolitan areas where even natives have low homeownership rates (Table 1). Therefore, even more striking are the high homeownership rates among some immigrant groups (all else being equal) when compared to natives. Indeed, Painter, Yang, and Yu, (2003) have found that after controlling for household mobility and other socio-economic characteristics, Chinese households have homeownership rates 20 percentage points higher than their household characteristics would predict in the San Francisco, Los Angeles, and New York consolidated metropolitan statistical areas.

The suburbanization of immigrant clusters has important implications for what future global metropolitan regions will look like. For example, the dispersed location of immigrant clusters in the suburbs (rather than being confined to central cities) holds the potential to provide more opportunities for interaction among different groups and can give rise to a much more integrated, rather than “balkanized,” relationship among groups.

Table 1. Metropolitan Area Differences in Homeownership Rates

| | Native homeownership rate | Immigrant homeownership rate | % of metropolitan area's population that is foreign-born | % of total native population living in the metropolitan area | % of total immigrant population living in the metropolitan area |
|------------------------|---------------------------|------------------------------|----------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------|
| 1980 | | | | | |
| New York | 34 | 30.5 | 22 | 5.6 | 17.2 |
| Los Angeles–Long Beach | 53.9 | 39.4 | 19.4 | 4.6 | 12 |
| San Francisco | 56.3 | 54.4 | 13.8 | 2.3 | 4 |
| 1990 | | | | | |
| New York | 37.9 | 31.5 | 25.6 | 4.3 | 13.6 |
| Los Angeles–Long Beach | 55.3 | 39.1 | 26.9 | 4.1 | 13.8 |
| San Francisco | 52.3 | 48.1 | 20.1 | 1 | 2.3 |
| 2000 | | | | | |
| New York | 37.9 | 27.1 | 38.6 | 3 | 12.6 |
| Los Angeles–Long Beach | 56.5 | 37.5 | 41.6 | 2.7 | 12.8 |
| San Francisco | 49.8 | 39.2 | 26.6 | 0.8 | 1.9 |

Source: Borjas (2002), p. 8, Table 4. Based on analysis of Public Use Microdata Samples (PUMS) of the US Census, 1980, 1990; Current Population Surveys.

Research approach

The geographic distribution of major immigrant groups—Chinese, Mexicans and Filipinos—in three US metropolitan regions in 2000 are examined. The metropolitan areas analyzed use Metropolitan Statistical Areas (MSAs) as defined by the Office of Management and Budget. The research focuses on the following questions: How do the clustering patterns of Chinese, Filipino, and Mexican immigrants differ? How is this clustering related to housing market dynamics? How do housing and socio-economic conditions vary across immigrant clusters when compared to the rest of the metropolitan area?

Ethnic clusters are identified with standard spatial analysis methods using Geographic Information Systems (GIS). The primary data source is the US Census Bureau's 2000 Census. Information on the population in 2000 comes from extracted subsets of the SF1 and SF3 files for the three Metropolitan Statistical Areas (MSAs).³ All of the public domain Topologically Integrated Geographic Encoding and Referencing (TIGER) System files for the spatial analysis have been downloaded from the US Census Bureau website (www.census.gov). The units of analysis for the residential settlement patterns of the three selected immigrant groups are census tracts with an average population of four thousand.

Defining immigrant clusters

It is important to clearly define key concepts used in the following analysis. A full description of methods is discussed elsewhere (Pamuk, 2004). In this paper, building on research by Pamuk (2004) in San Francisco and Logan et al. (2002) on Los Angeles and New York, an *immigrant cluster* is operationalized as areas with high concentrations of an immigrant group and areas with a slightly lower concentration that are contiguous to it. In their research on ethnic clusters in Los Angeles and New York, Alba et al. (1997) use the following definition: “a set of contiguous tracts, which must contain at least one tract where a group is represented as 40% or more of the residents and whose other tracts each have a level of ethnic concentration among residents of at least 35%” (quoted in Logan et al (2002, p. 304) from Alba et al. (1997)).

In this paper, a slightly modified clustering definition is used to better reflect immigrant percentages in the three MSAs. An immigrant cluster is defined as a set of contiguous tracts, which contain at least one tract in which a group has a level of concentration (core) of at least ten percentage points above the MSA’s average for that group, and whose other tracts have a level of concentration of at least five percentage points above the MSA’s average for that group. Once these levels of immigrant concentrations are identified using ArcGIS’s data classification function under symbology, census tracts that are contiguous to one another are marked manually for each of the three MSAs using ArcGIS 8.3.

Following the identification and marking of immigrant clusters using GIS, each of the clusters was labeled based on expert interviews with those familiar with the local geography of ethnic neighborhoods in the three regions. An internet search was also carried out to identify names used for these clusters by local community organizations and groups themselves.

After identifying, marking, and mapping spatial clusters, selected housing conditions in immigrant cluster neighborhoods were compared to non-immigrant neighborhoods. Three standard, key housing market outcome measures were used: homeownership, housing cost burden, and overcrowding. The census variables used to measure these included the percentage of households who are homeowners, the percentage of households who pay more than 50% of their income on housing, and the percentage of households who are living in overcrowded conditions (more than one occupant per room). Linguistic isolation and year of entry were used as indicators of assimilation.

Identifying spatial clustering patterns of immigrants in global metropolitan regions using GIS is driven by two analytical motivations:

(1) to examine the variation of immigrant clusters in spatial terms (shape, size, morphology), and (2) to examine the extent to which housing conditions significantly differ within and outside of clusters. If the analysis shows that households in immigrant clusters are more likely to live in overcrowded dwelling units, less likely to achieve homeownership, and more likely to experience housing cost burdens, then designing new policies to remedy these conditions would be desirable. If these patterns are consistently present in the three metropolitan regions, we can establish strong empirical evidence to better depict the actual housing conditions of immigrants.

Furthermore, analyzing immigrant clusters in three major metropolitan areas using 2000 Census data and GIS establishes the empirical foundation to ask the following questions: (1) where are immigrant clusters located—in central cities or suburbs? (2) how do housing outcomes vary within and outside of clusters? and (3) to what extent is membership in an immigrant cluster associated with rates of homeownership, likelihood of experiencing cost burden, and overcrowding? Analysis of data at the aggregate census tract level allows us to ask questions such as: Are China-born clusters more likely to be comprised of high homeownership tracts? Are Mexico-born clusters more likely to be comprised of overcrowded tracts? The analysis here is at the census tract level rather than at the individual level. In sum, this paper sets out primarily to establish patterns themselves, with some discussion of the causes as well. The underlying *processes* creating immigrant clusters will be examined in another article.

The distinction between *process-based* versus *outcome-based* disadvantages of immigrants (especially those of color) in global metropolitan housing markets is useful to make at this point. Hillier makes a similar distinction with respect to redlining (Hillier, 2003). Process-based disadvantages may occur when immigrants are subjected to discrimination and harsh treatment in housing markets, particularly during the mortgage lending application process.⁴ Outcome-based disadvantages may occur when immigrant clusters have significantly worse housing conditions or lack access to credit when compared to housing conditions and mortgage lending access enjoyed by residents in the rest of the metropolitan region.⁵ In this article, nativity emerges as an important factor associated with housing market outcome differences among different groups. The article focuses on outcome-based (rather than process-based) measures in housing markets. Findings are useful in directing public funding to particular places (neighborhoods) where housing conditions of immigrants are disproportionately substandard.

Immigrant populations and housing markets in global metropolitan regions

As posited by network theory of international migration (Massey et al., 1994), immigrants tend to cluster in selected gateway regions. Nationwide, immigrants from different nationalities tend to cluster in a few states.⁶ The three metropolitan MSAs analyzed in this article receive a significant share of the whole US immigrant population. The absolute size of the foreign-born population in the New York and Los Angeles MSAs is very large—over 5 million in each (Figure 1). Global/world city researchers consider these regions to be primary global city-regions (Sassen, 1991, 1998; Abu-Lughod, 1999; Scott, 2002; Hall, 2002). When compared to New York and Los Angeles, the San Francisco MSA has a relatively smaller foreign-born population—nearly 2 million people. Scholars consider this type of region a secondary global-city. In terms of the land area, the Los Angeles region (33,210 square miles) is almost twice as large as the New York and San Francisco metropolitan areas (18,134 and 19,085 square miles, respectively) (Waldinger and Bozorgmehr, 1996, p. 5). Large population size and smaller land area normally translate into higher density settlement patterns. And yet even in Los Angeles—a region well-known for its auto-oriented sprawl type land use patterns—immigrant households have established settlements in suburban locations at high densities measured in terms of units per acre.

