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# Global Neighborhoods: New Evidence from Census 2010

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November 2011

## Report Abstract

A process of increasing neighborhood diversity that was first identified after the 2000 Census has continued in the last decade. In America's most multi-ethnic metropolitan regions about half of residents now live in global neighborhoods – community areas where whites, blacks, Hispanics and Asians are all represented in substantial numbers, more than twice as many as in 1980. The emergence of this kind of neighborhood contributes lowering the residential segregation of minorities. But progress is limited by the persistence of large all-minority areas, the reluctance of whites to move into majority-minority neighborhoods, and white flight from some diverse neighborhoods.

## Key findings:

1. The growing diversity in the nation's 20 most multiethnic metropolitan regions during 1980-2010 is spawning new neighborhoods with representation of all major racial and ethnic groups – global neighborhoods.
2. Half of the white population of these metros lives in such neighborhoods, up from just over 20 percent in 1980, while only 3 percent of whites live in the remaining white-dominant neighborhoods.
3. The global neighborhood phenomenon upsets what once seemed a nearly inevitable process in which black entry into a white neighborhood led within a few years to white abandonment of the neighborhood. 60 percent of global neighborhoods existing in 1980 still have substantial white populations, suggesting that stable integration is possible.
4. Hispanics and Asians seem to pave the way for blacks to enter diverse neighborhoods. In a large majority of cases, white neighborhoods add Hispanic and Asian residents in one step, then African Americans at a later time.
5. Nevertheless all-minority neighborhoods also persist in these same metros, explaining why the expansion of global neighborhoods hasn't more strongly reduced segregation. About half the black population and 40 percent of Hispanics still live in neighborhoods without a white presence. Despite reports of white gentrification in some places, it is rare for an all-minority neighborhood in one decade to include more than a token white population in the next decade.

For decades the high segregation between whites and blacks in American urban areas has been reinforced by a process of invasion and succession. Blacks could only gain access to previously white neighborhoods where the housing stock was aging and middle-class people and families with children were leaving. Black “invasion” would be followed by continued racial change, leading finally to a predominantly black composition that scholars refer to as “succession.”

This pattern has not been erased, but we have shown (Logan and Zhang 2010) that it is being counterbalanced by a new pattern that was triggered by the arrival of large numbers of Hispanic and Asian immigrants. The new population diversity is reflected in the phenomenon of “global neighborhoods” – neighborhoods where the simple place categories of predominantly white, predominantly black, or racially mixed are no longer adequate.

The most important new category is where all four major racial/ethnic groups (whites, blacks, Hispanics, and Asians) are included. We observe a rapid growth of such neighborhoods, whose creation and persistence are fundamentally at variance with the invasion-succession model. These are not temporarily integrated places, diverse only as long as it takes for whites to abandon them. Nor do they arise out of processes of aging, disinvestment and deprivation. We have found that stable diversity is possible and that it can occur in average or even better than average neighborhoods, **if and only if** black entry is preceded by a substantial presence of both

Hispanic and Asian residents. Global neighborhoods do not erase racial boundaries, but they introduce new dynamics that need to be taken into account by urban theory.

## White flight and multiethnic buffers

The theoretical model of invasion-succession was based on decades of observation of white flight from places where blacks had gained a foothold. A handful of studies have emphasized other aspects of neighborhood racial change. One study of the 1970-1980 decade (Denton and Massey 1991) suggested that neighborhood diversity was increasing by showing that the prevalence of white tracts was declining nationally in that period, while the share of tracts with combinations of two or three minority groups (tracts including blacks, Hispanic, and/or Asians – though not necessarily whites) was growing. Other sociologists have suspected that the presence of Hispanic and Asian neighbors provides a protection against white flight, or in the terminology of Farley and Frey (1994), a “buffer.” Buffering is shorthand for the argument that the movement of “more fully assimilated second and third generations of Latinos and Asians to higher-status, more integrated communities” provides “a push that should lead to greater integration of blacks both with more fully assimilated minority members and with whites” (Frey and Farley 1996, p. 42).

Certainly whites are less segregated from Hispanics and Asians than they are from blacks. It would not be surprising, then, if “more fully assimilated second and third generations” of Hispanics and Asians became the initial integrators of white neighborhoods. The buffer hypothesis goes a step further: to posit that whites would remain in these places if blacks also entered. Why would they remain? The term “buffer” may imply that Hispanics and Asians live in an intermediate zone between whites and blacks within the same census tract (reducing their geographic proximity). Or it may refer to a social buffer, not a geographic one, where the presence of other groups reduces the salience of black neighbors to whites even when they live on the same block.

## Pathways of neighborhood change

Our previous research examined racial change at the neighborhood level in the period 1980-2000. Here we move forward to 2010 using the most recent population census data. Our approach is to classify local areas based on the distribution of residents by race and Hispanic origin and evaluate the distribution of neighborhoods across these types over time, showing the overall rise and fall of each category. We then trace the evolution over time of each type of neighborhood. As we shall show, when diversity is reduced it is most often the result of white exodus from racially mixed neighborhoods; when diversity is increased it is most often not by white entry but rather by introduction of a new minority group into a neighborhood where whites are already present.

