

NIH Public Access

Author Manuscript

Prof Geogr. Author manuscript; available in PMC 2014 July 29.

Published in final edited form as:

Prof Geogr. 2014 April 1; 66(2): 173-182. doi:10.1080/00330124.2012.735924.

Patterns of Racial Diversity and Segregation in the United States: 1990–2010^{*}

Richard Wright, Dartmouth College

Mark Ellis, University of Washington

Steven R. Holloway, and University of Georgia

Sandy Wong Ohio State University

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, Wright, and Ellis 2012). Urban analysis often posits neighborhood 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, although not as inevitable binary opposites. Using census data from 1990, 2000, and 2010, the research points to how patterns of racial diversity and dominance interact across varying spatial scales. This investigation helps answer some basic questions about the changing geographies of racialized groups, setting the stage for the following articles that explore the relationship between geography and the participation of underrepresented groups in higher education.

Keywords

demographic change; diversity; scale; segregation

In the last fifty 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

^{*}Jonathan Chipman, Director of the Laboratory for Geographic Information Science and Applied Spatial Analysis at Dartmouth College, provided valuable research support. A CompX Faculty grant from the Neukom Institute for Computational Science at Dartmouth College, along with an award from the National Science Foundation, also helped make this research possible.

[©] Copyright XXXX by Association of American Geographers.

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. These changes are highly uneven geographically. In many states and metropolitan areas, whites remain numerically dominant, whereas other areas 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 censuses. It sketches the shifts that are underway in the racial makeup of U.S. society and how those vary by space and scale. We also flesh out the idea that "geographical research on immigration and geographical research on race and racism in the USA must be explicitly connected" (Liu 2000, 169); immigration is driving the reconfiguration of the country's racial landscapes. Our article also sounds a cautionary note. We are attentive to different forms of racial concentration and racial diversities: Some forms of racial concentration signal isolation and lack of access to important resources. Other forms of segregation (e.g., white self-segregation in certain metropolitan areas) proclaim just the opposite.

We sketch these changes using an innovative method that allows scholars to evaluate diversity in the context of alterations in patterns of racial segregation. Classic measures of neighborhood segregation, such as the index of dissimilarity (D), summarize the distribution of one group relative to another. In contrast, 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 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. After the 2000 census, for example, 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, whereas the picture for white–Asian segregation was more mixed (Frey 2011).

Our objectives expand on such baseline measurements to foreground space and scale. We situate the neighborhood racial condition of large metropolitan areas by first analyzing the racial structure of the United States as a whole, followed by a state-level investigation, and then providing an evaluation of changes in large metropolitan areas. That context leads into 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 modify 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

¹See also Wilson (2011). The semantic association of racial dominance and segregation makes sense at the neighborhood scale but not at broader geographic scales. Maine is not "segregated" because it is predominantly white. It is just predominantly white.

Prof Geogr. Author manuscript; available in PMC 2014 July 29.

title. We also note that growing forms of diversity occur (sometimes literally) side by side with persistent racial segregation: Segregation and diversity do not have to be "either–or"—they can be "both–and" (Holloway, Wright, and Ellis 2012).

Our general aim delineates the changing racial landscapes of the United States and provides a context for the articles that follow. We also reflect on how the geographical contingency of our findings matters for gauging the relative level of racial diversity in social institutions, including higher education. Compared with national populations, an institution might appear racially diverse, but when contrasted with local or regional contexts it might not be. Our method uses broad brushstrokes to characterize the changing U.S. racial landscape, deploying categories available in the census to make our case. Other scholars must fill in other key details, leveraging our ideas about the "both–and"-ness of diversity and concentration and working with other salient axes of difference, such as class, nativity, and legal status, that have implications for access to opportunities for participation in higher education. The articles that follow this one begin that agenda.

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 remains a popular choice for scholars (e.g., Farrell and Lee 2011; Wilson 2011).

