Patterns of Racial Diversity and Segregation in the United States: 1990-2010

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Abstract

The growing ethnic and racial diversity of the United States is evident at all spatial scales. One of the striking features of this new mixture of peoples, however, is that this new diversity often occurs in tandem with racial concentration. This article surveys these new geographies from four points of view: the nation as a whole, states, large metropolitan areas, and neighborhoods. The analysis at each scale relies on a new taxonomy of racial composition that simultaneously appraises both diversity and the lack thereof (Holloway et al. 2012). Research at the metropolitan scale often posits racial segregation and diversity as either endpoints on a continuum of racial dominance or mirror images of one another. We disturb that perspective and stress that segregation and diversity must be jointly understood -- they are necessarily related, though not as inevitable binary opposites. Using census data from 1990, 2000, and 2010 the analysis points to how patterns of racial diversity and dominance interact across varying spatial scales.

Keywords: *Racial dominance, diversity, scale, demographic change*

Introduction

In the last 50 years new immigrants and their offspring have transformed the racial landscape of the United States. In 2010, Latinos made up almost one-sixth of the total population and recently overtook blacks as the largest non-white minority group. One in twenty are Asian (-American). In addition, a multiracial population is increasingly affirming their own identities. Each of these broad groupings contains considerable ethnic variation, further contributing to the country's growing diversity.

This new ethnic and racial diversity is especially apparent in particular states and large metropolitan areas. One of the noticeable features of this mixture of peoples, however, is that those places where this new diversity is most evident sometimes register persistent levels of racial segregation. Another aspect of these changes is that they are highly uneven geographically. In many states and metropolitan areas, whites remain numerically dominant while others have rapidly diversified. This article seeks to make sense of these trends by analyzing the latest census information from 2010 and comparing these data with those from the two previous decades.

We sketch the changing US racial landscape by nation, state, metropolitan area, and residential neighborhood via an innovative method that allows scholars to evaluate local or regional diversity in the context of changing patterns of racial segregation. While classic measures of neighborhood segregation, such as the index of dissimilarity (D), summarize the distribution of one group relative to that of another group, we use the term "segregation" to indicate the presence of spaces dominated by a single racial or

ethnic group.[1] Whether calculated using D or some other method, assessments of neighborhood racial segregation act as a barometer of race relations in society at large. Reductions in such social geometries can be read as an erosion of white dominance in society or might signal altered racial attitudes. For example, after the 2000 census, scholars puzzled over why black-white dissimilarity remained so stubbornly high and why white-Asian and white-Latino segregation inched up between 1990 and 2000. Between 2000 and 2010, black-white dissimilarity declined in most large metropolitan areas. White-Latino segregation also dropped in many places, while the picture for white-Asian segregation was more mixed (Frey 2011).

Our objectives in this brief analysis expand on such baseline measurements to foreground space and scale. We frame the neighborhood racial condition of large metropolitan areas by first analyzing changes in racial structure in the US as a whole, followed by a state-scale analysis, and then provide an evaluation of changes in large metropolitan areas. That context then sets the stage for an analysis at the census-tract scale. We deploy a new taxonomic scheme to identify racial trends, but our project is more than just an exercise in areal (re)classification. We aim to also change the character of the discourse about the geography of racial groups, literally and figuratively. By steering clear of terms like ghetto and enclave, we recognize different types of segregated spaces and different types of diverse places without attaching a value-laden title.

Methods

An entropy measure of place diversity forms the basis of much of our analysis (White 1986). One of the standard indexes of evenness, it continues to be a popular choice for scholars (e.g., Farrell and Lee 2011; Wilson 2011).

E is calculated as:

$$E = - \Sigma\, p_i \ln(p_i) \qquad (1)$$

where p_i refers to group i's proportion of a particular area's population. The maximum value of E is the natural log of the number of groups (we use 6) and occurs only when all groups in the analysis are of exactly equal size.[2] At the opposite extreme, an E value of zero represents complete homogeneity or no diversity, with all population members in the same group. (We standardize values of E by dividing them by its maximum, thus setting its range of possible values from zero to one.) Our use of the entropy measure of diversity comes with a twist that allows us to also appraise specific forms of racial dominance and non-dominance with the same index. We calculate E values to categorize places while also noting the largest racial or ethnic group at what we call "low" and "moderate" levels of diversity. Places that are highly diverse, almost by definition, have no dominant racial/ethnic group.[3]

Analysis

The United States

The main features of the changing racial demographics of the United States are well known. Whites constitute a declining share of the population, dropping from 76 percent in 1990 to about 64 percent in 2010. In contrast, the Latino population almost doubled, increasing from about 9 percent to about 16 percent over the same period. Asians/Pacific Islanders constitute about 5.5 percent of the total in 2010. Blacks have expanded their population share from 11.8 percent (1990) to 12.8 percent (2010). Native Americans made up about 0.75 percent of the total in 1990 and 1.2 percent in 2010. The country is becoming increasingly racially diverse; the entropy index values for the nation as a whole increased from .4576 in 1990 to .5511 in 2000 to .6015 in 2010. Using our taxonomy, the country in each time period is what we class as moderately diverse, white dominant (MDW).

