

# Global Neighborhoods: Beyond the Multiethnic Metropolis

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Abstract Neighborhoods where blacks and whites live in integrated settings alongside Hispanics and Asians represent a new phenomenon in the United States. These "global neighborhoods" have previously been identified in the nation's most diverse metropolitan centers. This study examines the full range of metropolitan areas to ask whether similar processes are occurring in other parts of the country. Is there evidence of stable racial integration in places that lack such diversity? What are the paths of neighborhood change in areas with few Hispanic or Asian residents, or areas where Hispanics are the principal minority group, or where there is no large minority presence at all? We distinguish four types of metropolitan regions: white, white/black, white/Hispanic/Asian, and multiethnic. These regions necessarily differ greatly in neighborhood composition, but some similar trajectories of neighborhood change are found in all of them. The results provide new evidence of the effect of Hispanic and Asian presence on black-white segregation in all parts of the country.

 $\textbf{Keywords} \quad \textbf{Global neighborhoods} \cdot \textbf{Residential transition} \cdot \textbf{Segregation} \cdot \textbf{Immigrant} \\ \textbf{buffer} \cdot \textbf{Metropolitan America}$ 

#### Introduction

Stable residential integration between blacks and whites has historically been rare. It has been difficult even for blacks and whites of comparable socioeconomic status to

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share the same community (Denton and Massey 1988; Logan et al. 2004). The direction of neighborhood change through much of the twentieth century was predictable: "invasion" of black residents into a previously all-white neighborhood, leading to white flight and racial succession (Duncan and Duncan 1957; Guest and Zuiches 1971; Taeuber and Taeuber 1965).

There is now evidence of an alternative trend: the emergence of what we have called "global neighborhoods" (Logan and Zhang 2010). We identified a new common path of change by which a white neighborhood is first integrated with Hispanic and Asian newcomers, who are subsequently joined by blacks in a diverse community that has unprecedented stability. We linked this phenomenon to the rapid growth of the Hispanic and Asian populations in the last four decades, suggesting that it is the new multiethnicity of the American metropolis that creates opportunities for global neighborhoods. This view is consistent with the *buffer* hypothesis offered by Frey and Farley (1996), proposing that Hispanics and Asians provide an effective social cushion and/or spatial separation between blacks and whites in integrated communities. The buffer in some way absorbs tensions and fosters acceptance between groups, making it possible for blacks and whites to share a neighborhood despite racial barriers in the society at large.

A shortcoming in past research is that the global neighborhood phenomenon has been examined only in a narrow range of the most diverse metropolitan regions—places like New York and Miami, where large white and black populations now share space with substantial Hispanic and Asian groups. Evidently such areas have the greatest demographic potential for neighborhood diversity, but are there similar transitions occurring in other regions? Are there other pathways to global neighborhoods where blacks are the initial entrant into white neighborhoods, later followed by Hispanics and Asians? Alternatively, does the traditional invasion-succession model continue to predominate in other parts of the country? Can global neighborhoods spread outside the multiethnic metropolis?

Studying other kinds of metropolitan regions requires that we address two kinds of conceptual and measurement questions. The first is how to distinguish differences that are inherent to regions' demographic composition from those that reveal different processes of change. This distinction is crucial because there could be a demographic explanation of increasing neighborhood diversity in some parts of the country: where more minorities live, many neighborhoods will naturally become more diverse. The second question is what patterns of neighborhood change we might expect to find in less diverse metropolitan regions. In the following sections, we offer approaches to these two questions.

### A Demographic Explanation of Neighborhood Composition and Change

In metropolitan areas with rising shares of Hispanic and Asian residents and a relative decline in the white population—a typical situation in the last three decades—some

<sup>&</sup>lt;sup>1</sup> We also noted that global neighborhoods tend to evolve and stabilize in areas with higher than average income and education—areas whose amenities remain attractive to white residents. In this study we will not pursue the relationships between racial/ethnic change and socioeconomic status.



neighborhoods would change their composition even if the new population were distributed across census tracts exactly as before. This is similar to a phenomenon that is well known in the occupational mobility literature. For example, when there is an overall upward shift in the occupational distribution across generations, there will necessarily be upward occupational mobility from the parent to the child generation (Hauser et al. 1975). This mobility is called structural mobility, and it is distinguished from exchange mobility. Structural mobility does not imply any change in the underlying processes of change, but rather it reflects the continued operation of the same processes under new conditions. Increasing exchange mobility, in contrast, is evidence of an opening up of the stratification system.

These two sources of change have been recognized by scholars who study neighborhood racial/ethnic composition. For example, Farrell and Lee (2011:1110) noted that if neighborhoods are categorized with fixed percentage cutting points, then neighborhood "racial structures will be distributed unequally among metropolitan areas (due to regional concentrations of different groups) and over time (due to the national trend toward greater diversity)." They opted for such categories because their main purpose was to describe the actual variations and changes over time in neighborhood composition occurring in the United States, rather than the sources of them. We have different aims: (1) to discern how much of the observed increase in neighborhood diversity is due simply to regional compositional variation and change, and (2) to discover, net of those factors, how the presence of Hispanic and Asian groups may facilitate the integration of blacks in previously white neighborhoods. In short, have new processes of neighborhood change emerged, or have the same segregating processes continued to operate but on a changing population?

Evidently, metropolitan areas that are predominantly white will have less diverse neighborhoods than those with large minority populations, metropolitan areas with mostly white and black residents will have fewer neighborhoods with a significant Hispanic or Asian presence, and so on. For the same reasons, areas with growing diversity are likely to experience an increase in the diversity of their neighborhoods and an increasing share of global neighborhoods. How can we control for the overall diversity of the metropolis to learn what neighborhood changes are occurring *in addition to* such compositional shifts? This is an especially important concern in this study because our sample includes metros with widely differing compositions.

