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IMMIGRANT SETTLEMENT PATTERNS: THE ROLE OF METROPOLITAN CHARACTERISTICS*

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ABSTRACT

As immigration continues to redefine life in the United States, altering social, economic, and political realities, interest in the internal migration patterns of immigrants has grown. We examine the relationship between the percentage change in the foreign-born population of 150 metropolises from 1990 to 2000 and metropolitan area characteristics such as global prominence and degree of disadvantage. Using Census 2000 data, we find that settlement patterns among immigrants are diverging from traditional patterns and becoming more nuanced. That is, those metropolitan areas that have relatively high levels of globalization and lower costs of living as well as lower disadvantage indicators (e.g., percentage poverty) had increases in percentage foreign-born compared to areas with lower levels of globalization and higher costs of living and disadvantage. These trends suggest the increasing importance of practical economic factors, and a weakening of ethnic factors, and thus the balkanization hypothesis, in contemporary immigrant settlement patterns.

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INTRODUCTION

As immigration continues to redefine life in the United States, altering social, economic, and political realities, interest in the internal migration patterns of immigrants has grown (Castles and Miller 2003; Frey 1998). Where immigrants locate provides an indication of the places that will be impacted by immigration, positively and negatively, over time, and helps understand the population composition of cities, states, and the country as a whole. Because immigrants settle largely in urban areas, investigating the role that metropolitan characteristics play in the internal migration of immigrants provides insights into the pushes and pulls of migration patterns (Scott, Coomes, and Izyumov 2005). In his thesis on balkanization, William Frey (1998:3) contends that "Despite the dispersion of jobs to other parts of the country, immigrants continue to concentrate," while native-born individuals tend to out-migrate, taking advantage of economic opportunities and perceived higher quality of life in smaller, less diverse areas. These processes appear to create a duality in the United States: the development of heterogeneous urban areas, primarily in border-states, and more homogenous smaller metropolitan areas, primarily in the internal states. However, new immigrant areas like Atlanta are developing and the internal migration of immigrants may be changing.

Frey suggests that social factors, such as ethnic ties, are dominant contributors to the settlement decisions of immigrants, and that economic factors, such as labor market forces, are less important (Frey 1998:3-4; Liaw and Frey 1998). In other words, new immigrants are likely to locate in an area where there is a large concentration of people with their own ethnic background, even if the labor market in that city is saturated at their skill or educational level.

Waldinger and Lee (2001) refer to this disposition to migrate to existing immigrant magnets as the "ethnic factor." Alternatively, Saskia Sassen (2001, 2002), and others (e.g., Borjas 2003), highlight the economy, or the availability of jobs, when considering the mobility of immigrants. Specifically, Sassen delineates the role of immigrants in the economic hierarchy of "global cities." From this point of view, the availability of jobs supersedes ethnic ties in determining settlement patterns. Similarly, Scott et al. (2005) find that the economic characteristics of an area are more important than ethnic factors in pulling immigrants to certain areas.

Much of the literature on migration patterns focuses on identifying immigration trends relative to "gateway" cities and states (e.g., Frey 1998; Hempstead 2005). These studies generally begin with high immigration areas such as New York City, Los Angeles, and Miami, or states such as New York, California, and Florida, as the basis with which to contrast current migration patterns. Although this approach provides important comparisons, it fails to address the characteristics of areas that attract immigrants: There is often a focus on where immigrants locate rather than on the underlying structures that push and pull migrants from one area to another.

Our analysis addresses a variety of gaps in the literature in at least three ways. First, because it is not known whether locational patterns are changing as the number of immigrants increases, and the new, post-1965 immigration matures, we pay attention to the settlement patterns of immigrants between 1990 and 2000. Second, and most important conceptually, we adjudicate between those theories that emphasize the social, and those that emphasize the economic, characteristics as the principle pulls of immigrants to metropolitan areas. Third, by considering a variety of metropolitan-level characteristics that may predict the settlement patterns of immigrants, our analyses are performed in a multivariate context unlike much of the

literature on the topic (for key exceptions see Bartel 1989; Hempstead 2005; Scott et al. 2005). Thus, our basic research question is what characteristics of metropolitan areas predict changes in the settlement patterns of immigrants between 1990 and 2000? More generally, but very related, we also ask to what extent, balkanization is taking place?

BACKGROUND AND THEORY

The United States is now in what Massey (1995:633) refers to as a new regime of immigration that was precipitated by changes to the immigration laws in 1965 (see also Heer 1996). Castles and Miller (2003) characterize new immigrants as a product of the age of migration. In fact, the percentage of foreign-born residents in the United States has increased from 4.7% of the population in 1970 to 11.2% in 2000 (Singer 2004:3). And, immigrants are now predominantly from Latin American and Asian countries, and are entering the country at a legal rate exceeding one million persons per year (Camerota and Keeley 2001). Their educational levels follow a bimodal distribution, with a smaller group that is highly educated and skilled, and a dominant group that is less educated and less skilled (Frey 1998; Portes and Rumbaut 1996; Smith and Edmonston 1997). Furthermore, immigrants not only differ from the classical era European immigrant in ethnic origin and racial features, but also because there does not appear to be a reduction in their inflow. Where classical era immigration was followed by a long hiatus that allowed time for structural and cultural assimilation, a similar break in the flow of immigrants does not appear to be forthcoming for new immigrants. Thus, the extent and nature of cultural assimilation in today's environment may be substantially different (Friedberg and Hunt 1995). Nonetheless, like their predecessors, today's immigrants tend to settle in urban America.