States

The trend toward increasing racial diversity in the country as a whole also finds expression at the state scale. Standardized entropy values for states in 1990 range from 0.0707 for Vermont, New Hampshire, and Maine (at 97-98 percent white, all are low-diversity, white areas--LDW) to .6243 for California (MDW). New Mexico (0.5856) and Texas (0.5586), also registered high relative entropy values in 1990. Hawaii, ranked next after Texas, was the only state that did not fit in either of these categories; it was moderately diverse, Asian/Pacific Islander dominant (MDA). In 2000, the same three New England states record the lowest relative standardized entropy values while at the other end of the scale California (0.6982) was followed by New York (0.6226). In 2010,

California continued as the most diverse state (standardized entropy inched up to 0.6996) and the states with the lowest values remained in northern New England and were joined by West Virginia. While the highest value stayed roughly the same, the range of standardized entropy scores for states contracted from .58 in 2000 to .53 in 2010.

Table 1 here

Table 1 summarizes these patterns; the demographic shift toward diversity resulted in a declining number of LDW states in favor of an increase in the number of MDW states. Hawaii prevailed in a category by itself; Asians and Pacific Islanders made up almost 65 percent of the state's population in 2010. It's unique in another sense; its diversity *declined* (albeit very slightly) over the 20-year period under investigation.[4] 2010 also saw the emergence of the first Latino-dominated state—New Mexico.

Metropolitan Areas

Table 1 also includes information about trends in diversity for the 53 largest metropolitan areas in the country[5] and offers another take on the form and pace of demographic change. These metropolitan areas contained 58.4 percent of the nation's population in 2010 and accounted for over 75 percent of the settlement of the foreign born in both 2000 and at decade's end (Ellis et al. 2011). Despite a slight uptick in rural settlement, immigration continues to be a large metropolitan area phenomenon. As

much immigration involves nonwhite populations, these places are at the leading edge of the country's racial dynamics.

Table 1 shows that over the last two decades the number of metropolitan areas with high proportions white (i.e., LDW) shrank from 23 of 53 to just 2 (Cincinnati and Pittsburgh). At the same time, many metropolitan areas transitioned to MDW, such that by 2010, 47 of the 53 metropolitan areas were classed this way. Also, the number of moderately diverse, Latino dominant (MDL) large metropolitan areas grew from 1 (San Antonio) to 3 (Los Angeles, Miami, and San Antonio). Memphis emerged as a moderately diverse black (MDB) metropolitan area: African Americans made up 46.1 percent of the population, 0.3 percent greater than the white share.

Table 2 here

The geography of these changes is interesting. Table 2 assigns each of the 53 metropolitan areas to one of the four aggregate census regions. The shift away from low diversity white is evident in each region. Table 2 shows that the West and the South already had in 1990 a clear majority of metropolitan areas that we would class as MDW. The "action" takes place in the Northeast and Midwest. In 1990 these regions were home to metropolitan areas that, as a whole, were relatively un-diverse and over 80 percent white. That all changed by 2010 as whites still dominated numerically, but not in the same proportions as twenty years earlier. This is surprising when considered in light of the literature on new immigrant destinations (e.g., Singer 2004). That research points out that immigrants, who are mostly Latino, now are settling in

"emerging" gateway cities, the majority of which are found in the South and West. Table 2 makes plain that cities like Atlanta, Las Vegas, and Orlando are, of course, not the only places affected; immigrants are driving changes in the aggregate racial profiles of what Singer calls Former and Continuous gateway metros.

What Tables 1 and 2 do not show is that San Francisco ranked first in terms of overall diversity in 2000 and 2010; it ranked second behind Los Angeles in 1990. Los Angeles, overall, became *less* diverse over the last decade as the Latino proportion of its population grew. Its relative entropy shaded down from 0.7015 to 0.6880 and its overall diversity ranking dropped from second to sixth. Figure 1 offers additional perspective on the metropolitan entropy distributions in their entireties with three box-and-whisker diagrams for 1990, 2000, and 2010. The national trend of increasing diversity is apparent from the shift of the median entropy score for the 53 metropolitan areas from 0.3942 in 1990 to 0.5627 in 2010. In addition, the skewness has moved from left to right indicating a bunching of metropolitan areas in 2010 in the upper ranges of values compared to a clustering in 1990 below the median.