Our approach here is to introduce the concept of a "standard transition." The standard transition is the change (the shifting of a neighborhood from one category to another) that would be expected if there were no change in how groups were distributed across neighborhoods in a metropolitan area. The only change would be in groups' relative size in the region as some grew faster than others. This standardization is easily calculated from the available data. We first categorize neighborhoods at time 1 (1980) and time 2 (2010) into types (e.g., the most diverse global neighborhood type, or the all-white type, as defined later). The actual shifts of neighborhoods across types over time constitute the "observed transitions." Then, for every 1980 neighborhood, we calculate an alternative scenario: what its composition would have become by 2010 if the region's white, black, Hispanic, and Asian residents were still distributed with



the same shares in each neighborhood as in 1980. These "expected" shifts in composition constitute the standard transition. The difference between these two transition matrices—the standard and observed transitions—reveals shifts that are attributable to changing processes.

# Metropolitan Contexts for Neighborhood Change

A multiethnic (ME) metro in this study has significant presence of both blacks who have historically been highly segregated and a new minority group that may serve as a buffer or mediator. ME metros include many of the main gateways for post-1970 immigration. They are places where a deviation from the traditional invasion-succession type of neighborhood transition has long been suspected (Lee and Wood 1991), where the operation of immigrant "buffer" was originally hypothesized (Frey and Farley 1996), and where global neighborhoods have since been detected (Logan and Zhang 2010). In this sense, the multiethnic metropolis is our benchmark for comparison. Here we expect to find the following:

- 1. The emergence of a substantial share of global neighborhoods housing a large proportion of metropolitan residents. Numerous studies using different methods have reported a decline in all-white neighborhoods and increasing diversity at the neighborhood level (Bader and Warkentien 2016; Brown and Sharma 2010; Ellen et al. 2012; Farrell and Lee 2011; Iceland and Sharp 2013; Lee et al. 2014; Parisi et al. 2015). The specific category of global neighborhood, however, is only one form that diversity can take. Does it appear outside of the multiethnic metropolis?
- 2. The dominance of a particular trajectory of change from all-white neighborhoods to those mixing whites with Hispanics and/or Asians to the most inclusive global neighborhood. This is the most common path to the global neighborhood in multiethnic metros (Logan and Zhang 2010). What form does black-white integration take, if at all, in metros without a strong Latino/Asian presence? In predominantly white and Hispanic areas, for example, it is possible that diversity mostly takes the form of neighborhoods mixing these two groups, with very limited participation of blacks or Asians.
- 3. The continuation of processes of invasion-succession and racial exclusion that tend to sustain high levels of segregation. Levels of segregation remain high in spite of trends toward increasing diversity. We have argued that this is because a large share of neighborhoods continues to house only minorities, especially blacks and Hispanics (Logan and Zhang 2010). We observed (in multiethnic metropolises) that few neighborhoods without a white presence in 1980 gained whites by 2000. The all-minority neighborhood, we concluded, is an "absorbing state." Is this still the case in 2010?

What are the other types of metropolitan regions? In a scheme proposed by Frey and Farley (1996:41), whites are presumed to be present in all



metropolitan areas, and the sizes of the black, Latino, and Asian populations determine the classification. Their first category, like ours, is multiethnic. Others include areas that are mostly white, mostly black and white, mostly Latino and white, and mostly Asian and white.<sup>2</sup>

We suspect that predominantly white metros (W) of a type found in the upper Great Plains states offer little prospect of immigrant-group buffering. However, past research has found that areas with small black populations tend to have lower levels of black-white segregation (Massey and Denton 1987). If racial barriers are indeed less rigid in such places, one path to integration would be for blacks to move into previously all-white neighborhoods, even without a substantial Hispanic or Asian presence. To the extent that immigrant minority populations grow over time, global neighborhoods could emerge on a small scale.

Another kind of area with limited prospects for stable integration is the white-black metropolitan region (WB) with few Hispanics or Asians. This is the mixture found originally in the nineteenth century South and later, due to the Great Migration, in much of the industrial Midwest. Where blacks are the only large minority group and there is a history of ghettoization, one could expect the greatest persistence of the invasion-succession model of neighborhood transition and least hope for neighborhood diversity.

A fourth kind of metropolis has substantial non-black minority populations but relatively small shares of black residents. Such places are found in the Southwest and West and also in the Northeast, some with long-standing Latino (Mexican or Puerto Rican) communities and others with new Asian immigrant populations. In this study, based on exploratory analyses, we combine metros where minorities are mostly Latino or mostly Asian into the same category because so many of these metros now house both groups, often outnumbering the black population. We refer to these as "immigrant minority" (IM) metros because typically a large portion of their Hispanic and Asian residents are immigrants. Hispanics and Asians are generally less segregated from whites than blacks are (Farley and Frey 1994; Iceland 2004; Logan et al. 2004; Massey and Denton 1987), and they may have an easier path to residential assimilation. The relatively small size of the black population and large presence of the "buffer" groups in IM metros may suggest high potential for black residents' incorporation into global neighborhoods, similar to ME metros. As Frey and Farley (1996:42) argued, "The potential for . . . 'buffering' and the existence of multiethnic neighborhoods is great where the combined Latino and Asian population outnumbers blacks."

<sup>&</sup>lt;sup>2</sup> We note two differences between the Frey and Farley (1996) ethnic classification and the typology used here. First, Frey and Farley used MSA/PMSAs as defined in 1990 and studied 37 of these that they classified as multiethnic. Second, their classification contains five categories: "multiethnic" (whites with 2 or 3 minority groups), "mostly Latino-white," "mostly Asian-white," "mostly black-white," and "mostly white." We reorganize and reduce these to four categories with special attention to whether the metropolitan area included a black presence: multiethnic (whites and blacks with Hispanics and/or Asians), immigrant minority without blacks (whites with Hispanics and/or Asians), white-black, and white.



# Research Design

Consistent with prior studies, we examine neighborhood composition with respect to four major racial/ethnic groups: non-Hispanic whites, non-Hispanic blacks, Hispanics, and Asians.<sup>3</sup> The census tract is treated as a proxy for residential neighborhood. With an average of about 4,000 inhabitants, census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions.

Our source of census data is the Longitudinal Tract Data Base (LTDB; see Logan et al. 2014), "which provides public-use tools to create estimates within 2010 tract boundaries for any tract-level data (from the census or other sources) that are available for prior years as early as 1970" (https://s4.ad.brown.edu/projects/diversity/Researcher/Bridging.htm). The consistent tract geography is crucial for our purpose of studying racial/ethnic change.

