The Effect of Immigration on Residential Segregation in U.S. Metropolitan Areas, 2000[*]

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Abstract

A number of recent studies have shown that residential segregation among various Asian and Hispanic groups has remained the same or increased in recent decades, even while African American segregation has declined. High levels of immigration likely affect patterns of segregation, as new immigrants often settle in ethnic enclaves even as longer-term residents may disperse into outlying areas. This paper analyzes patterns of residential segregation in 2000 for various racial/ethnic groups in all U.S. metropolitan areas by nativity, country of origin, and length of time in the U.S. Results provide qualified support for the spatial assimilation model. Immigrants of all race groups are more segregated than native-born members. In addition, the most recent arrivals from specific countries also tend to be more segregated than those who have been in the U.S. longer, particularly among Whites and Asians, and to a lesser extent Hispanics. However, results also indicate that spatial assimilation is an uneven process: segregation of the foreign-born varies considerably by race and country of origin, and differences in segregation among the foreign-born by year of entry are modest for Hispanics and slight, if at all, for Black immigrants.

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Asians and Hispanics have experienced no change or small increases in residential segregation in recent decades even while African American segregation has continued to decline. It is thought that high levels of immigration may affect patterns of segregation, especially for Asians and Hispanics, as new immigrants often settle in ethnic enclaves even as longer-term residents disperse into outlying areas. The fact that segregation levels have not declined much for Asians and Hispanics may be due to the concentration of new immigrants outweighing the residential dispersion of longer-term residents.

The goal of this paper is to therefore use data from the 2000 census to document patterns of residential segregation among native- and foreign-born people of various racial and ethnic groups, and examine the interplay between race and nativity in producing observed patterns. In doing so, this study aims to shed light on the aptness of the spatial assimilation model in explaining residential patterns of groups composed of many immigrants, as opposed to models that stress the overarching role of race and racial conflict in determining where people live.

This research is guided by the following specific questions:

1. How do levels of residential segregation vary by race, nativity (whether foreign-born or not), and country of origin?
2. Is residential segregation lower for immigrants who have been in the country longer than recent arrivals?

To address these questions, in this analysis I calculate residential segregation indexes—dissimilarity and isolation—in all U.S. metropolitan areas by race, nativity, country of origin, and length of time in the U.S. using restricted-use data from the 2000 decennial censuses. The contributions here are two-fold: First, I will calculate detailed segregation scores not previously

tabulated, such as those by both country of birth and length of time in the U.S. that will permit explicit links between immigration and residential patterns to be drawn. Second, this study will examine and compare the roles of race *and* nativity in producing observed residential patterns across a number of groups. There are only a rather limited number of studies on these issues.

Background

The residential segregation of Blacks in U.S. metropolitan areas has declined in recent decades. For example, using the most common segregation measure, the dissimilarity index, African American segregation dropped by 12.0 percent from 1980 to 2000. Meanwhile, Asians and Hispanics have become, if anything, more segregated during the same period. The dissimilarity index increased by 1.5 percent for Hispanics and 1.4 percent for Asians and Pacific Islanders between 1980 and 2000 (Iceland et al. 2002).

In an era when racial polarization is thought to be declining—as evidenced by the declines in African American segregation—the trends for Hispanics and Asians might seem both striking and puzzling. Some observers have posited that high levels of immigration likely affected these patterns, as new immigrants often settle in ethnic enclaves even as longer-term residents may disperse into outlying areas. In short, the fact that segregation has not declined for Asians and Hispanics may be due to the concentration of new immigrants outweighing the residential dispersion of longer-term residents (Iceland, forthcoming). This study therefore seeks to shed light on the effects of nativity and race in producing observed residential patterns.

Understanding these processes is important because they provide insight on how patterns of racial interaction have changed, and the potential role of immigration in affecting these patterns. For example, if findings of this research provide support for the spatial assimilation

model—that nativity explains a lot of the change in segregation for Hispanics and Asians between 1990 to 2000—then this would indicate that over time we should expect to see increasing interaction between these minority groups and Whites in shared neighborhoods as an increasing proportion of the former groups become native-born. This could therefore lead to (and be a reflection of) lower social, economic, and political polarization between these groups. Just as White ethnic groups at one time occupied very different residential niches and thought of themselves as comprising very different groups, over time many of these difference diminished and more common identities were forged (Waters 1990).

On the other hand, if findings from the research indicate that immigration is not explaining some of the changes, then it could indicate that racial and ethnic polarization is increasing. For example, the rapid growth of Hispanic and Asian populations could conceivably be producing a "backlash" among the native-born White population, which could be reflected either by the mass movement of Whites out of neighborhoods with growing minority populations or in an increase in discrimination in the housing market that would limit the residential mobility of minority group members into predominately White neighborhoods. Either mechanism would produce increases in residential segregation between these groups. The implication of this scenario is that we would likely see greater racial and ethnic conflict in the near future. Finally, results could provide mixed support for the spatial assimilation model, as we could see that the model helps explain residential patterns of Hispanics and Asians, but not African Americans.