Figure 1 here

Neighborhoods

Following convention, we use census tracts as proxies for neighborhoods and we again start from a national viewpoint. The census now divides the entire US into census tracts

and we have classified each tract according to our taxonomy.[6] In 1990, over 66 percent of all census tracts were LDW. In 2010, that category was still the modal class but the proportion had declined to 42.5 percent. Figure 2 provides a fuller perspective on the shifting patterns of US segregation and diversity between 1990 and 2010. This transition matrix for all tracts in the country shows not only how many altered class but also to what new condition. Accordingly, of the 42,976 LDW tracts in 1990, over 27,000 remained as such in 2010, but over one third (more than 15,000) shifted classification. The majority of them became moderately diverse, white dominated. The other principal movements from this category were to MDB (576) and MDL (497). The only other category to experience decline was the low diversity black (LDB) type--from 5.3 percent of all tracts in 1990 to 4.9 in 2010. Of those tracts that transitioned from being LDB, most (767/857) became MDB.

While many formerly LDW and several hundred formerly LDB tracts became more diverse, Figure 2 shows an opposite trend for low diversity Latino (LDL) and low diversity Asian (LDA) tracts. The number of LDA tracts increased from 63 to 97; the number of LDL tracts grew from 1085 in 1990 to 1716 two decades later. These countercurrents, observed by simple tallies of tract types for the US as a whole, make plain our thesis that the contemporary United States is becoming more residentially segregated and more diverse *concurrently*.

Figure 2 here

While transitions often catch the eye, it's also instructive to consider which type of tracts did not change classification between 1990 and 2010. The considerable number of LDW tract *transitions* (about 36 percent of the 1990 total) means that 64 percent that were LDW in 1990 were also counted that way in 2010. Of the 27,519 LDW tracts in 2010, a remarkable 99.4 percent were also LDW in 1990, perhaps indicating the calcification of remnant geographies of white separation and dominance within a rising sea of racial/ethnic diversity. No other category demonstrates this pattern. Roughly 75 percent of LDB tracts in 1990 also were low diversity black in 2010, almost the same proportion as LDA tracts. Of the 3178 LDB tracts in 2010, just under 82 percent had also been LDB in 1990. Low diversity Latino and Native American Indian tracts, however, were far less likely to shift status; for example over 88 percent of LDL tracts in 1990 were counted that way in 2010. The lesson here is that, again, many segregated places can stay intact while residential racial and ethnic mixing occurs apace.

The patterns of the most racially mixed tracts altered in interesting ways. Figure 2 shows that in 1990, highly diverse (HD) tracts represented just 0.3 percent of the total; twenty years later, this proportion had grown to over 1.5, making this category the one that changed the most in percentage terms.[7] What Figure 2 does not show is that much of this growth in number took place between 1990 and 2000. In that decade, the number of HD tracts increased by 676. Between 2000 and 2010, the count increased by only 109. Figure 2 does signal the considerable churn in this type of tract; only about a third of all HD tracts remained in that state between 1990 and 2010—by far the most unstable category of tract (cf. Ellen 2001)

Another way to showcase the both/and-ness of segregation and diversity is by disaggregating some of the row and column totals in Figure 2 by state. Consider the overall trend of black-dominated tracts. In the aggregate, LDB tracts declined from 3455 to 3178—an 8 percent drop. Many states experienced similar or even larger declines in proportion. Ten states, however, registered increases in the count of LDB tracts: a cluster in the south (Alabama, Arkansas, Louisiana, Mississippi, Missouri, and Tennessee), Maryland, and a cluster in the Midwest (Michigan, Ohio, and Wisconsin). Similarly, the number of MDB tracts increased from 2590 to 4080 nationally. Some of that increase resulted from 767 LDB tracts becoming MDB while 363 MDB tracts shifted to LDB; a sign of diversification. Yet several states recorded the following pattern: the number of tracts transitioning from MDB to LDB exceeded the number that transitioned from LDB to MDB. In Maryland 7 tracts shifted from LDB to MDB while fully 45 moved the other way.

The least diverse states registered only a handful of transitions. Only 3 of Vermont's 179 tracts changed status at all (from LDW to MDW) between 1990 and 2000. New Hampshire and Maine exhibit much the same stasis. Much of the story behind racial/ethnic transition is associated with the rapid growth of the Latino population in the US and these are some of the states least affected by immigration. Shifting context, declines in the counts of MDB tracts are often associated with shifts to the MDL type; this trend is most evident in a western cluster of states (Arizona, California, Nevada, Oregon, and Washington), and Rhode Island. More generally, the massive growth in the number of tracts dominated by Latinos (especially the moderately diverse type) is primarily a western phenomenon. In Arizona, for example, both LDL and MDL tracts

more than doubled between 1990 and 2010 (to 69 and 195 respectively, out of a total of 1081—about 24 percent of the total). So called "new destination" states also recorded increases but nothing on the scale of Arizona or California. Both Georgia and North Carolina, for example, had no Latino-dominated tracts in 1990. By 2010, Georgia had one LDL and 39 MDL (about 2.5 percent of the total number of 2010 tracts) and 9 white and 2 black dominated tracts had transitioned to MDL status in North Carolina (0.7 percent of the 2010 total).