The study includes 342 metropolitan regions, each of which had at least 50,000 residents in each year during 1980–2010; this total omits five areas where more than one-quarter of employment was in military occupations. These regions include both metropolitan areas and metropolitan divisions based on the 2009 definitions by the Office of Management and Budget (OMB).

### **Categories of Metropolitan Racial Composition**

Metropolitan areas are classified according to the shares of blacks, Hispanics, and Asians in their population. Following Frey and Farley (1996), we count a minority group as "present" if its share of the population in a metro is equal to or greater than its share of the population in the average metropolitan area. Table 1 (in the "all metros" row) reports these cutting points. With this categorization, most metros are far from the minimum criteria. For example, to be considered "present," a metro would have to be at least 9.6 % black in 1980 or 11.4 % in 2010. The average white-black metro was actually 21.3 % black in 1980, and 24.5 % in 2010. The average ME metro in 1980 was considerably less white and had nearly twice the share of blacks, Hispanics, and Asians as the average metro.<sup>4</sup>

Note that all types of metros experienced significant changes toward diversity. Although much attention has been given to what are called "new destinations" for immigrants (Singer 2004), diversity has been increasing in all parts of the country (see also Lee et al. 2014). On pace with the national share, Hispanics and Asians in all types of metro areas more than doubled their presence. In contrast, the white share declined markedly in all types of metros. In addition, Table 2 shows that even with changes in the cutting points for classification, many metros shifted across categories between 1980 and 2010. The number of multiethnic metros doubled from 22 to 44. Most newly multiethnic metros had been white and black, and they experienced an increasing Hispanic and/or Asian population. At the same time, the number of white metros

<sup>&</sup>lt;sup>4</sup> These resemble multiethnic metropolitan areas as defined by Logan and Zhang (2010), but exclude metros where Hispanics and Asians meet the national average but blacks meet only one- half the national average. In this study, such metros are included in the IM category.



<sup>&</sup>lt;sup>3</sup> The three non-Hispanic groups are non-Hispanic white (single race in 2010), non-Hispanic black (including combinations of black and another race in 2010), and non-Hispanic Asian (including combinations of Asian with another race except black in 2010). Here we refer to them simply as whites, blacks, and Asians.

1900)													
	1980				2010								
Metropolitan Type	White	Black	Hispanic	Asian	White	Black	Hispanic	Asian					
White (W)	93.8	3.5	1.5	0.5	84.4	5.8	6.0	2.3					
White and Black (WB)	76.4	21.3	1 4	0.5	66.0	24.5	6.4	23					

2.6

2.1

1.1

56.1

51.4

71.0

4.5

18.1

11.4

30.6

22.2

12.6

6.7

7.4

3.5

17.6

9.4

5.8

Immigrant Minority (IM)

Multiethnic (ME)

All Metros

74.5

70.6

82.6

3.5

17.3

9.6

**Table 1** Average racial/ethnic composition in 1980 and 2010 by type of metropolitan region (as categorized in 1980)

dropped from 141 to 97; in most of these cases, the shift was to the IM category by adding Hispanics/Asians. In the following analyses, we categorize metros according to their initial composition, which establishes the setting within which neighborhood changes took place through 2010. But some neighborhood changes certainly can be attributed to the growth of largely immigrant minorities, reinforcing the need to control for these demographic shifts. We replicated the following analyses based on classifying metros by the 2010 composition and found no substantive differences in results.

Figures 1 and 2 show the locations of different types of metropolitan areas in the continental United States in 1980 and 2010, respectively. (The online version of this article displays the figures in color, which more clearly distinguishes the types of metropolitan areas.) Table S1 in Online Resource 1 reports the population distribution across different metros and their growth over time. As noted earlier, among the 342 metros in our sample, only 22 are categorized as multiethnic in 1980. They are located across major census regions in the Northeast, Midwest, West, and South. These metropolitan areas, which include the metropolitan divisions of New York, Los Angeles, and Miami, also tend to be much larger than the ones in other categories. These areas had 43.4 million residents in 1980 and 61.0 million in 2010.

A much larger number (141) of metropolitan areas do not meet our criterion for presence of blacks, Hispanics, or Asians. (Of course, although these groups are underrepresented, they are not absent.) These "all-white" (W) metros in 1980 were mostly located in the Northeast and the Midwest, with others in the South and few in

Table 2 The changing distribution of metropolitan areas by categories of racial/ethnic composition, 1980–2010

	2010								
1980	W	WB	IM	ME	Total				
W	93	13	33	2	141				
WB	2	74	0	22	98				
IM	2	0	76	3	81				
ME	0	3	2	17	22				
Total	97	90	111	44	342				

Note: W = white; WB = white and black; IM = immigrant minority; and ME = multiethnic.



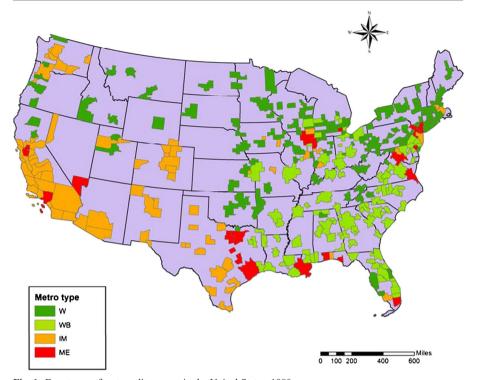


Fig. 1 Four types of metropolitan areas in the United States, 1980

the West. In 1980, they had a total population of 47.4 million (27.2 % of the total in our sample); by 2010, their population had grown to 60.6 million, but their share dropped to 24.0 %.

Of the 98 white-black metros (WB) in 1980, most were in the South, and others were in the Midwest. The 1980 population in these metros was 47.5 million (27.3 % of the total). Over time, these areas grew to 68.4 million, although their share of total population in our sample remained about the same.

The remaining 81 IM metros in 1980 were those without a substantial black presence but with many Hispanics and/or Asians. Most of these were in the West and Texas. The population in these metropolitan areas recorded the fastest growth of the four types of metros over time (from 35.8 to 61.9 million), and their share of total metropolitan population rose from 20.5 % to 24.6 %.

