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Research Article

**The residential segregation of detailed Hispanic
and Asian groups in the United States: 1980-2010**

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The residential segregation of detailed Hispanic and Asian groups in the United States: 1980-2010

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Abstract

BACKGROUND

Racial and ethnic diversity continues to grow in communities across the United States, raising questions about the extent to which different ethnic groups will become residentially integrated.

OBJECTIVE

While a number of studies have examined the residential patterns of pan-ethnic groups, our goal is to examine the segregation of several Asian and Hispanic ethnic groups – Cubans, Dominicans, Mexicans, Puerto Ricans, Salvadorans, Asian Indians, Chinese, Filipinos, Japanese, Koreans, and Vietnamese. We gauge the segregation of each group from several alternative reference groups using two measures over the 1980 to 2010 period.

RESULTS

We find that the dissimilarity of Hispanics and Asians from other groups generally held steady or declined, though, because most Hispanic and Asian groups are growing, interaction with Whites also often declined. Our analyses also indicate that pan-ethnic segregation indexes do not always capture the experience of specific groups. Among Hispanics, Mexicans are typically less residentially segregated (as measured using the dissimilarity index) from Whites, Blacks, Asians, and other Hispanics than are other Hispanic-origin groups. Among Asian ethnic groups, Japanese and Filipinos tend to have lower levels of dissimilarity from Whites, Blacks, and Hispanics than other Asian groups. Examining different dimensions of segregation also indicates that dissimilarity scores alone often do not capture to what extent various ethnic groups are actually sharing neighborhoods with each other. Finally, color lines vary across groups in some

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important ways, even as the dominant trend has been toward reduced racial and ethnic residential segregation over time.

CONCLUSIONS

The overarching trend is that ethnic groups are becoming more residentially integrated, suggestive of assimilation, though there is significant variation across ethnic groups.

1. Introduction

Racial and ethnic diversity continues to grow in communities across the United States. Immigration typically leads to the creation of new ethnic enclaves and often the fortification of old ones. Racial and ethnic distinctions have long produced some of the most salient social and economic divisions in American society. Segregation has many causes, including the voluntary residential choices of individuals, who often seek to live with people of the same ethnic group; discrimination in the housing market; socioeconomic differences between groups; and a lack of information about different neighborhoods, which can vary systematically by race (Charles 2003; Iceland, Weinberg, and Steinmetz 2002; Krysan and Bader 2007). Recent work on residential segregation has indicated a decline in Black and White segregation, though only small changes among Hispanics and Asians (Iceland, Sharp, and Timberlake 2013; Logan and Stults 2011).

While there has been considerable research on the segregation patterns of pan-ethnic groups such as Hispanics and Asians, we know much less about the variation across ethnic groups (e.g., Mexicans, Chinese, etc.). Thus, the summary pan-ethnic segregation indicators most often used by researchers may not be reflective of the experience of specific constituent groups. In addition, there has been little published work based either on the 2010 census on these specific groups, or that examined the segregation of these groups from a variety of other groups over time using multiple measures. Because of the growth in multiracial communities across the U.S., it has become increasingly important to examine the residential segregation between multiple groups to understand the importance of different ethnic divisions (Flores and Lobo 2013; Lee and Bean 2007). Thus, the goal of this study is to examine the residential patterns of both Asian and Hispanic ethnic groups over the 1980-2010 period. We examine the extent of their segregation from non-Hispanic Whites, non-Hispanic Blacks, Hispanics (in the case of Asians), Asians (in the case of Hispanics), and specific other Asian or Hispanic groups. We also use two common measures of segregation – dissimilarity and interaction – to explore different dimensions of residential segregation. The questions motivating our study include:

1. What are trends in the segregation of Asian and Hispanic ethnic groups? This sheds light on the variation in levels and trends in segregation within pan-ethnic groups.
2. What is the pattern and trend when looking at alternative reference groups? This speaks to levels and changes in the social distance between various groups.
3. How do these trends vary by the dimension of residential segregation being considered? This provides information about the extent to which low (high) levels of segregation, as measured by evenness, translate to living in neighborhoods with many (few) members of different ethnic groups.

In the following section we review the recent findings about the residential segregation of Asians and Hispanics. We follow this with a discussion of the methodological issues that need to be addressed in examining residential segregation over time. We then present our findings on the residential patterns of Hispanic and Asian ethnic groups. We end with a summary of findings and conclusions.

2. Literature review

As shown in Table 1, the Hispanic population of the U.S. has increased from 14.6 million in 1980 (6.4% of the total population) to 50.5 million in 2010 (16.3%), and is now the second-largest group in the country, after non-Hispanic Whites.⁴ Analyzing the Census Bureau's 2009 population projections, Ortman and Guarneri (2009: 3) noted that "Even if net international migration is maintained at a constant level of nearly one million, the Hispanic population is still projected to more than double between 2000 and 2050 [while] the non-Hispanic White alone population, ... is projected to experience decline." The Hispanic population has not just grown over time; its composition has changed considerably. The Mexican-origin group has long been the largest Hispanic group, comprising just over 60% of the Hispanic population. However, the fraction of the Hispanic population that is of Puerto Rican and Cuban origin

⁴ For an overview of the Hispanic population in 2010, see Ennis, Rios-Vargas, and Albert (2011), and for an overview of race and ethnicity in the 2010 Census, see Humes, Jones, and Ramirez (2011). The observed changes in race and Hispanic origin counts between Census 2000 and the 2010 Census could be attributed to a number of factors including demographic change since 2000 (births, deaths, and migration), changes in the race and Hispanic origin questions' wording and format, and changes in how people self-identify.

(ancestry) has declined while the number of Salvadoran, Dominican, and Guatemalan Hispanics in the U.S. has grown rapidly in recent years.⁵

Table 1: Hispanic and Asian population of the U.S. by group: 1980-2010

Hispanic or Asian Group	1980	1990	2000	2010	% of Total Population in 2010
All Hispanics	14,608,673	22,354,059	35,305,818	50,477,594	16.35
Cubans	803,226	1,043,932	1,241,685	1,785,547	0.58
Mexicans	8,740,439	13,495,938	20,640,711	31,798,258	10.30
Puerto Ricans	2,013,945	2,727,754	3,406,178	4,623,716	1.50
Other Hispanics	3,051,063	5,086,435	10,017,244	12,270,073	3.97
Dominicans	NA	520,151	764,945	1,414,703	0.46
Salvadorans	NA	565,081	655,165	1,648,968	0.53
All Other Hispanics	NA	4,001,203	8,597,134	9,206,402	2.98
All Asian and Pacific Islanders alone	3,500,439	7,273,662	10,780,635	15,379,955	4.98
Two races: Asians, and Native Hawaiian and Other Pacific Islanders	NA	NA	138,802	165,690	0.05
All Asians alone	NA	6,908,638	10,242,998	14,674,252	4.75
Asian Indians alone	361,531	815,447	1,678,765	2,843,391	0.92
Chinese and Taiwanese alone ^a	806,040	1,645,472	2,564,190	3,535,382	1.15
Chinese except Taiwanese alone	NA	NA	2,432,046	3,322,350	1.08
Filipinos alone	774,652	1,406,770	1,850,314	2,555,923	0.83
Japanese alone	700,974	847,562	796,700	763,325	0.25
Koreans alone	354,593	798,849	1,076,872	1,423,784	0.46
Vietnamese alone	261,729	614,547	1,122,528	1,548,449	0.50
All other Asians	NA	779,991	1,061,646 ^b	2,192,151 ^b	0.71

Source: U.S. Census Bureau, 1980, 1990, 2000, 2010 Census; Gibson and Jung (2002). 1990 data for Dominicans and Salvadorans are estimated from sample data since write-ins were not coded for 100-percent data that year (margins of error for the Dominican and Salvadoran estimates for 1990 are available from the authors). Excludes Puerto Rico.

Notes: Taiwanese coded from write-ins in 2000 and 2010.

Includes all those choosing two or more Asian groups and no other race.

NA=not available.

⁵ Even though the Guatemalan population topped 1 million in 2010, because of the relatively small size of that population before 2010 we do not analyze their residential segregation, or that of other Hispanic or Asian groups such as Bolivians or Hmong.

In the 1980 and 1990 Censuses there was one race option (Asian and Pacific Islanders – API) that included both Asians and Native Hawaiians and other Pacific Islanders. The API population of the U.S. grew by 339% between 1980 and 2010, from 3.5 million to 15.4 million. The Asian and Pacific Islander population more than doubled between 1980 and 1990 alone – from 3.5 million to 7.3 million. From 1990 to 2010 the Asian population again more than doubled (in 1990 the Native Hawaiian and Pacific Islander population was just 5.0% of the API population.). In 2010 Asians alone were 4.8% of the population.⁶ Asians are now the fastest growing race group in the country. This growth involves all groups of the Asian alone population except Japanese, which has remained in the range of 701,000 to 848,000 for the whole period (rising from 1980 to 1990 and falling since then).