Geographic Concentration

A growing body of recent literature largely follows the perspective of Ann Bartel (1989) in assessing where U.S. immigrants live in this age of migration. Her study, in which she observes that almost no research exists on the settlement patterns of new U.S. immigrants, establishes the basis for future comparative studies by defining immigrants' propensity for concentrating in specific geographical areas. Analyzing the 25 largest metropolitan areas in 1980, Bartel notes that "while three-quarters of the immigrants reside in one of these cities, only 50% of the natives are located here" (1989:375). Similarly, Frey's extensive research about the geographical concentration of immigrants continues in Bartel's tradition.

Frey identifies ten "high immigration metropolitan areas," or "immigrant gateways," which accounted for over two-thirds of U.S. immigrant growth during both the 1985-1990 and 1990-1995 periods **(**Frey 1996a; 1996b; 1998). This concentration of immigrant destinations across state and metropolitan areas, coupled with contrasting domestic migrant patterns leads to his thesis that a demographic balkanization is occurring regionally in the United States. Frey suggests that while immigrants are concentrating in immigration gateways that serve as immigrant magnets, the native-born are migrating away from these areas to native magnets that have lower populations, yet provide reasonable economic prospects. The net effect of these combined demographic trends is "two Americas," one heterogeneous, pluralistic, and younger, and the other more homogeneous, older, middle-class, and racially polarized. This "balkanization," or bifurcation, of the population has created social, economic, and political geographical divisions that encompass identifiable lines of conflict within the United States. In fact, Frey (1998) suggests that this new divide may replace other spatial and demographic

divides, such as rural and urban, city and suburb, and racially segregated neighborhoods, as central issues in American life.

The divide in Frey's balkanized America includes different age structures because of an aging trend in one case and higher fertility rates in the other. The two areas have opposing priorities in terms of caring for children and caring for the elderly. Economic differences are accented by a polarized economy, or "hourglass economies," consisting of divergent low-wage and high-wage job sectors, that characterize the immigrant magnets. By contrast the areas dominated by native-born persons have economies that are more generally defined by middle class (i.e., less polarized by class) jobs. The poverty profiles of the two areas also differ because "Immigration contributes substantially to the size of the poverty population" (Frey 1998:11). However, Frey also notes that the processes leading to these different profiles are distinct because the higher poverty levels in the immigrant magnets are offset to some extent by the migration of poor, native-born persons to the native magnets. Finally, the areas are racially different because of the ethnic diversity in the immigrant gateways and the predominantly white and black native-born areas (Frey 1994, 1996a, 1998). In other words, immigration magnets are largely multi-cultural areas while native magnets are mainly comprised of two polarized races.

A key assumption in Frey's work, that immigrants are less mobile than their native-born counterparts, suggests that immigrants tend to remain in the same areas where they originally locate. Furthermore, this means that new immigrants will settle in the same high immigration places that have already been established as immigrant gateways (see also Frey and Liaw 1998; Gross and Schmitt 2003). On the other hand, native workers are more willing and able to migrate internally in order to take advantage of job opportunities. The net effect is that migration patterns exacerbate the balkanization of the United States (Frey 1994, 1996a, 1998).

More recently, using Census 2000 data, Frey identifies a decentralizing effect in which immigrants, as well as native-born persons are migrating out of immigration magnets and into native magnets. This effect is more pronounced in southern and western areas. These new studies represent a departure from the balkanization thesis, at least to the extent that immigrants are understood to demonstrate more mobility than expected and native magnets are viewed as becoming more diverse than anticipated (Frey 2002, 2003).

A number of studies help clarify the relationship between immigrants and native-born persons in terms of migration patterns (e.g., Hempstead 2001, 2003). Often, the basis of the research is competition for jobs, wherein the research question addresses whether there is a negative effect on the labor-market participation of native-born workers as the result of immigration (see White and Liang 1998; Borjas, Freeman, and Katz 1997). Walker, Ellis, and Barff (1992:234) find that "native blue-collar workers have been spatially displaced by recent immigration" because the native-born respond to economic pressures exerted by immigration by withdrawing from participation in local labor markets. Similarly, Filer (1992) finds that native-born whites act on their labor market displacement by migrating to areas where immigrant competition appears less prevalent. But, he also finds that native-born blacks are more likely to remain in the same area even though they may be threatened by displacement from the labor market.

Newbold (1999), focusing on secondary migration of foreign-born persons between 1985 and 1990, supports the balkanization thesis by finding that population gains, both at the metropolitan and state level, are the result of either immigration from outside of the U.S. or internal migration of the native-born, but that the two forms of growth are typically mutually exclusive. In other words, immigration and internal migration do not usually occur

simultaneously in the same area. Moreover, Wright, Ellis, and Reibel (1997) conclude that the out-migration of native-born workers from areas of high immigrant in-flows is the result of economic restructuring rather than competition for jobs with immigrants (see also Kritz and Gurak 2001). In any case, while there may or may not be a relationship between native-born migration patterns and immigration flows, there does not seem to be any work in the literature that proposes that native-born migration patterns affect immigrant settlement patterns. In fact, the gateway city (or gateway state) remains central to understanding immigration, and many studies focus on the city or state as an immigration gateway (Hempstead 2005). Roger Waldinger's (see Waldinger 1996; Waldinger and Lichter 2003) work on immigrant networks provides insight into processes that support the notion of immigration gateways and geographical concentration.