### Classification of Neighborhoods

Another measurement issue is how to classify neighborhoods (census tracts) according to their racial/ethnic composition. We adopt the "quarter rule" that we proposed in an earlier study (for detailed rationale of this choice and comparisons with alternatives, see Logan and Zhang 2010). By this criterion, if a group's share in the neighborhood is less than one-quarter of their average share in all sampled metros, then it is so underrepresented that it can be treated as "absent." We base the cutting points on the composition of the ME metros. We recognize that these thresholds may be hard to meet in other



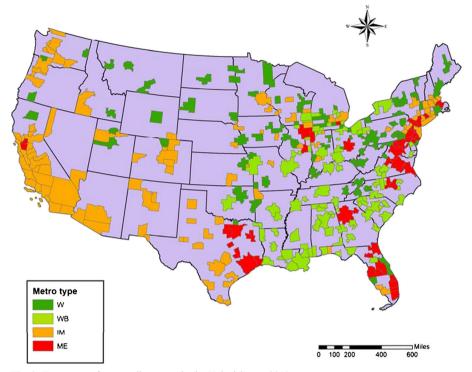


Fig. 2 Four types of metropolitan areas in the United States, 2010

types of metropolitan areas because of their more skewed group distribution. As a consequence, we are likely to find fewer global neighborhoods and more neighborhoods with only one or two groups represented in these other metros. Thus, the results presented here will provide a conservative estimate of the extent of increasing diversity. However, the overall patterns and pathways of change will be preserved.<sup>5</sup>

For example, the ME metros were 63.3~% white in 1980, so we use one-quarter of that level (15.8 %) as the threshold for white presence in 1980. In 2010, they were 42.0~% white, so the threshold is set at 10.5~%. The thresholds for blacks are 4.7~% and 4.5~%, also declining slightly over time. Thresholds for Hispanics and Asians increased from 3.6~% for Hispanics to 7.4~%, and from 0.7~% for Asians to 2.4~%.

There are 15 possible combinations of these four groups. We reduce these to seven neighborhood classifications, which allows us to present more concise matrices summarizing neighborhood changes and to focus on the possible differences in these matrices across metro types. Although it would be possible to pursue questions about differences among the several categories of all-minority neighborhoods, these are not central to the current study. The categories are as follows, using the abbreviations w (white), b (black), h (Hispanic), and a (Asian) to denote group presence.

 $<sup>\</sup>frac{1}{5}$  In separate analyses, we experimented with setting different criteria for each metro category. These analyses yielded such low thresholds for Hispanics and Asians, especially in white and white-black metros, that we do not consider them to be credible.



- All-minority (nw): b, h, a, bh, ba, ha, and bha
- · All-white (w): w
- White/black (wb): wb
- Single immigrant (w+h/a): wh, wa
- Dual immigrant (wha): wha
- Semi-global (wb+h/a): wbh and wba
- Global (wbha): wbha

Table S2 in Online Resource 1 displays the distribution of the metropolitan population across these categories of neighborhoods in each type of metro in both 1980 and 2010. Most notably, it shows large declines in the share of the white population living in all-white neighborhoods and large increases in the share of each population group living in global neighborhoods. These shifts are found in all four metro categories.

Some category names are awkward because scholars rarely discuss these combinations, but they refer to theoretically or substantively important types. The single immigrant neighborhood refers to a combination that we expect to be a typical pathway from an all-white neighborhood to one where both Hispanics and Asians reside with whites (the dual immigrant neighborhood), and possibly leading to a global neighborhood. The semi-global type is expected to represent an alternative but less common pathway toward diversity. In this case, a single immigrant neighborhood might facilitate black entry, since there is already one potential buffer group on the scene, leading to a semi-global neighborhood. Alternatively, in metros with small numbers of Hispanics and Asians, the semi-global neighborhood may originate from a black-white neighborhood that drew a new contingent of immigrant minorities.

### Plan for Analysis

The questions posed here can be examined through an intensive descriptive analysis of the changing distribution of types of neighborhoods and the specific pathways of change, comparing these across different types of metropolitan regions. For each individual metropolitan region we create two 7 × 7 transition matrices. The first matrix is the standard transition matrix discussed earlier (see Tables S3–S6 in Online Resource 1). The standard transition matrix cross-tabulates tracts' actual 1980 neighborhood types with their projected categories in 2010, assuming no change in segregation patterns. The second matrix is the matrix of observed transitions between 1980 and 2010 (Tables 3, 4, 5, and 6). The difference between these two matrices represents changes that cannot be attributed to overall shifts in racial/ethnic composition in the given metropolitan area.

We aggregate the tracts for all metros in multiethnic metropolitan regions into one transition matrix. We then repeat the procedure for each of the other three categories of metropolitan regions, looking for similarities and differences in the patterns of change occurring in them. This procedure reveals what kinds of changes are occurring on average in each type of metro. Further studies could examine sources of variation among metros in the same category, for example looking into the effect of differences in levels of segregation or relative group sizes.



#### Results

We now report and evaluate these transition matrices. We will pay particular attention to the following points. First, what are the actual trends toward or away from diversity for each type of metro area, and to what extent do these trends extend beyond what would be expected simply from the overall demographic shift? In every case, the actual changes are greater than the expected ones, though increasing diversity greatly outweighs declining diversity. Second, what has been the fate of the two polar extremes among neighborhoods, the all-white and global neighborhood? In all metro types, demographic change predicted a decline in all-white neighborhoods and an increase in global neighborhoods, but the actual changes—especially growth of global neighborhoods—exceeded the expectation. Third, what is the origin of new global neighborhoods? Here we find some significant differences among metros. In multiethnic and immigrant-minority metros, a great majority of them (70 % to 80 %) had been white plus Hispanic and/or Asian in 1980. Here is strong evidence of some form of immigrant buffer. But in white-black and white metros, there is a greater variety of pathways, and the most common origin is previously all-white tracts.

# Multiethnic (ME) Metropolitan Areas

We identify 22 ME metro areas. They are the same kind of metro areas as we examined in an earlier study (Logan and Zhang 2010), and we expect to replicate the key findings here. Specifically, in a diverse environment with a high presence of all minority groups and an already significant presence of global neighborhoods in 1980, we expect to see the expansion of this type of neighborhood. The typical path will involve Hispanics and Asians entering previously white areas to become wha, then to be joined by blacks to become wha. At the same time, there will be a strong countertrend of white exit from previously mixed areas that leads to all-minority neighborhoods, some of which are shared by multiple minority groups.