While Black-White segregation has been declining steadily, if slowly, over the past several decades, there has been relatively little change in the segregation of Hispanics and Asians from the non-Hispanic Whites not reporting another race (hereinafter often “Whites”). Quantified using the dissimilarity index – the most common measure of segregation, ranging from 0 to 100 with higher scores indicating greater segregation – Hispanic-White segregation remained in the 50–51 range from 1980 to 2000, before declining slightly to 48 in 2010 (Logan and Stults 2011).⁷

What explains these persistent levels of segregation? The three theoretical perspectives commonly used to explain how immigrants and minority groups become residentially incorporated into society are spatial assimilation, place stratification, and segmented assimilation (Alba and Nee 2003; Iceland 2009). According to spatial assimilation, immigrants often settle in ethnic enclaves upon their arrival, drawn mainly by social networks. Many immigrants also cannot afford to buy or rent a home in a high-socioeconomic status (SES) neighborhood that tends to have more Whites (Alba and Logan 1991; Clark 1986). However, as immigrants and their children acculturate, become more familiar with a wider array of neighborhoods, and as their SES rises, they are more likely to move out of ethnic enclaves and live with members of other groups. This process results in the eventual convergence in residential patterns and outcomes across groups. Thus, according to this perspective, we would expect ethnic groups consisting of many recent arrivals to the United States to have relatively high segregation levels.

In contrast, the place stratification perspective emphasizes the widespread retention of ethnic residential communities over time. Segregation is reinforced by Whites who seek to maintain social and residential distance from minority groups by either discriminating against them in housing market transactions or avoiding them

⁶ For an overview of the Asian population in 2010, see Hoeffel et al. (2012).

⁷ A common rule of thumb is that dissimilarity scores above 60 are high in absolute terms, scores from 30 to 60 indicate moderate segregation, and scores below 30 are low.

when making residential choices (Charles 2006; Massey and Denton 1993; Roediger 2005). White discrimination against Blacks and other darker-skinned minorities is thought to be most virulent because of greater prejudice and discrimination based on skin color in the U.S. (Charles 2006; Frank, Akresh, and Lu 2010).

Segmented assimilation is a variant of spatial assimilation that also incorporates aspects of place stratification. According to this perspective, some groups will assimilate with the White mainstream, while others will assimilate downwards into a minority underclass, and yet a third group will maintain strong ethnic ties and still achieve upward mobility (Portes and Zhou 1993; Zhou 1997). Race and ethnicity are thought to play an important role due to higher levels of prejudice and discrimination against some groups, such as Blacks, in American society. According to this model, we might see considerable differences in the residential patterns across ethnic groups.

Previous empirical work on Hispanic segregation patterns provides some support for the spatial assimilation perspective. In particular, native-born Hispanics tend to be less segregated from Whites and more likely to move into White neighborhoods than foreign-born Hispanics (Iceland and Scopilliti 2008; Iceland and Nelson 2008; South, Crowder, and Chavez 2005a, 2005b). In addition, higher-income Hispanics are less segregated from non-Hispanic Whites than their lower-income counterparts (Iceland and Wilkes 2006). However, while dissimilarity scores have changed little for Hispanics as a whole, and patterns by nativity and socioeconomic status are generally consistent with spatial assimilation, Hispanics are living in neighborhoods with a higher proportion of Hispanics over time. While the typical Hispanic individual lived in a neighborhood that was 38% Hispanic in 1980, by 2005–2009 this figure had risen to 46% (Sanchez et al. 2010). This is mainly a function of the overall rapid growth of the Hispanic population. Black Hispanics are also more segregated from non-Hispanic Whites than are White and “Some other race” Hispanics (Iceland and Nelson 2008).

While a fair amount is known about Hispanic residential patterns, much less has been written about the segregation of Hispanic ethnic groups. Iceland and Nelson (2008), comparing the segregation of Mexicans, Cubans, and Puerto Ricans in 2000, find that the dissimilarity between Puerto Ricans and Whites (60) was higher than that between Cubans and Whites and Mexicans and Whites (both about 54). In a research report, Logan (2002), who also included Dominicans in his study, finds that Dominicans were both the most segregated from Whites (81) and had the lowest interaction with Whites. Both studies indicate that Cubans were the most segregated from non-Hispanic Blacks (dissimilarity scores well over 70), while Mexicans and Puerto Ricans were moderately segregated from non-Hispanic Blacks (in the 49–55 range).

A more recent follow-up report by Logan and Zhang (2013) describes the segregation of Asian groups with the latest decennial census. They find that Asian

groups (measured as Asians alone or in combination; see Section 3) are moderately segregated from Whites, with the highest dissimilarity among Vietnamese (56) and the lowest among Japanese (34). Exposure to Whites has been declining but is fairly high, with interaction scores in the 43–54 range.

Our study seeks to build on this existing work in several ways. First, we look at the segregation of Hispanic groups using more recent data (from the 2010 census) than previous studies. We also examine patterns of change over a longer period of time for both groups (the 1980–2010 period) to obtain a better sense of longer-term trends. In addition we examine the segregation of ethnic groups from several reference groups, including non-Hispanic Whites, non-Hispanic Blacks, Hispanics, Asians, and each other. We also use two measures of segregation – dissimilarity and interaction – to tap into distinct dimensions of residential patterning. We thus aim to gain a better understanding of the extent to which groups are sharing residential space and with whom, and whether spatial assimilation is a good predictor of the patterns and trends of these groups.

According to the spatial assimilation model, we would expect to see low or declining levels of segregation between groups. Previous work has shown some declines in segregation between Hispanics and both Whites and Blacks (Iceland and Nelson 2008), indicative of multiple forms of spatial assimilation. We aim to see if this pattern occurs among Asian subgroups, and likewise examine the levels and changes in segregation between Asian and Hispanic groups from each other over a 30-year period. We note that one limitation of our study is that its reliance on cross-sectional snapshots using decennial census data precludes definitive tests of assimilation, which implies an intergenerational reduction of differences between groups. Truly longitudinal data of individuals and their progeny would be best. Nevertheless, decennial data are best for examining the experiences of relatively small groups (e.g., Dominicans, Koreans), for which there are no other sources of nationally representative data down to the neighborhood level.

We also emphasize that expectations about trends in segregation should be considered in the light of continued immigration. We expect that groups with a high proportion of recent arrivals have higher levels of segregation than groups with a lower proportion of such arrivals. Among Hispanics, Salvadorans and Dominicans stand out as rapidly growing groups with many recent immigrants. Just about all Asians groups have grown in recent years, though the Japanese stand out as a group with relatively few recent newcomers. Thus, we might expect that Salvadorans and Dominicans are more segregated than other Hispanic groups, and Japanese less residentially segregated than other Asian groups.

According to place stratification theories, segregation from Whites is expected to be high, though this perspective does not offer (and is not focused on) the level of

segregation of minority groups from each other. According to segmented assimilation theories, there may be different patterns of spatial location across ethnic groups. Specifically, we would expect to see higher levels of segregation from Whites and lower segregation from Blacks among darker-skinned Hispanic groups, such as Puerto Ricans and Dominicans.⁸ In a study of New York City residential pattern, Flores and Lobo (2013), while not looking at specific Asian and Hispanic subgroups, find that Whites, Asians, and to a lesser extent Hispanics are becoming residentially integrated with each other, but that Blacks remain more highly segregated. This supports the notion of an emerging Black/non-Black divide in the United States (Lee and Bean 2007). Moreover, Lobo, Flores, and Salvo (2002, 2007), in earlier studies of Hispanic ethnic groups in New York, found evidence of a hierarchy among Hispanics, with Puerto Ricans being very highly segregated and living in disadvantaged neighborhoods. They noted a similar pattern for the more recently arriving Dominicans as well.

Among Asian groups there is less of an obvious reason why some groups would face greater residential stratification than others, though each group's historical experience has likely resulted in different residential patterns over time and they vary to some extent in their level of socioeconomic status. Japanese Americans, who, as noted above, have the fewest recent immigrants and a very long history of residence in the U.S., may be less segregated than groups with a higher immigrant representation. Filipinos, with a past that includes colonial rule by the Spanish (and the U.S.), may be less segregated from Hispanics than other Asians groups. More generally, we might expect Asian subgroups to be less segregated from Whites than from Blacks and perhaps Hispanics, given the relatively high socioeconomic achievement levels of Asians and the salience of the Black/non-Black divide in the U.S. (Flores and Lobo 2013).