Waldinger asserts that immigrants form networks that provide job information based on a closed system of weak ties. Information flows strictly to other immigrants, based on loose community and ethnic ties. He notes, "Employers turn to immigrant networks … because the social-closure potential of immigrants' networks generates additional predictive value" (1999: 255). The result is a tendency for job vacancies to be removed from the open market because of the predictable efficiency of the immigrant networks. Therefore, gateway cities develop a supply of workers that exclude black and white native-born workers, further entrenching the flow of immigrants to these areas (Waldinger 1996; 1999; Waldinger and Lichter 2003).

However, Camarota and Keeler study INS data for legal immigrants from 1991 to 1998, from which they identify "New Ellis Islands" as counties that experienced immigrant growth of at least 50 percent during that timeframe. They find (2001:1) that "The state with the most counties identified as New Ellis Islands is Georgia, with 25, followed by Minnesota and

Kentucky with 18 counties each. Virginia has 13 such counties, while Tennessee and North Carolina have 12 each." Of the 100 largest metropolitan areas, Nashville, Atlanta, and Louisville comprised the top three as having the highest number of new immigrants during the same timeframe. These immigrant growth areas differ from the traditional gateways states (New York, California, Florida) and metropolises (New York City, Los Angeles, and Miami) and seem to indicate a shift in immigrant settlement patterns since 1990 (2001).

Hempstead (2005) considers the recent mobility of the foreign-born population and the role of gateway states (i.e., California, Florida, Illinois, Massachusetts, New Jersey, New York, and Texas) in this process. She concludes that gateway cities remain a significant immigrant destination and that gateway states are the location of considerable mobility among the foreign-born population. She also differentiates between higher-educated immigrants that settle in non-gateway states compared to lower-educated immigrants that locate in gateway states. Although Hempstead presents evidence of some decentralization from immigrant concentrations, she does not perceive the gateway state as having a diminished role in the immigration process.

An expanded perspective of immigrant gateways is provided by Singer (2004). She delineates six different types of immigration gateways identifiable during the twentieth century: (1) former gateways (e.g., Cleveland, Buffalo); (2) continuous gateways (e.g., New York, Chicago); (3) post-World War II gateways (e.g., Los Angeles, Miami); (4) emerging gateways (e.g., Atlanta, Dallas); (5) re-emerging gateways (e.g., Denver, Minneapolis-St. Paul); and (6) pre-emerging gateways (e.g., Charlotte, Raleigh). Based on this analysis, the immigration roles filled by metropolitan areas are quite varied and suggest that the concept of gateway cities is substantially more complex than the traditional view of only a few gateways that operate in a similar fashion. Singer's study also indicates a dynamic process in which change characterizes

immigrants' ports-of-entry. She captures this by noting that "by 2000 nearly one-third of U.S. immigrants resided outside established settlement states" (2004:1).

Suro and Singer (2002) investigate the changing patterns and new locations associated with recent immigrants in a study that considers Latino immigrants from 1980 to 2000. They identify four specific patterns of metropolitan immigrant growth: (1) established areas (e.g., New York, Los Angeles, Miami, and Chicago); (2) new destinations with smaller historic Latino bases (e.g., Atlanta, Orlando); (3) new destinations with larger historic Latino bases (e.g., Houston, Phoenix, and San Diego) and (4) small Latino places (e.g., Baton Rouge). They determine that differing growth rates during the study's timeframe can be understood in terms of these Latino demographic characteristics of different areas. For example, Latino men outnumber Latina women by 17 percent in new destinations (i.e., (2) and (3) above) suggesting a higher proportion of non-family households in these areas where high growth is occurring outside of traditional gateways. In other words, specific socio-demographic characteristics develop as determinants of variations in immigrant growth, suggesting a more complex system than uni-dimensional gateway cities.

While generally remaining committed to the idea of an immigrant gateway as central to understanding immigrant settlement patterns, researchers have increasingly presented a more complex representation of the role of metropolitan areas and states in the process. This increasing complexity is evidenced in the changing conception of the balkanization thesis, the exploration of impacts on the native-born population, and the advancement of more robust characterizations of immigration gateways. However, complexity aside, this research tends to focus primarily on the demographic characteristics of the metropolitan areas and states under

study. A contrasting approach has developed explanatory theses based primarily on economic characteristics of the geographic areas.

Locational Characteristics

In contrast to the more socio-demographic analyses offered in the research above, Sassen focuses "on the conditions influencing the demand for an immigrant workforce in what have become key destinations of these migrations" (1988:126). These conditions have led Sassen to hone the concept of a global city, a metropolis that provides critical functions within the global economic network (2000, 2001). But, Sassen envisions networks of cities, beyond only the global ones, that are strategically allied through their financial markets. Like Logan and Molotch's (1987) earlier conceptualization, there are production sites and service areas, and many others that help structure the regional networks that shape the global one.