We have made several decisions about method. One is the choice of metropolitan regions to include in the study, based on the racial/ethnic composition of their populations during 1980-2000. (We omit two very diverse metropolitan regions [Washington and Miami] that

barely fall below the criteria that we set for inclusion in 1980 and that certainly would be included in a study of a more recent period.) Another is to decide how to classify neighborhoods. What are the exact criteria to determine, for example, how “white” is a white-dominant tract, and what representation of a group in a tract is enough to count the group as “present”? We follow the same procedures here as in our published work for 1980-2000; details on sampling and classification criteria are reviewed in the Appendix. Metropolitan regions are defined in all years based on their 2010 boundaries, and data for individual census tracts have also been adjusted to 2010 tract boundaries.

Our exploration of the data begins with documentation of trends over time in the relative frequency of different types of neighborhoods and in the proportion of group members who live in each type. Here we demonstrate the disappearance of white neighborhoods, the rapid growth of the most diverse four-group neighborhood, and the persistence of various types of minority neighborhoods.

The next step is to examine the evolution of neighborhoods over time. Following the lead of prior studies, this is done through construction of a transition matrix for the three-decade period 1980-2010. For every tract in 2010 the transition matrix reveals the category that the tract fell into 30 years before. It shows that some pathways of change and some kinds of persistence are remarkably common, while others are rarely found.

Finally we compare the 20 metropolitan regions that are included in this analysis, showing how their neighborhoods have changed since 1980. We focus on two categories of neighborhoods, the most diverse (global neighborhoods) and the most segregated (all-minority neighborhoods). Although similar patterns of neighborhood change are found in all 20 regions, there is much variation in the relative balance of global and all-minority neighborhoods.

## Shifts in the distribution of neighborhood types

We begin with a simple comparison of the distribution of neighborhoods among the categories of composition between 1980 and 2010. Here we have combined neighborhoods in all 20 multiethnic metros to provide a national picture. Neighborhood types are designated with letters, where W means there is a non-Hispanic white presence, B refers to non-Hispanic blacks, H to Hispanics, and A to Asians. The numbers shown in this table necessarily depend on what cutting points were used to define each neighborhood type. Most important is how their prevalence shifted over time.

The number and growth of what we call global neighborhoods – those where whites, blacks, Hispanics and Asians are all well represented (WBHA) – is striking. In 2010 we find 38.2% of the total population of these metros lives in such neighborhoods, up from only 22.5% in 1980. Another common category, the WHA neighborhood, has tended to decline over time (from 28.6% to 15.2% of residents). As we show below this is because so many of them added enough black population to be reclassified as global neighborhoods. At the same time, the share of residents in white neighborhoods has dropped substantially. But on the other hand we see an increase in types of neighborhoods where whites are missing. These include especially black-

Hispanic, black-Hispanic-Asian, Hispanic-Asian, and Hispanic-dominant neighborhoods. None of these types by itself is nearly as prevalent as global neighborhoods, but taken together they house about a quarter of the population.

**Table 1. Number and share of each type of neighborhood in 20 multiethnic metros, 1980-2010**

	Number of tracts of each type				% of metro population in each type			
	1980	1990	2000	2010	1980	1990	2000	2010
<b>A</b>	0	0	2	6	0.0%	0.0%	0.0%	0.0%
<b>H</b>	54	113	219	336	0.4%	0.8%	1.6%	2.5%
<b>HA</b>	116	282	360	374	0.9%	2.1%	2.7%	2.8%
<b>B</b>	417	445	442	398	3.1%	3.3%	3.3%	3.0%
<b>BA</b>	57	44	64	29	0.4%	0.3%	0.5%	0.2%
<b>BH</b>	632	741	917	1,183	4.7%	5.6%	6.9%	8.9%
<b>BHA</b>	487	684	869	912	3.7%	5.1%	6.5%	6.8%
<b>W</b>	1,030	705	412	217	7.7%	5.3%	3.1%	1.6%
<b>WA</b>	1,194	1044	1147	952	9.0%	7.8%	8.6%	7.2%
<b>WH</b>	1,300	947	677	576	9.8%	7.1%	5.1%	4.3%
<b>WHA</b>	3,802	3010	2389	2,027	28.6%	22.6%	17.9%	15.2%
<b>WB</b>	193	143	113	77	1.4%	1.1%	0.8%	0.6%
<b>WBA</b>	311	333	361	300	2.3%	2.5%	2.7%	2.3%
<b>WBH</b>	723	807	743	842	5.4%	6.1%	5.6%	6.3%
<b>WBHA</b>	2,998	4016	4599	5,085	22.5%	30.2%	34.5%	38.2%

Table 2 demonstrates that every racial/ethnic group has participated in these changes. (For simplicity the table shows data only for 1980 and 2010, it omits values less than 1%, and it does not include Native Americans and other races). The share of the white population found in global neighborhoods increased the most, more than doubling to 43.6%. Few whites (3.3%) live in white neighborhoods. Asians are the most likely to live in global neighborhoods (49.9%), but even in 1980 they were already especially concentrated in such places. The global neighborhoods' share of blacks grew from 19.4% to 35.4% and of Hispanics from 25.3% to 36.3%.