Our use of multiple measures provides additional information about residential patterns. We use measures of evenness and exposure (described in more detail in the following section). Evenness measures provide a good gauge of the extent to which the composition of neighborhoods differs from the metropolitan area composition as a whole. Exposure, on the other hand, provides a better accounting of the composition of actual neighborhoods (and not whether they differ from the metropolitan area composition or not). The importance of this is that some groups may, for example, have low exposure to Whites even though they are not necessarily unevenly distributed across neighborhoods (e.g., Mexicans in some Texas metropolitan areas), while we might see the opposite for other groups. Investigating these different dimensions of

⁸ In the 2010 Census 17.2% of Dominicans and 12.0% of Puerto Ricans self-identified as Black; Cubans were at 5.9% and Mexicans and Salvadorans were under 2% Black. See Ennis, Rios-Vargas, and Albert (2011: Table 6) for more information how other Latino groups reported their race.

intergroup social distance and contact is important for understanding the overall experience of each group.

In summary, the goal of our study is to examine the residential patterns of Asian and Hispanic ethnic groups. We gauge the extent to which pan-ethnic numbers used in most studies represent the experience of the constituent subgroups, and how this may be changing over time. By using multiple reference groups we also get a better handle on the social distance experienced by Hispanic and Asian groups from various other groups, and thus the nature of the color line. Finally, using two segregation measures provides a more complete picture of residential patterns. This will shed light not only on how evenly groups are distributed but also on the extent to which these groups share residential space, and again how this has changed over the last 30 years.

3. Data and methods

To calculate levels and trends in Hispanic and Asian segregation, we use data on the numbers of resident persons self-identifying as Hispanic or as Asian and giving a group identity in census tracts in metropolitan areas (MAs) across the United States, using the census tract as the smallest geographic unit for analysis. In 1977 the Office of Management and Budget (OMB) provided the framework for data collection on race and ethnicity for the 1980 decennial census (now codified as Statistical Policy Directive 15).⁹ The questions on the 1980 and 1990 censuses asked individuals to self-identify with one of four racial groups (White, Black or African-American, American Indian or Alaska Native, and Asian or Pacific Islander) and indicate whether they were Hispanic.¹⁰ After much research and public comment, OMB revised the racial classification in 1997 to include five racial groups (subdividing Asians and Pacific Islanders into Asians, and Native Hawaiians and Other Pacific Islanders), allowed individuals to choose more than one race, and retained the Hispanic ethnicity question. Since Hispanics may be of any race, both identifiers are needed to classify individuals into mutually exclusive racial/ethnic groups (e.g., to identify “non-Hispanic Whites”).

One issue that frequently arises when measuring residential segregation is choosing a reference group against which the segregation of other groups can be measured. In this study we use several reference groups, including non-Hispanic Whites choosing only one race (“alone”), non-Hispanic Blacks alone (hereinafter often

⁹ OMB Statistical Policy Directive 15 is found at <http://www.Whitehouse.gov/omb/fedreg_1997standards/>.

¹⁰ The population censuses have a special dispensation from OMB to allow individuals to designate “Some other race” rather than one of those specifically listed. The vast majority of individuals choosing that option are Hispanic (Grieco and Cassidy 2001).

“Blacks”), Hispanics (for Asians), Asians alone (for Hispanics), and specific Asian and Hispanic ethnic group (e.g., the segregation of Chinese from Koreans).¹¹

We analyze segregation patterns using two commonly used measures of segregation: dissimilarity and interaction. Dissimilarity is a measure of evenness (the differential distribution of the subject population), and interaction is a measure of exposure (potential contact). While dissimilarity is the most commonly used measure of evenness, it is not a measure without flaws. For example, it does less well when the group of interest is small; in such a case, it tends to be biased upward (Winship 1977; Carrington and Troske 1997). We partly mitigate this problem by having a lower limit on metropolitan area group size (1,000 group members) for inclusion in the sample. But we also examine another measure of evenness: the Theil or entropy measure (see Theil 1972; Theil and Finizza, 1971). Since the Theil index is generally lower than the dissimilarity index, we use a different rule of thumb: 0-20 indicates low segregation, 20-40 indicates moderate segregation, and above 40 indicates high segregation. Our discussion of the results below focuses mainly on dissimilarity rather than Theil, but we occasionally reference both. The use of dissimilarity vs. Theil does not affect our conclusions.

Indexes of evenness and exposure are correlated but measure different things: exposure measures depend in part on the relative sizes of the two groups being compared, while evenness measures do not. We use weighted indexes to get a national index (that is, the MA indexes are weighted by the MA population of the relevant subgroup for all MAs in which at least 1,000 of that group reside).¹² Thus the national index represents the situation of the typical group member residing in a metropolitan area, which is the most common approach in studies of segregation (e.g., Massey and Denton 1993; Logan and Stults 2011). Among Hispanics there were no qualitative differences in weighted vs. unweighted results. Among Asians, changes from 1980 to 2010 in unweighted dissimilarity indexes differ in direction from weighted ones for only five of the many group comparisons in Table 3.¹³

¹¹ When examining Asian groups the decision on group coding becomes even more complicated, since the choice becomes tripartite – those reporting that group alone, those reporting that group in combination with another Asian group but no other race, and those reporting that group with or without another Asian group but with another (that is, non-Asian) race. We have chosen as the primary focus in this paper to examine those reporting Asian or an Asian group alone, as these individuals are presumably the ones most likely to have a strong ethnic identity (and may experience more residential segregation). Dissimilarity indexes for Asian groups alone or in combination were modestly lower than that for the Asian group alone.

¹² The number of MAs examined therefore differs across groups and across years. See Appendix Table A-2 for the numbers of MAs used for our calculations.

¹³ Specifically, there were declines in the weighted indexes and increases in the unweighted indexes that differed by more than 4 points for Koreans versus Filipinos, Vietnamese, and Japanese, and also for Japanese versus Chinese and Filipinos. Thus, the declines in segregation for these groups seem to be more prevalent in metropolitan areas with larger Asian populations.

The dissimilarity index, which ranges from 0 (complete integration) to 100 (complete segregation), measures the percentage of a group's population that would have to change residence for each neighborhood to have the same percentage of that group as the metropolitan area (MA) overall. The interaction index measures the exposure of minority group members to members of the majority group as the minority-weighted average of the majority proportion of the population in each areal unit. When there are only two groups the isolation and interaction indexes sum to 100, so lower values of interaction and higher values of isolation each indicate higher segregation. Even if residential segregation as measured by the dissimilarity index remains the same or slightly declines over time, growth in the minority population will tend to make it more isolated and have a lower level of interaction with other groups (see Logan and Stults 2011: 25).

While this analysis uses constant 2009 MA boundaries it does not use constant tract boundaries, instead computing indexes independent of tract boundary changes (in principle, census tract boundaries are revised each decade to more closely resemble neighborhoods). While using constant tract boundaries is arguably better than using contemporary boundaries, it is computationally more demanding to use the former, and it is important to note that there is very little practical effect of using one versus the other. For example, our Hispanic vs. non-Hispanic White dissimilarity scores are 52, 52, 52, 49 for 1980, 1990, 2000, and 2010, respectively, when using contemporary tract boundaries. Logan and Stults (2011), using constant tract boundaries, report remarkably similar patterns for the respective years: 50, 50, 51, 48 (one source of the small difference between our calculations and those from Logan and Stults is that we include only areas with at least 1,000 Hispanics, while Logan and Stults use data for all metropolitan areas).

The Hispanic groups analyzed are Mexicans, Puerto Ricans, Cubans, Dominicans, and Salvadorans – the five most populous Hispanic groups, listed in order of size in 2010.¹⁴ Statistics for Dominicans and Salvadorans are not available for 1980 and 1990. In 1990, write-in responses were only tabulated as part of the long form (sample) statistics; there was no write-in for the Spanish origin question in 1980. The Asian groups analyzed are Chinese, Asian Indians, Filipinos, Vietnamese, Koreans, and Japanese – the six most populous Asian groups, listed in order of size in 2010.¹⁵

Our analysis begins with a broad descriptive look at the growth of Hispanic and Asian ethnic groups across the country, as well as an examination of their concentration within particular states and MAs. We then examine patterns and trends in segregation of each group, not only from Whites but also from Blacks and from each other. It should

¹⁴ Groups are sometimes referred to by the generic name, but that is not meant to imply that they are citizens or even former residents of that country, only that they self-identify with that group.