Because this paper looks at both east and west coast cities, it is useful to note some important variations in the composition of the immigrant population in the eastern and western United States. The Chinese population has a very significant presence in the San Francisco MSA (14.7 percent of the total MSA population), although in absolute terms, New York has many more Chinese (Figure 2). The Mexican population has overwhelming presence in Los Angeles (47.3 percent of the total population). These figures are consistent with predictions of the earlier network theory of international migration (Massey et al., 1994), which posits that immigrants create and follow migration chains. The large presence of Mexican households in Los Angeles is partly related to a former guest worker program—the Brazero program of the World War II era, abolished in 1964—which was set up to alleviate labor shortages in the US agricultural sector. Despite the discontinuance of the program, families continue to use the migration chains created during this period. In addition, the close physical proximity of Mexico to the United States makes it easier to sustain transnational ties based on travel contributing to higher levels of family-sponsored immigration.

Despite some variation in the ethnic composition of these regions, there are important similarities in the housing conditions of the three

Figure 1.

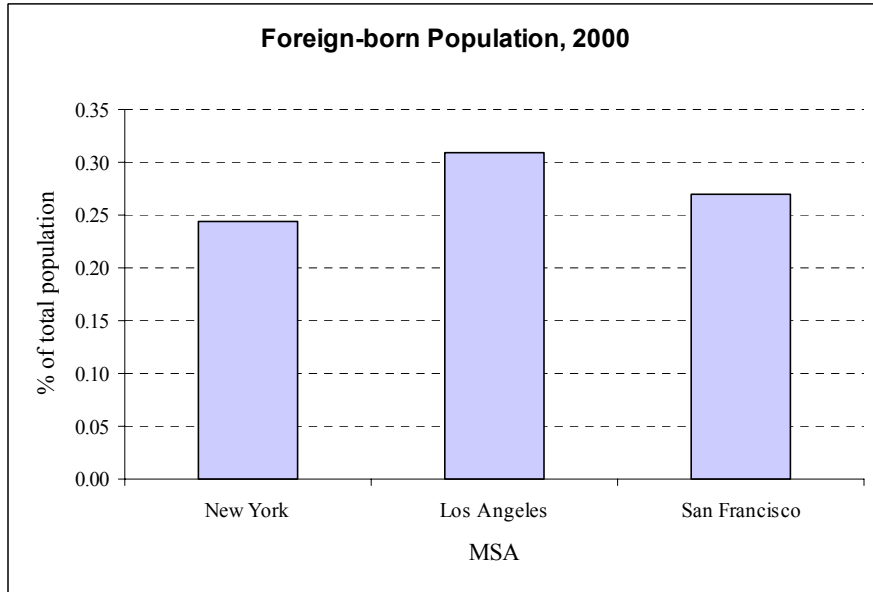
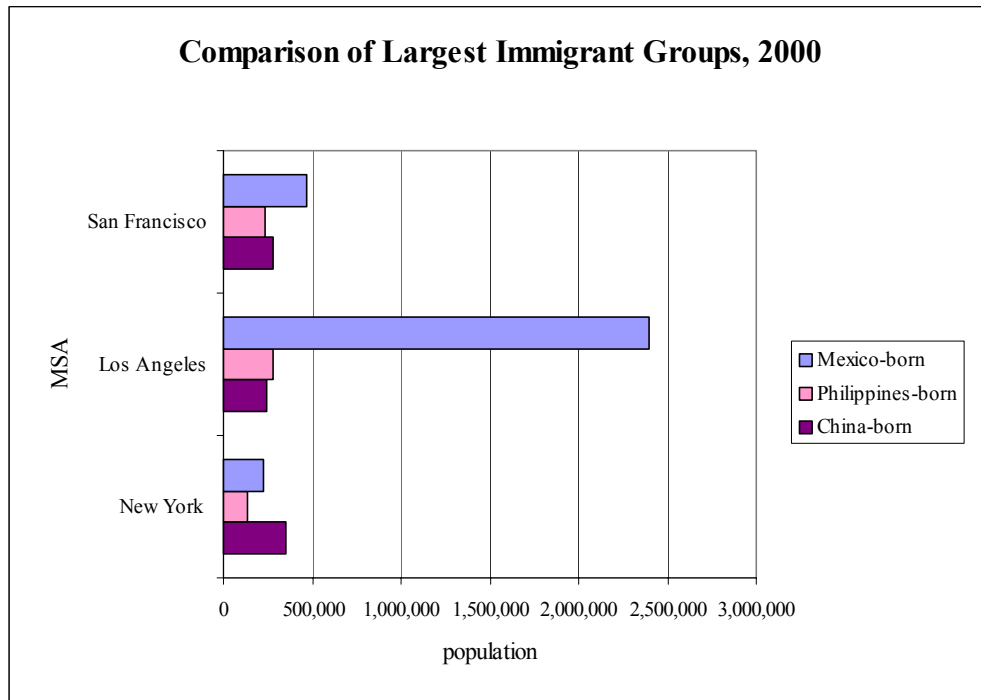


Figure 2.



metropolitan regions in terms of vacancy rates, crowding, and homeownership rates. Based on their analysis of the American Housing Survey, Schill and Daniels (2002) report extremely low levels of vacancy rates: 2.5% in San Francisco in 1998, 3.5% in Los Angeles in 1999, and; 3.2% in New York in 1999. Correspondingly, severe crowding (more than 1.5 person per room) is prevalent: 2.1% in San Francisco in 1998; 4% in Los Angeles in 1999, and; 3% in New York in 1999 (Schill and Daniels, 2002, Table 1).

The similarities in housing market conditions make for a useful comparison across ethnic lines, and help show outcome-based differences. While the homeownership rate for the entire United States was 66.9% in 1999, the three global cities had significantly lower rates of homeownership: 31.9% in New York in 1999; 33.3% in 1998 in San Francisco; and 38.1% in Los Angeles in 1999 (Schill and Daniels, 2002, Table 5). Interestingly, immigrants tend to cluster in metropolitan areas where even natives have low homeownership rates (Table 1). Immigrants with few initial economic endowments or resources in such tight housing markets have a particularly difficult time in achieving homeownership. And yet, as we shall see later in the paper, compared to other groups with similar socio-economic characteristics, some immigrant groups have higher homeownership rates. Living in an immigrant cluster appears to have an independent and strong effect on rates of homeownership for some immigrant groups.

All of the figures reported in this article are based on 2000 or earlier Census data. As of this writing, the prosperity enjoyed in the three global metropolitan regions in the 1990s dramatically reversed, following the national recession that began in late 2000 and in the aftermath of September 11, 2001. However, the impacts of the economic slowdown in the past four years on housing markets and immigrant clustering patterns will not be known in detail until the next decennial census in 2010. Therefore, the 2000 Census is still most useful for the purposes of this analysis.

Comparative analysis of immigrant clusters in 2000

Comparative analysis of immigrant clusters in three major US metropolitan regions with 2000 Census data largely fits the predictions of the spatial assimilation theory, but there are important variations, such as affluent Chinese clusters in a central city setting in the case of San Francisco, and immigrant clusters in the suburbs. The comparative analysis furthermore adds nuance to existing theoretical formulations regarding the spatial assimilation of immigrants. In the following

analysis, ethnic groups (rather than cities) are used to organize the discussion, since the central focus of the analysis is to identify commonalities and differences in housing market outcomes for each of the three major groups across the three metropolitan regions. This focus allows us to answer questions such as: Are Chinese clusters located in the same way among the three MSAs? What are the major differences (e.g., homeownership, housing affordability, and overcrowding) among Chinese clusters across the three metropolitan regions? As we shall see, household income and house values are important factors in determining where immigrant clusters are found. There are instances where homeownership rates are higher—in some Chinese clusters, for example—than what one might predict based on household income, house values, and even year of entry into the United States.