For the final phase of analysis, we shift scale to selected metropolitan areas. This part of the article builds on a long-term research project on neighborhood-scale segregation and diversity and we direct readers to the related website (www.mixedmetro.com) that allows users to interactively explore patterns of racial demographic change cartographically. While the mixedmetro project explores patterns in US metropolitan areas with populations greater than one million, the focus here falls on 3 of these 53 metropolitan areas (MSAs). We examine the two MSAs that are at the extremes in 2010: Pittsburgh has the lowest entropy among the MSAs; San Francisco has the highest. These two metropolitan areas contrast in another way: according to Singer (2004), Pittsburgh is a "Former" immigrant gateway and San Francisco is a "Continuous" gateway. We also feature the MSA positioned at the metropolitan-scale standardized entropy median in 2010—Richmond.

Figure 3's panels juxtapose the 1990-2010 transition matrices for these three metropolitan areas. In 2010, Pittsburgh was 87 percent white and 9 percent black. Asians and Latinos made up, respectively, 2 and 1 percent of the population. It had no

neighborhoods other than white- or black-dominated in either 1990 or 2010. Some previously LDW neighborhoods transitioned to MDW and MDB during the two decades, but at nowhere near the rate recorded in the nation as a whole.

Figure 3 here

In 2010, Richmond's population was 31 percent black and 59 percent white; Asians constituted 4 percent of the population and Latinos 5 percent. The proportion black was about 30 percent in each 1990, 2000, and 2010; the proportion white dropped as Asian and Latino populations grew at brisk rates. Asians were not concentrated enough at the neighborhood scale to reach any of our thresholds, but one LDW tract transitioned to MDL between 1990 and 2010. The contrast with Pittsburgh is instructive. Richmond and Pittsburgh are both, in one sense, "black-white" metropolitan areas, with only one Latino and no Asian dominant tracts between them. They have quite different entropy scores, however. Richmond had proportionately far more MDW tracts than Pittsburgh in both 1990 (9 and 4 percent respectively) and 2010 (41 and 16 percent). Note also that Richmond had 32 LDB tracts in 2010—more than Pittsburgh (which is twice as large as Richmond in terms of total population) had in either 1990 and 2010.

Figure 3's third panel features San Francisco. Between 1990, the count of low diversity tracts dropped by 75 percent. In 2010, for example, only 9 percent of the tracts in the metropolitan area were low diversity. The number of Black dominated tracts halved over the two decades. There were 19 LDB tracts in 1990, but zero in 2010. These declines were accompanied by growth in Latino and Asian dominated tracts, as well as

highly diverse neighborhoods. The counts of both low and moderately diverse Asian and Latino dominated tracts have more than doubled in the two decades. The count of HD tracts increased remarkably from 35 to 145.

These changes play out in space, of course. Figure 4 depicts San Francisco's neighborhood geographies for 1990 and 2010. In mapping urban neighborhoods using our typology, we distinguish "low diversity" tracts areas using darker shading and "moderate diversity" tracts with lighter shading by the racial group with the largest share. Orange identifies predominantly white neighborhoods, Asian locales are pink, black census tracts are shaded green, purple identifies Latino residential quarters, and yellow signals American Indian dominated places. Brown-shaded areas symbolize "highly diverse" neighborhoods. The increase in metropolitan-wide diversity from an entropy score of 0.6186 in 1990 to 0.7240 in 2010 does not begin to capture the changes in neighborhood-scale racial mixing and segregation in the greater San Francisco region. In 1990, almost 78 percent of tracts were white dominated; in 2010, 54 percent were. The eastern areas, especially near the bays, were in 1990 white dominated. In 2010 they were not.[8] In their place are new suburban LDA areas mixed in with MDA and Latino dominated neighborhoods. Clusters of highly diverse tracts have emerged to the east and north. New concentrations of racialized minorities have emerged while at the same time the low diversity black neighborhoods in Oakland in 1990 have become MDB, MDL, or highly diverse. Remaining LDW tracts in 2010 were to the north and more generally, highly peripheralized. Despite this white geography, greater San Francisco in 2010 hardly resembles a minority core and white periphery. On the contrary, our maps portray a racial landscape that became increasingly complex

between 1990 and 2010 and one marked by a preponderance of moderately diverse neighborhoods.

Figure 4 here

Conclusions

This article surveys transformations in the ethnic and racial diversity of the United States at four spatial scales: the nation as a whole, states, large metropolitan areas, and neighborhoods. National diversity does not characterize the experience of many states; the same applies in terms of aggregate metropolitan diversity relative to neighborhoods. One conspicuous feature of the emerging mixture of peoples is that in some places this new diversity occurs in tandem with persistent racial segregation.

Without wanting to sound too much like a proselytizing professor in an introductory human geography course, a geographical perspective is critical to understanding patterns of change in racial segregation and diversity in the United States. Viewing an imaginary map of all the United States' census tracts using our schema, the reader would see a preponderance of LDW tracts, along with some areas of Black dominated regions (in the south) and Latino (mainly in the southwest). This overall impression would alter slightly between 1990 and 2010; in 1990, 84 percent of the tracts were either LDW or MDW; in 2010 that proportion had declined to just over 74 percent.