¹⁵ We include data for those self-identifying as Taiwanese with Chinese for better comparability over time.

be noted that because we are using measures based on a 100 percent census of the population, there is no sampling error for these measures (though there is undoubtedly non-sampling error, resulting from such sources as errors in respondent confusion, imputation, etc.). Consequently, we use common sense when discussing what appear to us to be important changes.

4. The residential location of Hispanic and Asian ethnic groups

The Hispanic population has grown rapidly in recent decades, with the dominant group being the Mexican-origin population (see Table 1). In 1980 there were 8.7 million Mexican-origin people in the U.S. (60% of the Hispanic population), growing to 31.8 million in 2010 (63% of the Hispanic population). The next two traditionally largest groups – Puerto Ricans and Cubans – have been falling as a fraction of the total Hispanic population, from 14% to 9%, and from 6% to 4%, respectively, over the 1980 to 2010 period. In contrast, the number of Salvadorans and Dominicans in the U.S. has grown rapidly in recent years.

Texas has the highest concentration ratio (the ratio of state percentage to national percentage) for Mexicans of any state, at 3.1. Texas also has four of the top five metropolitan areas (MAs) with the highest concentration of Mexicans – Laredo, McAllen-Edinburg-Mission, Brownsville-Harlingen, and El Paso (see Appendix Table A-1). The other groups have very different patterns of concentration than the Mexicans. Puerto Ricans are concentrated on the East Coast, with the Vineland-Millville-Bridgeton NJ MA having the highest concentration ratio. Cubans are heavily concentrated in Florida, and all five MAs with the highest concentration of Cubans are in Florida. Dominicans are concentrated in many of the same states as Puerto Ricans; they are most concentrated in the state of New York, which has a concentration ratio of 7.6, with the highest concentration being found within the New York-Northern New Jersey-Long Island, NY-NJ-PA MA (a ratio of 9.6). Finally, Salvadorans have a high concentration around the nation's capital.

In 2010 the largest Asian group was Chinese (24% of the Asian-alone population), followed by Asian Indians (19%) and Filipinos (17%). The fraction of the Asian population that is Chinese has stayed roughly the same over the past three decades, while the proportion of Asian Indians has grown substantially (they were 10% of the API population in 1980) and the proportion Filipino has slowly declined (they were 22% of the API population in 1980). The Japanese as a proportion of the Asian population has fallen substantially, from 20% in 1980 to 5% in 2010, while the proportion of Korean and Vietnamese is 10% in 2010 (the former the same as in 1980, with the latter group growing its share by a third).

Not surprisingly, the MAs with the highest concentrations of Chinese and Filipinos are in California and Hawaii (see Appendix Table A-1). Asian Indians have a notably different geographic distribution: the two MAs with the highest concentration of Asian Indians are in California – Yuba City and San Jose-Sunnyvale-Santa Clara – but among states they are most highly concentrated in New Jersey, which has a concentration ratio of 3.6. Vietnamese are only highly concentrated (ratio above 2.0) in one state, California. High concentrations of Koreans can be found in California, Hawaii, New Jersey, and Washington. The Japanese are concentrated along the West Coast. The Honolulu HI MA has a concentration ratio for the Japanese of 63.5, the highest for any group examined in any MA.

5. Residential segregation of Hispanic ethnic groups

Table 2 presents the dissimilarity and interaction indexes for the five Hispanic groups, and for Hispanics as a whole. After no net change in the dissimilarity index for Hispanics from non-Hispanic Whites between 1980 and 2000 (52), there was a slight drop in that measure from 2000 to 2010 (49).¹⁶ The interaction index, however, showed a decreasing interaction of Hispanics with non-Hispanic Whites – the index declined from 47 to 35 over the 1980 to 2010 period (25%). This indicates that even though there has been little change in how evenly Whites and Hispanics are distributed across neighborhoods, Hispanics are now living with fewer non-Hispanic Whites in their neighborhoods than in the past, which is likely a reflection of demographic changes in the country as a whole.

¹⁶ The Theil index for all Hispanics also remained about the same between 1980 and 2010, in the low range (12-13); see Appendix Table A-3.

Table 2: Residential segregation of Hispanics and Hispanic group, using dissimilarity, interaction, and isolation measures: 1980–2010

Detailed Hispanic Group	Dissimilarity index				Interaction index			
	1980	1990	2000	2010	1980	1990	2000	2010
Hispanics vs. Non-Hispanic Whites								
All Hispanics	51.9	52.1	52.1	49.4	47.4	41.9	37.0	35.1
Mexicans	52.1	51.8	52.7	50.3	45.1	40.2	35.5	33.4
Puerto Ricans	69.7	66.5	58.4	51.9	41.1	41.4	41.6	42.2
Cubans	67.2	69.9	63.0	59.7	44.0	36.1	32.6	30.1
Dominicans	NA	NA	78.3	72.4	NA	NA	21.7	25.1
Salvadorans	NA	NA	68.9	65.4	NA	NA	29.3	28.3
Hispanics vs. Non-Hispanic Blacks								
All Hispanics	61.5	55.0	50.3	45.2	10.6	10.4	10.4	10.7
Mexicans	60.9	52.9	48.7	43.7	8.1	7.8	8.4	8.6
Puerto Ricans	62.2	59.3	52.0	45.5	21.2	19.8	18.4	17.7
Cubans	82.3	78.8	72.7	67.1	6.3	7.4	8.0	9.2
Dominicans	NA	NA	63.5	56.0	NA	NA	19.2	19.5
Salvadorans	NA	NA	61.0	53.5	NA	NA	14.9	15.8
Hispanics vs. All Asians								
All Hispanics	51.0	49.6	50.6	49.5	3.1	5.1	5.1	5.7
Mexicans	53.8	52.3	53.3	52.2	2.9	5.0	5.1	5.4
Puerto Ricans	65.4	60.9	54.7	50.7	2.4	4.1	4.5	5.2
Cubans	58.5	62.2	57.9	56.3	1.8	2.8	3.0	3.5
Dominicans	NA	NA	69.4	65.4	NA	NA	4.9	5.4
Salvadorans	NA	NA	61.4	59.6	NA	NA	8.2	8.2
Hispanic groups vs. all other Hispanics								
All Hispanics			<i>Isolation index:</i>		38.3	42.2	45.1	46.0
Mexicans vs. non-Mexican Hispanics	32.3	35.0	22.3	24.7	4.9	5.7	10.5	8.3
Puerto Ricans vs. non-Puerto Rican Hispanics	46.8	45.5	34.0	31.4	11.0	14.3	17.9	19.5
Cubans vs. non-Cuban Hispanics	45.2	45.1	40.4	40.8	15.9	22.3	27.4	27.3
Dominicans vs. non-Dominican Hispanics	NA	NA	38.9	37.8	NA	NA	36.5	32.5
Salvadorans vs. non-Salvadoran Hispanics	NA	NA	39.8	36.1	NA	NA	40.3	38.4
Specific Hispanic groups vs. other groups								
Mexicans			<i>Isolation index:</i>		38.6	41.1	38.4	41.8
Mexicans versus Puerto Ricans	42.4	52.4	40.7	37.3	1.0	1.0	1.1	1.2
Mexicans versus Cubans	56.3	65.2	48.6	45.4	0.4	0.4	0.3	0.4
Mexicans versus Dominicans	NA	NA	65.3	55.9	NA	NA	0.4	0.4
Mexicans versus Salvadorans	NA	NA	40.7	35.2	NA	NA	1.1	1.6
Puerto Ricans			<i>Isolation index:</i>		23.1	19.4	14.4	12.5
Puerto Ricans versus Mexicans	42.4	52.4	40.7	37.3	3.1	4.0	5.4	7.0
Puerto Ricans versus Cubans	61.6	64.2	48.1	41.5	1.9	1.9	1.6	1.7
Puerto Ricans versus Dominicans	NA	NA	38.5	32.1	NA	NA	3.8	4.3
Puerto Ricans versus Salvadorans	NA	NA	58.6	51.2	NA	NA	0.5	0.9
Cubans			<i>Isolation index:</i>		31.4	31.1	27.5	28.3
Cubans versus Mexicans	56.3	65.2	48.6	45.4	2.7	3.2	3.9	5.1
Cubans versus Puerto Ricans	61.6	64.2	48.1	41.5	4.2	4.1	3.8	4.1
Cubans versus Dominicans	NA	NA	47.5	45.4	NA	NA	1.9	2.1
Cubans versus Salvadorans	NA	NA	51.6	50.2	NA	NA	0.6	0.9
Dominicans			<i>Isolation index:</i>		NA	NA	14.5	14.9
Dominicans versus Mexicans	NA	NA	65.3	55.9	NA	NA	3.5	5.3
Dominicans versus Puerto Ricans	NA	NA	38.5	32.1	NA	NA	13.7	12.3
Dominicans versus Cubans	NA	NA	47.5	45.4	NA	NA	2.7	2.6
Dominicans versus Salvadorans	NA	NA	67.0	62.3	NA	NA	0.7	1.3

Table 2: (Continued)

Detailed Hispanic Group	Dissimilarity index				Interaction index			
	1980	1990	2000	2010	1980	1990	2000	2010
Salvadorans			<i>Isolation index:</i>		NA	NA	4.3	6.5
Salvadorans versus Mexicans	NA	NA	40.7	35.2	NA	NA	22.9	24.3
Salvadorans versus Puerto Ricans	NA	NA	58.6	51.2	NA	NA	2.1	2.0
Salvadorans versus Cubans	NA	NA	51.6	50.2	NA	NA	1.1	1.0
Salvadorans versus Dominicans	NA	NA	67.0	62.3	NA	NA	1.1	1.2

Source: U.S. Census Bureau, 1980, 1990, 2000, 2010 Census.