Below is brief elaboration of the conceptual framework, followed by a review of what other research has shown about the factors shaping current trends in segregation.

Conceptual framework: causes of segregation

It is commonly thought that differences in residential patterns across racial and ethnic groups reflect social distance (White and Glick 1999; Park et al. 1925). Segregation results from several processes, including discrimination, self-selection into certain neighborhoods, socioeconomic differences across groups, and the effect of different metropolitan historical contexts. According to the spatial assimilation model, which is often used to explain settlement patterns of immigrants, new immigrants (or migrants) often settle in fairly homogeneous racial/ethnic enclaves within a given metropolitan area. This may be due to migrants feeling more comfortable with (and welcomed by) fellow co-ethnics, and the fact that minority members may simply not be able to afford to live in the same neighborhoods as more affluent Whites (Pascal 1967; Clark 1988; Charles 2001). Immigrants often differ in many respects from the host population, such as in language, education, and occupations.

As minority group members make gains in socio-economic status, such as through increases in income, education and, in the case of immigrants, English language ability, they translate these gains into improvement in their spatial location (Massey and Bitterman 1985; Massey and Denton 1985; Charles 2003). These spatial improvements typically involve moves to neighborhoods populated more by the dominant majority group, which in the United States, is native-born Whites (see Massey and Denton 1985). Studies have documented a strong and consistent association between socio-economic status and residential location (Alba and Logan 1993; Alba et al. 1997; White et al. 1993; Iceland et al. forthcoming).

In contrast to the spatial assimilation model, the "pluralism" perspective holds that a group's residential patterns and integration into society depends on the group's position in the social hierarchy (White and Glick 1999). The dominant group—non-Hispanic Whites—is at the top of the hierarchy, and other groups follow in some order, depending on prejudices and

preferences of society at large. Negative stereotypes, for example, reduce openness to integration with certain groups (Bobo and Zubrinksky 1996; Farley et al. 1994), and Blacks tend to be perceived in the most unfavorable terms (Charles 2000, 2001, 2003).

Thus, many have argued that the spatial assimilation model simply does not hold for all groups, especially Blacks, in part because prejudices lead not only to avoidance of particular groups but also to racial discrimination (Massey and Mullan 1984; Massey et al. 1987; Alba and Logan 1993; Fong and Wilkes 1999; Charles 2003; Wilkes and Iceland 2004). Discriminatory practices include racial steering by real estate agents, unfair mortgage lending patterns, and even in some cases physical attacks when moving into White neighborhoods (Massey and Denton 1993; Yinger 1995; Meyer 2000).

Empirical findings

A very large number of studies have documented patterns of segregation by race and ethnicity, and a few have looked at segregation by nativity. In general, studies tend to find that racial segregation is greater than segregation by nativity (White 1987; Lewis Mumford Center data 2001) and that race and ethnicity trumps the effect of nativity and SES (White and Sassler 2000; Iceland et al. forthcoming), indicating that the spatial assimilation model has limitations for explaining residential patterns. Other research, however, has indicated that the spatial assimilation model helps explain some patterns, as members of ancestry groups that have been in the United States longer are generally less segregated than groups that have arrived more recently (White and Glick 1999).

Studies have found that segregation within racial/ethnic groups also varies by country of origin. For example, among Hispanics, segregation from non-Hispanic Whites was much higher

for Dominicans than Mexicans and Cubans in 2000 (Logan 2002). The same study found that people from Central America were less segregated than those from South America. While not looking directly at residential segregation, White and Sassler (2000) also report that the process of assimilation varies within ethnic groups. This indicates that heterogeneity within broad groups along several dimensions may be driving different residential patterns. For example, the segregation scores of Hispanics by nation of origin above were not broken down by nativity, which could play a role in the differences observed across countries of origin. No studies of segregation by nation of origin have been done for Asian groups using recent data.

Issues of immigration do not apply only to Hispanics and Asians; the number of foreign-born African Americans from the Caribbean and sub-Saharan Africa grew rapidly in the 1990s. Logan and Deanne (2003) report how the social and economic profile of foreign-born blacks is far above that of native-born blacks and better than Hispanics as well. Both native and foreign-born Blacks are very highly segregated from Whites, though foreign-born Blacks, particularly Africans, are highly segregated from native-born Blacks as well. One study using 1990 data in two metropolitan areas (Miami and New York) found that foreign-born blacks who immigrated more recently had about the same level of segregation as less recent immigrants in one metropolitan area, and only slightly lower segregation in the other, providing little support for the spatial assimilation model for Blacks (Freeman 2002).

Unresolved issues and contributions of this study

There are a number of unresolved issues in the literature. First, from a descriptive point-of-view, no residential segregation indexes have been computed for all race groups by nativity and country of origin. A number of researchers have produced various detailed indexes by race

and Hispanic origin (e.g., Iceland et al. 2002; Farley 2001; Glaeser and Vigdor 2001; Lewis Mumford Center 2001), but only the Lewis Mumford Center (2001) produced any indexes by country of origin, and even these are currently available only for Hispanic origin groups.