Over the three decades, the ME metros reported significant demographic change toward diversity (as shown in Table 1). On average, the already high share of predominantly immigrant groups rose further: the share of Asians more than tripled to 7.4 %, and the share of Hispanics doubled to 22.2 % to make them the largest minority group in these metros. Meanwhile, the white share dropped significantly (from 70.6 % to 51.4 %), and the black share remained about the same (a 1.0 % rise).

The observed transition matrix (Table 3) reveals more substantial shifts than could be predicted solely from increasing overall diversity. Only 44 % of tracts remained in the same category, and the resulting distribution of neighborhoods in 2010 is significantly different from that in 1980. First, there is a strong movement toward diversity in these multiethnic metros. All-white tracts dropped from 1,120 to only 286, compared with the 866 projected in Table S3 in Online Resource 1. The white-dominated area is quickly becoming a relic of the past in these metros.

At the same time, the number of global neighborhoods (wbha) jumped from 2,020 to 3,924. Especially meaningful for understanding paths of change, this increase was not accomplished by the addition of Hispanics or Asians to tracts that already had a substantial share of whites and blacks. Instead, by far the most common source of new global neighborhoods was tracts that formerly housed whites plus Hispanics and/



or Asians and that added blacks by 2010 (more than 2,000 tracts fall into this specific trajectory). This is the path identified in previous research in multiethnic regions.

These trends toward greater diversity were counterbalanced by other transitions that isolated minorities from whites. In 1980, 1,946 all-minority tracts could be found in these metros—a number that nearly doubled to 3,451 by 2010. Despite the reduction in the threshold for establishing white presence, whites dropped below this threshold in 637 formerly wbha tracts and in 553 wha tracts. This substantial white flight tended to re-segregate these metros at the same time as other neighborhoods gained diversity.

In sum, a dramatic transformation of both group composition and neighborhood structure occurred in these ME metros. The main trend is clearly toward more integrated neighborhoods, in particular toward global neighborhoods. Among the many sources of global neighborhoods, the most common pathway in these multiethnic areas was through the "immigrant buffer" prior to black entry. The countertrend is the result of white flight.

#### White-Black (WB) Metropolitan Areas

The WB metros resemble the conditions of the pre-1965 immigration era in much of the United States. Without a significant presence of immigrant minorities at the beginning of the period, the effect of an immigrant buffer is expected to be muted. These metros seem to be the most likely candidates for persistence of the historically dominant model of invasion and succession. However, they also saw significant demographic changes between 1980 and 2010, and (as shown in Table 2) many became multiethnic by 2010. As shown in Table 1, the white share of the population dropped (from 76.4 % to 66.0 %), and the shares of all minority groups rose. The shares of Hispanics and Asians increased substantially from 1.4 % to 6.4 % and from 0.5 % to 2.3 %, respectively. Hence there may have been more complex processes in these areas than simple white flight and black succession.

Table 3 Observed transition matrix in multiethnic metropolitan areas, 1980–2010

	Tract Category in 2010									
Tract Category in 1980	nw	W	w+h/a	wha	wb	wb+h/a	wbha	Total		
nw	1,692	0	8	13	22	68	143	1,946		
W	16	199	340	199	34	133	199	1,120		
w+h/a	190	60	903	541	18	394	642	2,748		
wha	553	9	302	1,404	2	110	1,364	3,744		
wb	51	13	28	1	169	161	81	504		
wb+h/a	312	5	41	14	83	531	400	1,386		
wbha	637	0	50	89	10	139	1,095	2,020		
Total	3,451	286	1,672	2,261	338	1,536	3,924	13,468		

Note: nw = all minority; w = all white; w+h/a = single immigrant; wha = dual immigrant; wb = white/black; wb+h/a = semi-global; and wbha = global.



Table 4	Observed transition	n matrix in	white-black	(WR)	metropolitan areas.	1980-2010
Table 4	Obscived nansino	ii iiiauix iii	WIIIC-DIACK	( VV D	i incuropontan arcas.	1900-2010

	Tract Category in 2010									
Tract Category in 1980	nw	W	w+h/a	wha	wb	wb+h/a	wbha	Total		
nw	965	0	0	0	98	63	8	1,134		
W	42	1,893	661	55	1,011	1,085	488	5,235		
w+h/a	43	184	512	59	196	884	415	2,293		
wha	12	0	10	4	0	48	149	223		
wb	368	201	78	3	2,055	1,309	356	4,370		
wb+h/a	178	6	47	2	310	884	324	1,751		
wbha	29	1	2	0	9	52	118	211		
Total	1,637	2,285	1,310	123	3,679	4,325	1,858	15,217		

Note: nw = all minority; w = all white; w+h/a = single immigrant; wha = dual immigrant; wb = white/black; wb+h/a = semi-global; and wbha = global.

Table 4 shows the actual transitions for WB metros. First, only 42.2 % of tracts remained in the same category over time. Although a significant movement (32.6 %) toward diversity is projected in the standard matrix for these metros, the actual change was even greater: about half of all neighborhoods (45.7 %) became more diverse by the end of the 30-year period. The number of all-white tracts dropped precipitously, from 5,235 (about one-third of all tracts in 1980) to only 2,285. Unlike what we found in ME metros, the majority of these changes in white tracts involved adding blacks to the local mix with transitions to wb (1,011 out of an original 5,235 all-white tracts) and wb+h/a (1,085 of semi-global neighborhoods), or changing directly to global neighborhoods (488). A much smaller shift occurred from all-white to tracts including Hispanics and/or Asians but not blacks (716). Hence, these metros with relatively small Hispanic and Asian populations experienced considerable movement of blacks into previously all-white tracts that was not clearly attributable to the Hispanic/Asian buffer.

There was a corresponding increase in the number of global neighborhoods. The number of wbha tracts soared from only 211 in 1980 to 1,858 in 2010. The growth came from multiple sources. A total of 488 were from all-white tracts. A more detailed decade-by-decade analysis shows that it was common for all-white tracts that eventually became global neighborhoods to add Hispanics and/or Asians by 1990 and subsequently to add blacks. However, in many other cases, blacks entered before or in the same decade as these other minorities. Another 564 wbha tracts previously included Hispanics and/or Asians with whites but did not have a black presence. A smaller number (356) originally included both whites and blacks and then added a Hispanic/Asian presence. Again, the immigrant buffer may be present here in many cases, but the global neighborhood phenomenon is not contingent on this factor.