Notes: NA=not available.

Individual group calculations include only metropolitan areas (MAs) with at least 1,000 of the relevant group. Index for each MA weighted by the subgroup population in that MA.

The findings for Hispanics as a whole are not mirrored for all Hispanic groups. Since Mexicans constitute the largest proportion of all Hispanics it is not surprising that their segregation patterns are very similar, with almost no change from 1980 to 2010 in dissimilarity (53 to 50), and a more substantial decline in interaction (45 to 33) over the same period. Puerto Ricans, on the other hand, experienced a 25% decrease in dissimilarity from 70 in 1980 to 52 in 2010 while their interaction index remained about the same (41 to 42). The most segregated Hispanic group in 2000 was Dominicans. While they also showed a drop in dissimilarity, from 78 in 2000 to 72 in 2010, Dominicans remained highly segregated. The patterns for Cubans mimicked those for the overall Hispanic population, while Salvadorans saw a small decline in dissimilarity and little change in interaction. The changes in the dissimilarity index are generally mirrored by changes in the Theil, though with some variation in the magnitude of change (see Appendix Table A-3).

The pattern over time for the residential segregation of Hispanics from non-Hispanic Blacks differed from that described above for Whites. There was a steady decline in dissimilarity for all Hispanics – from 62 in 1980 to 45 in 2010 – and in the Theil index, with no change in interaction, the latter remaining at the low level of 10–11 throughout the 30-year period. The reduction in dissimilarity between Hispanics and Blacks was true for all Hispanic groups (though it remained high for Cubans in particular).¹⁷ In contrast, the steady pattern for interaction for all Hispanics masks changes across groups. Interaction between Puerto Ricans and Blacks declined, but increased among Cubans with Blacks. The highest interactions in 2010 with Blacks were for Puerto Ricans, Dominicans, and Salvadorans (in the 16-20 range); the lowest were for Mexicans and Cubans (both at 9).

The segregation of all Hispanics from Asians, as indicated by the dissimilarity index, was about the same as their segregation from Whites (49.5 and 49.4,

¹⁷ All Hispanic groups experienced a decline in their Theil index over the three decades versus non-Hispanic Blacks, to low levels (20 or below), with the largest declines for Cubans (from 41 to 17, a 60% reduction).

respectively, in 2010). Segregation from Asians was higher among Dominicans (65) and Salvadorans (60) than among other groups (in the 51 to 56 range), though we see a decline of dissimilarity for all Hispanics groups over time. Interaction between Hispanic groups and Asians was modest.

Table 2 also shows how segregated each Hispanic ethnic group is from each other and from Hispanics as a whole. Not surprisingly, in 2010 Hispanic ethnic groups were for the most part considerably less segregated, when using the dissimilarity index, from non-group Hispanics (dissimilarity scores ranging from 25 to 41) than Whites (scores ranging from 50 to 78), Blacks (scores ranging from 44 to 67), or Asians (scores ranging from 51 to 65). Mexicans have had low and declining levels of dissimilarity versus non-Mexican Hispanics – an index of only 25 in 2010, down from 32 in 1980 (with the sharpest drop between 1990 and 2000). The highest dissimilarity index in 2010 for Mexicans was versus Dominicans (56), indicating that these groups are relatively unevenly distributed across neighborhoods. Because there are so many Mexicans versus other groups their interaction indexes were low (none is above 1.6), indicating that Mexicans tended to have relatively few other (non-Mexican) Hispanics living in their neighborhoods.

While Puerto Ricans were more segregated from other Hispanics than Mexicans (a dissimilarity index of 31 versus 25 in 2010), they were less segregated from other Hispanics as measured by the dissimilarity index than were Cubans, Salvadorans, and Dominicans. Notably, Puerto Ricans lived in neighborhoods with relatively fewer Puerto Ricans over time, and likewise they became less segregated from other Hispanic groups. On average, a Puerto Rican in 2010 lived in a neighborhood that was 12% Puerto Rican, down from 23% in 1980. In contrast, on average in 2010 a Mexican lived in a tract that was 42% Mexican, up from 39% in 1980. Interaction of Puerto Ricans was highest with Mexicans (7.0) and lower with other groups. It should be noted that the interaction index of Mexicans with Puerto Ricans (1.2) was lower than the interaction index of Puerto Ricans with Mexicans because there are so many more Mexicans than Puerto Ricans in the United States.

The segregation patterns for Cubans were in many ways similar to those for Puerto Ricans, though their dissimilarity from other Hispanics was a little higher. For example, the four indexes all range from 42 to 50 in 2010. Cubans, however, had a relatively high and increasing interaction index with non-Cuban Hispanics (rising from 16 in 1980 to 27 in 2010). The Miami-Fort Lauderdale-Miami Beach FL MA, which had the highest Cuban concentration ratio in 2010, also had the highest dissimilarity index and the lowest interaction index for Cubans with non-Hispanic Whites of any MA.

The highest dissimilarity index for 2010 for Hispanic groups was between Salvadorans and Dominicans (62), followed by Mexicans and Dominicans (56), indicating the relatively high levels of segregation of Dominicans and Salvadorans,

though there are exceptions – the Mexican-Salvadoran dissimilarity index is only 35 and the Dominican-Puerto Rican dissimilarity index is only 32. The dissimilarity indexes for both Salvadorans and Dominicans versus those in other Hispanic groups declined from 2000 to 2010, indicating a more even distribution over time. Just as Cubans are concentrated and segregated in Miami, Dominicans are highly concentrated in the New York-Northern New Jersey-Long Island, NY-NJ-PA metropolitan area (a concentration ratio of 9.0 in 2010), which also had the highest dissimilarity and lowest interaction indexes for Dominicans with non-Hispanic Whites (78 and 17, respectively) of any MA.

Table 2 also presents isolation indexes for each Hispanic group. This index indicates how often members of that group live with members of their own group. The most isolated group in 2010 was Mexicans, with an isolation index of 42, up from the 1980 level of 39; Mexicans were followed by Cubans (28), Dominicans (15), and Puerto Ricans (13). Salvadorans were the least isolated group (6.5), in part indicative of the relatively small population of this group.

6. Residential segregation of Asian ethnic groups

Table 3 presents the dissimilarity and interaction indexes for the six Asian groups, and for Asians as a whole.¹⁸ There was a slight increase in the dissimilarity index for Asians compared to non-Hispanic Whites from 1980 to 2010 (42 to 44), and a more substantial decline in the interaction index over that period, from 62 to 48 (23%).¹⁹ These findings are consistent with the findings for Hispanics – that as a racial or ethnic group grows (and Asians are growing the fastest), “there is a tendency for their ethnic enclaves to become more homogeneous” [Logan and Stults 2011: 2]. As was found for Hispanics, the findings for Asians as a whole are not mirrored for all Asian groups. Dissimilarity declined for two groups, Japanese and Filipinos, while slightly rising for Asian Indians, Chinese, and Koreans, and holding steady for Vietnamese.

¹⁸ Of the thirty comparisons for the dissimilarity indexes for 2000 and 2010 between the group alone and the group alone or in combination (AOIC), only three differ by as much as 2-3 index points. There is only one interaction and one isolation index that differ by as much as 1 point. Accordingly, we believe the population “alone” indexes are a satisfactory basis for exposition of Asian segregation.

¹⁹ There was also a small increase in the Theil index for all Asians versus non-Hispanic Whites between 1980 and 2010 (from 16.2 to 19.1) but none were above 28 in that year, indicating low-to-moderate levels of unevenness in 2010 (the lowest was for Japanese, at 13.9, the only group to show a decrease). (See Appendix Table A-4.)