The share of African Americans living in black-dominant neighborhoods was cut in half in this period, but about half of blacks still live in all-minority neighborhoods, now mostly in combination with Hispanics or Hispanics and Asians. The share of Hispanics and Asians who lived in all-minority neighborhoods actually grew. So we find an odd juxtaposition of two trends, one toward greater diversity but another toward persistence or growth of all-minority areas.

**Table 2. Distribution of population across neighborhood types, by race/ethnicity, in 1980 and 2010 (empty cells are <1%)**

	1980				2010			
	Non-Hispanic white	Non-Hispanic black	Hispanic	Asian	Non-Hispanic white	Non-Hispanic black	Hispanic	Asian
<b>A</b>	-	-	-	-	-	-	-	-
<b>H</b>	-	-	2.7%	-	-	-	7.6%	-
<b>HA</b>	-	-	5.5%	3.0%	-	-	5.7%	7.0%
<b>B</b>	-	25.5%	-	-	-	12.8%	-	-
<b>BA</b>	-	2.8%	-	-	-	-	-	-
<b>BH</b>	-	22.9%	10.1%	-	-	24.5%	14.2%	-
<b>BHA</b>	-	15.4%	9.5%	6.7%	1.0%	12.4%	10.9%	9.6%
<b>W</b>	9.7%	-	-	-	3.3%	-	-	-
<b>WA</b>	15.2%	-	1.3%	8.4%	13.7%	-	1.2%	8.0%
<b>WH</b>	10.0%	-	7.9%	-	6.3%	-	4.5%	-
<b>WHA</b>	33.4%	1.9%	30.0%	38.2%	20.0%	1.9%	10.7%	18.8%
<b>WB</b>	1.5%	1.8%	-	-	-	1.3%	-	-
<b>WBA</b>	3.2%	1.9%	-	2.1%	3.4%	1.6%	-	3.2%
<b>WBH</b>	4.3%	7.3%	6.3%	-	6.6%	7.8%	8.0%	-
<b>WBHA</b>	21.4%	19.4%	25.3%	38.5%	43.6%	35.4%	36.3%	49.9%

## Transitions

We turn now to a more detailed examination of change over 30 years at the tract level. Our purpose is to understand the origins of the neighborhoods that we observe today. Closer examination of shifts across time reveals that some pathways of change are very common, while others occur rarely. Results are presented in Table 3 in the form of a 15x15 transition matrix. Tracts along the x axis are categorized by their composition in 2010; their 1980 composition is shown on the y axis. Cell entries are the number of tracts. We have also examined the separate 1980-1990, 1990-2000, and 2000-2010 transition matrices and found a smaller volume of change but in similar directions in every decade.

**Table 3. Transition matrix for tract racial/ethnic composition, 1980-2010**

2010 Types																
1980 Types	A	H	HA	B	BA	BH	BHA	W	WA	WH	WHA	WB	WBA	WBH	WBHA	1980 total
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H	0	38	1	0	1	2	0	0	0	2	2	0	0	3	5	54
HA	1	54	35	0	0	5	13	0	0	0	4	0	0	0	4	116
B	0	0	0	238	6	116	27	0	0	0	0	3	6	2	19	417
BA	0	0	0	17	3	7	10	0	0	0	0	0	7	2	11	57
BH	0	8	1	50	0	417	85	0	2	0	0	2	4	11	52	632
BHA	0	6	21	23	5	192	168	0	0	0	2	2	0	9	59	487
W	0	1	0	9	3	6	4	125	197	124	176	14	20	75	276	1,030
WA	0	0	0	5	4	2	4	35	407	32	288	5	76	17	319	1,194
WH	0	78	12	1	2	40	17	29	54	228	262	2	6	169	400	1,300
WHA	2	116	235	3	0	43	89	12	210	148	1,161	1	18	116	1,648	3,802
WB	0	0	0	7	0	7	3	4	9	5	3	21	16	48	70	193
WBA	0	0	0	6	1	8	2	5	20	1	2	15	76	33	142	311
WBH	0	9	2	20	0	150	50	4	5	23	13	6	9	204	228	723
WBHA	3	26	67	19	4	188	440	3	48	13	114	6	62	153	1,852	2,998
2010 total	6	336	374	398	29	1,183	912	217	952	576	2,027	77	300	842	5,085	13,314

## Changes in tracts with a white presence

We begin with the lower right hand quadrant of Table 3: tracts that had a white presence in both 1980 and 2000. The single most notable change is increasing diversity of tract composition where whites are present. As already noted, there has been a substantial decline in the share of white tracts. There were 1030 of them in 1980 and (reading across the row) we see that only 125 of these remained white-only in 2010. The largest number of them became global neighborhoods, though many simply added Asians and/or Hispanics.