In a similar vein, length of time of immigrants in the U.S. has rarely been examined directly. The one study mentioned above (Freeman 2002) examined processes for Blacks in 1990 in only two metropolitan areas and did not break statistics down by specific country of origin because the data on country of origin for African immigrants are simply not available in public-use files, such as in Census 2000 Summary File 3 or Summary File 4. To this end, the proposed analysis will use restricted data from all metropolitan areas in the 2000 decennial census to produce detailed segregation scores by country of origin for a broader array of groups and by year of entry into the U.S. These data will provide a direct way to test the spatial assimilation model. It will allow us to see, for example, whether Mexicans who have been in the U.S. longer are indeed less residentially segregated than more recent arrivals from Mexico, as the spatial assimilation perspective would predict.

Second, few studies have systematically compared the role of race and nativity in producing observed residential patterns. Some studies have focused on the role of nativity for a particular race group (e.g., Logan 2002; Freeman 2002), or have included an independent variable for race and/or foreign-born in a regression model (e.g., Logan et al. 2004; Wilkes and Iceland 2004) but have not focused on the interplay between the two. While this study is not the only one to look at the association between race, nativity, and residential patterns for a number of groups (e.g., White and Glick 1999 and White and Sassler 2000; Alba et al. 1997), it will add to the somewhat small number of these studies and will use very detailed and recent data on all metropolitan areas in the U.S. A comparative study using information on several groups will

allow us to see whether nativity does indeed have a larger effect on residential patterns among some groups, such as Hispanics and Asians, while race matters more for others, such as African American immigrants.

Data and Methods

The data for this analysis are drawn from the 2000 decennial census files that contain long-form information. This includes population counts for all racial groups and for Hispanics by census tract in all metropolitan areas (MAs), as well as more detailed information on items such as nativity and year of entry. I will use internal Census files for this study, as I will calculate segregation scores for detailed groups not readily available in Summary File 3 or Summary File 4. Segregation indexes are calculated for independent MAs and Primary MAs. Town and city-based MAs are used in New England. I used boundaries of metropolitan areas as defined by the Office of Management and Budget (OMB) on June 30, 1999. Using this definition, there were 331 MAs in the analysis.

The 2000 census defined five race categories – White; Black or African American; American Indian or Alaska Native; Asian; and Native Hawaiian or other Pacific Islander—and allowed individuals to report more than one race. About 6.8 million, or 2.4 percent of the population, reported more than one race in 2000. This analysis combines Asians and Native Hawaiians or other Pacific Islanders into a single group because of the small size of the latter, and does not analyze the segregation of American Indians and Alaska Natives because few people of this group are foreign-born. Minority groups in this analysis include those who identified as being a member of that minority group either alone or in combination with another

race. Non-Hispanic Whites consist of those who marked only White and who indicated that they were not Hispanic.[1]

This analysis uses the index of dissimilarity and the isolation index to measure residential patterns. These are the two most common indexes in the segregation literature. The dissimilarity index is a measure of evenness. It ranges from 0 (complete integration) to 1 (complete segregation), and indicates the percent of a group's population that would have to change residence for each neighborhood to have the same percent of that group as the metropolitan area overall. It is computed as:

$$D = .5 * \sum_{i=1}^{n} \left| x_i / X - y_i / Y \right|$$

where n is the number of tracts in a metropolitan area, x_i is the population size of the minority group of interest in tract i, X is the population of the minority group in the metropolitan area as a whole, y_i is the population of the reference group (native-born non-Hispanic Whites in this analysis) in tract i, and Y is the population of the reference group in the metropolitan area as a whole.

The isolation index, a measure of exposure, indicates the probability that a minority group member would come into contact with another minority group member. It is computed as the minority-weighted average of the minority proportion of the population in each area. The index varies from 0 to 1, with 1 indicating the highest level of isolation. It is computed as:

$$_xP^*_x = \sum_{i=1}^{n} \left[x_i / X \right] \left[x_i / t_i \right]$$

where $_xP^*_x$ is the usual notation for the isolation index, the x terms are the same as above and t_i refers to the sum of the minority group in question and reference group populations in tract i.

[1] Previous research indicates that segregation scores are similar across the two methods of defining the group

When comparing the indexes, the dissimilarity index has the advantage of not being sensitive to the relative size of the groups in question. It merely provides information on how evenly the members of a particular group are distributed across neighborhoods—however many there may be in the metropolitan area as a whole. In contrast, the isolation index is sensitive to the relative size of the groups being studied. Holding other factors constant, the larger the group, the higher are the levels of isolation. That is, a large group will likely share neighborhoods with other members of the same group simply due to the demographic composition of the metropolitan area as a whole, and will therefore be more isolated from other groups. It is important to note that this is not necessarily a negative feature of the index, depending on a researcher's interest. From a sociological point of view, for example it is certainly useful to know how much potential contact there is between groups, as this is a dimension of social interaction and an indicator of social distance.