Table 3: Residential segregation of Asians alone and Asian groups alone, using dissimilarity, interaction, and isolation measures: 1980–2010

Detailed Asian Group	Dissimilarity index				Interaction index			
	1980	1990	2000	2010	1980	1990	2000	2010
Asians vs. Non-Hispanic Whites								
All Asians	42.0	42.5	44.7	44.5	61.9	58.1	51.6	47.7
Chinese	52.2	52.3	54.1	53.5	59.6	56.1	50.2	46.3
Asian Indians	48.3	48.1	50.2	51.9	75.0	66.9	59.0	53.9
Filipinos	54.1	50.9	50.6	47.5	55.1	50.3	43.3	40.3
Vietnamese	59.2	58.9	61.1	59.1	63.8	54.1	45.1	41.0
Koreans	47.2	48.0	50.9	51.2	68.8	63.6	56.5	52.1
Japanese	44.4	41.5	41.5	40.5	52.3	54.4	49.2	45.3
Asians vs. Non-Hispanic Blacks								
All Asians	67.4	60.9	59.2	56.6	7.2	8.0	8.2	8.6
Chinese	75.1	71.2	71.3	68.9	6.5	6.5	6.1	6.3
Asian Indians	77.4	70.7	68.7	67.2	8.4	9.4	9.5	9.6
Filipinos	66.3	60.9	57.9	53.3	8.4	8.4	8.4	8.6
Vietnamese	74.6	64.1	61.9	59.6	9.6	10.1	10.8	10.8
Koreans	76.3	72.3	71.3	69.5	6.8	7.0	6.8	7.0
Japanese	69.4	67.0	64.6	62.1	5.2	4.6	4.7	4.8
Asians vs. Hispanics								
All Asians	45.4	46.5	48.6	48.9	12.5	15.3	17.2	19.0
Chinese	59.3	60.0	62.9	62.5	12.2	14.4	15.1	16.4
Asian Indians	58.6	56.7	58.2	60.8	10.3	13.2	14.4	15.0
Filipinos	47.0	47.4	48.2	45.9	16.6	19.5	22.4	25.5
Vietnamese	58.7	55.5	55.3	54.7	15.5	19.4	22.3	24.6
Koreans	57.6	59.5	62.8	63.5	12.1	13.9	15.1	16.3
Japanese	49.9	54.0	55.8	55.1	11.7	11.8	13.4	15.9
Asian groups vs. all other Asians								
All Asians			<i>Isolation index:</i>		15.9	17.3	18.4	20.4
Chinese	41.3	39.7	40.9	40.3	7.9	9.9	11.0	12.6
Asian Indians	39.6	36.9	36.8	38.0	3.8	7.4	9.0	10.6
Filipinos	47.4	43.1	42.6	40.5	8.3	10.3	10.7	11.5
Vietnamese	53.4	45.9	48.0	46.5	6.4	10.6	10.8	12.0
Koreans	40.1	40.0	41.5	41.6	8.2	10.5	12.2	14.3
Japanese	37.0	39.8	42.0	41.4	11.8	14.3	14.9	16.9
Specific Asian groups vs. other groups								
Chinese			<i>Isolation index:</i>		11.9	12.0	13.5	14.5
versus Asian Indians	46.7	43.4	42.0	42.3	0.6	1.2	2.3	3.4
versus Filipinos	55.4	51.8	52.8	51.9	2.3	2.8	2.7	2.8
versus Vietnamese	59.1	53.8	54.8	52.5	0.7	1.3	1.7	1.8
versus Koreans	48.2	45.8	45.1	43.4	0.8	1.5	1.9	2.2
versus Japanese	46.0	47.2	48.3	47.3	3.9	2.6	1.7	1.2
Asian Indians			<i>Isolation index:</i>		1.3	2.4	4.6	7.4
versus Chinese	46.7	43.4	42.0	42.3	1.3	2.4	3.4	4.0
versus Filipinos	47.1	42.7	42.8	45.0	1.1	1.7	1.9	2.0
versus Vietnamese	62.3	56.1	56.0	54.9	0.3	0.7	1.0	1.2
versus Koreans	45.3	44.4	44.0	44.2	0.7	1.3	1.4	1.6
versus Japanese	53.1	54.2	52.0	51.2	0.6	0.6	0.6	0.5
Filipinos			<i>Isolation index:</i>		8.9	9.7	9.3	8.6
versus Chinese	55.4	51.8	52.8	51.9	2.5	3.4	3.7	3.7
versus Asian Indians	47.1	42.7	42.8	45.0	0.6	1.1	1.7	2.2
versus Vietnamese	59.9	52.1	50.0	47.0	0.5	1.2	1.6	1.7
versus Koreans	50.2	48.0	50.2	51.2	0.9	1.4	1.3	1.4
versus Japanese	51.7	51.7	53.4	52.3	4.4	2.8	1.8	1.3

Table 3: (Continued)

	Dissimilarity index				Interaction index			
	1980	1990	2000	2010	1980	1990	2000	2010
Detailed Asian Group								
Vietnamese		Isolation index:			2.8	4.7	7.1	7.8
versus Chinese	59.1	53.8	54.8	52.5	2.5	3.6	3.7	3.9
versus Asian Indians	62.3	56.1	56.0	54.9	0.5	0.9	1.5	2.1
versus Filipinos	59.9	52.1	50.0	47.0	1.6	2.7	2.7	2.8
versus Koreans	58.7	58.9	61.6	60.2	0.8	1.1	1.0	1.1
versus Japanese	58.6	57.6	67.7	56.8	1.4	1.1	0.8	0.6
Koreans		Isolation index:			2.1	4.1	5.6	6.6
versus Chinese	48.2	45.8	45.1	43.4	2.2	3.4	4.4	5.2
versus Asian Indians	45.3	44.4	44.0	44.2	0.7	1.3	2.1	3.1
versus Filipinos	50.2	48.0	50.2	51.2	2.1	2.5	2.3	2.5
versus Vietnamese	58.7	58.9	61.6	60.2	0.5	0.8	1.1	1.2
versus Japanese	40.6	41.3	42.6	41.6	3.1	2.2	1.7	1.4
Japanese		Isolation index:			14.7	11.7	8.6	7.4
versus Chinese	46.0	47.2	48.3	47.3	4.8	5.5	5.5	5.7
versus Asian Indians	53.1	54.2	52.0	51.2	0.4	0.8	1.2	1.9
versus Filipinos	51.7	51.7	53.4	52.3	4.9	4.9	4.3	4.5
versus Vietnamese	58.6	57.6	67.7	56.8	0.4	0.8	1.1	1.3
versus Koreans	40.6	41.3	42.6	41.6	1.5	2.1	2.3	2.6

Source: U.S. Census Bureau, 1980, 1990, 2000, 2010 Census.

Notes: Individual group calculations include only metropolitan areas (MAs) with at least 1,000 of the relevant group. Index for each MA weighted by the subgroup population in that MA.

Asians as a whole, and all six Asian groups, showed a decline in dissimilarity with non-Hispanic Blacks from 1980 to 2010, though the index remained high (ranging from 53 for Filipinos to 69–70 for Chinese and Koreans). Interaction increased slightly for all Asians, from 7.2 in 1980, to 8.6 in 2010 (19%).²⁰ Interaction saw increases for Asian Indians and Vietnamese and declines for Chinese and Japanese between 1980 and 2010. Interaction was highest with Blacks for Vietnamese (10.8 in 2010) and lowest for Japanese (4.8).

Asian dissimilarity from Hispanics (49) was generally higher than Asian dissimilarity from Whites (44), but lower than Asian dissimilarity from Blacks (57). Filipinos were considerable less segregated from Hispanics (46) than any other Asians group (dissimilarity scores ranging from 55 to 64), perhaps indicative of a stronger bond to Hispanic culture and/or the Spanish language based on their history.²¹ Unlike the Asian-Black dissimilarity trend, Asian dissimilarity from Hispanics increased for four groups (Asian Indians, Chinese, Japanese, and Koreans) and declined for the other two (Vietnamese and Filipinos). Nevertheless, interaction with Hispanics increased for

²⁰ This general decline in dissimilarity versus non-Hispanic Blacks between 1980 and 2010 was mirrored by the Theil index. All groups showed a decline, but were still at moderate levels (27 or above) in 2010. The minimum Theil index versus non-Hispanic Blacks in 1980 was 40. Both minima were for Filipinos.