The largest increase in tracts with a white presence was for WBHA tracts, which rose from 2998 to 5085. This repeats what was already shown in Table 2. What is new is information about the trajectories leading to this outcome. The rise in WBHA tracts is mainly due to the stability of tracts that already contained all groups in 1980 and to the entry of blacks into tracts that previously contained only whites, Hispanics, and Asians. About a third of tracts that were WBHA by 2010 had been WHA in 1980. Hence the main pathway toward the most diverse racial composition is through the intermediate step of having all groups except blacks. Table 3 also demonstrates that it is rare for blacks to enter a tract with an existing white presence except when both Hispanics and Asians were already in place at the previous time point. Specifically, of 1030 white-only tracts in 1980, only 14 were WB in 2010. The implication is that the all-group tract is the main route to black-white integration.

Another important finding here is the stability of global neighborhoods, especially considering that historically it has been rare to find examples of stable integration between whites and blacks. Of 2998 WBHA tracts in 1980, over 60% (1852) remained in the same category by 2010. Nevertheless there may have been white flight from these areas. Nearly one in four WBHA tracts lost white presence by 2010. A smaller number retained whites but lost one or more minority groups. These departures limit the contribution of WBHA tracts to black-white integration.

Of more concern for the future, the stock of WHA tracts is diminishing. WHA tracts were positioned in 1980 to contribute heavily to creation of all-group tracts because at that time they were the most numerous type. But the number of newly minted WHA tracts created from tracts that had been White, White-Asian, or White-Hispanic in 1980 is not keeping up with the number of transitions from WHA to another type. Hence the potential for continued creation of the most diverse neighborhoods – while still considerable – is more limited today than it was in 1980.

## Changes in tracts with no white presence

We now turn to the situation of all-minority tracts. These, too, are increasing in number, a rise of more than 80% (from 1763 in 1980 to 3238 in 2010). Nearly half (1550) of all-minority tracts in 2010 were already all-minority in 1980 (these are tracts in the upper left quadrant). But more than half resulted from white exit. For example 399 tracts

that were WBHA in 1980 lost their white presence by 2010, the largest share becoming BHA.

White decline is especially important because it appears to be a one-way street. Standing out for its absence is a type of change that involves whites moving into minority areas. For example, almost no WHA tracts in 2010 had previously been Hispanic, Asian, or mixed HA, although in principle the addition of whites to such neighborhoods could have been a contributor. In fact there are very few cases of any type in which whites were not present in 1980 but had entered by 2010 (this is the upper right quadrant that contains only 213 tracts). This finding provides a strong counterpoint to the rapid growth in the number of WBHA neighborhoods, and it is reminiscent of a key feature of the classic black-white scenario. Invasion and succession in that model were understood to operate principally in one direction; once tracts became predominantly black, it was assumed that a new stable equilibrium had been reached. All-minority tracts are now in the same position of having very little likelihood of future white presence.

Black-only tracts are a significant category. Their number has remained steady over time because a roughly equal number of black tracts add Hispanics or Asians vs. those that become black-only due to the loss of other groups. Hispanic-only tracts, by contrast, have increased. The main source of new Hispanic tracts is the loss of whites and Asians from formerly WH or WHA or HA tracts. Hispanic-Asian tracts have grown in number for a similar reason, mainly from the loss of whites in WHA tracts. And black-Hispanic tracts have also increased, partly from the addition of Hispanics to formerly black tracts, but more often from the loss of whites and/or Asians from formerly more diverse areas.

## Comparisons across metropolitan regions

The 20 metropolitan regions studied here have much in common in terms of the growing diversity of their populations. In all of them we see the rise of global neighborhoods and the persistence of all-minority neighborhoods. These are the two specific features that we present in detail in this section.

First, Table 4 documents the overall numbers of tracts and share of the population in each of these categories in 2010. In this and subsequent tables, metros are listed in order of the share of population in global neighborhoods. Vallejo-Fairfield, CA, heads the list – nearly 90% of the population and 90% of census tracts are classified in global neighborhoods, and less than 5% are in all-minority areas. Las Vegas is the much larger metropolis that has a similar profile. At the other extreme are seven metros where less than 40% of the population is in global neighborhoods. The cases that stand out because they also have relatively high shares of residents in all-minority neighborhoods are (reading from the bottom of the table) Chicago, Newark, New York, Los Angeles, and Bakersfield.