The patterns of change would not be clearly visible at this scale. Change occurred predominantly within large metropolitan areas and their neighborhoods.

The forces of racial change in metropolitan areas have several origins. Among the most important are surely immigration-wrought demographic transformations. We inspected the neighborhood racial structure of the 53 largest metropolitan areas for 1990, 2000, and 2010 – places where immigrants continue to reside disproportionately - to assess how immigration-related forms of segregation and diversity vary by metropolitan area type. Our findings challenge simple assertions that the presence of immigrants in emerging destinations is "accompanied by increasing spatial balkanization" (Lichter et al. 2010, 206; cf. Ellis and Wright 1998). The method we use illustrates the both/and-ness of segregation and diversity in places experiencing dramatic change in their racial-makeup largely due to immigration. New forms of segregation and enhanced diversity are folded together in ways that defy simple characterization, or simplistic metaphor.

Immigration's role in both racial segregation and diversity deserves the space of a completely separate essay. Suffice it to say that the settlement patterns of immigrants and their offspring help shape racial and ethnic diversity; were immigration to be completely stopped today, the country would still register increases in racial diversity for generations. Latinos, for example, are younger than average and have above average fertility rates. Indeed, births now account for a greater share of Latino population growth in the US than does immigration (Pew Hispanic Center 2011). Driven by declines in immigration from Mexico, the overall immigration rate has fallen recently, and if some in Congress get their way, we could see rates drop further. Continued

immigration, at any pace, will only add to our growing diversity; as will marriage and partnerships that cross racial/ethnic lines. (Time will tell whether this results in a larger proportion of the population claiming to be "mixed".)

How all this unfolds depends in part on future racial classifications (e.g., Bonilla Silva 2010). We certainly should be prepared for a racial and ethnic taxonomy that bears only a partial reflection of what we use today (Ellis 2001). Discussions of new blends or racial and ethnic hybridity perhaps should take a back seat to the more pressing question of whether in the future racial and ethnic data will even be gathered in samples large enough for analysis of the sort in this paper. There is a real and present danger, from many points along the political spectrum, that race data will no longer be collected or be only amassed in an attenuated form (Ellis 2009). As Canada is actively trying to "kill" its census (Shearmur 2010), the US may follow suit sooner rather than later.

This article begins to identify a set of projects built on census data and designed around the basic idea that racial segregation and diversity not only co-exist but also can co-evolve in the same locations. Places can be both diverse and segregated. It also features the key role large metropolitan areas play in most patterns of change. We must ask: "what are our racial futures?" We should also ask: "where are our racial futures?" The second question is easier to answer than the first. They are in big cities where immigrants and their descendants cluster. We therefore conclude by hoping we have the data to tell the story of future transformations of these places and that we do so in rich, polyvocal, and nuanced ways that move beyond the either/or perspective of segregation

and diversity toward positions that foreground the "both/and-ness" of segregation and diversity.

Notes

[1] See also Wilson (2011). The semantic association of racial dominance and segregation makes sense at the neighborhood scale but not at greater geographic scales. Maine is not "segregated" because it is predominantly white. It is just predominantly white.
[2] For our computations, we calculated E_j based on individuals in 6 racialized groups (white, black, American Indian, Asian and Pacific Islander, "Other Race" plus Latino/as). Our racial groups reflect what was observable in the 1990 Census, with definitions from the 2000 and 2010 censuses conforming to that baseline. Thus, the "Asian and Pacific Islander" category is a combination of two categories on the 2000 Census that mirrors the 1990 classification of Asian and Pacific Islander. Similarly, we aggregated Asian Indians, Chinese, Filipinos, Other Asians, Japanese, Koreans, Vietnamese, Native Hawaiians, Guamanians or Chamorros, Samoans, and Other Pacific Islanders from 2010 into "Asian and Pacific Islander". Further, we allocated individuals reporting multiple racial categories in 2000 and 2010 to single racial categories using minority-preference proportional weighting. Specifically, we used the whole-race assignment method - Largest Group Other than White – recommended by the Office of Management and Budget.
[3] We defined "low diversity" tracts as having scaled entropy values less than or equal to 0.3707 and one group constituting over 80 percent of the population of the spatial unit. $0.3707 > E > .7414$ define "moderately diverse" areas. In "highly diverse" places, no one group has more than 45 percent of the population, that the largest two groups have a combined percentage of no more than 80 percent of the total population, and $E>.7414$ (which insures that the third and fourth ranking groups have meaningful representation). See Holloway et al. (2012) and Wright et al. (2011) for details.
[4] Our decision to use the whole-race assignment method to build neighborhood populations sidelines any analysis of multiracial populations.
[5] That is, those metropolitan areas with populations over 1 million in 2010. All metropolitan areas were aligned to their 2000 boundaries.
[6] Aligned to 2000 boundaries. We dropped from subsequent analysis any tract that had a population less than 50.
[7] The total number of tracts involved in these transitions (1114, or 1.72 percent) is not very large, especially as compared to the tracts that transitioned out of the LDW category.