²¹ The Philippine Islands were under Spanish influence dating back to the 16th century until the end of the 19th century. The islands were ceded to American control after the Spanish-American War of 1898; they gained their independence in 1946.

all Asian groups – likely reflective of the growth in the Hispanic population over the period.

Somewhat unlike the patterns among Hispanic groups, the dissimilarity measure for Asian groups compared to all other Asians (ranging in 2010 from 38 to 46) were only a little lower than their dissimilarity from Whites (ranging from 41 to 59), but substantially lower than their dissimilarity from Blacks (ranging from 53 to 70) and Hispanics (ranging from 46 to 64).

With regard to segregation of specific groups from each other, the lowest dissimilarity in 2010 (42) was between Asian Indians and Chinese and between Koreans and Japanese, and the highest dissimilarity was between Vietnamese and Koreans (60).²² Almost all measures showed declines between 1980 and 2010, with the exception of Koreans versus Filipinos, Vietnamese, and Japanese (and Vietnamese versus Asian Indians). The biggest decline was for Vietnamese versus Japanese (52.3 versus 36.6).

Interaction indexes were low – all in the single digits (less than 10), mainly due to their relatively small populations in the U.S. Table 3 also presents isolation indexes for each Asian group. These indexes are much lower than those we found for Mexicans. The most isolated Asian group was Chinese, with an isolation index in 2010 of 14, up from the 1980 level of 12. All the other group interaction indexes were in single digits (6.6 to 8.6).

7. Conclusions

The goal of this study was to examine the residential segregation patterns of Hispanic and Asian ethnic groups. Among our contributions to the literature is a focus on a relatively long observation window (from 1980 to 2010), our use of different reference groups to gauge the contours of American color lines, and the use of two measures of segregation – dissimilarity and interaction/isolation – to shed light on different dimensions of residential patterns.

We find that the segregation, as measured by the dissimilarity index, of Hispanics and Asians from other groups generally held about steady or declined (declines were more common for Hispanic groups than Asian groups), suggestive of spatial assimilation. That is, residential differences between groups are generally narrowing. However, because most Hispanic and Asian groups are growing and the White population is declining steadily in relative terms, interaction with Whites also often declined. Nevertheless, our analyses also indicate that pan-ethnic segregation indexes

²² The highest unevenness as measured by the Theil index for 2010 was for Koreans versus Japanese (40).

do not always capture the experience of specific groups. Among Hispanics, Mexicans are typically least segregated, as measured by the dissimilarity index, from Whites, Blacks, Asians, and other Hispanics than are other Hispanic-origin groups. In contrast, perhaps reflecting their relatively recent arrival, Dominicans and Salvadorans tend to be more segregated from these groups than other Hispanics. Cubans and Puerto Ricans tend to fall in between.

Investigating alternative reference groups is useful because they reveal different patterns. While Cuban segregation from Whites, Asians, and other Hispanic groups tends to be in the moderate range, Cuban segregation from Blacks in particular is quite high. In contrast, Dominican segregation from Blacks is considerably lower than Dominican segregation from Whites or Asians. This is consistent with the fact that a higher proportion of Dominicans self-identify as black than other Hispanic groups. Some of these patterns are consistent with at least some degree of segmented assimilation, where not all group trajectories point in precisely the same direction.

Among Asian ethnic groups, Japanese and Filipinos tend to have lower levels of dissimilarity from Whites, Blacks, and Hispanics than other Asian groups. Perhaps in part reflecting their colonial (and linguistic) ties with Spain, Filipinos had lower levels of dissimilarity from Hispanics than any other Asian group. More generally, unlike Hispanics, who were a little more segregated (when using the dissimilarity index) from Whites as from Blacks, Asian ethnic groups tended to be less segregated from Whites than from Blacks. Also in contrast to Hispanic ethnic groups, which displayed considerably lower segregation from other Hispanic groups than from White or Blacks, Asian groups tended to be only modestly less segregated from each other than from Whites, indicative of the moderate level of social distance between Whites and many Asian groups.

Our interaction index results revealed some interesting patterns. Many of the findings with this index are driven by the relative size of different groups in the United States. For example, Mexicans are much more likely to share neighborhoods with co-ethnics than any other Hispanic or Asian ethnic group – mainly reflecting the demographic dominance of Mexicans among the eleven ethnic groups studied. Among most Hispanic groups, interaction with Whites declined over the period, in part reflecting the relative decline of the White population in the U.S. One exception was Puerto Ricans, who over the period experienced large declines in dissimilarity from Whites, which helps explain why there was no decline in interaction with Whites. Hispanic ethnic group interaction with other Hispanic groups and with Blacks and Asians was moderate, but tended to increase over the period.

Asian groups tend to have more interaction with Whites than Hispanics have with Whites, even though such interaction with Whites declined for all Asian groups. Asian interaction with Blacks tended to be quite low (index values less than 11 for all groups),

as was Asian interaction with Hispanics (values ranging 15 to 26). In part reflecting the demographic composition of the U.S., Asian group interaction with other specific Asian groups was also on the whole quite low (all below 9).

In short, while pan-ethnic segregation indexes sometimes capture the experience of all constituent ethnic groups, we also see significant variation across these groups. Examining different dimensions of segregation also indicates that dissimilarity scores alone often do not capture to what extent various ethnic groups are actually sharing neighborhoods with each other. Finally, color lines vary across groups in some important ways, even as the dominant trend has been toward reduced racial and ethnic residential segregation and increased spatial assimilation over time.

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Appendix

Table A-1: The five metropolitan areas with the highest concentration of Hispanics, of Asians alone, and of each of their groups: 2010

All Hispanic or Latino	CR	All Asians alone	CR
Laredo TX	5.86	Honolulu HI	8.68
McAllen-Edinburg-Mission TX	5.54	San Jose-Sunnyvale-Santa Clara CA	6.55
Brownsville-Harlingen TX	5.39	San Francisco-Oakland-Fremont CA	4.87
El Paso TX	5.03	Vallejo-Fairfield CA	3.08
El Centro CA	4.92	Los Angeles-Long Beach-Santa Ana CA	3.07
Mexican	CR	Chinese alone	CR
Laredo TX	8.46	San Francisco-Oakland-Fremont CA	9.13
McAllen-Edinburg-Mission TX	8.28	San Jose-Sunnyvale-Santa Clara CA	7.65
Brownsville-Harlingen TX	7.82	Honolulu HI	5.02
El Centro CA	7.50	Ithaca NY	3.56
El Paso TX	7.44	Los Angeles-Long Beach-Santa Ana CA	3.39
Puerto Rican	CR	Asian Indian alone	CR
Vineland-Millville-Bridgeton NJ	9.85	Yuba City CA	7.14
Springfield MA	8.46	San Jose-Sunnyvale-Santa Clara CA	6.96
Orlando-Kissimmee-Sanford FL	8.44	Trenton-Ewing NJ	4.55
New Haven-Milford CT	6.01	Bloomington-Normal IL	3.07
Reading PA	5.90	New York-Northern New Jersey-Long Island NY-NJ-PA	3.02
Cuban	CR	Filipino alone	CR
Miami-Fort Lauderdale-Pompano Beach FL	30.54	Honolulu HI	18.03
Naples-Marco Island FL	9.24	Vallejo-Fairfield CA	12.67
Cape Coral-Fort Myers FL	5.66	San Francisco-Oakland-Fremont CA	6.67
Tampa-St. Petersburg-Clearwater FL	5.07	Stockton CA	6.25
Orlando-Kissimmee-Sanford FL	2.98	San Jose-Sunnyvale-Santa Clara CA	5.79

Table A-1: (continued)

Dominican	CR	Vietnamese alone	CR
New York-Northern New Jersey-Long Island NY-NJ-PA	9.65	San Jose-Sunnyvale-Santa Clara CA	13.65
Reading PA	5.59	Los Angeles-Long Beach-Santa Ana CA	4.22
Providence-New Bedford-Fall River RI-MA	5.03	Houston-Sugar Land-Baytown TX	3.47
Boston-Cambridge-Quincy MA-NH	4.37	Seattle-Tacoma-Bellevue WA	3.19
Atlantic City-Hammonton NJ	3.88	Lincoln NE	3.17
Salvadoran	CR	Korean alone	CR
Washington-Arlington-Alexandria DC-VA-MD-WV	7.65	Los Angeles-Long Beach-Santa Ana CA	5.14
Los Angeles-Long Beach-Santa Ana CA	5.57	Honolulu HI	5.05
Houston-Sugar Land-Baytown TX	4.44	Champaign-Urbana IL	3.75
Fayetteville-Springdale-Rogers AR-MO	3.58	Ithaca NY	3.68
San Francisco-Oakland-Fremont CA	3.33	San Jose-Sunnyvale-Santa Clara CA	3.31
		Japanese alone	CR
		Honolulu HI	63.52
		San Jose-Sunnyvale-Santa Clara CA	5.56
		Los Angeles-Long Beach-Santa Ana CA	4.24
		San Francisco-Oakland-Fremont CA	3.67
		Seattle-Tacoma-Bellevue WA	3.19

Source: U.S. Census Bureau, 2010 Census

Notes: CR = concentration ratio, the ratio of the percentage Hispanic or Asian in that metropolitan area divided by that percentage in the U.S. as a whole. Puerto Rican metropolitan areas excluded. Groups listed in order of decreasing population size in 2010.