**Table 4. Share of all census tracts and total population in all-minority and global neighborhoods, 2010**

Metropolitan region	Total population	% All-minority	% Global	Total tracts	% All-minority	% Global
Vallejo-Fairfield, CA	413,344	3.6%	88.8%	96	3.1%	89.6%
Las Vegas-Paradise, NV	1,951,269	5.2%	86.6%	487	5.3%	83.8%
Colorado Springs, CO	645,613	0.0%	65.4%	136	0.0%	61.0%
Stockton, CA	685,306	11.4%	61.6%	139	12.9%	56.1%
Oakland-Fremont-Hayward, CA	2,559,296	12.5%	60.9%	567	13.1%	60.3%
Riverside-San Bernardino-Ontario, CA	4,224,851	14.3%	57.8%	821	13.5%	52.9%
Sacramento--Arden-Arcade--Roseville, CA	2,149,127	3.0%	55.0%	484	2.5%	53.5%
Hanford-Corcoran, CA	152,982	7.9%	52.2%	27	7.4%	48.1%
Fort Worth-Arlington, TX	2,136,022	6.7%	50.3%	415	8.9%	45.3%
Dallas-Plano-Irving, TX	4,235,751	13.8%	49.7%	898	13.9%	49.2%
Houston-Sugar Land-Baytown, TX	5,946,800	23.4%	46.6%	1,072	26.4%	40.8%
Gainesville, FL	264,275	1.6%	44.6%	61	1.6%	44.3%
College Station-Bryan, TX	228,660	7.4%	42.9%	51	5.9%	41.2%
Bakersfield-Delano, CA	839,631	22.9%	37.2%	151	19.9%	35.1%
Los Angeles-Long Beach-Glendale, CA	9,818,605	41.8%	35.4%	2,334	41.3%	35.2%
Trenton-Ewing, NJ	366,513	9.7%	31.2%	77	15.6%	27.3%
New York-White Plains-Wayne, NY-NJ	11,576,251	33.3%	30.2%	2,889	33.8%	29.2%
Newark-Union, NJ-PA	2,147,727	20.9%	28.3%	503	25.8%	26.0%
Denver-Aurora-Broomfield, CO	2,543,482	2.0%	26.9%	615	1.8%	26.2%
Chicago-Joliet-Naperville, IL	7,883,147	18.4%	25.9%	1,856	23.3%	23.0%

Table 5 shows the share of the non-Hispanic white population and Asians in these types of neighborhoods (listed from highest to lowest white share in global neighborhoods). This is a very similar ordering.

**Table 5. Share of white and Asian residents in all-minority and global neighborhoods, 2010**

Metropolitan region	Non-Hispanic white			Asian		
	Total population	% All-minority	% Global	Total population	% All-minority	% Global
Vallejo-Fairfield, CA	168,628	0.7%	89.6%	68,224	7.1%	91.4%
Las Vegas-Paradise, NV	935,955	1.0%	88.1%	193,064	1.0%	94.9%
Hanford-Corcoran, CA	53,879	1.8%	61.4%	6,691	1.8%	84.8%
Riverside-San Bernardino-Ontario, CA	1,546,666	3.1%	60.7%	284,806	5.4%	83.3%
Colorado Springs, CO	469,095	0.0%	60.2%	23,854	0.0%	75.1%
Stockton, CA	245,919	2.1%	58.8%	105,254	13.2%	77.7%
Oakland-Fremont-Hayward, CA	1,015,482	2.1%	55.4%	595,653	11.6%	62.0%
Houston-Sugar Land-Baytown, TX	2,360,472	3.4%	53.8%	413,255	17.1%	69.5%
Dallas-Plano-Irving, TX	2,002,177	1.7%	53.7%	275,235	3.7%	74.7%
Los Angeles-Long Beach-Glendale, CA	2,728,321	6.6%	52.1%	1,430,964	34.1%	37.1%
College Station-Bryan, TX	136,769	1.1%	47.4%	11,153	0.2%	84.4%
Fort Worth-Arlington, TX	1,199,500	0.8%	46.9%	95,416	1.6%	77.8%
Sacramento--Arden-Arcade--Roseville, CA	1,197,389	0.5%	45.6%	287,512	7.2%	68.2%
Bakersfield-Delano, CA	323,794	3.8%	41.0%	38,033	20.6%	56.6%
Gainesville, FL	172,348	0.1%	40.9%	14,948	0.1%	70.3%
New York-White Plains-Wayne, NY-NJ	4,542,553	3.7%	34.8%	1,426,407	25.4%	31.8%
Trenton-Ewing, NJ	199,909	0.8%	30.5%	34,942	0.5%	29.0%
Chicago-Joliet-Naperville, IL	4,156,207	1.3%	26.9%	520,440	3.1%	44.3%
Newark-Union, NJ-PA	1,165,680	1.6%	26.0%	122,317	3.7%	41.1%
Denver-Aurora-Broomfield, CO	1,673,709	0.3%	22.8%	110,436	1.2%	38.1%

Finally Table 6 shows the shares of black and Hispanic residents across these neighborhood types. The overall ranking of metros in terms of the group percentage in global neighborhoods is fairly similar to the patterns seen in prior tables. In a few cases (notably Gainesville, Newark and Chicago) a larger share of Hispanics are in global neighborhoods, whereas in some others the black share in global neighborhoods is higher. The important new message in this table is found in the shares of group members in all-minority neighborhoods. For blacks, the share in all-minority neighborhoods runs as high as 71.4% (New York), 64.4% (Newark), 61.7% (Chicago), and 59.5% (Los Angeles). For Hispanics comparably high shares in all-minority neighborhoods are found in Los Angeles (61.5%) and New York (51.2%), and to a lesser degree in some areas with very large Hispanic populations (such as Bakersfield and Houston). These are metropolitan regions where segregation of blacks and Hispanics from non-Hispanic whites is quite high despite the multi-ethnic character of the population. In these metros, although the general movement toward more diverse neighborhoods and the specific pathway from white to WHA to global neighborhoods are also apparent, the trends are considerably less striking.