As projected, all-minority neighborhoods were highly persistent, but unexpectedly, their number rose dramatically (from 1,134 to 1,637). Most of the increases derived from tracts that previously included both whites and blacks, especially whites and blacks only (368) but also with many cases of whites and blacks along with either Hispanics or Asians (178). The large number of neighborhoods experiencing such



Tract Category in 1980	Tract Category in 2010									
	nw	w	w+h/a	wha	wb	wb+h/a	wbha	Total		
nw	435	1	36	6	0	31	18	527		
W	0	454	493	150	21	100	111	1,329		
w+h/a	192	107	2,046	785	1	385	689	4,205		
wha	211	18	647	2,373	0	143	1,101	4,493		
wb	3	7	3	0	13	29	21	76		
wb+h/a	47	2	52	14	5	198	222	540		
wbha	204	2	52	154	0	125	840	1,377		
Total	1,092	591	3,329	3,482	40	1,011	3,002	12,547		

Table 5 Observed transition matrix in immigrant minority (IM) metropolitan areas, 1980–2010

Note: nw = all minority; w = all white; w+h/a = single immigrant; wha = dual immigrant; wb = white/black; wb+h/a = semi-global; and wbha = global.

white flight (even though we relaxed the criterion for white presence in 2010) emphasizes the instability of diversity in these white-black metros.

# Immigrant Minority (IM) Metropolitan Areas

Metropolitan areas with large Hispanic and/or Asian populations but few blacks (IM metros) tend to be newer metros in the West and Southwest. Because of a small black presence, these areas are less likely to have developed the entrenched racial discrimination and intergroup antagonism between blacks and whites that is often observed in metropolitan areas in the Northeast and Midwest, or to have long established black ghettos from earlier decades. Many of them have lower than average levels of residential segregation between whites and blacks. Until now, no study has explored how such factors affect patterns of neighborhood transition.

Table 5 shows the observed transition matrix, which is similar in several ways to the transitions reported earlier for other types of metros. The number of all-white tracts was cut by more than one-half. This reduction in all-white tracts was mostly due to the addition of Hispanics and/or Asians; in more than 200 cases, however, the reduction also involved the introduction of blacks. The number of global neighborhoods (wbha) more than doubled to become the third most numerous category. Of these, 1,790 were previously mostly white plus Hispanics and/or Asians, representing the "buffering" route to black entry. Consequently there was a net reduction in those w+h/a or wha tracts. These changes all resulted in increasing neighborhood diversity. Yet again, there is evidence of a strong countertrend. The number of all-minority tracts more than doubled as whites left various types of racially mixed tracts.

Overall, the IM metropolitan areas are similar to the multiethnic metros in terms of group distribution, the presence and growth of global neighborhoods, the general trend of diversification and reversal, and the pathways to global neighborhoods. They experienced significant transformations: fewer white-only neighborhoods and more global neighborhoods, but also more all-minority neighborhoods. These trends suggest two possibilities: (1) the small share of blacks in the total population may tend to be



exceptionally concentrated in those global neighborhoods; or (2) some areas that originally had small black populations but greater shares of blacks than average were more likely to add enough blacks to push their number above our threshold for group presence. Either way, we find that global neighborhoods are a likely form of integration for blacks in the metros where blacks are underrepresented.

# White (W) Metropolitan Areas

Total

On compositional grounds, the predominantly white metro is the least likely to produce very diverse neighborhoods. On the other hand, past research has also shown that minorities are least segregated from whites in those areas where minorities represent a small share of the population. Also, because these metros generally gained a greater minority presence by 2010, they would be expected to experience some increase in diversity. In fact, the average share of whites in the total population of these metros was 93.8 % in 1980 but dropped to 84.4 % by 2010. At the same time, the minority shares rose: from 3.5 % to 5.8 % for blacks, from 1.5 % to 6.0 % for Hispanics, and from 0.5 % to 2.3 % for Asians.

The number of all-white tracts, which had accounted for 60 % of all tracts in 1980, was cut almost in half (Table 6). This was a greater reduction than expected from the demographic shift. Still, nearly one in three tracts in these metros remained all-white by 2010. Surprisingly, many white tracts added a black presence, with 811 becoming wb, 860 mixing whites and blacks with either Hispanics or Asians (wb+h/a), and 509 moving directly to the wbha category. However, it was more common for white tracts to add Hispanics or Asians without also including blacks (1,750 cases). Blacks were also likely to be added to tracts where whites already shared the neighborhood with Hispanics and/or Asians: more than 1,500 such transitions occurred.

Movement of blacks into neighborhoods that they would share with whites, even without the involvement of other minorities, is a more prominent transition in these all-white metros than in the rest of metropolitan America. The route to global neighborhoods is equally distinctive. Whereas in other metro types there is evidence of buffering

	Tract Category in 2010									
Tract Category in 1980	nw	w	w+h/a	wha	wb	wb+h/a	wbha	Total		
nw	123	1	0	0	14	15	2	155		
W	0	4,640	1,493	257	811	860	509	8,570		
w+h/a	11	287	1,041	246	143	789	463	2,980		
wha	1	3	50	96	1	31	107	289		
wb	21	48	19	0	530	289	120	1,027		
wb+h/a	51	3	18	2	76	422	246	818		
wbha	21	1	5	3	5	69	146	250		

Table 6 Observed transition matrix in white (W) metropolitan areas, 1980-2010

228

4,983

Note: nw = all minority; w = all white; w+h/a = single immigrant; wha = dual immigrant; wb = white/black; wb+h/a = semi-global; and wbha = global.

604

1,580

2,475

2,626



14,089

1,593

as the main pathway to black entrance, in these all-white metros it was more common for global neighborhoods to emerge from tracts that originally had few Hispanics or Asians (especially all white tracts), or from tracts where blacks were already present, with or without Hispanic and Asian neighbors. The share of global neighborhoods (11.3 % of tracts, or 1,593) was small in 2010 relative to other types of metros with more diverse populations, but the growth in number of global neighborhoods was much greater than predicted from the overall demographic shift within these all-white metros.