Three sets of segregation indexes will be calculated in this paper:

1. Indexes by race and nativity. These replicate indexes already available.
2. Indexes for the foreign born by race, global region, and country of origin for larger sending countries—those with at least 100,000 members in the U.S.—such as Mexico, China, and the Philippines. Indexes will only be computed in metropolitan areas where there are 1,000 or more group members, as segregation indexes for metropolitan areas with small minority populations are less reliable than those with larger ones.[2]

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population, with larger differences for Asians than Blacks (Iceland et al. 2002).

[2] Random factors and geocoding errors are more likely to play a large role in determining the settlement pattern of group members when fewer members are present, causing these indexes to contain greater volatility (Iceland et al. 2002; Massey and Denton 1988). The 1,000 group population cutoff, while inevitably somewhat arbitrary, is one chosen by some other studies (Frey and Meyers 2002; Glaeser and Vigdor 2001).

3. Indexes by combinations of race, nativity, country of origin, and length of time in the U.S. for very specific groups, again as the data allow. The initial cutoffs used for length of time in the U.S. are: present less than 5 years, 5 to 20 years, and 20 years or more. For example, I will look at patterns of segregation for foreign-born Hispanics of Mexican origin who are recent immigrants versus longer-term immigrants.

A descriptive comparison of indexes across different race, nativity, and length of time in the U.S. will shed light on the relative importance of those factors on the more general observed residential patterns of the larger race groups (i.e., Hispanics, Asians, and African Americans), and will provide some evidence as to whether the spatial assimilation model helps explain these patterns.

Results

Table 1 shows residential segregation indexes by race, Hispanic origin, and nativity in 2000. The reference group for all indexes consists of native-born non-Hispanic Whites. Indexes are also weighted by the population size of the group in question. This represents the residential patterns experienced by the average group member (rather than the average metropolitan area). As previous research has shown, African Americans are more highly segregated from Whites than Hispanics and Asians and Pacific Islanders. The dissimilarity index for all African Americans, at 0.647, indicates that nearly two-thirds of the group would have to be redistributed across neighborhoods for neighborhoods to have the same race distribution as the metropolitan area as a whole. The isolation index, at 0.598, indicates that the typical African American lives in a neighborhood that is, on average, about 60 percent Black. The next most segregated group is Hispanics, followed by Asians and Pacific Islanders.

The foreign-born of all three race groups mentioned above are more segregated than the native-born in 2000 when using either the dissimilarity or isolation index, providing support for the spatial assimilation model. For example, the dissimilarity score for foreign-born Hispanics was 0.595, 25 percent higher than the 0.475 score for native-born Hispanics. The difference in the isolation scores (0.463 among the native-born and 0.513 among the foreign-born) was not as large, but nevertheless still noteworthy. Similar patterns held for Asians and Pacific Islanders: the dissimilarity score was 0.474 for the foreign-born and 0.392 for the native-born.

Native-born African Americans were also moderately less segregated than foreign-born Blacks according to the dissimilarity index, though levels of segregation for both groups were very high. However, foreign-born blacks were actually less isolated than native-born Blacks (0.429 vs. .590). Isolation scores, as mentioned above are affected by the size of the group in question—other factors being equal, bigger groups are more likely to be more isolated than smaller groups because there are simply more group members present to share residential space. Lower isolation among the Black foreign-born—given higher dissimilarity scores—is thus likely at least in part a function of the relatively small population of foreign-born blacks in many metropolitan areas.

Finally, Table 1 also indicates that the dissimilarity score of the foreign-born population as a whole was 0.437. As might be expected, foreign-born whites were considerably less segregated (dissimilarity of 0.299) from native-born non-Hispanic Whites than the foreign-born population as a whole and the foreign-born of other race groups. Thus, race clearly plays a large role in the residential patterns of the foreign-born.

Tables 2 through 5 show levels of segregation of the foreign-born by race, country of origin, and year of entry. Table 2 focuses on the Black foreign-born. The analysis includes

metropolitan areas with at least 1,000 members of the group in question, and countries of origin in the table are those with at least 100,000 emigrants to the U.S. as a whole. Only four individual countries met the latter criteria: Nigeria, Jamaica, Haiti, and Trinidad and Tobago. People of all of these countries were very highly segregated from native-born non-Hispanic Whites when using the index of dissimilarity. The scores were highest for Nigerians (0.844) and lowest among Jamaicans (0.775). The dissimilarity score of those from the Caribbean as whole (0.742) was actually similar to that of immigrants from Africa (0.745).

The isolation index scores are considerably lower for all country-of-origin groups than for foreign-born blacks as a whole and than the dissimilarity scores. Relatively small population sizes of specific groups means that these groups are more likely to share neighborhoods with native-born non-Hispanic Whites (the reference group in all calculations here) than when the broader group (e.g., "all Blacks") is considered. For example the isolation score for blacks born in Nigeria is 0.149, indicating that the typical Nigerian lives in a neighborhood where about 15 percent of the residents who are either native-born non-Hispanic White or Nigerian are Nigerian.