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Captions

Table 1: State and Metropolitan Area Classification

Table 2: Counts of Metropolitan Areas by Census Region and Type

Figure 1: Box-and-whisker diagrams of metropolitan entropy distributions: 1990, 2000, and 2010

Figure 2: The Transition Matrix for all Census Tracts: 1990-2010

Figure 3: Transition Matrices for Pittsburgh, Richmond, and San Francisco: 1990-2010

Figure 4: San Francisco 1990 and 2010

Table 1

	1990	2000	2010
States			
White, Low Diversity (LDW)	32	23	18
White, Moderate Diversity (MDW)	17	26	30
Asian, Moderate Diversity (MDA)	1	1	1
Latino, Moderate Diversity (MDL)			1
Large Metropolitan Areas			
White, Low Diversity (LDW)	23	13	2
White, Moderate Diversity (MDW)	29	37	47
Latino, Moderate Diversity (MDL)	1	3	3
Black, Moderate Diversity (MDB)			1

Table 2

1990				
	LDW	MDW	MDL	MDB
West	3	9		
Midwest	9	2		
South	5	16	1	
Northeast	6	2		

2000				
	LDW	MDW	MDL	MDB
West	2	8	2	
Midwest	5	6		
South	1	20	1	
Northeast	5	3		

2010				
	LDW	MDW	MDL	MDB
West		10	2	
Midwest	1	10		
South		20	1	1
Northeast	1	7		

Figure 1

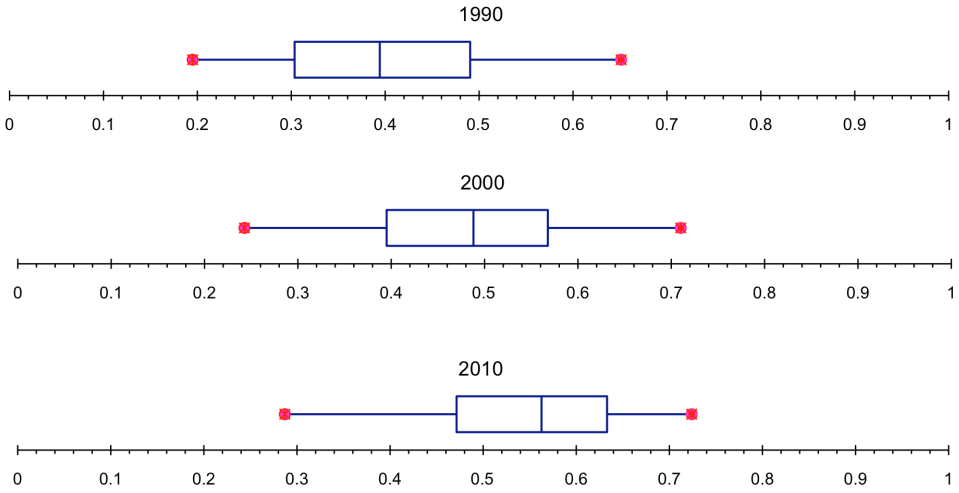

1990
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
2000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
2010
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

Figure 2

		2010														
	All Tracts	White, Low Diversity	Black, Low Diversity	Asian, Low Diversity	Latino, Low Diversity	Am. Indian, Low Diversity	White, Moderate Diversity	Black, Moderate Diversity	Asian, Moderate Diversity	Latino, Moderate Diversity	Am. Indian, Moderate Diversity	Other, Moderate Diversity	High Diversity	Total	1990 as %	2010 as %
	White, Low Diversity	**27359**	81		16	5	14241	576	34	497	8		159	42976	66.41%	42.53%
	Black, Low Diversity	2	**2598**		1		49	767		35			3	3455	5.34%	4.91%
	Asian, Low Diversity			**48**					15					63	0.10%	0.15%
	Latino, Low Diversity	1			**955**		10	2	1	116				1085	1.68%	2.65%
	Am. Indian, Low Diversity	3				**118**	3			2	10			136	0.21%	0.21%
1990	White, Moderate Diversity	141	136	6	104		**5943**	1239	462	2758	24		632	11445	17.69%	31.98%
	Black, Moderate Diversity	8	363		13		294	**1463**	14	354	1		80	2590	4.00%	6.31%
	Asian, Moderate Diversity			41			7	3	**314**	26			16	407	0.63%	1.43%
	Latino, Moderate Diversity	4			626	1	139	23	53	**1426**	2		24	2298	3.55%	8.19%
	Am. Indian, Moderate Diversity	1				9	4				**40**		3	57	0.09%	0.13%
	Other, Moderate Diversity												1	1	0.00%	0.00%
	High Diversity			2	1		2	7	33	88			**63**	196	0.30%	1.52%
	Total	27519	3178	97	1716	133	20692	4080	926	5302	85		981	64709		