Global cities provide more than financial integration; they also provide specialized services that the global network demands. Sassen identifies three developments that have created the global city. First, as global markets become more interdependent, the need for management and regulation of the global networks becomes more centralized. For example, the decentralization of production sites is accompanied by global city nodes that coordinate production requirements throughout the network. Second, companies that specialize in control and management functions have emerged that provide advanced corporate services. These firms exist outside of the large, traditional corporations and banks, and tend to locate in global cities where they are accessible to the global network. Third, new services have arisen that facilitate globalization processes and also locate in global centers. For example, a firm that specializes in establishing offshore production facilities may work in globally dispersed locations, but may choose to operate out of headquarters that are located in a major global city where they can better

integrate their services with other centrally located global businesses (2001:127). Each of these developments involves forces that pull global services toward central locations, underpinning the emergence of global cities.

Sassen further locates immigration within these global economic developments by arguing that immigrants have a global city role that goes beyond the provision of low-wage labor to declining sectors of capital such as manufacturing (see also Bluestone and Harrison 1982). Immigrants also provide labor for the "low-wage service and manufacturing jobs that service both the expanding, highly specialized service sector and the high-income lifestyles of those employed in the specialized, expanding service sector" (2001:321; see also Sassen-Koob 1982). A continuation or expansion in the availability of low-wage jobs resulting from global economic growth, specifically in global cities, fuels the demand for ever-higher levels of immigration. Sassen further suggests that the continuing influx of immigrants and the tendency for immigrants to concentrate geographically cannot be understood separately from this economic restructuring and the advent of the global city (2000; 2001)

Thus, the concept of the global city places immigration within the context of the economics of the metropolitan area, suggesting that migration patterns must be explored in terms of economic, in addition to social and demographic, factors. Johannsson and Weiler reach a similar conclusion: "The destinations of immigrant inflows are in fact unlikely to be random. Such labor market arrivals may be targeting particular characteristics of the local market, whether already-arrived concentration of immigrants or high levels of native unemployment." (2004:63). Finally, Scott et al. (2005:113) round out the literature by considering economic (e.g., "cities with relatively well-educated adults and high wages") and social (e.g., "cities where there

are relatively few immigrants of nationalities other than their own") factors as well as natural metropolitan characteristics such as climate not often considered by sociologists.

Our underlying theoretical framework for this study is that metropolitan characteristics must be considered to understand the process through which immigrants settle in different locations. That is, in order to understand the ever-changing migration flows of new immigrants, research must identify those factors that push and pull these international migrants to some areas but not to others. If gateway cities emerge because of social factors like family and social networks, but global cities emerge because of economic phenomena, then how can we explain the decentralization of immigrants now occurring? The social, demographic, and economic characteristics of metropolises play important roles in the settlement patterns of immigrants and by considering many of those factors, we move beyond merely describing the places where immigrants locate. Thus, in this research, we are generally concerned with examining balkanization and globalization within a research context that acknowledges a world system of cities.

DATA AND METHODS

We drew a stratified, random sample of 150 Metropolitan Statistical Areas (MSAs) and Primary Metropolitan Statistical Areas (PMSAs) as defined in the Census 2000 to assess the settlement patterns of recent immigrants. We stratified the sample based on region and population size, and the sample is representative of the regional distribution of U.S. metropolitan areas (MAs).[1] In our sample, all MAs with a population of one million or more are included, and we chose smaller ones (population 80,000 to one million) with an equal probability of selection. The number of MAs in four categories based on their population in 2000 is: 80,000 to 500,000

[1] Based on Census 2000, the Northeast includes 21% of all metropolitan areas and the Midwest, South, and West incorporate 21%, 38%, and 20%, respectively. In our sample, the Northeast also accounts for 21% of the metropolitan areas and the Midwest, South, and West include 24%, 36%, and 19%, respectively.

(n=52); 500,001 to one million (n=38); one million and one to two million (n=34); and over two million persons (n=26). The major MAs are over-represented in this sample, but since our interest is on immigrants and their settlement patterns, this is appropriate because the largest numbers of immigrants reside in these areas. However, our sample includes great variation on percentage foreign-born in order to test our models with different demographic compositions.

Except for the work of economists, very little research on this topic has been performed in a multivariate context. Frey's important work is generally descriptive and Sassen's research is often historical, as well as, descriptive. Thus, we offer a multivariate analysis of immigrant settlement patterns. At the metropolitan level, we predict the percentage change in the foreign-born population between 1990 and 2000. We measure this dependent variable, for each metropolitan area, by calculating a percentage change in the foreign born with absolute values from the 1990 and 2000 censuses. We include a number of theoretically-important independent variables – again all measured at the metropolitan level for 2000 (unless indicated otherwise) – that predict our dependent variable (see Appendix A for exact specifications and sources): percentage employed in manufacturing jobs, percentage employed in low-skill service jobs, cost of living, percentage black, percentage foreign born in 1990, the percentage of non-Hispanic blacks in 2000 that had migrated from another MA since 1995, a disadvantage index, a measure of globalization, percentage change in the non-Hispanic white labor force between 1990 and 2000, , and two control variables (region, with the Northeast as the reference category, and the homicide rate).