The latter factor, in particular, confirms that new immigrants are a diverse group, and the significant economic and human capital resources they bring with them results in a complete bypass of inner city “zones-in-transition” for the suburbs. For some affluent immigrants, assimilation into the US economy and culture starts in the home country, long before arrival, accelerating the path to homeownership. In fact, recent research has found that, after controlling for household mobility and other socio-economic characteristics, Chinese households still have homeownership rates 20 percentage points higher than their household characteristics would predict (Painter, Yang, and Yu, 2003). Perhaps the most significant finding of the comparative analysis in this article is that suburban location of ethnic clusters is very pronounced, particularly for Chinese (except Chinatowns) and Filipino clusters. The suburbanized pattern of immigrant clusters in the three metropolitan regions discussed here is a new immigrant settlement pattern in comparison to what was typical during the earlier waves of immigration when new arrivals were found entirely in inner city ethnic enclaves.

The impacts of the new settlement patterns on localities are not yet fully clear. While some predict a clash of cultures (Huntington, 2004), other less alarmist views present a more nuanced and blended view of the cultural future in the new American metropolises. What is key is that demographic dynamism in global metropolitan regions like Los Angeles, New York, and San Francisco will have important, if not yet well understood, implications for urban planning and policy at the local level (Myers, 1999; Harwood and Myers, 2002). Based on their analysis of 1940–2000 Census data for Los Angeles County, Ethington, Frey, and Myers (2001) conclude that segregation has been increasing faster than integration since the 1960s, a phenomenon they call re-segregation. However, they also note that the increasingly visible settlement of new

immigrants from Latin America and Asia in the suburbs might set the stage for much *lower* rates of segregation in the future. The findings reported in this article suggest similar, more optimistic settlement patterns for the future.

The following discussion reports analytical results focusing on three main outcome measures: homeownership, overcrowding, and assimilation indicators. Maps show the location of immigrant clusters in the three MSAs. Tables compare selected housing and socio-economic conditions within and outside of immigrant clusters in each of the MSAs for each of the three immigrant groups. Only statistically significant differences are reported in the following discussion.

Chinese clusters

Spatial distribution of clusters. Figures 3–5 show Chinese clusters in the three MSAs. A clear noticeable pattern is the location of historic Chinatowns in the central cities of San Francisco and New York, and many suburban Chinese clusters in areas including Flushing, Sunset Park,⁷ and Elmhurst/Corona in the New York MSA; and Monterey Park/North San Gabriel Valley and Rowland Heights/South San Gabriel Valley concentrations in the Los Angeles MSA. Chinese clusters in Los Angeles are all located in the suburbs (Figure 4).

Homeownership. As mentioned earlier, there is a growing literature on homeownership patterns among Asian households (Painter et al., 2003), which depicts high homeownership rates particularly among Chinese populations. Indeed, in the Los Angeles MSA, Chinese clusters are more likely to be occupied by homeowners—61.1% within the cluster versus 52% outside the cluster (Table 2).⁸ In contrast, however, the analysis for the San Francisco MSA shows that, on average, the percentage of units occupied by owners in Chinese clusters (54.5%) is slightly (but statistically significantly) lower when compared to the rest of the MSA (58.9%).⁹ Similarly, in the New York MSA overall, Chinese clusters are less likely to be occupied by homeowners (38.9% within the cluster versus 52.2% outside of the cluster). High rates of homeownership within Chinese clusters in the New York MSA, however, are all at suburban locations where median house values are relatively modest (under \$300,000) when compared to relatively higher housing values in Los Angeles MSAs' Chinese clusters, and the much higher house values in San Francisco MSA's Chinese clusters. Like Los Angeles, Chinese homeownership in the New York MSA is concentrated in the suburbs. New York's Chinatown in the central city resembles the “zones-in-transition” type of neighborhood with low homeownership and low

Figure 3.

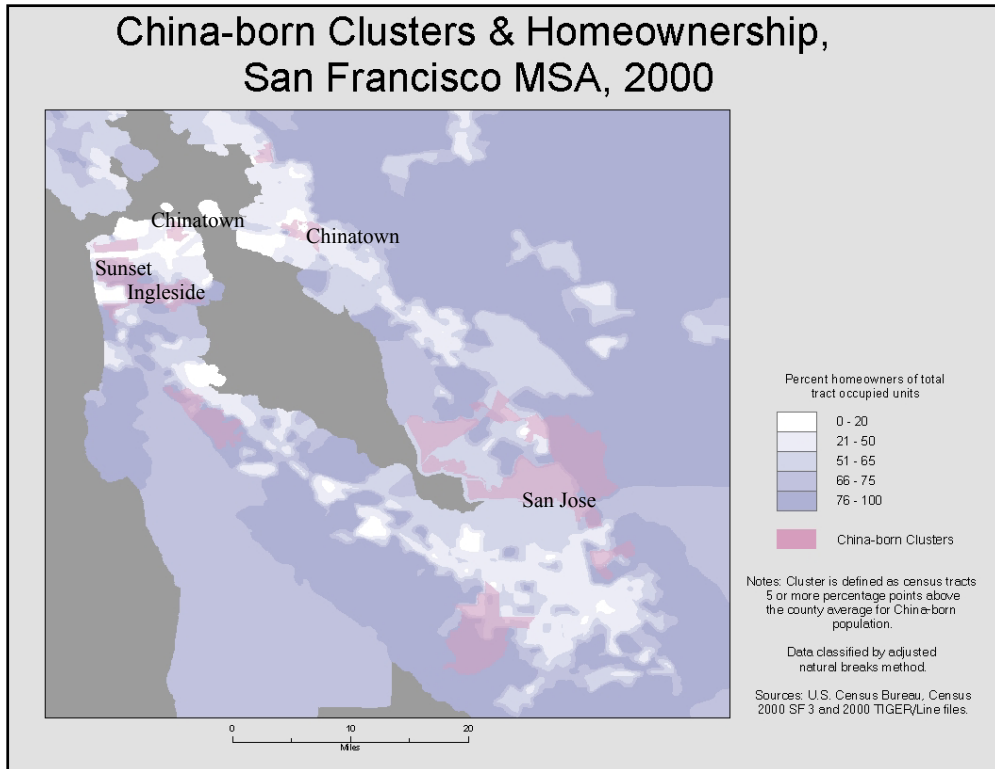


Figure 4.