Turning to the issue of central importance in this analysis—differences in segregation by year of entry—we see mixed patterns. When considering the dissimilarity index (evenness) we see modest evidence that longer-term immigrants are less segregated than new arrivals across three of the four countries in the table (Nigeria being the exception). For example, Jamaicans who arrived in the U.S. before 1980 have a dissimilarity score of 0.791, while those who came in the five years before the Census (1995-2000) had a score of 0.855. When considering isolation, there is no clear pattern, with the most recent arrivals having higher scores in one case, lower scores in another, and similar scores in the remaining two countries-of-origin as compared with

people who arrived prior to 1980. Thus, support for the spatial assimilation model is weak, at best, when considering foreign-born blacks.

Table 3 considers segregation among foreign-born Hispanics. There is a moderate amount of variation in dissimilarity scores across countries of origin, ranging from 0.597 among immigrants from Colombia to 0.756 among those from Honduras. All the scores are lower than the four countries of origin of Blacks analyzed. Isolation scores, which are more sensitive to group size, are highest for immigrants from Mexico (0.494) and lowest among those from Peru (0.091). Scores on both indexes are lower among immigrants from South American than immigrants from Central America.

Interestingly, dissimilarity scores are higher for specific groups of origin than the Hispanic foreign-born population as a whole, suggesting that immigrants from particular countries are more likely to settle in particular neighborhoods—often different neighborhoods from each other—than Hispanics as a whole. For example, if Honduran immigrants settle in a few specific neighborhoods in a metropolitan area, and El Salvadoran immigrants settle in other particular neighborhoods, then each will have high dissimilarity scores (they are not evenly distributed across neighborhoods in a metropolitan area), but the broader group, "Hispanics" may end up being somewhat more evenly distributed because they are present in a broader array of neighborhoods than the component groups.

Levels of segregation by year of entry provide moderate support for the spatial assimilation model among Hispanics. In nearly all cases (Mexican isolation scores the one exception), both dissimilarity and isolation was lower among the longest-term immigrants than the most recent immigrants. In some cases, segregation was highest among immigrants the middle year-of-entry group (those arriving between 1980 and 1994). Differences between the

most recent arrivals and the longest-term immigrants were moderate. For example, immigrants who arrived from Nicaragua between 1995 and 2000 had a dissimilarity score of 0.760; this figure is about 7 percent higher than the 0.708 figure for Nicaraguan immigrant who arrived in the U.S. before 1980. The difference is larger than this for some groups and smaller for others.

Finally, it should be noted that the differences in scores across countries of origin can only in small part be attributed to differences in the composition of the immigrants by year of entry. That is, it does not appear that segregation is lower among Colombians as a whole than Hondurans because, say, Colombians immigrants have been in the U.S. longer on average than immigrants from Guatemala. Rather, Colombians in all categories of year of entry are less segregated than Guatemalans of the same year-of-entry cohort.

In Table 4, we see many of the same patterns for Asian foreign-born groups as we did with Hispanic groups, though evidence supporting the spatial assimilation model is stronger. In general, there is significant variation in segregation by country of origin—ranging from dissimilarity scores of 0.570 for immigrants from the Philippines to 0.778 for immigrants from Laos. Segregation scores tended to be lower for most Asian country-of-origin groups than Hispanic country-of-origin groups. Isolation scores for all Asian groups were quite low in absolute terms.

Once again we also see that dissimilarity scores for specific countries of origin are higher than for foreign-born Asian and Pacific Islanders as a whole, indicating that specific groups often settle in particular neighborhoods. Isolation, on the other hand, is lower for specific groups, likely reflecting that small component groups, simply because they are often not large enough to demographically occupy whole census tracts, are often more likely to share neighborhoods with native-born non-Hispanic Whites than the larger group (Asians and Pacific Islanders) as a whole.

The table also provides some support to the spatial assimilation model in that immigrants who have been in the U.S. longer tend to have lower segregation scores than more recent arrivals, with a few exceptions. The differences by cohort of arrival tend to be larger among Asian groups than Hispanics, indicating that the spatial assimilation process is stronger among most groups of Asians. For example, the dissimilarity score for immigrants from China was 0.718 among those who immigrated from 1995 to 2000; this score is about 17 percent higher than the score (0.612) among Chinese immigrants who came to the U.S. before 1980.

Table 5 shows the segregation of foreign-born Whites from native-born non-Hispanic Whites.[3] These scores tend to be the lowest of all race groups considered, though many of the patterns do not differ very much from that of Asians. Dissimilarity scores are highest for White immigrants from the Ukraine (0.743) and lowest among those from Germany (0.370) and the United Kingdom (0.379). Higher dissimilarity scores for each of the country-of-origin groups than the overall foreign-born White score once again indicates that specific groups tend to occupy residential niches, though foreign-born Whites as a whole are fairly evenly spread across various neighborhoods. Isolation scores for all groups are quite low—under 0.121. Members of each country of origin clearly live in neighborhoods that have, on average, a very high-proportion of native-born non-Hispanic Whites.