We present four models using OLS regression that consider the relationship between the percentage change in the foreign-born population, from 1990-2000, and various predictive and explanatory variables. Model 1 focuses predominantly on economic variables, such as

employment in low-skilled service and manufacturing occupations, cost of living, and a global status factor score that assesses an MA's global status. Thus, Model 1 tests the hypothesis that foreign-born persons tend to settle in global cities. Model 2 assesses the effects of several socio-demographic variables that are intended to further clarify the dimensions of immigration settlement patterns, including the 1990 percentage foreign-born as an evaluation of the tendency toward ethnic clustering, a key aspect of the balkanization hypothesis. Model 3 includes all variables in Models 1 and 2, and Model 4 adds important controls like region and the homicide rate.

The majority of the variables in our models represent mean values for individuals residing within MAs. Analyses based on such averaged data may misspecify the mean square error because observations of larger aggregates typically exhibit less variance around true values than those of smaller aggregates, leading to heteroscedasticity (Johnston and DiNardo 1997; Messner and Blau 1987). In order to remove these heteroscedastic effects we apply Long and Ervin's (2000) HC3 correction to our data. This procedure provides OLS regression coefficients but calculates robust standard errors that are adjusted for both known and unknown sources of heteroscedasticity. The advantage of HC3 over weighted least squares regression, a more often used correction for heteroscedasticity, is that for the latter the source of the heteroscedasticity must be known and an appropriate functional correction must be available. HC3 corrects for heteroscedasticity from both known and unknown sources (Long and Ervin 2000). Further, our diagnostic analyses indicated no multicollinearity, nor any other statistical problems in our models.

RESULTS

Table 1 provides the descriptive results for the variables used in the analysis. Most importantly, the mean percentage change in the foreign-born population across the 150 MAs in our sample between 1990 and 2000 is 81.53 percent, indicating that across all MAs the number of foreign-born nearly doubled in a decade. The average percentage of foreign-born in 1990, for our sample of MAs, is 6.34 percent. At the top of Table 2, our sample of MAs suggests that the greatest change in percent foreign-born from 1990 to 2000 occurred in MAs in the South followed by the West. To help understand this process, Table 2 also delineates the 25 MAs with highest and lowest percentage change in foreign-born population between 1990 and 2000. Accordingly, many of the MAs in the top 25 are located in the South (e.g., Charlotte, Atlanta, and Nashville). The top three MAs, Greensboro, Charlotte, and Raleigh, are located in North Carolina, an area with recent growth in migrant farm work. Other MAs in the highest category are in the West, such as Las Vegas, Boise, and Denver. The slowest growing areas in terms of immigration are in the Northeast and Midwest, with Wheeling, Youngstown, Pittsfield, and Buffalo actually exhibiting negative growth. Western areas that are on the list with the lowest increases, such as Los Angeles and San Francisco, already have large foreign-born populations but are also not attracting as many immigrants now as they were in the past (Myers 2005).

Table 3 provides a list of the MAs with the highest and lowest global status factor scores as well as those MAs at the highest and lowest levels on the disadvantage index, two key variables in the multivariate analyses to follow. The areas with the highest global status factor scores include San Francisco, New York, and Washington, D.C.; and, not surprising, those on the opposite end are much smaller places like Jacksonville, NC, Muncie, and Kankakee. With regard to the disadvantage index, although there are some exceptions, southern and western MAs

dominate the top 25 (e.g., El Paso, Shreveport, and New Orleans). By contrast, less heterogeneous places, like Rochester, MN, and Minneapolis dominate the low end of the disadvantage index.

Table 4 shows the results of the multivariate analysis, which regresses the percentage change in foreign-born population, from 1990-2000, on various theoretical and predictive variables. The first of four nested models, Model 1, indicates a negative relationship between cost of living and foreign-born population change; that is, MAs with higher costs of living are predicted to have less foreign-born growth. On the other hand, there is a positive relationship between our measure of globalization and foreign-born population change. Thus, MAs with higher global status factor scores are predicted to have increases in the percentage change of foreign-born persons from 1990 to 2000. In Model 2, we estimate a model with socio-demographic variables. The results suggest that more disadvantage in an area (e.g., poverty, unemployment, and female-headed households) reduces the growth in the foreign-born population. We also find that the higher the percentage of blacks in an MA, the larger the increase in the percentage change of the foreign-born. Finally, increases in the size of the white labor forces translate into increases in the proportion of the foreign-born population in an MA.

In Model 3, we combine the variables in Models 1 and 2: All statistically significant variables remain significant and in the same direction. Thus, those places that have higher costs of living and score higher on the disadvantage index have decreases in the percentage change of the foreign-born, on average, between 1990 and 2000. But, the MAs that are high on the global status factor score and have larger black populations and larger increases in the white labor force, have gained over the decade. Finally, in Model 4 in which we control for all relevant variables, the coefficient for cost of living remains negative and significant as does the disadvantage index,

and the global status factor score stays positive and significant. Controlling for region indicates that the MAs in the South and West, relative to those in the Northeast, increased on percentage change in the foreign-born between 1990 and 2000.