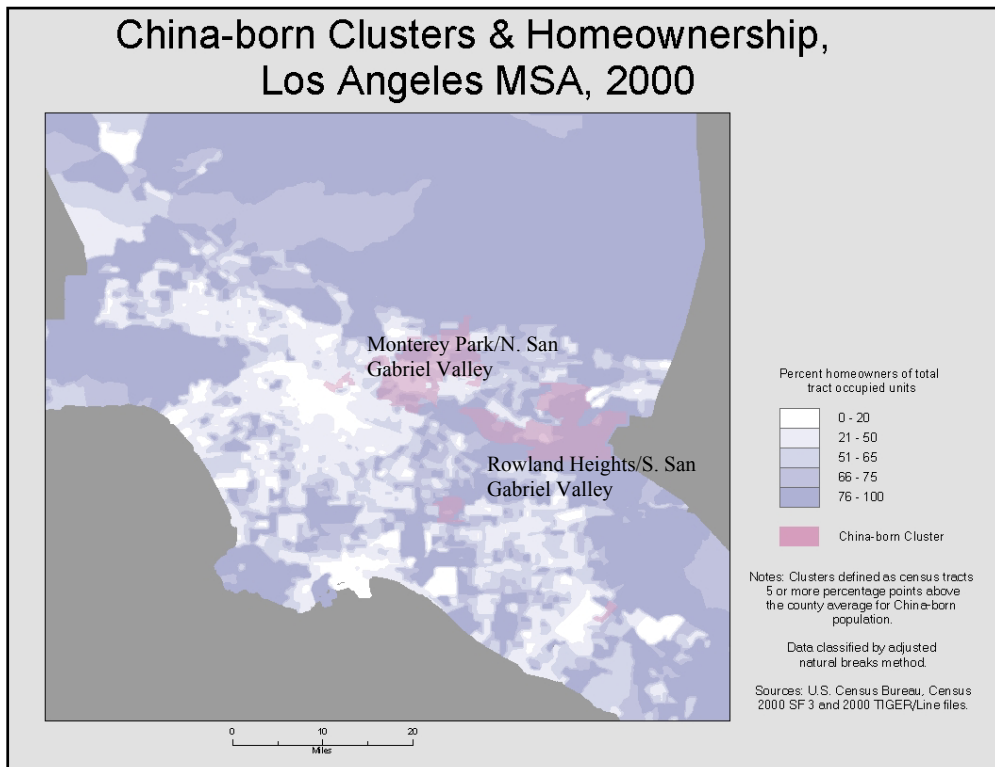
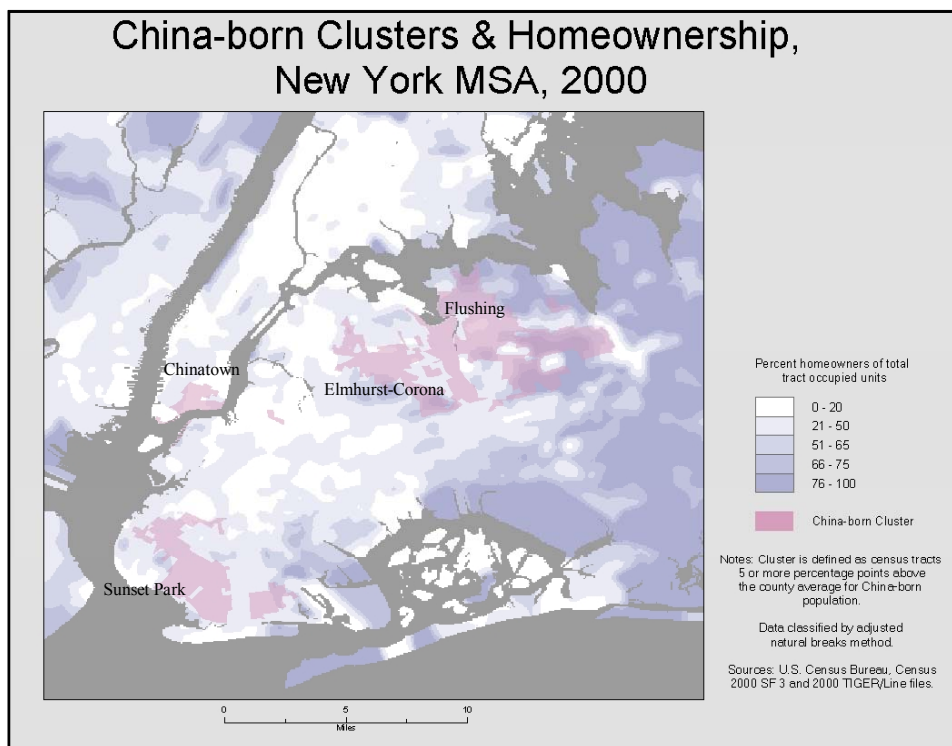


Figure 5.



incomes. Suburban homeownership among Chinese immigrants appears less pronounced in the San Francisco MSA-level analysis because MSA-level figures are tempered by the strong attraction of the city for permanent residence. Further analysis of Chinese clusters (not shown here) by separating historical Chinatowns from other Chinese clusters confirms this finding. In sum, across these three regions the homeownership rate is consistently high in the suburbs.

Overcrowding. In the San Francisco MSA overall, dwelling units in Chinese clusters are more likely to be overcrowded when compared to units in the non-Chinese areas throughout the MSA. On average, 12.5% of the dwelling units occupied by owners in the San Francisco MSA's Chinese clusters are overcrowded (i.e., more than one person per room) when compared with units occupied by owners in the rest of the MSA (7.6%). This suggests that homeownership in areas where the Chinese are concentrated involves extended families and that homeowners in the Chinese clusters are more likely to live in housing conditions that housing planners define as overcrowded.

Similarly, in the New York MSA overall, Chinese clusters are more likely to have overcrowding for renters (22.6% within the cluster versus 12.4% outside the cluster) and owners (12.8% versus 5.8%). In

Table 2. Differences Across Chinese Cluster Areas and the Rest of the MSA

| San Francisco MSA Ethnic group and characteristics | Within Chinese Clusters | Outside of Chinese Clusters |
|-------------------------------------------------------------------|----------------------------|--------------------------------|
| Chinese | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 12.5 ** | 7.6 |
| renter occupied, more than 1 occupant per room | 19.6 ** | 16.7 |
| Mean percent cost burdened (>50% of income spent on rent) | 16.2 ** | 17.4 |
| Mean percent homeownership | 54.5 ** | 58.9 |
| Mean percent without kitchen | 2.4 ** | 1.0 |
| Mean percent in poverty | 16.5 | 15.5 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 39.3 ** | 37.0 |
| 1965 to 1989 | 51.7 | 50.2 |
| Mean percent resided in a foreign country, 1995 | 9.1 ** | 5.2 |
| Mean percent linguistically isolated Asian speaking households | 14 ** | 3.1 |
| Los Angeles MSA Ethnic group and characteristics | Within Chinese Clusters | Outside of Chinese Clusters |
| Chinese | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 14.0 | 17.6 |
| renter occupied, more than 1 occupant per room | 28.1 | 30.0 |
| Mean percent cost burdened (>50% of income spent on rent) | 20.4 | 20.3 |
| Mean percent homeownership | 61.1 ** | 52.0 |
| Mean percent without kitchen | 1.4 | 1.7 |
| Mean percent in poverty | 15.0 ** | 23.5 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 33.7 | 31.7 |
| 1965 to 1989 | 59.3 | 58.6 |
| Mean percent resided in a foreign country, 1995 | 7.4 ** | 4.9 |
| Mean percent linguistically isolated Asian speaking households | 17.5 ** | 2.7 |
| New York MSA Ethnic group and characteristics | Within Chinese Clusters | Outside of Chinese Clusters |
| Chinese | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 12.8 ** | 5.8 |
| renter occupied, more than 1 occupant per room | 22.6 ** | 12.4 |
| Mean percent cost burdened (>50% of income spent on rent) | 23.1 ** | 20.1 |
| Mean percent homeownership | 38.9 ** | 52.2 |
| Mean percent without kitchen | 1.2 | 1.0 |
| Mean percent in poverty | 25.7 ** | 21.6 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 44.5 ** | 35.2 |
| 1965 to 1989 | 46.5 ** | 49.2 |
| Mean percent resided in a foreign country, 1995 | 9.9 ** | 4.6 |
| Mean percent linguistically isolated Asian speaking households | 12.1 ** | 1 |

Note: There are three types of immigrant clusters: Chinese, Filipino, and Mexican. The clusters are defined as a set of contiguous tracts, which contain at least one tract where a group is represented at a rate ten percent above the group's share in the total population and whose other tracts each have an immigrant concentration level of at least five percent above the group's share in the total population in the respective MSAs.

* p<.10, ** p<.05 (two tail test)

contrast, the differences in overcrowding within and outside of Chinese clusters in the Los Angeles MSA are insignificant.

Assimilation indicators. In the San Francisco MSA, Chinese clusters are more likely to be populated by households who are linguistically isolated when compared to the rest of the MSA (14% versus 3.1%). The same pattern holds true in the Los Angeles MSA (17.5% versus 2.7%), and in the New York MSA (12.1% versus 1%). The finding of linguistic isolation and recent immigrants in suburban immigrant clusters is unexpected under the spatial assimilation theory. In the San Francisco and New York MSAs, Chinese clusters are more likely to be populated by recent immigrants who have entered the US between 1990 and 2000.

Filipino clustering patterns

Spatial distribution of clusters. Figures 6–8 show Filipino clusters in the three MSAs. In the New York MSA, Filipinos are clustered in Elmhurst, Maspeth, Hillcrest/Fresh Meadows, and Jersey City—outer boroughs. Some of these clusters are in neighborhoods with large hospitals. Thirty percent of Filipinos in the city and its suburbs work as nurses or other health practitioners (New York Times, 2003).