Figure 3

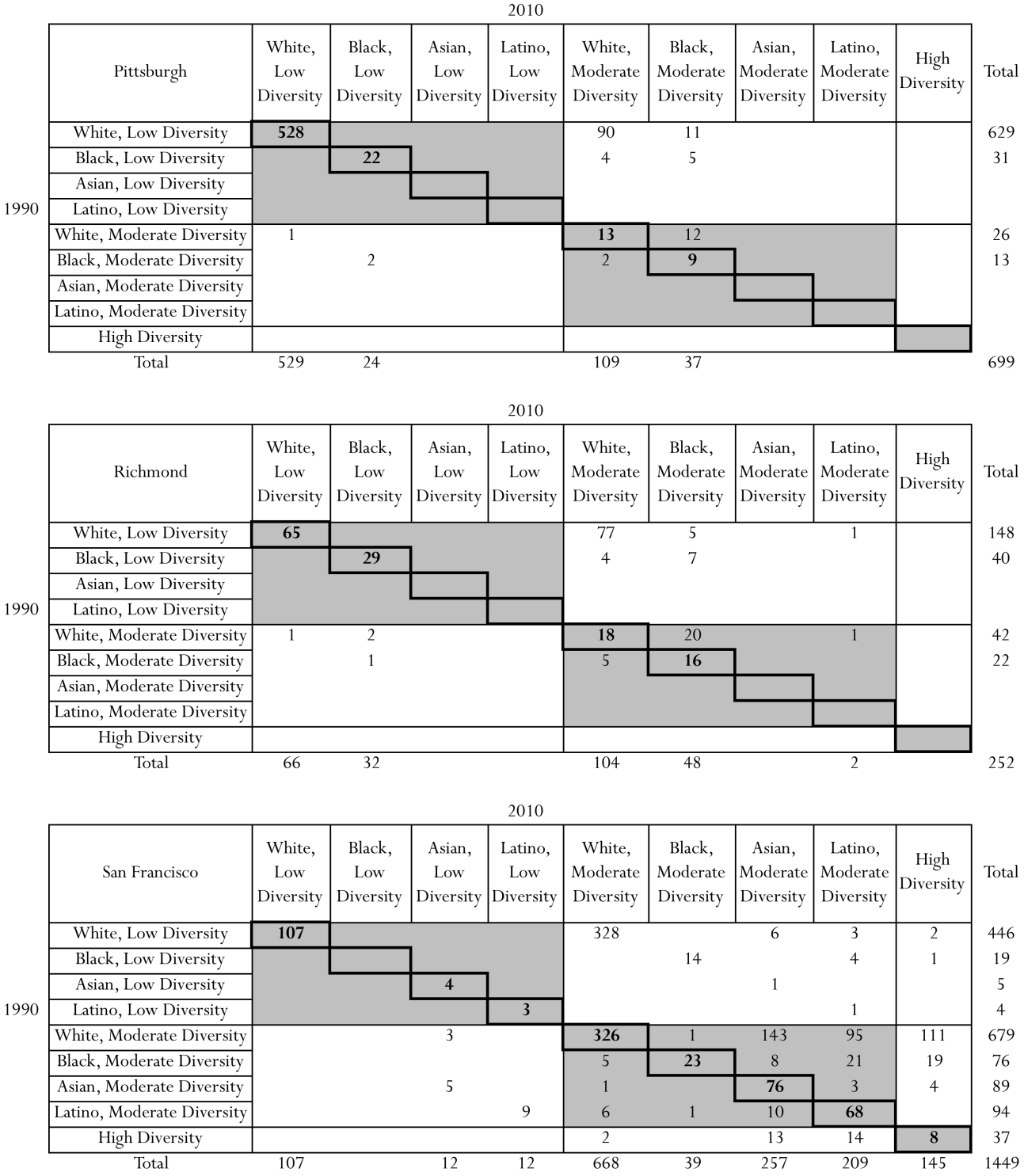
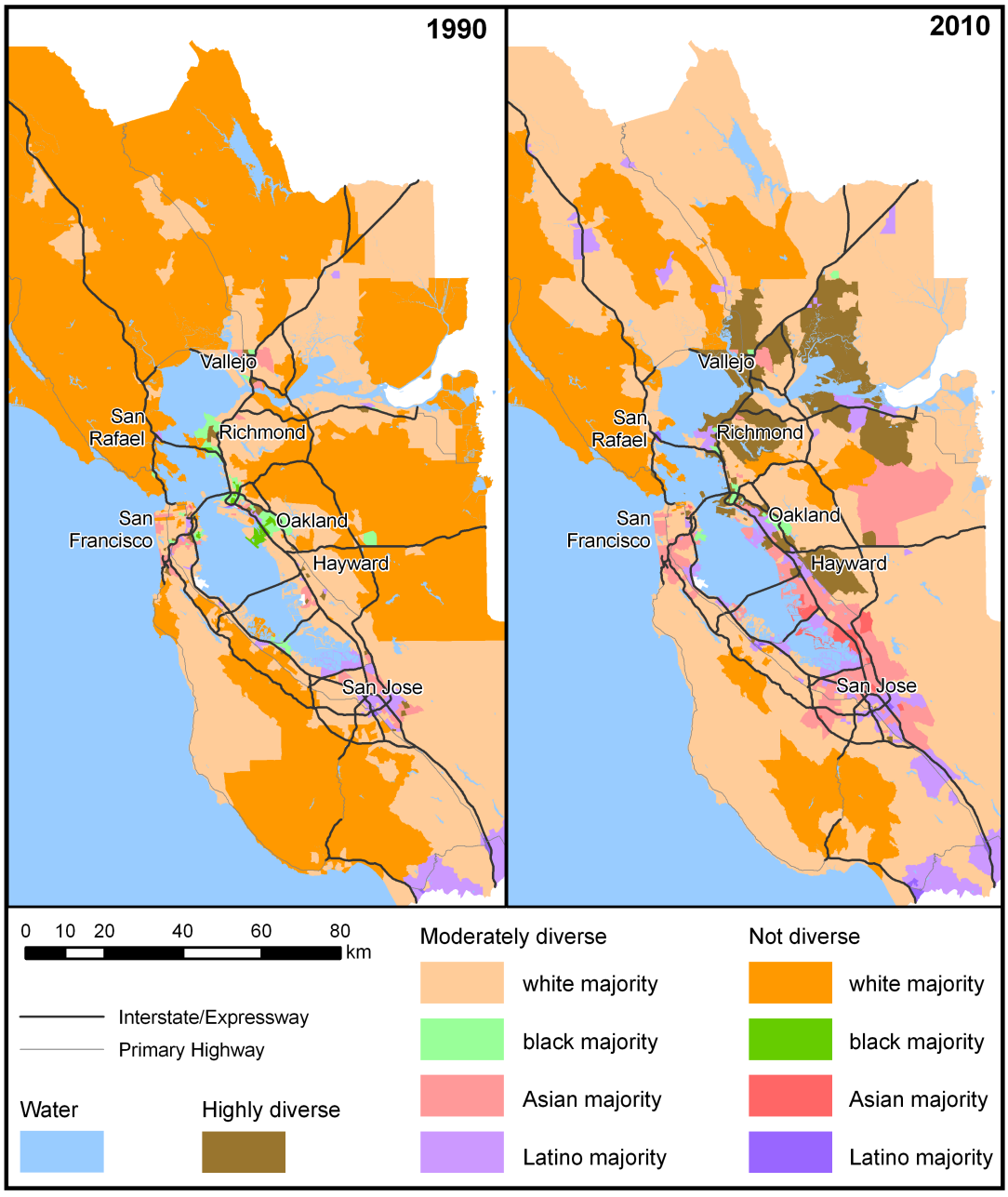