Another unique aspect of the transitions in these metros is the relatively small share of tracts experiencing white flight. There were very few all-minority tracts in these areas in 1980 (155), and only 105 tracts that included whites in 1980 lost their white presence by 2010. There may have been greater white population losses from diverse neighborhoods than these numbers indicate because so many tracts began the period with very large white populations, and it would take very large losses to appear in the analysis as white flight. However, by our criteria, the processes of invasion and succession, white flight, and immigrant-group buffering to enable black entry are not much in evidence in these areas.

### **Cross-Metro Comparison**

Having described the transitions in each type of metro area, we now turn to a systematic comparison among them: differences in the general trends of transition toward more diverse and less diverse neighborhoods, the disappearance of all-white neighborhoods and emergence of global neighborhoods, and the varied pathways toward global neighborhoods.

Fig. 3 compares the trends toward greater or lesser diversity between the demographic projection (standard transition) and the actual transition for each metro type. In all of them the observed change is significantly greater than the projection. This figure demonstrates that much more is changing than could be anticipated from demographic transitions. On the side of increasing diversity, only 11.8 % of the tracts in the multiethnic region were expected to gain the significant presence of one or more additional groups, but the actual share was more than 3 times that. Similarly, more than one-third of the neighborhoods in IM metros and nearly half of the neighborhoods in W and WB regions gained diversity. We also see a smaller but substantial countertrend toward lower diversity. This reversal has greater magnitude in the ME and IM regions, where 19.3 % and 14.7 % of tracts reported a net loss of diversity; this is 3–4 times as many as projected in the standard transition matrix. In W and WB regions, where projections suggested virtually no tracts losing diversity, we still see declines in 5 % to 10 % of neighborhoods.

Fig. 4 reports changes in the share of all-white neighborhoods and global neighborhoods, two extremes of diversity. The share of all-white tracts was projected to drop rapidly in all types of metropolitan areas following the general demographic trend, especially in WB and W metros. Again, the actual change significantly outpaces the

<sup>&</sup>lt;sup>6</sup> For this purpose, we treat tracts that fall along the diagonal in Tables 3, 4, 5, and 6 as unchanging, those above the diagonal as increasing diversity, and those below the diagonal as decreasing diversity. Implicitly this means that we are treating the order of columns or rows in these tables as ordinal scales from the least diverse (nw or w) to the most diverse (wbha). A case might be made for a different ordering in the case of a transition from nw to w or wha to wb. However, such transitions (in either direction) are almost nonexistent.



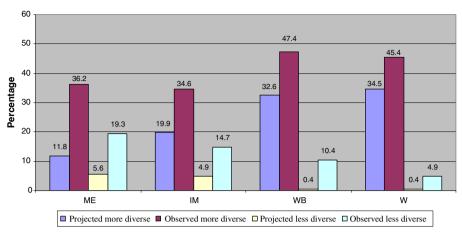


Fig. 3 Projected versus observed trends of transition in each type of metro

projection in all types. The all-white neighborhoods in ME metropolitan areas have almost disappeared and have been cut in half in IM metros. Their shares in WB and W metros have shrunk by 20–25 percentage points over the period.

On the other end of the spectrum of change, the emergence of global neighborhoods proves to be a near-universal phenomenon. Although first hypothesized and detected in the multiethnic setting, global neighborhoods are observed in growing numbers in other areas. In IM metros, they represent nearly one-quarter of all tracts. In W and WB metropolitan areas, the share of global neighborhoods rose from near 0 to a double-digit presence. The overall demographic shift explains a large part of this trend (as shown by the projected shares in 2010), but the observed growth of global neighborhoods is consistently higher than the projected growth in all types of metropolitan areas.

Figures 5 and 6 provide more information about the origins and stability of global neighborhoods. Figure 5 includes all global neighborhoods observed in 2010 and reports their 1980 neighborhood type. The origins vary by metro category. In the ME and IM metros, the wha and w+h/a neighborhoods (what we have called dual immigrant and single immigrant neighborhoods) are the main sources of new global neighborhoods, making up, respectively, 70.9 % and 82.8 % of these neighborhoods.

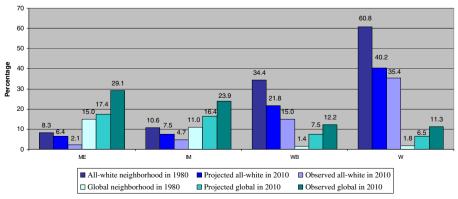


Fig. 4 Projected and observed transition of all-white and global neighborhoods in each type of metro



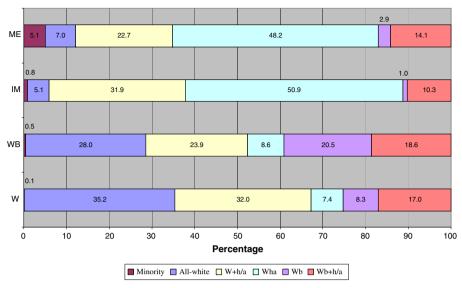
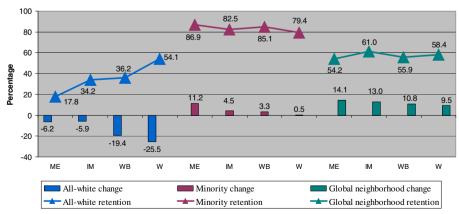


Fig. 5 New global neighborhoods by their 1980 neighborhood type in each type of metro

In these metros, as anticipated, blacks appear to be following the footsteps of Hispanics and Asians, implying the operation of the "buffer." The role of Hispanic/Asian presence, however, is significantly smaller in W and WB metropolitan areas, the areas in which their initial presence was smaller. Here, less than 40 % of global neighborhoods began as wha or w+h/a. Other origins are prevalent. The largest single origin is all-white areas that have been entered by all three minority groups (although it is possible that some entered first by 1990 or 2000 and were then followed by others). Another source that is much more common in these areas than in ME or IM metros is the existing wb neighborhoods adding other groups. According to the classical model of invasion and succession, these wb tracts would be expected to become predominantly black. An alternative pathway is emerging.