Homeownership. Filipino cluster units are more likely to be occupied by owners in the San Francisco MSA. On average, 64.9% of the units within a Filipino cluster are occupied by owners, compared with 57.8% in the rest of the MSA. Like the Chinese, Filipinos seem to express a preference for homeownership where their co-ethnics are concentrated. In New York, Logan et al. (2002, p. 316) have also found that, based on analysis of 1990 Census data, more affluent Filipinos are more likely to live in an ethnic cluster and enjoy homeownership. In the San Francisco MSA, high homeownership rates are found in the suburbs of San Francisco (e.g., Daly City), the northern portions of the San Francisco Bay, and in the suburbs of San Jose. Homeownership is pronounced in modestly priced (\$300,000–\$500,000) parts of the Filipino clusters. The New York MSA’s Filipino clusters are all located in the suburbs with modest home prices (less than \$300,000). In the Los Angeles MSA, several distinct clusters of the Filipino population are located in the suburbs where homeowner rates are high and house values are relatively modest (less than \$300,000). Filipino clusters in the three regions are consistently in suburban locations.

Figure 6.

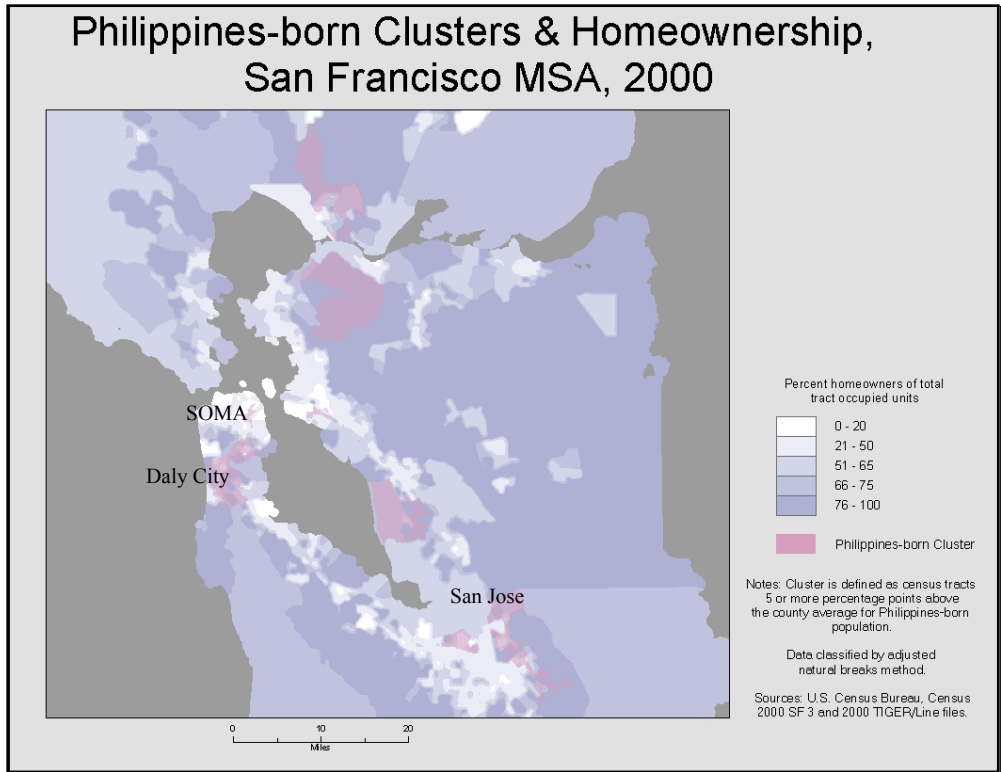


Figure 7.

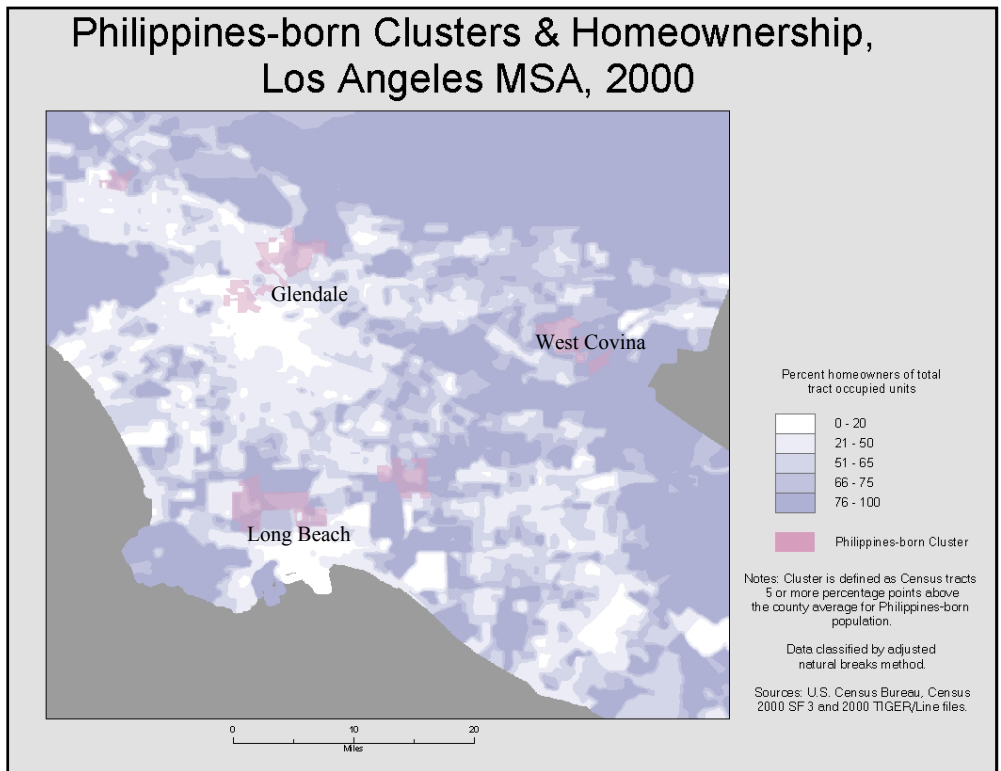
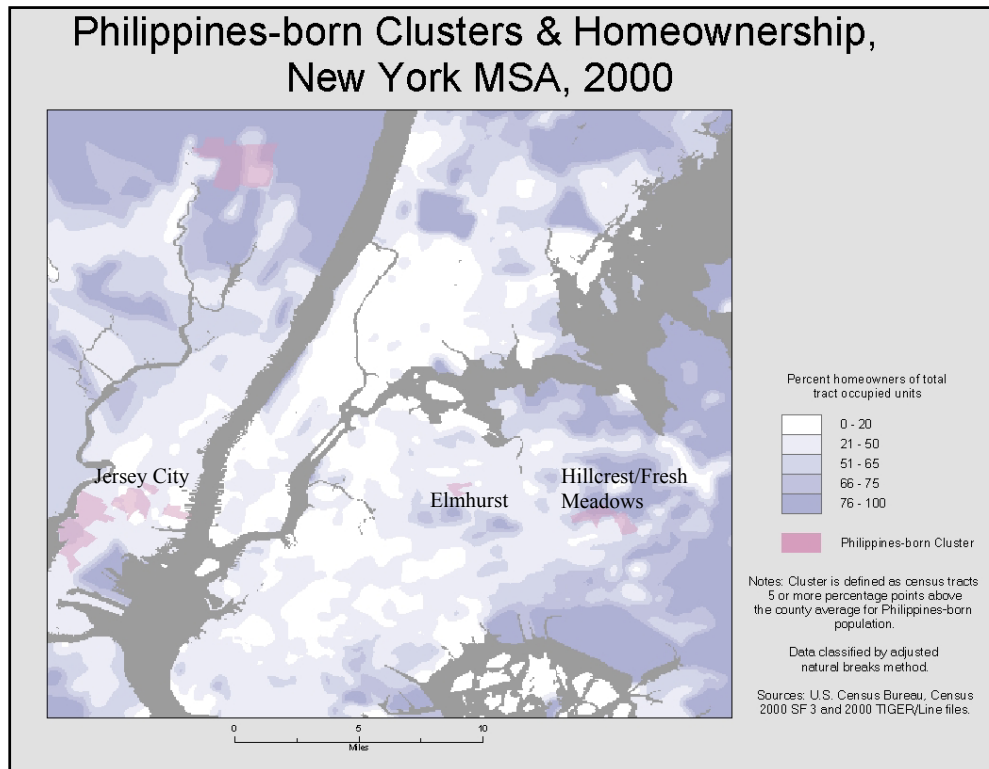


Figure 8.