Table A-2: Number of metropolitan areas with at least 1,000 in group population: 1980–2010

	Number of Metropolitan Areas			
	1980	1990	2000	2010
Detailed Hispanic Group vs. non-Hispanic Whites				
All Hispanics	269	304	353	366
Mexicans	187	229	311	345
Puerto Ricans	76	110	136	183
Cubans	28	44	63	85
Dominicans	NA	NA	26	66
Salvadorans	NA	NA	42	85
<i>Range for two-group comparisons</i>	27-60	43-95	15-129	42-176
Detailed Asian Group vs. non-Hispanic Whites				
All Asians	171	246	279	316
Chinese	49	81	125	168
Asian Indians	61	104	127	158
Filipinos	41	63	61	65
Vietnamese	40	83	99	116
Koreans	34	63	95	121
Japanese	51	75	93	124
<i>Range for two-group comparisons</i>	25-44	43-75	51-109	57-143

Source: U.S. Census Bureau, 2010 Census

Note: NA = Not applicable.

Table A-3: Residential segregation of Hispanics and Hispanic groups, measured using the Theil index: 1980–2010

Detailed Hispanic Group	Theil index			
	1980	1990	2000	2010
Hispanics vs. Non-Hispanic Whites				
All Hispanics	11.7	13.1	12.6	12.6
Mexicans	14.5	15.4	13.9	13.5
Puerto Ricans	20.6	21.4	13.8	11.2
Cubans	13.9	20.1	10.3	9.5
Dominicans	NA	NA	27.7	21.5
Salvadorans	NA	NA	23.3	20.5
Hispanics vs. Non-Hispanic Blacks				
All Hispanics	25.0	23.4	16.6	14.0
Mexicans	25.4	27.2	18.9	16.1
Puerto Ricans	27.6	27.4	15.3	11.6
Cubans	41.3	38.8	22.0	16.6
Dominicans	NA	NA	21.3	15.9
Salvadorans	NA	NA	24.0	18.2
Hispanic groups vs. all other Hispanics				
All Hispanics				
Mexicans vs. non-Mexican Hispanics	11.5	17.5	7.3	6.7
Puerto Ricans vs. non-Puerto Rican Hispanics	16.7	22.6	8.9	7.5
Cubans vs. non-Cuban Hispanics	17.8	27.5	11.9	9.8
Dominicans vs. non-Dominican Hispanics	NA	NA	10.6	9.8
Salvadorans vs. non-Salvadoran Hispanics	NA	NA	11.3	9.0
Specific Hispanic groups vs. other groups				
Mexicans				
Mexicans versus Puerto Ricans	19.8	32.4	14.2	11.3
Mexicans versus Cubans	29.8	44.8	19.8	16.4
Mexicans versus Dominicans	NA	NA	25.8	20.2
Mexicans versus Salvadorans	NA	NA	15.6	11.7
Puerto Ricans				
Puerto Ricans versus Mexicans	19.8	32.4	14.2	11.3
Puerto Ricans versus Cubans	25.7	42.2	16.6	12.8
Puerto Ricans versus Dominicans	NA	NA	14.0	11.9
Puerto Ricans versus Salvadorans	NA	NA	25.1	20.2
Cubans				
Cubans versus Mexicans	29.8	44.8	19.8	16.4
Cubans versus Puerto Ricans	25.7	42.2	16.6	12.8
Cubans versus Dominicans	NA	NA	28.9	23.1
Cubans versus Salvadorans	NA	NA	33.4	27.8
Dominicans				
Dominicans versus Mexicans	NA	NA	25.8	20.2
Dominicans versus Puerto Ricans	NA	NA	14.0	11.9
Dominicans versus Cubans	NA	NA	28.9	23.1
Dominicans versus Salvadorans	NA	NA	34.5	26.1
Salvadorans				
Salvadorans versus Mexicans	NA	NA	15.6	11.7
Salvadorans versus Puerto Ricans	NA	NA	25.1	20.2
Salvadorans versus Cubans	NA	NA	33.4	27.8
Salvadorans versus Dominicans	NA	NA	34.5	26.1

Source: U.S. Census Bureau, 1980, 1990, 2000, 2010 Census.

Notes: NA=not available. Individual group calculations include only metropolitan areas (MAs) with at least 1,000 of the relevant group. Index for each MA weighted by the subgroup population in that MA.

Table A-4: Residential segregation of Asians alone and Asian groups alone, measured using the Theil index: 1980–2010

Detailed Asian Group	Theil index			
	1980	1990	2000	2010
Asians vs. Non-Hispanic Whites				
All Asians	16.2	17.1	18.9	19.1
Chinese	23.4	23.3	25.4	25.5
Asian Indians	13.2	15.0	17.8	20.5
Filipinos	22.2	21.4	22.1	20.1
Vietnamese	21.7	23.7	28.0	27.5
Koreans	14.6	17.1	19.6	20.2
Japanese	18.2	15.2	14.6	13.9
Asians vs. Non-Hispanic Blacks				
All Asians	44.3	38.6	36.9	33.9
Chinese	52.0	48.6	49.0	46.1
Asian Indians	45.9	40.1	39.9	39.8
Filipinos	40.2	35.0	31.9	27.4
Vietnamese	43.4	36.1	34.8	32.5
Koreans	46.7	44.6	44.5	43.2
Japanese	45.6	44.6	39.4	35.1
Asian groups vs. all other Asians				
Chinese	20.0	18.1	18.8	18.1
Asian Indians	16.7	14.2	14.7	15.9
Filipinos	23.3	19.4	19.2	17.3
Vietnamese	26.7	21.1	23.7	22.1
Koreans	15.7	16.0	17.5	17.4
Japanese	14.7	15.3	15.5	14.3
Specific Asian groups vs. other groups				
Chinese				
versus Asian Indians	26.0	22.7	21.3	21.3
versus Filipinos	33.0	29.2	30.1	28.9
versus Vietnamese	33.1	29.4	31.3	28.8
versus Koreans	25.0	23.2	22.9	21.4
versus Japanese	24.6	24.5	23.2	20.9
Asian Indians				
versus Chinese	26.0	22.7	21.3	21.3
versus Filipinos	22.0	19.0	19.2	21.3
versus Vietnamese	14.3	17.3	22.6	25.1
versus Koreans	24.0	22.9	22.3	22.2
versus Japanese	31.3	31.7	27.3	24.4
Filipinos				
versus Chinese	33.0	29.2	30.1	28.9
versus Asian Indians	22.0	19.0	19.2	21.3
versus Vietnamese	37.8	29.9	28.6	25.4
versus Koreans	25.8	24.7	27.4	28.2
versus Japanese	27.9	27.9	29.1	27.2
Vietnamese				
versus Chinese	33.1	29.4	31.3	28.8
versus Asian Indians	14.3	17.3	22.6	25.1
versus Filipinos	37.8	29.9	28.6	25.4
versus Koreans	37.9	37.5	40.7	38.8
versus Japanese	52.3	46.4	43.1	36.6

Table A-4: (Continued)

Detailed Asian Group	Theil index			
	1980	1990	2000	2010
Koreans				
versus Chinese	25.0	23.2	22.9	21.4
versus Asian Indians	24.0	22.9	22.3	22.2
versus Filipinos	25.8	24.7	27.4	28.2
versus Vietnamese	37.9	37.5	40.7	38.8
versus Japanese	15.2	17.2	17.7	16.7
Japanese				
versus Chinese	24.6	24.5	23.2	20.9
versus Asian Indians	31.3	31.7	27.3	24.4
versus Filipinos	27.9	27.9	29.1	27.2
versus Vietnamese	52.3	46.4	43.1	36.6
versus Koreans	15.2	17.2	17.7	16.7

Source: U.S. Census Bureau, 1980, 1990, 2000, 2010 Census.

Notes: Individual group calculations include only metropolitan areas (MAs) with at least 1,000 of the relevant group. Index for each MA weighted by the subgroup population in that MA.