**Fig. 6** Change and retention of white, minority, and global neighborhoods by type of metro, 1980–2010. Change is defined as the difference in the share of all census tracts in each category between 1980 and 2010. Retention is the share of tracts in a category in 1980 that were still in the same category in 2010



Finally, Fig. 6 describes stability of major types of neighborhoods: all-white, all-minority, and global. The bars show the change in the share of tracts of each type in every metro category (increases or decreases). The triangles show the stability of each neighborhood type—that is, the share of those neighborhoods in 1980 that remained in the same category in 2010. We refer to this as retention.

The share of all-white tracts dropped in all metro types, especially in the WB and W regions (-19.4 % and -25.5 % respectively). Yet, all-white metros also experienced high retention: a majority (54.1 %) of the 1980 all-white tracts still had no minority presence 30 years later. In contrast, only 17.8 % of the all-white neighborhoods in ME metros remained in the same category at the end of the period.

The increases in shares of all-minority neighborhoods represent a countertrend toward segregation. These neighborhoods increased by 11.2 % in ME metros but by lesser percentages in other areas. In addition, minority neighborhoods had a high rate of retention: in all metro types, more than 80 % of non-white neighborhoods remained so through 2010.

The last data series in Fig. 6 is for global neighborhoods, which increased by 10 to 14 percentage points. Global neighborhoods show very high retention, as we reported previously (Logan and Zhang 2010). More than one-half of global neighborhoods in 1980 in each type of metro remained integrated over the three decades.

#### Conclusion

We set out to examine the global neighborhood phenomenon across the whole range of metropolitan regions in the United States in the 1980–2010 period. Prior research has depicted increasing neighborhood-level diversity as a near universal trend in urban areas, but it has left open major questions about what this means. Is it mainly a reflection of overall changes, such as the declining white share and rapidly rising Hispanic and Asian shares of the population? What specific combinations of groups are found together in neighborhoods, and what are the pathways of change over time at the neighborhood level? Are there new patterns of settlement?

We found broadly similar trends in quite distinct metropolitan regions. The similarities are due partly to the fact that in all kinds of areas, Hispanic and Asian populations are growing as white populations are shrinking in relative terms. More than a third of all-white metros in 1980 were more diverse by 2010. Nearly a quarter of white-black metros became multiethnic. Even if the new populations were distributed among neighborhoods exactly as the original ones, all neighborhoods would necessarily become more diverse, and many would transition to a different category in our analysis. More telling is that the demographic shift is only part of the story. By comparing the standard and the observed transitions, we manage to distinguish the structural changes expected by the metro-level shift in group composition from the process changes that are driven by the transformation of intergroup relations and neighborhood dynamics. On the one hand, we demonstrate that the demographic changes alone can indeed lead to significant neighborhood redistribution in all metropolitan contexts. On the other hand, it is also clear that demographics alone cannot fully account for the magnitude of neighborhood transformations that have occurred in metropolitan America.



One common phenomenon in all metro types is that neighborhoods are shifting to more diverse combination of residents beyond what would be predicted from changing metro composition. At the same time, there is movement to less diverse forms (unpredicted from the standard transition matrix), though this is on a smaller scale. These shifts follow a pattern. Increasing diversity mostly stems from minority entry into white neighborhoods, rarely by blacks alone, and often resulting in global neighborhoods. Declining diversity is almost always a result of white residents falling below the cutoff share.

The most salient differences across metro types are related to the pathways toward global neighborhoods. In multiethnic and immigrant minority regions, about one-half of new global neighborhoods in 2010 had been white-Hispanic-Asian (wha) in 1980 and another 20 % to 30 % had previously mixed whites with either Hispanics or Asians (w+h/a). This is the pathway that has been treated as evidence for the buffer hypothesis in multiethnic metros. However, in white and white-black metros, which began the period with very modest shares of Hispanics and Asians, new global neighborhoods had most likely been all-white in 1980. In the white-black metros, one-fifth had been white-black neighborhoods, with little Hispanic or Asian presence. Further, the white-black combination, which represented not more than 2 % to 4 % of tracts in multiethnic metros and less than 1 % of tracts in immigrant minority metros in either year, was not so rare in white metros (7 % to 10 % of tracts) and white-black metros (over 20 % of tracts). Where the largely immigrant Hispanic and Asian minorities were not present, there is a possibility of black movement directly into all-white neighborhoods, and these places might then become global neighborhoods.

Regardless of the pathway, the very diverse categories of neighborhoods that include blacks—where whites and blacks live alongside Hispanics or Asians or both—are now the most common form in all types of metropolitan regions. Increasing shares of people live in global neighborhoods. Even in white metros, about one in four blacks, Hispanics, and Asians live in global neighborhoods (these figures are shown in Table S2 in Online Resource 1). In multiethnic metros, global neighborhoods are the most common place of residence for whites and Asians. They also house close to 30 % of blacks and Hispanics (although larger shares of both groups are still in all-minority neighborhoods). This is a marked change from the situation in 1980, and it would not have been possible under the old regime of invasion and succession. One would hope that emergence of these alternative routes toward black integration with other groups would be a harbinger of a rapid reduction of residential segregation and a new possibility of stably integrated neighborhoods. Yet, in all types of metro areas, we also observe a persistence of all-minority neighborhoods. The number of such places is increasing (although Table S2 shows that their share of the metropolitan black population is falling). Even integrated neighborhoods are still subject to white exodus. Further, although some movement of whites into all-minority neighborhoods is observed, white entry occurs much less often than white exodus. This observation leads us to the same quandary noticed before (Logan and Zhang 2010): Will processes of increasing and decreasing diversity continue to coexist, eventually reaching a stable equilibrium in which white flight and minority entry into new areas are in balance with one another? Or is there a point at which whites will stop leaving mixed neighborhoods, when the experience of growing up in an all-white neighborhood becomes so rare as to change the dynamics of white residential choice?



Whether global neighborhood will contribute to the final elimination of racial barriers is a separate question. One hopes that deeper and more frequent interactions between different racial/ethnic groups in these shared neighborhoods might gradually lead to improved understanding and thereby contribute toward relieving the pathology of racially based residential segregation that has plagued American cities since the early twentieth century.

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