Overcrowding. In the San Francisco MSA, units within the Filipino clusters are more likely to be overcrowded both for renters (29.3% within the cluster versus 15.7% outside the cluster) and for owners (17% versus 7.2%). Likewise in the New York MSA, units within the Filipino clusters are more likely to be overcrowded both for renters (17.5% versus 13%) and for owners (9.4% versus 6.2%). In the Los Angeles MSA, units within the Filipino clusters are more likely to be overcrowded for owners only (21.8% versus 17.2%).

Assimilation indicators. In all three MSAs, households in Filipino clusters are more likely to experience linguistic isolation. In the Los Angeles MSA, Filipino clusters are more likely to be populated by relatively established immigrants (when compared to the rest of the region) who have entered the US between 1965 and 1989. In the New York MSA, Filipino clusters are more likely to be populated by recent immigrants who have entered the US between 1990 and 2000. In the San Francisco MSA, differences in terms of year of entry between the clusters and the rest of the region are significant for both recent and more established immigrants indicating a mix in the Filipino clusters.

Table 3. Differences Across Filipino Cluster Areas and the Rest of the MSA

| San Francisco MSA Ethnic group and characteristics | Within Filipino Clusters | Outside of Filipino Clusters |
|--------------------------------------------------------------|-----------------------------|---------------------------------|
| Filipinos | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 17.0 ** | 7.2 |
| renter occupied, more than 1 occupant per room | 29.3 ** | 15.7 |
| Mean percent cost burdened (>50% of income spent on rent) | 17.8 | 17.3 |
| Mean percent homeownership | 64.9 ** | 57.8 |
| Mean percent without kitchen | 1.5 | 1.1 |
| Mean percent in poverty | 11.8 | 16.0 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 34.8 ** | 37.5 |
| 1965 to 1989 | 58.5 ** | 49.5 |
| Mean percent resided in a foreign country, 1995 | 6.1 | 5.6 |
| Mean percent linguistically isolated | | |
| Asian speaking households | 9.1 ** | 3.7 |
| Los Angeles MSA Ethnic group and characteristics | Within Filipino Clusters | Outside of Filipino Clusters |
| Filipinos | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 21.8 ** | 17.2 |
| renter occupied, more than 1 occupant per room | 36.8 | 29.5 |
| Mean percent cost burdened (>50% of income spent on rent) | 20.4 | 20.3 |
| Mean percent homeownership | 48.6 | 52.7 |
| Mean percent without kitchen | 1.7 | 1.7 |
| Mean percent in poverty | 20.4 | 23.1 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 32.6 | 31.8 |
| 1965 to 1989 | 61.5 ** | 58.5 |
| Mean percent resided in a foreign country, 1995 | 6.2 ** | 5.0 |
| Mean percent linguistically isolated | | |
| Asian speaking households | 6.6 ** | 3.5 |
| New York MSA Ethnic group and characteristics | Within Filipino Clusters | Outside of Filipino Clusters |
| Filipinos | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 9.4 ** | 6.2 |
| renter occupied, more than 1 occupant per room | 17.5 ** | 13.0 |
| Mean percent cost burdened (>50% of income spent on rent) | 18.3 | 20.3 |
| Mean percent homeownership | 46.1 | 51.5 |
| Mean percent without kitchen | 1.1 | 1.1 |
| Mean percent in poverty | 19.2 | 21.9 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 43.6 ** | 35.7 |
| 1965 to 1989 | 49.8 | 49.1 |
| Mean percent resided in a foreign country, 1995 | 7.9 ** | 4.9 |
| Mean percent linguistically isolated | | |
| Asian speaking households | 4.9 ** | 1.6 |

Note: There are three types of immigrant clusters: Chinese, Filipino, and Mexican. The clusters are defined as a set of contiguous tracts, which contain at least one tract where a group is represented at a rate ten percent above the group's share in the total population and whose other tracts each have an immigrant concentration level of at least five percent above the group's share in the total population in the respective MSAs.

* p<.10, ** p<.05 (two tail test)

Mexican clustering patterns

Spatial distribution of clusters. Figures 9–11 show Mexican clusters in the three MSAs, revealing the prevalence of Mexican populations in outlying rural areas of the three MSAs as well as concentrations in central city locations.

Homeownership. Unlike the Chinese and the Filipino clusters discussed above, homeownership is less prevalent within Mexican clusters. In the San Francisco Bay Area, on average, 44.6% of units are occupied by owners within Mexican clusters, compared with 60% in the rest of the MSA. These findings are consistent with spatial assimilation theory predicting that, in general, immigrants who are economically better off are found outside of ethnic clusters. Mexican clusters, in particular, do not seem to retain immigrants who improve their economic conditions over time. In the New York MSA, units within the Mexican clusters are less likely to be owner-occupied (21.1% versus 52.3%). Similarly, in the Los Angeles MSA, units within the Mexican clusters are less likely to be owner-occupied (39.8% versus 57.3%). In the Los Angeles MSA, Mexican households have a major presence in census tracts where house values are less than \$300,000.

Overcrowding. Overall, both owner-occupied and renter-occupied dwelling units in Mexican clusters are more likely to be overcrowded. This is true in the San Francisco MSA (for owners, 23.5% within the cluster versus 6.1% outside the cluster; for renters, 39.3% versus 14.2%), the Los Angeles MSA (36.4% versus 10.2% for owners, 53.7% versus 20.7% for renters), and the New York MSA (14.2% versus 6% for owners, 29.8% versus 12.5% for renters).

Assimilation indicators. Overall, Mexican clusters display characteristics that fit the “zones-in-transition” model better than either the Filipino or the Chinese clusters. A significant percentage of the foreign-born population living in Mexican clusters in the San Francisco MSA is recent immigrants who have entered the US between 1990 and 2000 (47.4%), compared to others in the rest of the MSA (36%). In the New York MSA, people within the Mexican clusters are more likely to have entered between 1990 and 2000 (54.7% versus 35.2%). A similar trend is seen in the Los Angeles MSA (36.7% versus 30%).

Figure 9.

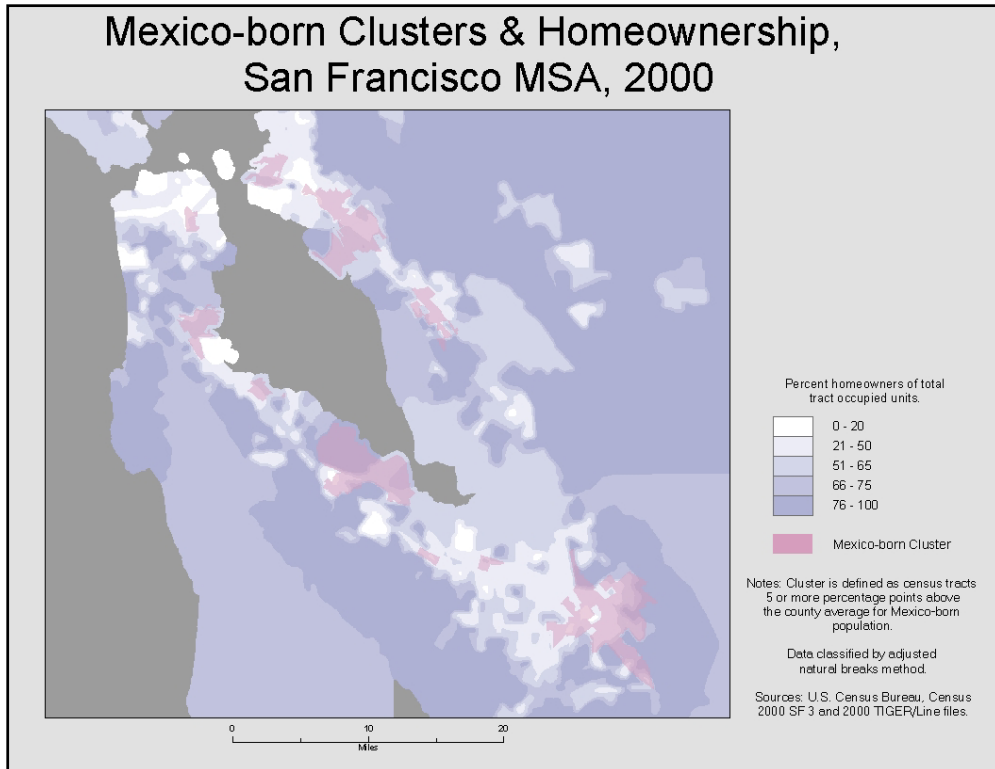


Figure 10.