**Table 6. Share of black and Hispanic residents in all-minority and global neighborhoods, 2010**

Metropolitan region	Non-Hispanic black			Hispanic		
	Total population	% All-minority	% Global	Total population	% All-minority	% Global
Las Vegas-Paradise, NV	218,472	8.9%	87.7%	568,644	12.3%	80.7%
Vallejo-Fairfield, CA	66,974	6.4%	87.7%	99,356	4.2%	86.7%
Colorado Springs, CO	45,240	0.0%	86.1%	94,959	0.0%	78.1%
Sacramento--Arden-Arcade--Roseville, CA	178,555	7.8%	81.7%	433,734	4.7%	60.7%
Stockton, CA	55,221	17.7%	75.9%	266,341	18.3%	54.6%
Riverside-San Bernardino-Ontario, CA	336,899	14.6%	69.8%	1,996,402	24.3%	49.7%
Oakland-Fremont-Hayward, CA	307,671	26.5%	68.2%	595,449	23.9%	64.9%
Fort Worth-Arlington, TX	283,209	15.4%	65.5%	532,818	16.6%	45.0%
Denver-Aurora-Broomfield, CO	156,290	6.9%	62.4%	571,131	5.8%	26.8%
Bakersfield-Delano, CA	50,398	20.2%	50.6%	413,033	38.7%	30.8%
Hanford-Corcoran, CA	11,431	1.0%	46.7%	77,866	14.0%	44.1%
Gainesville, FL	52,797	7.6%	42.4%	21,597	0.4%	62.0%
Dallas-Plano-Irving, TX	699,359	31.5%	41.2%	1,219,348	25.9%	42.2%
Houston-Sugar Land-Baytown, TX	1,029,799	46.2%	40.3%	2,099,412	36.3%	36.9%
Los Angeles-Long Beach-Glendale, CA	876,369	59.5%	33.8%	4,687,889	61.5%	25.3%
Trenton-Ewing, NJ	74,429	35.1%	29.1%	55,318	13.3%	37.8%
College Station-Bryan, TX	27,496	17.5%	27.4%	51,561	20.6%	29.9%
Newark-Union, NJ-PA	457,619	64.4%	23.4%	383,815	33.2%	37.1%
New York-White Plains-Wayne, NY-NJ	2,288,180	71.4%	22.4%	3,202,363	51.2%	28.5%
Chicago-Joliet-Naperville, IL	1,470,945	61.7%	15.4%	1,698,365	27.8%	26.9%

## Conclusion

In certain parts of the country – in metropolitan regions that are home to over 60 million Americans – large-scale immigration is creating a context of global neighborhoods where the traditional black-white color line is replaced by a more complex array of whites, blacks, Hispanics, and Asians. Our research question is how this influx affects long established patterns of residential segregation and processes of neighborhood racial change.

Other scholars have grappled with this question. Several prior studies unsuccessfully sought a direct connection between the ethnic diversity of the metropolitan population and the level of black-white segregation. The approach taken here is to identify categories of neighborhoods and observe how they change. This approach corresponds better than simpler summary measures to the conceptual question of what groups are found together.

Critical to dealing with such questions is our finding that invasion-succession and some aspects of ethnic buffering coexist. We find contradictory patterns of change that both reduce and reproduce segregation. From the perspective of intergroup exposure, the good news is a powerful trend toward representation of all four main racial/ethnic groups in highly diverse neighborhoods, neighborhoods that come close to mirroring the composition of these diverse metropolitan areas as a whole. Blacks often enter diverse neighborhoods when the way has been prepared by the presence of Hispanics and Asians.

What is more, in a considerable number of census tracts this form of diversity has endured across three decades while it continues to emerge in others. For the often asked question of whether stable integration is possible, the experience of global neighborhoods suggests that a route exists. In this way our findings offer the first strong empirical support for the conjecture that immigration diminishes the color line in the metropolis. The all-white neighborhood has become a relic of the past and most whites (and most Asians, as well as many Hispanics and blacks) live in neighborhoods with high levels of diversity.

At the same time there is continuing white flight, even from neighborhoods where Hispanics and Asians are available as a social buffer between whites and blacks. Most important, the large expanses of metropolitan space that became all-minority neighborhoods during the 20<sup>th</sup> century are not attracting white residents. To be sure there remains considerable racial heterogeneity in such areas, but it is mainly expressed in new relationships between blacks, Hispanics, and – to a lesser extent – Asians. Blacks in particular continue to have a heavy concentration in these locales. Hence the new diversity turns out to be consistent with sustained high levels of segregation, especially between blacks and whites.