DISCUSSION AND CONCLUSION

Immigrant settlement patterns have traditionally been understood as the result of two driving forces. First, new immigrants are seen as migrating to areas that have large existing concentrations of settled foreign-born persons and established communities. Typically, these areas are gateway cities and states that for reasons such as geographical location, employment opportunities for low-skilled workers, and established ethnic enclaves have developed in to primary destinations for new arrivals to the United States. This view is supported by theories based on ethnic clustering and balkanization that predict continued growth of areas with high immigrant concentrations. Because immigrants tend to settle where immigrants are already located, existing immigrant areas, in this scenario, will be the primary areas of ongoing immigrant expansion.

Second, immigrants are seen as settling in areas that have the unique characteristics of global cities, areas that have thriving economies in the global market. These areas attract individuals who provide high-skilled services, with associated top salaries, creating a demand for low-skilled services that provide jobs for many immigrants. These high-level professionals and managers, and their employers, place a high value on their time and, as a result, are willing to hire others to perform lower-skilled tasks such as housekeeping, live-in childcare, and lawn care. In other words, global cities have characteristically polarized labor markets, but it is the opportunities in bifurcated labor markets that attract immigrants. Their low-skilled services are in demand and the barriers to entry are low. For example, employers, whether public or private,

are accustomed to hiring people that have not yet established themselves in the labor market. This, combined with a high demand for low-skilled services, helps immigrants get started in a new country.

Our analysis indicates that these traditional patterns may be changing and becoming more nuanced. Ethnic clustering seems to be less of a settlement determinant than economic opportunity for those foreign-born persons moving between 1990 and 2000. Global cities are still important, but second-tier areas with global characteristics are becoming more of a factor than historical global cities that have been gateways in the past. Overall, there seem to be signs of a shift away from social factors such as family reunification and ethnic clustering toward more instrumental factors such as jobs and standard of living. The significance, in our analysis, of variables such as global status factor scores, cost of living, and the disadvantage index, while at the same time the lack of an effect of the 1990 foreign-born population, leads us to this conclusion.

Although many MAs with a high cost of living were areas with large foreign-born populations in 1990, they had such a substantial immigrant base at the start of the period, 1990, that these MAs were expected to have lower growth during the 1990s. However, when controlling for the percentage foreign-born in 1990, the relationship between the growth in the percentage of foreign-born persons and cost of living remains statistically significant. At the same time, the fact that percentage foreign-born is not statistically significant suggests that the initial foreign-born population of an MA is not a major determinant of growth, or lack of growth, during the 1990s. In other words, we argue that there is more to the cost of living as a predictor of settlement patterns than simply the slowing growth experienced by high cost of living areas

that had large foreign-born populations in 1990. In sum, areas with a lower cost of living were growing faster, during the 1990s, than are areas with a higher cost of living.

Also, we find a positive, strong, and significant relationship between global status factor scores and percentage foreign-born population change. In other words, metropolitan areas with higher global status factor scores are predicted to have more foreign-born growth, at least proportionally. This variable also remains statistically significant when we control for the 1990 foreign-born population (as well as other variables), suggesting a further solidification of global cities as immigrant destinations. In other words, the global status factor score is a major predictor of our dependent variable independent of the area's percentage foreign-born in 1990. Juxtaposing the negative relationship between cost of living and percentage change in foreign-born persons, with that of global status factor score, suggests that global cities with a lower cost of living, such as Atlanta (cost of living index = 96.6) and Phoenix (cost of living index = 98.7) (see Table 3 for global status factor scores), are the types of MAs that are experiencing sharp increases in percentage change foreign-born. This is shown to be the case in Table 2, in which Atlanta had a 263 percentage change, and in which Phoenix had a 183 percentage change, during the 1990s. In other words, these results suggest one important predictor of recent immigrant growth is areas that offer global city status, but with a lower cost of living than the areas that emerged as global cities in the 1980s (e.g., New York, Los Angeles, and San Francisco).

We also find a negative, significant relationship between our disadvantage index and foreign-born population change. MAs with higher levels of disadvantage, as indicated by higher poverty, unemployment, and female heads-of-household, are predicted to have less foreign-born percentage change. Recent settlement patterns, then, are away from MAs that have high indices of disadvantage and toward areas with lower poverty and unemployment rates. This result further

implies that foreign-born persons are locating in areas with positive economic attributes. These trends depict the increasing importance of practical economic factors, and a weakening of ethnic factors, and thus the balkanization hypothesis, in contemporary immigrant settlement patterns.

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Table 1. Descriptive Statistics for 150 U.S. Metropolitan Areas, 2000.

	Mean	Standard Deviation
Dependent Variables		
% Change in Foreign-Born Population (1990-2000)	81.53	65.00
Independent Variables		
% Manufacturing Employment	13.39	5.36
% Low-Service Employment	13.21	3.13
Cost of Living (First Quarter, 2003)	102.77	22.57
Globalization Factor Scores	0.00	1.00
Disadvantage Index	29.56	6.25
% Foreign-Born (1990)	6.34	6.97
% Black	12.71	9.96
% Recent Black In-migrants (1995-2000)	14.69	8.63
% Change White Labor Force (1990-2000)	5.60	15.13
Homicide Rate (2000)	5.68	3.69

	Sample Size	Percent
Northeast	31	20.70
South	54	36.00
West	28	18.70
Midwest	37	24.70

Table 2. Comparison of the Percentage Change in Foreign-Born Population (1990-2000) in 150 Metropolitan Areas.