The spatial assimilation model is strongly supported by table—more so than for any other race group. Recent immigrants tended to have segregation scores that were considerably higher than immigrants who have been in the U.S. since before 1980. For immigrants from Germany, for example, the dissimilarity score of those who arrived before 1980 (0.399) is about 47 percent

[3] For Whites, one potential issue is that scores might be affected by the fact that foreign-born householders in some cases co-reside with their native-born children, and the latter are part of the reference group (native-born non-Hispanic Whites). Thus, we analyzed segregation scores of householders only to and found that segregation scores do not differ much. In fact, segregation was a little lower when only householders were considered, suggesting that

lower than those who arrived from 1995 to 2000 (0.756). Thus, the most recent arrivals tended to be both less evenly distributed across neighborhoods in metropolitan areas than longer-term immigrants, and more isolated (less likely to share neighborhoods with native-born non-Hispanic Whites) than immigrants who had been in the U.S. for longer periods of time.

Conclusion

This analysis provides support for the spatial assimilation model, though not uniformly. The foreign-born of particular race groups do tend to be more segregated along the two dimensions examined here—evenness and isolation—than the native-born of the same group. This suggests, as the spatial assimilation model would predict, that while immigrants often move into ethnic enclaves, subsequent generations are less likely to remain there. Moreover, results from this analysis indicated that among the foreign-born, more recent arrivals tended to be more segregated than immigrants who had been in the U.S. longer, suggesting that the process of spatial assimilation can begin within a generation.

Despite these broad findings, the applicability and strength of the spatial assimilation model various across groups. First, levels of segregation of the foreign-born from native-born non-Hispanic Whites differed greatly by race and Hispanic origin, with Blacks having the highest levels of segregation, followed by Hispanics, Asians and Pacific Islanders, and non-Hispanic Whites. Second, when considering the segregation of immigrants by country of origin, we also see considerable variability both within race groups and across them. Third, differences in levels of segregation by year-of-entry also vary by race group considered: the differences were greatest among Whites, followed by Asians and then Hispanics. This difference across year-of-

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including all the members of foreign-born families (who likely also tend to be foreign-born) tends to slightly increase calculated scores because they add to the numbers of the foreign-born in particular neighborhoods.

entry cohorts was slight, if at all present, for Black immigrants. Thus, the spatial assimilation process can certainly be characterized as uneven.

In conclusion, the analysis suggest that the absence of a decline in Hispanic and Asian segregation could be explained, at least in part, by continued immigration, as immigrants of these groups display higher levels of segregation than the native born, and recent arrivals are more segregated from native-born non-Hispanic Whites than immigrants who have been in the U.S. for longer periods of time.

Some limitations of the current study should be mentioned. For one, it would be worthwhile to compare patterns of segregation from 1990 to those in 2000. In this way, one can better separate period effects from cohort effects. That is, just because longer-term residents had lower levels of segregation in 2000 than recent arrivals does not necessarily mean that the longer-term residents used to have higher levels of segregation (when they themselves were recent arrivals) that declined over time. If one had data from multiple censuses one can trace a particular year-of-entry cohort and more directly observe changes in segregation for a particular group. An extension of this analysis will therefore incorporate data from two censuses.

Second, a multivariate analysis would provide greater insight as to the relative contribution of different factors to observed patterns of segregation. While this descriptive look at segregation scores suggests that spatial assimilation is to some extent occurring in U.S. metropolitan areas, it would be useful to examine the relative magnitude of the role of nativity, SES differences across groups, and other factors (e.g., region) in explaining current patterns.

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Table 1. Residential Segregation Indexes by Race, Hispanic Origin, and Nativity: 2000

	Number of Metropolitan Areas	Dissimilarity Index	Isolation Index
All African Americans	**320**	**0.647**	**0.598**
Native-born African Americans	319	0.643	0.590
Foreign-born African Americans	133	0.707	0.429
All Hispanics	**317**	**0.477**	**0.568**
Native-born Hispanics	306	0.475	0.463
Foreign-born Hispanics	249	0.595	0.513
All Asians and Pacific Islanders	**299**	**0.398**	**0.329**
Native-born Asians and Pacific Islanders	236	0.392	0.225
Foreign-born Asians and Pacific Islanders	260	0.474	0.276
All foreign-born people	**329**	**0.437**	**0.463**
Foreign-born non-Hispanic Whites	274	0.299	0.130

Note: There were 331 metropolitan areas as defined on June 30, 1999. Includes metropolitan areas with at least 1,000 members of the group in question. Weighted means are weighted by the size of the group in question. Higher values indicate more segregation. The reference group is native-born non-Hispanic Whites.

Source: 2000 Census long-form data.