2010
1990
Pittsburgh
White, Low Diversity
Black, Low Diversity
Asian, Low Diversity
Latino, Low Diversity
White, Moderate Diversity
Black, Moderate Diversity
Asian, Moderate Diversity
Latino, Moderate Diversity
High Diversity
Total
White, Low Diversity 528 90 11 629
Black, Low Diversity 22 4 5 31
White, Moderate Diversity 1 13 12 26
Black, Moderate Diversity 2 2 9 13
Total 529 24 109 37 699
2010
1990
Richmond
White, Low Diversity
Black, Low Diversity
Asian, Low Diversity
Latino, Low Diversity
White, Moderate Diversity
Black, Moderate Diversity
Asian, Moderate Diversity
Latino, Moderate Diversity
High Diversity
Total
White, Low Diversity 65 77 5 1 148
Black, Low Diversity 29 4 7 40
White, Moderate Diversity 1 2 18 20 1 42
Black, Moderate Diversity 1 5 16 22
Total 66 32 104 48 2 252
2010
1990
San Francisco
White, Low Diversity
Black, Low Diversity
Asian, Low Diversity
Latino, Low Diversity
White, Moderate Diversity
Black, Moderate Diversity
Asian, Moderate Diversity
Latino, Moderate Diversity
High Diversity
Total
White, Low Diversity 107 328 6 3 2 446
Black, Low Diversity 14 4 1 19
Asian, Low Diversity 4 1 5
Latino, Low Diversity 3 1 4
White, Moderate Diversity 3 326 1 143 95 111 679
Black, Moderate Diversity 5 23 8 21 19 76
Asian, Moderate Diversity 5 1 76 3 4 89
Latino, Moderate Diversity 9 6 1 10 68 94
High Diversity 2 13 14 8 37
Total 107 12 12 668 39 257 209 145 1449

Figure 4


1990
2010
Vallejo
San Rafael
Richmond
San Francisco
Oakland
Hayward
San Jose
0 10 20 40 60 80
km
Interstate/Expressway
Primary Highway
Water
Highly diverse
Moderately diverse
white majority
black majority
Asian majority
Latino majority
Not diverse
white majority
black majority
Asian majority
Latino majority