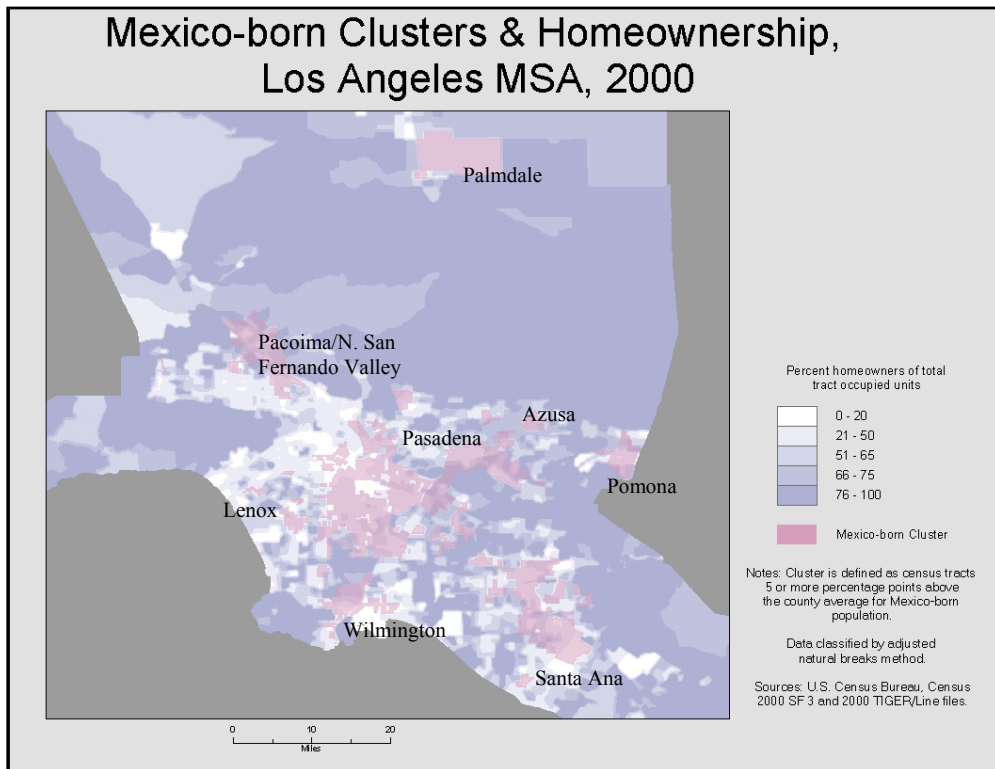
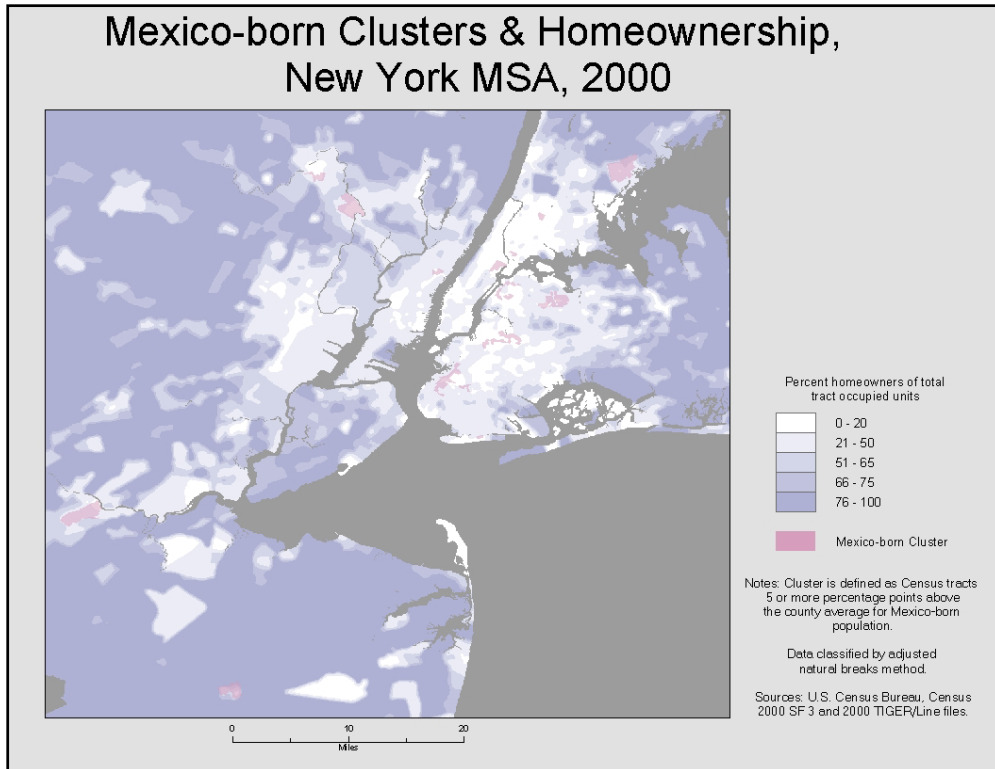


Figure 11.



In sum, the analysis above shows some common trends in the way different immigrant groups have settled in the three metropolitan regions. The finding of major suburban clusters of Chinese and Filipino immigrants in all of the three metropolitan regions shows a clear pattern of suburbanization for these groups. Many have realized homeownership in suburban immigrant clusters comprised of modestly priced homes. The overwhelming presence of a Mexican population in Los Angeles, on the other hand, is pronounced in areas of affordable rental housing. In the San Francisco Bay Area, distinct clusters are found in San Francisco's relatively lower income Mission neighborhood and in pockets of rural areas throughout the MSA.

Table 4. Differences Across Mexican Cluster Areas and the Rest of the MSA

| San Francisco MSA Ethnic group and characteristics | Within Mexican Cluster | Outside of Mexican Cluster |
|---------------------------------------------------------------------|---------------------------|-------------------------------|
| Mexican Clusters | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 23.5 ** | 6.1 |
| renter occupied, more than 1 occupant per room | 39.3 ** | 14.2 |
| Mean percent cost burdened (>50% of income spent on rent) | 20.8 ** | 16.9 |
| Mean percent homeownership | 44.6 ** | 60.0 |
| Mean percent without kitchen | 1.4 | 1.1 |
| Mean percent in poverty (household) | 19.6 | 15.2 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 47.4 ** | 36.0 |
| 1965 to 1989 | 48.0 ** | 50.6 |
| Mean percent resided in a foreign country, 1995 | 8.2 ** | 5.3 |
| Mean percent linguistically isolated Spanish speaking households | 11.2 ** | 2.1 |
| Los Angeles MSA Ethnic group and characteristics | Within Mexican Cluster | Outside of Mexican Cluster |
| Mexican Clusters | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 36.4 ** | 10.2 |
| renter occupied, more than 1 occupant per room | 53.7 ** | 20.7 |
| Mean percent cost burdened (>50% of income spent on rent) | 22.5 ** | 19.4 |
| Mean percent homeownership | 39.8 ** | 57.3 |
| Mean percent without kitchen | 2.5 ** | 1.4 |
| Mean percent in poverty (household) | 30.1 ** | 20.3 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 36.7 ** | 30.0 |
| 1965 to 1989 | 58.9 | 58.5 |
| Mean percent resided in a foreign country, 1995 | 6.7 | 4.4 |
| Mean percent linguistically isolated Spanish speaking households | 23.7 ** | 5.4 |
| New York MSA Ethnic group and characteristics | Within Mexican Cluster | Outside of Mexican Cluster |
| Mexican Clusters | | |
| Mean percent overcrowded | | |
| owner occupied, more than 1 occupant per room | 14.2 ** | 6.0 |
| renter occupied, more than 1 occupant per room | 29.8 ** | 12.5 |
| Mean percent cost burdened (>50% of income spent on rent) | 24.6 ** | 20.1 |
| Mean percent homeownership | 21.1 ** | 52.3 |
| Mean percent without kitchen | 2.1 ** | 1.0 |
| Mean percent in poverty (household) | 36.2 ** | 21.4 |
| Mean percent year of entry | | |
| 1990 to March 2000 | 54.7 ** | 35.2 |
| 1965 to 1989 | 41.3 ** | 49.3 |
| Mean percent resided in a foreign country, 1995 | 10.7 ** | 4.7 |
| Mean percent linguistically isolated Spanish speaking households | 22.2 ** | 4.7 |

Note: There are three types of immigrant clusters: Chinese, Filipino, and Mexican. The clusters are defined as a set of contiguous tracts, which contain at least one tract where a group is represented at a rate ten percent above the group's share in the total population and whose other tracts each have an immigrant concentration level of at least five percent above the group's share in the total population in the respective MSAs.