Table 2. Residential Segregation Indexes for Blacks by Nativity, Country of Origin, and Length of Time in the U.S.: 2000

	Number of Metropolitan Areas	Dissimilarity Index	Isolation Index
All Blacks	**320**	**0.647**	**0.598**
Native-born Blacks	319	0.643	0.590
Foreign-born Blacks	133	0.707	0.429
Country of Origin			
Africa	72	0.745	0.192
East Africa	30	0.804	0.116
West Africa	43	0.793	0.198
Nigeria	**20**	**0.844**	**0.149**
Nigeria 1995-2000	10	0.906	0.129
Nigeria 1980-1994	13	0.874	0.115
Nigeria <1980	5	0.931	0.127
Caribbean	75	0.742	0.489
Jamaica	**42**	**0.775**	**0.414**
Jamaica 1995-2000	15	0.855	0.298
Jamaica 1980-1994	26	0.804	0.370
Jamaica <1980	22	0.791	0.300
Haiti	**28**	**0.791**	**0.418**
Haiti 1995-2000	10	0.835	0.272
Haiti 1980-1994	22	0.807	0.353
Haiti <1980	10	0.799	0.283
Trinidad and Tobago	**18**	**0.830**	**0.375**
Trinidad and Tobago 1995-2000	4	0.926	0.356
Trinidad and Tobago 1980-1994	12	0.870	0.305
Trinidad and Tobago < 1980	12	0.869	0.297

Note: Includes metropolitan areas with at least 1,000 members of the group in question. Countries-of-origin included in the table are those with at least 100,000 emigrants. Weighted means are weighted by the size of the group in question. Higher values indicate more segregation. The reference group is native-born non-Hispanic Whites.

Source: 2000 Census long-form data.

Table 3. Residential Segregation Indexes for Hispanics by Nativity, Country of Origin, and Length of Time in the U.S.: 2000

	Number of Metropolitan Areas	Dissimilarity Index	Isolation Index
All Hispanics	317	**0.477**	**0.568**
Native-born Hispanics	306	0.475	0.463
Foreign-born Hispanics	249	0.595	0.513
Country of Origin			
Central America	225	0.628	0.501
Mexico	**205**	**0.636**	**0.494**
Mexico 1995-2000	152	0.691	0.303
Mexico 1980-1994	155	0.652	0.405
Mexico <1980	93	0.604	0.353
El Salvador	**57**	**0.720**	**0.305**
El Salvador 1995-2000	21	0.814	0.177
El Salvador 1980-1994	44	0.733	0.271
El Salvador <1980	16	0.720	0.149
Guatemala	**55**	**0.745**	**0.236**
Guatemala 1995-2000	24	0.861	0.169
Guatemala 1980-1994	33	0.767	0.215
Guatemala <1980	12	0.762	0.108
Honduras	**37**	**0.756**	**0.202**
Honduras 1995-2000	19	0.850	0.150
Honduras 1980-1994	21	0.776	0.180
Honduras <1980	6	0.761	0.101
Nicaragua	**22**	**0.687**	**0.276**
Nicaragua 1995-2000	4	0.760	0.208
Nicaragua 1980-1994	16	0.708	0.274
Nicaragua <1980	7	0.708	0.069
South America	95	0.538	0.228
Colombia	**45**	**0.597**	**0.165**
Colombia 1995-2000	22	0.632	0.103
Colombia 1980-1994	25	0.653	0.118
Colombia <1980	21	0.602	0.064
Argentina	**22**	**0.626**	**0.038**
Argentina 1995-2000	5	0.749	0.049
Argentina 1980-1994	6	0.688	0.028
Argentina <1980	8	0.698	0.019
Ecuador	**29**	**0.730**	**0.258**
Ecuador 1995-2000	13	0.833	0.198
Ecuador 1980-1994	14	0.779	0.232
Ecuador <1980	13	0.714	0.105
Peru	**33**	**0.639**	**0.091**
Peru 1995-2000	14	0.728	0.058
Peru 1980-1994	25	0.679	0.073
Peru <1980	13	0.709	0.035

Note: Includes metropolitan areas with at least 1,000 members of the group in question. Countries-of-origin included in the table are those with at least 100,000 emigrants. Weighted means are weighted by the size of the group in question. Higher values indicate more segregation. The reference group is native-born non-Hispanic Whites.

Source: 2000 Census long-form data.

Table 4. Residential Segregation Indexes for Asians and Pacific Islanders by Nativity, Country of Origin, and Length of Time in the U.S.: 2000