This is a sobering conclusion from a policy perspective because it implies that there is no route to a fully integrated metropolis. Because white flight continues to create new all-minority neighborhoods and because the minority zones seem to be durable, a growing share of metropolitan space has little future prospect of white entry. New York and Los Angeles represent cases where global neighborhoods have had the least impact on black and Hispanic populations. One could imagine that at some point the demand for locations with good access to central business districts may begin to pull white households back into the all-minority zone. Parts of the South Bronx have been described as an example where once-minority, now-vacant space can become desirable for redevelopment; gentrification has occurred on the fringes of Harlem. But this rarely happened during 1980-2010, and there are obstacles to its occurrence on a large scale. Most important, this is the space that offers the least opportunities for residents (e.g., it has the highest levels of concentrated poverty and the other social and health conditions associated with inner city poverty, regardless of whether they are actually located in the urban core). Despite the popularity of accounts of widespread urban gentrification there is no process currently underway that is likely to bring whites into such neighborhoods.

If the all-minority neighborhood is so persistent in urban America, more attention needs to be given to the quality of life in this zone. Again, speaking from a policy perspective, it is disturbing to acquiesce to a situation of both separate and unequal. And if there is to be any hope for future integrated neighborhoods in this large slice of the metropolis, these communities must achieve some minimum standard of livability. We do not know for sure why white entry into minority neighborhoods is such a rare occurrence. But almost certainly, the quality of life, opportunities, and public services in these neighborhoods are currently a deterrent to whites.

We have not studied less diverse metropolitan regions, such as those where the minority populations are mainly black (as is still the case in much of the Midwest and South) or mainly Hispanic (in much of the Sunbelt). We suspect that there are different dynamics when all four major racial/ethnic groups are not found together in large numbers. We also hesitate to extrapolate from the transitions found in the last three decades to those that will occur in the future. We do not foresee a return to the form of segregation typified by white-only neighborhoods, because there are now well established processes for minority entry. But a scenario that has already emerged in the metropolitan regions studied here is a new type of polarization: not simply between blacks and whites, but between a zone of increasing diversity and a minority zone where whites are unlikely ever to venture.

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## Appendix on Research Methods

This study relies on tract-level data from the Census of Population in each decade. Census tracts are geographic areas that typically have a population between 2,500 and 8,000. Although designed to be relatively permanent, geographic boundaries of census tracts do change over time. Across censuses, tracts can be merged, split, or otherwise reconfigured; this poses a challenge to the comparability of tract geography over time. We use data files in which population counts have been adjusted to constant 2010 boundaries. The Neighborhood Change Database (NCDB) provides 1980 through 2000 long-form census variables normalized to the 2000 census tract boundary. We have completed our own adjustment of these data to the 2010 boundaries (see [www.s4.brown.edu/us2010](http://www.s4.brown.edu/us2010)).

Consistent with the prior literature, we study four groups in this paper: non-Hispanic whites, non-Hispanic blacks, Hispanics and Asians. For 1980 and 1990, when respondents could choose only one racial group, the combined use of race and Hispanic origin variables allows unequivocal categorization of these groups. The categorization became more complicated for 2000 and 2010, when respondents were allowed to select one or more of six racial categories. NCDB adopted “racial bridging” rules to create categories comparable to prior censuses by assigning multiracial groups to single race groups, and we applied that same rule to 2010 data.

### Identifying diverse metropolitan areas

The new diversity spawned by immigration is not uniform across the country, and our findings here may not (and we suspect do not) apply to the rest of the country. To test the impact of growing Hispanic and Asian populations we need to focus on those metropolitan areas where all groups are well represented. But what level of diversity is enough to merit a closer look? We have used criteria that would 1) establish that there is a significant presence of whites and all three minority groups, but 2) not disqualify a region if one of the three minority groups fell modestly short. We have selected 20 metropolitan regions where in 1980, 1990, 2000, and 2010 at least two minority groups were present at or above their average national level, and the third group was present at or above one-half of their average national level. Appendix Table 1 lists the average values for all metro areas and the threshold values used in this study. These shifted over the decades, beginning quite low for Asians (1.1% in 1980, meaning only 0.55% was the absolute minimum presence for that year for a metropolis to be included in our sample). The analysis includes only metropolitan regions that met these criteria in every decade. Arguments could be made for studying more metropolitan regions or less; we view our criteria as a starting point for future studies.

**Appendix Table 1. National metro population shares and selection criteria by group for 1980-2010**

	1980	1990	2000	2010
Non-Hispanic white	82.6	80.2	75.6	71.0
Non-Hispanic black	9.7	9.7	10.6	11.4
Hispanic	5.8	6.6	9.4	12.6
Asian	1.2	1.8	2.8	3.4
<b>Minimum selection criteria:</b>				
Non-Hispanic black	4.9	4.9	5.3	5.7
Hispanic	2.9	3.3	4.7	6.3
Asian	0.6	0.9	1.4	1.7

These selection criteria identify a set of metropolitan regions that clearly stand out from the U.S. average. Appendix Table 2 shows the aggregate population of these areas in each year. In 2010 these metros were less than half non-Hispanic white (48.3%), 12.9% non-Hispanic black, 28.5% Hispanic, and 9.0% Asian. The selection includes many of the largest metropolises: New York (plus Newark and Trenton), Chicago, and Los Angeles. The West and Southwest are well represented, especially California (Sacramento, Bakersfield, Oakland, Riverside, Hanford-Corcoran, Stockton, and Vallejo) and Texas (Dallas, Fort Worth, Houston, and College Station). Others, more regionally isolated, include Gainesville, Denver, Colorado Springs, and Las Vegas.