	Total	Northeast	South	Midwest	West
Percent Change Foreign-Born	81.53	36.20	109.25	73.49	88.86
Standard Deviation	65.00	26.47	75.16	55.39	57.58
Sample Size	150	31	54	37	28

25 MAs with the *Highest* % Change In Foreign-Born Population (1990-2000)		25 MAs with the *Lowest* % Change in Foreign-Born Population (1990-2000)	
Greensboro, NC	367%	Wheeling	- 16%
Charlotte	308	Youngstown	- 11
Raleigh	270	Pittsfield, MA	- 8
Atlanta	263	Buffalo	- 2
Las Vegas	248	Duluth, MN	3
Nashville	219	Pittsburgh	8
Wilmington, NC	212	Flint, MI	8
Sioux City, IA	200	Albany	12
Asheville, NC	197	Binghamton	13
Des Moines, IA	192	Akron	14
Boise	190	Syracuse	14
Greenville, SC	187	Jacksonville, NC	14
Denver	187	Springfield, MA	14
Phoenix	183	Cleveland, OH	15
Salt Lake City	174	Lubbock, TX	15
Austin	172	Scranton, PA	16
Memphis	171	Portsmouth, NH	16
Florence, AL	166	Toledo	16
Dallas	152	Hartford	19
Indianapolis	152	Rochester	19
Orlando	140	Los Angeles	19
Minneapolis	139	Providence	20
Portland, OR	136	New Orleans	21
Chicago	136	San Francisco	26
Louisville, KY	133	Dayton	28

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Table 3. Summary of Global Status Factor Scores and Disadvantage Index by Metropolitan Area.

MAs with the Highest Global Status Factor Scores and the Lowest Global Status Factor Scores

Highest Global Status Factor Scores		Lowest Global Status Factor Scores	
San Francisco	2.76	Jacksonville NC	-1.98
New York	2.74	Muncie	-1.83
Washington DC	2.43	Kankakee	-1.82
Boston	2.16	Florence AL	-1.82
Chicago	1.92	Rochester MN	-1.72
Atlanta	1.67	Sioux City	-1.68
Orange Co.	1.64	Wheeling	-1.63
Dallas	1.61	Kenosha	-1.60
Oakland	1.55	Duluth	-1.50
Los Angeles	1.50	Bloomington IN	-1.49
San Jose	1.49	Lafayette IN	-1.40
Denver	1.42	Beaumont	-1.30
Philadelphia	1.40	Pittsfield	-1.29
Newark	1.34	Biloxi-Gulf-Pasc	-1.26
Minneapolis-SP	1.34	Racine	-1.25
Nassau-Suffolk	1.29	Asheville	-1.14
Houston	1.24	Flint	-1.14
Seattle	1.22	Youngstown	-1.13
Phoenix	1.15	Atlantic City	-1.13
San Diego	1.15	New London	-1.11

MAs with the Highest Disadvantage Index and the Lowest Disadvantage Index

Highest Disadvantage Index		Lowest Disadvantage Index	
El Paso	50.99	Rochester MN	18.04
Fresno	49.57	Portsmouth NH	19.65
Bakersfield	47.10	Minneapolis	19.91
New York	46.32	Nassau-Suffolk	20.32
Shreveport	45.17	Monmouth-Ocean	21.01
Miami	43.90	Madison	21.15
New Orleans	43.33	San Jose	21.42
Stockton	42.08	Burlington VT	21.52
Jackson MS	41.15	San Francisco	21.55
Tallahassee	40.97	Seattle	21.72
Los Angeles	40.83	Des Moines	21.91
Jersey City	40.78	New London	21.93
Memphis	40.60	Denver	22.23
Corpus Christi	40.40	Harrisburg	22.27
Macon	39.74	Colorado Springs	22.50
Mobile	38.70	Salt Lake City	22.57
Beaumont	38.00	Boise	23.03
Montgomery	37.74	Fort Wayne	23.11
Baton Rouge	37.72	Fort Walton Beach	23.14
Flint	36.51	Omaha	23.49

Table 4. Results from Ordinary Least Squares Regression Analysis with Robust Standard Errors of % Change in Foreign-Born (1990-2000) for 150 U.S. Metropolitan Areas.

Model	1	2	3	4
% Manufacturing Employment	1.774 (1.238) [.146]		1.472 (1.365) [.121]	2.398 (1.642) [.193]
% Low Service Employment	4.116 (2.608) [.198]		2.750 (2.203) [.132]	2.612 (3.104) [.127]
Cost of Living (1st Quarter 2003)	-1.150*** (.238) [-.399]		-.950** (.297) [-.330]	-.690* (.337) [-.241]
Global Status Factor Scores	27.215*** (7.646) [.419]		19.714* (8.942) [.303]	20.630* (9.679) [.305]
Disadvantage Index		-2.421** (.915) [-.233]	-2.598* (1.214) [-.250]	-3.016* (1.319) [-.293]
% Foreign-Born (1990-2000)		0.183 (.713) [.020]	.891 (1.012) [.096]	-.312 (1.049) [-.034]
% Black		1.587* (0.724) [.243]	1.541* (.715) [.236]	.523 (.858) [.080]
% Recent Black In-migrants (1995-2000)		-0.374 (0.657) [-.050]	.405 (.765) [.054]	-.002 (.936) [.000]
% Change in White Labor Force (1990-2000)		1.621** (0.610) [.377]	1.366*** (.590) [.318]	.860 (.475) [.203]
Homicide Rate (2000)				.201 (2.098) [.011]
South				63.127*** (18.237) [.463]
West				55.469** (17.103) [.336]
Midwest				17.884 (15.149) [.108]
Intercept	121.549** (46.590)	128.200*** (26.368)	161.094* (68.425)	126.926 (80.207)
Adjusted R^2	.113	.206	.249	.358
N	150	150	150	139