* p<.10, ** p<.05 (two tail test)

Conclusions and policy implications of findings

The analysis of settlement patterns of Chinese, Filipino, and Mexican groups in three global metropolitan regions using 2000 Census data shows a clear pattern of suburbanization of immigrant clusters. The analysis of the national pattern in the three metropolitan areas reveals interesting similarities and differences in housing market outcomes as measured by homeownership rates, overcrowding, and assimilation indicators. The above analysis shows that the suburbanization of immigrant clusters is largely an overlooked phenomenon in the literature except in the context of limited-scope, narrative ethnographic studies of places such as Monterey Park in the Los Angeles MSA, and Flushing in the New York MSA. What sets this article apart from others is its depiction of *global* spatial patterns by providing a snapshot of housing market outcomes across metropolitan areas. The analysis of global trends reveals significant distinctions among residential settlement patterns of different immigrant groups. It confirms that broad ethnic categories such as ‘Asians’ and ‘Hispanics’ are not very useful in capturing the nuances in settlement patterns of contemporary immigrant groups.¹⁰

An important commonality among the immigrant groups studied here is their functioning in very tight and expensive housing markets where even natives have low homeownership rates. Given this, it is all the more interesting to find high homeownership rates among certain immigrant groups. This raises additional questions for future research: to what extent are high homeownership rates attributable to location in an immigrant cluster? How do various occupational niches affect immigrants’ economic well-being and thereby their residential location decisions and housing outcomes?

The analysis clearly shows that different immigrant groups face different challenges in global metropolitan housing markets. Across the three metropolitan areas, Mexican households live consistently in low-homeownership clusters and are more likely to live in census tracts comprised predominantly of overcrowded dwellings. In contrast, Chinese populations have high homeownership rates when compared to other groups even when income and education levels are controlled.

The variations in housing outcomes of different immigrant groups require designing policies that can address the different needs of various immigrant groups. Clearly, immigrants are a very diverse demographic group requiring policy options tailored to their particular situations. Informed public policy and planning require an understanding of variations in settlement patterns and residential choice behavior of different immigrant groups. The national origin of immigrants is an

important factor in depicting distinct settlement patterns of ethnic groups. Obviously, each region's immigrant settlement patterns have evolved within a particular historical context resulting in different clustering outcomes. This is where indepth ethnographic and region-specific studies are very useful in explaining the underlying historical reasons for the emergence of different types of clusters in particular places. By providing an empirical global snapshot for the year 2000, however, an emerging trend is highlighted in the *suburbanization* of immigrant neighborhoods across ethnic groups and across metropolitan areas.

When housing conditions of different immigrant groups across metropolitan areas are consistently worse when compared to rest of the area, an important public policy concern arises that needs to be addressed. On the other hand, as in the case of Chinese clusters, when homeownership rates are consistently high, important questions arise such as: What can be attributable to this success? Can it be replicated for other groups? What underlying processes are producing these outcomes? Identifying these factors would help us design public policies that encourage high homeownership rates, lower overcrowding, and lower cost burdens designed to meet different needs of various immigrant groups. Detailed spatial analyses of immigrant clustering patterns in metropolitan areas, such as the ones provided here, are an essential first step in grasping the demographic dynamics of the global metropolises of the future.

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Notes

- ¹ The MSA-level analysis finds a new cluster in the Richmond District of San Francisco adjacent to Golden Gate Park and a much larger cluster including the Sunset neighborhood. See Pamuk (2004) for a full discussion of immigrant clustering patterns based on county-level analysis.
- ² The point that new immigrants increasingly bypass low-income ethnic clusters altogether applies both to poor immigrants (like low-income Chinese settling directly into Visitacion Valley in San Francisco) and affluent immigrants (like high-income Chinese settling directly into Monterey Park). We are now seeing affluent immigrant clusters with many newly arrived and even linguistically isolated homebuyers (e.g., wealthy households from Hong Kong, Shanghai, Guangzhou, and Taiwan that have settled in the US and travel back and forth. Research shows that both low income and higher income groups appear to be bypassing traditional entry communities.
- ³ San Francisco–Oakland–San Jose, California, CMSA; Los Angeles–Riverside–Orange County, California, CMSA; New York–Northern New Jersey–Long Island, New York–New Jersey–Connecticut–Philadelphia, CMSA.
- ⁴ Discriminatory practices in housing markets are outlawed by the 1968 Fair Housing Act and the 1974 Equal Credit Opportunity Act. Geographic disparities in lending caused by redlining are outlawed, and the 1975 Home Mortgage Disclosure Act (HMDA) aims to eliminate this practice.
- ⁵ The Community Reinvestment Act of 1977 outlaws this type of discrimination by lending institutions. Despite the existence of anti-discrimination legislation, housing markets remain largely segregated by race and ethnicity.
- ⁶ In 2000, 48% of all Filipino immigrants, 42% of all Mexican immigrants, and 37% of all Chinese immigrants (including those from Hong Kong and Taiwan) were in California. New York received 65% of all immigrants from Guyana, 58% of all immigrants from the Dominican Republic, and 50% of all immigrants from Trinidad and Tobago (Camarato and McArdle, 2003, Table 8).
- ⁷ See Hum (2002) for a description of the demographic transformation of Sunset Park between 1980 and 2000.
- ⁸ It is important to note that analysis with aggregate census data has some limitations. For example, high rates of homeownership within an immigrant cluster suggests, but does not provide conclusive evidence of, high rates of homeownership by members of the particular ethnic group within that cluster. Analyses of individual household data (PUMS data) and ethnographic research by others, however, corroborate findings from the census tract level analysis reported in this paper.
- ⁹ While the San Francisco MSA-level analysis—finding lower homeownership rates among Chinese clusters—at first glance seems to contradict the earlier county-level analysis (Pamuk, 2004) showing higher homeownership among Chinese clusters, the analysis carried out at the city/county level also underscored the unusual character of the city and county of San Francisco, where homeownership among Chinese in clusters of their own group is very pronounced and spatially concentrated.

The homeownership rate in Chinese clusters at the MSA-level analysis is lower partly as a result of large concentrations of young Chinese software developers and engineers living in high-end rental housing near Silicon Valley. Saxenian has found that a significant percentage of high-tech employees in Silicon Valley are Chinese, Indian, and Taiwanese (Saxenian, 2002). Many of these highly skilled immigrants are on H1 temporary employment visas and have not yet established roots in the Bay Area

through homeownership. The severe restrictions on US entry and stay of immigrants following September 11, 2001, also may account for low homeownership rates in this area. Furthermore, the Chinese population in general is polarized in terms of economic resources: the poor, linguistically-isolated Chinese group together in Chinatowns where rental housing is the predominant housing tenure type, and more affluent Chinese cluster in the suburbs.

Another factor at work is the concentration of the Chinese population in the city of San Francisco. Thirty-five percent of the Chinese population in the San Francisco MSA live in the city of San Francisco. Of the total Chinese population in the MSA, half live in 148 tracts (12% of all tracts in the MSA) where their share of the population is above the MSA average. This pattern underscores the desirability of this particular type of ethnic cluster for permanent settlement for the Chinese within the city of San Francisco, but not as strongly throughout other parts of the MSA. There is also evidence that some real estate in San Francisco is held by family trusts based in Asia. In addition, it is important to note that the San Francisco Bay Area's Chinese clusters (except for Chinatown in San Francisco and Oakland across the bay) do not seem to function as "zones-in-transition" for poor, uneducated, and linguistically isolated Chinese immigrants.

¹⁰ Even within the same national group—Chinese, for example—there are important variations in housing outcomes as a result of variations in economic resources and human capital brought from different parts of China into the United States.