**Appendix Table 2. Group shares in sampled metropolitan regions, 1980-2010**

	1980	1990	2000	2010
<b>Non-Hispanic white</b>	72.1	65.7	56.6	48.3
<b>Non-Hispanic black</b>	11.9	12.3	12.8	12.9
<b>Hispanic</b>	12.5	16.2	22.8	28.5
<b>Asian</b>	2.9	5.2	7.5	9.0
<b>Classification criteria for group presence:</b>				
<b>Non-Hispanic white</b>	18.0	16.4	14.1	12.1
<b>Non-Hispanic black</b>	3.0	3.1	3.2	3.2
<b>Hispanic</b>	3.1	4.1	5.7	7.1
<b>Asian</b>	0.7	1.3	1.9	2.2

## Classifying neighborhoods

The next methodological decision is how to classify census tracts within each metropolitan region in terms of the specific combination of groups that are present in them. Unlike Denton and Massey (1991) we are interested not only in the combinations of minority groups, but also in the variable presence of non-Hispanic whites. This brings to 15 the number of neighborhood types that we will need to track. They could have a single dominant group (white, black, Hispanic or Asian). They could include any combination of two groups (white and black, black and Hispanic, etc.), or of three groups, or they could include all four groups. (For simplicity these types are referred to below with abbreviations that identify which groups are present. For example, “A” denotes an Asian-dominant tract and “WBHA” denotes a tract where all four groups are present.)

What should be the criteria for classifying tracts into these categories? Some previous studies of racial transitions used a fixed numerical threshold, 30 residents for the 1970-1980 decade (Denton and Massey 1991) or 100 residents for 1970-1990 (Alba et al 1995). One difficulty with a fixed number is that tract populations vary widely, and 30 group members are a stronger presence in a tract with 150 residents than in a tract with 7500 residents (these sizes are not typical but also not rare). Another difficulty is that any fixed number will be more difficult to attain for a small group (this would be Asians in most metropolitan regions) than for a large one and will represent a different degree of under- or over-representation. We choose to use a percentage criterion instead. Our criterion also takes into account the group’s share of the total population in the metropolitan areas that we study. We use as a reference point the percentage of each group in the overall population of the 20 metropolises in each year of the study. Allowing the reference point to shift over time responds to the rapid growth of Hispanic and Asian populations. If the same criterion were used throughout the period, the growth of these groups would necessarily result in a rising number of tracts where they are present even if there were no shift in their relative location across neighborhoods.

Even these choices leave open the question of how closely a group’s share of the tract population needs to approach the group’s share of the aggregate population to qualify as “present.” We have tested in the range of 10% to 50% of the aggregate share. We adopt the 25% criterion, and the corresponding values are shown in Appendix Table 2. We note that our approach means that Asian “presence” must meet a much lower threshold than non-Hispanic white “presence.” Is 2.25% a significant presence for Asians in 2010? In an average tract with 4500 residents, this would be 101 Asians – the same threshold used by Alba et al for all groups, and higher than used by Denton and Massey. On the other hand, if whites are slightly less than 12.1% of the population, are they really absent? Certainly there are whites living in the neighborhood. But when we consider that whites are nearly half the population in these 20 metros, 12% is a very considerable under-representation.

Fortunately the typical tract that we have classified as all-minority fits our intuitive sense of what we are seeking to measure. Appendix Table 3 presents the average racial/ethnic composition of each type in 2010. A single group was over 90% of residents of the average white, black, or Hispanic tract and 84% of the average Asian tract. Whites were under 10% (and in the case of black neighborhoods, under 2%) of the

population in all-minority categories. At the other extreme of diversity, the average “global neighborhood” (WBHA) was 45.8% white, 12.5% black, 28.3% Hispanic, and 12.1% Asian. These values are very close to the groups’ shares in the total population of these metropolitan regions.

**Appendix Table 3. Average shares of group members in each type of neighborhood in 2010**

	Non-Hispanic white	Non-Hispanic black	Hispanic	Asian
A	9.8	1.5	3.9	84.3
H	4.7	1.1	93.0	0.7
HA	6.1	1.3	66.6	25.5
B	1.9	94.0	3.3	0.4
BA	6.3	58.6	4.7	29.8
BH	3.7	41.7	53.2	0.8
BHA	6.6	26.3	51.3	14.1
W	92.3	1.0	4.6	1.4
WA	81.8	1.6	5.1	11.0
WH	62.4	1.6	33.4	1.2
WHA	60.1	1.9	23.9	13.1
WB	53.3	40.1	4.9	1.1
WBA	68.5	10.4	5.7	14.7
WBH	42.5	16.9	38.3	1.2
WBHA	45.8	12.5	28.3	12.1