Note: Northeast is the regional reference category; numbers in parentheses are standard errors; numbers in brackets are standardized coefficients. * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ (two-tailed tests)

Appendix A: Variable Definitions and Sources

***Dependent variable*:** The dependent variable is measured as the percentage change in the foreign-born population from 1990 to 2000. Census 2000 Summary File 3 (SF 3) – Sample Data – Table DP-2: Profile of Selected Social Characteristics and Census 1990 Summary File 3 (SF 3) – Sample Data – Table DP-2: Social Characteristics: 1990.

***Independent variables*:** The following independent variables are used as indicators of MA characteristics:

1. Percent Manufacturing: percentage of the civilian labor force (age 16 and over) that is employed in the manufacturing sector. Census 2000 Summary File 3 (SF 3) – Sample Data – Table GCT-P13: Occupation, Industry, and Class of Worker of Employed Civilians 16 Years and Over [Geographical Comparison Tables].
2. Percent Low-Service Industries: percentage of the civilian labor force (aged 16 and over) that is employed in the service sector.[2] Census 2000 Summary File 3 (SF 3) - Sample Data – Table DP-3: Profile of Selected Economic Characteristics [Demographic Profiles].
3. Cost of Living (First Quarter 2003): composite of cost factors such as housing, taxes, and food, expressed as an index against a national average of 100 (Sperling and Sandler 2004:71).
4. Global Status Factor Scale: indicates where each MA in the sample stands on a continuum from high to low in terms of relative strength of global business and financial sectors.[3] The higher the scores on the scale, the more global characteristics exhibited by

[2] This variable is obtained by adding the percentages of an MA's civilian labor force that are employed in two service industry categories ("arts, entertainment, recreation, accommodation, and food services" and "other services, except public administration") (see Reid et al. 2005)

[3] This ranking reflects an MA's size and prominence as a global center of business and financial management. To capture this quality, a 5-item scale (α=0.77) is used. The following variables load strongly on a common factor: (1) percentage of the labor force in a metropolitan area that is in executive, administrative or managerial occupations (U.S. Census Bureau 2003b); (2) percentage of a metropolitan area's employees who work in business service

the MA (Reid et al. 2005).

5. Disadvantage Index: an index calculated by adding the MA's percentage poverty (Census 2000 Summary File 3 (SF 3) – Sample Data – Table P87: Poverty Status by Age in 1999 [Detailed Tables]), percentage unemployment (U.S. Bureau (1993a), Table 33), and percentage female head-of-household (Census 2000 Summary File 3 (SF 3) Table P9).
6. Percent Foreign-Born, 1990: the percentage of the total MA population in 1990 that was born outside of the United States Census 1990 Summary File 3 (SF 3) – Sample Data – Table DP-2: Social Characteristics: 1990.
7. Percent Black: the percentage of the total MA population that is categorized as black (one race). Census 2000 Summary File 1 (SF 1) 100-Percent Data, Geographic Comparison Tables, United States and Puerto Rico—Metropolitan Area provides percent black by MA.
8. Percent Black In-migration (1995-2000): the percentage of the MA population (2000) that was in a different MA than in 1995. From Census 2000 Summary File 4 (SF 4) – Sample Data - PCT50. Residence in 1995 for the population 5 years and over – MSA/PMSA Level: Black or African American alone.
9. Percent Change in White Labor Force (1990-2000): the percentage change of the civilian labor force, aged 16 and over. Census 2000 Summary File 3 (SF 3) – Sample Data - Table P150I [Detailed Tables] and Table 43, U.S. Census Bureau 1993a for MAs whose boundaries did not change between 1990 and 2000.[4]

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industries (U.S. Census Bureau 2003c); (3) percentage of a metropolitan area's employee earnings that were produced in the finance, insurance, and real estate industry sector (FIRE) (Slater and Hall 2002); (4) the natural log of the dollar amount of deposits in all of the banks in a metropolitan area (U.S. Census Bureau 1999); (5) the natural log of the total population in a metropolitan area (see Reid et al. 2005; U.S. Census Bureau 2003d).

[4] MAs that added or dropped counties between 1990 and 2000 have been adjusted in the existing data set such that the 1990 boundaries match those of 2000. This required the use of additional data sources: Table 30, U.S. Census

10. Homicide Rate: the homicide rate per 100,000 residents. Federal Bureau of Investigation, 2001. *Crime in the United States: 2000*. GPO: Washington, D.C.
11. Region: the geographic region of the MA, categorized as Northeast, Midwest, South, and West. Northeast is the reference category. Census 2000 Summary File 3 (SF 3) – Sample Data – Table P1: Total Population.

Bureau 1993b, Tables 144 and 154, U.S. Census Bureau 1993c, and Tables 18, 20, and 30, U.S. Census bureau 1993d.