	Number of Metropolitan Areas	Dissimilarity Index	Isolation Index
All Asians and Pacific Islandrs	299	**0.398**	**0.329**
Native-born Asians and Pacific Islanders	236	0.392	0.225
Foreign-born Asians and Pacific Islanders	260	0.474	0.276
Country of Origin			
Southeast Asia	187	0.550	0.234
Vietnam	**100**	**0.669**	**0.201**
Vietnam 1995-2000	33	0.831	0.105
Vietnam 1980-1994	72	0.716	0.186
Vietnam <1980	32	0.649	0.070
Laos	**47**	**0.778**	**0.131**
Laos 1995-2000	1	0.917	0.045
Laos 1980-1994	38	0.798	0.129
Laos <1980	4	0.795	0.051
Thailand	**32**	**0.746**	**0.076**
Thailand 1995-2000	5	0.908	0.038
Thailand 1980-1994	19	0.827	0.092
Thailand <1980	7	0.796	0.026
Philippines	**90**	**0.570**	**0.211**
Philippines 1995-2000	35	0.706	0.100
Philippines 1980-1994	58	0.612	0.165
Philippines <1980	50	0.590	0.125
East Asia	166	0.525	0.220
Korea	**91**	**0.584**	**0.135**
Korea 1995-2000	32	0.758	0.097
Korea 1980-1994	50	0.649	0.123
Korea <1980	35	0.596	0.047
China	**113**	**0.607**	**0.238**
China 1995-2000	55	0.718	0.144
China 1980-1994	66	0.654	0.200
China <1980	39	0.612	0.121
Japan	**49**	**0.580**	**0.052**
Japan 1995-2000	21	0.749	0.038
Japan 1980-1994	15	0.655	0.028
Japan <1980	20	0.590	0.041
South Central Asia	126	0.570	0.117
India	**113**	**0.589**	**0.091**
India 1995-2000	61	0.722	0.079
India 1980-1994	66	0.628	0.060
India <1980	33	0.642	0.022
Pakistan	**33**	**0.731**	**0.075**
Pakistan 1995-2000	14	0.844	0.064
Pakistan 1980-1994	23	0.766	0.056
Pakistan <1980	5	0.833	0.015

Note: Includes metropolitan areas with at least 1,000 members of the group in question. Countries-of-origin included in the table are those with at least 100,000 emigrants. Weighted means are weighted by the size of the group in question. Higher values indicate more segregation. The reference group is native-born non-Hispanic Whites.

Source: 2000 Census long-form data.

Table 5. Residential Segregation Indexes for Non-Hispanic Whites by Nativity, Country of Origin, and Length of Time in the U.S.: 2000

	Number of Metropolitan Areas	Dissimilarity Index	Isolation Index
Foreign-born Whites	**274**	**0.299**	**0.130**
Country of Origin			
Europe	239	0.318	0.107
Eastern Europe	142	0.500	0.131
Poland	**49**	**0.601**	**0.121**
Poland 1995-2000	8	0.786	0.096
Poland 1980-1994	26	0.680	0.106
Poland <1980	30	0.595	0.030
Romania	**27**	**0.711**	**0.029**
Romania 1995-2000	8	0.877	0.026
Romania 1980-1994	15	0.800	0.024
Romania <1980	5	0.762	0.017
Ukraine	**39**	**0.743**	**0.109**
Ukraine 1995-2000	16	0.844	0.067
Ukraine 1980-1994	20	0.803	0.098
Ukraine <1980	8	0.780	0.032
Russia	**48**	**0.673**	**0.078**
Russia 1995-2000	24	0.784	0.042
Russia 1980-1994	24	0.745	0.068
Russia <1980	12	0.722	0.026
Yugoslavia	**19**	**0.678**	**0.034**
Yugoslavia 1995-2000	3	0.894	0.051
Yugoslavia 1980-1994	4	0.810	0.032
Yugoslavia <1980	10	0.688	0.016
Northern Europe	134	0.346	0.024
United Kingdom	**108**	**0.379**	**0.019**
United Kingdom 1995-2000	25	0.706	0.015
United Kingdom 1980-1994	42	0.572	0.018
United Kingdom <1980	76	0.425	0.012
Ireland	**24**	**0.569**	**0.027**
Ireland 1995-2000	3	0.839	0.021
Ireland 1980-1994	7	0.710	0.024
Ireland <1980	13	0.593	0.016
Western Europe			
France	**30**	**0.617**	**0.015**
France 1995-2000	9	0.799	0.020
France 1980-1994	5	0.755	0.012
France <1980	16	0.695	0.010
Germany	**120**	**0.370**	**0.015**
Germany 1995-2000	16	0.756	0.015
Germany 1980-1994	24	0.707	0.012
Germany <1980	102	0.399	0.012
Southern Europe	102	0.443	0.071
Greece	**29**	**0.651**	**0.039**
Greece 1995-2000	1	0.931	0.036
Greece 1980-1994	4	0.850	0.026
Greece <1980	18	0.660	0.034
Portugal	**32**	**0.647**	**0.140**
Portugal 1995-2000	3	0.899	0.081
Portugal 1980-1994	10	0.771	0.121
Portugal <1980	26	0.623	0.090
Italy	**65**	**0.465**	**0.038**
Italy 1995-2000	5	0.840	0.023
Italy 1980-1994	8	0.718	0.016
Italy <1980	53	0.478	0.035

Note: Includes metropolitan areas with at least 1,000 members of the group in question. Countries-of-origin included in the table are those with at least 100,000 emigrants. Weighted means are weighted by the size of the group in question. Higher values indicate more segregation. The reference group is native-born non-Hispanic Whites.

Source: 2000 Census long-form data.