E is calculated as

 $E{=}{-}\sum p_i ln(p_i) \quad {}_{(1)}$

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 six) 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 nondominance with the same index. We calculate E values to categorize places, 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 or ethnic group.³

²For our computations, we calculated E_j based on individuals in six racialized groups (white, black, American Indian, Asian and Pacific Islander, "other race," plus Latino/a). 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. ³We 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 > 0.7414 define moderately diverse areas. In highly diverse places, no one group has more than 45 percent of the population, the largest two groups have a combined percentage of no more than 80 percent of the total population, and E > 0.7414 (which ensures that the third and fourth ranking groups have meaningful representation). See Holloway, Wright, and Ellis (2012) and Wright, Holloway, and Ellis (2011) for details.

Analysis

The United States

Because most immigrants to the United States are Latino or Asian, 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 and Pacific Islanders constituted about 5.5 percent of the total in 2010. Blacks expanded their population share from 11.8 percent (1990) to 12.8 percent (2010). American Indians made up about 0.75 percent of the total in 1990 and 1.2 percent in 2010. The country is becoming more racially diverse; the entropy index values for the nation increased from 0.4576 in 1990 to 0.5511 in 2000 to 0.6015 in 2010. Using our taxonomy, the country in each time period is what we term moderately diverse, white-dominant.⁴

Immigration is bound up in all this, directly through the increase in the proportion of foreign-born (the foreign-born made up less than 5 percent of the population in 1970, whereas they constituted almost 14 percent in 2010) and indirectly because they are disproportionately of child-bearing age and have higher fertility rates. The latter effect means that our student populations are changing rapidly in terms of race and nativity. The percentage of children under eighteen who have at least one foreign-born parent, for example, increased from 13.4 percent in 1990 to 24 percent in 2010 (Migration Policy Institute 2007). These children, of course, are predominantly Asian and Latino.

States

The trend toward increasing racial diversity 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) to 0.6243 for California (moderately diverse, white). 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 and Pacific Islander-dominant. In 2000, the same three New England states recorded the lowest relative standardized entropy values, whereas 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 (its 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. Although the highest value stayed roughly the same, the range of standardized entropy scores for states contracted from 0.58 in 2000 to 0.53 in 2010.

Table 1 summarizes these patterns; the demographic shift toward diversity resulted in a declining number of low-diversity, white-dominant states in favor of an increase in the number of moderately diverse, white-dominant 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 is unique in another sense; its diversity *declined* (albeit very slightly) over the

⁴Our decision to use the whole-race assignment method to build neighborhood populations sidelines any analysis of multiracial populations.

Expanding youth populations herald future reconfigurations in state diversity. The percentage of children under eighteen with least one foreign-born parent stood at over 50 percent in California in 2010, up from 38 percent in 1990 (Migration Policy Institute 2007). Other gateway states also had relatively high proportions of such children (e.g., New York and New Jersey); in contrast, Mississippi, Montana, Louisiana, and South Dakota had very few such children—less than 5 percent—in either 1990 or 2010. In new immigrant destination states (Singer 2004) such as Georgia and North Carolina, however, this youth population increased fourfold. Add in other racial dynamics, such as black "return" migration to the South (e.g., Roseman and Lee 1998; Frey 2001), and the immediate impact of these rapid shifts is in the racial and ethnic transformation of—or the pressure to transform—schools and colleges in these states.

Metropolitan Areas

Table 1 also includes information about trends in diversity for the fifty-three largest metropolitan areas in the country and offers another take on the form and pace of demographic evolution.⁵ 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, Wright, and Townley 2011). Despite a slight uptick in rural settlement, immigration continues to be a large metropolitan area phenomenon. These places represent the leading edge of the country's ethnic and racial dynamics.

Table 1 shows that over the last two decades the number of metropolitan areas with high proportions white (i.e., predominantly white, low-diversity) shrank from twenty-three of fifty-three to just two (Cincinnati and Pittsburgh). At the same time, many metropolitan areas transitioned to moderately diverse, white-dominant, such that by 2010, forty-seven of the fifty-three metropolitan areas were classed this way. Also, the number of moderately diverse, Latino-dominant large metropolitan areas grew from one (San Antonio) to three (Los Angeles, Miami, and San Antonio). Memphis emerged as a moderately diverse, black metropolitan area: African Americans made up 46.1 percent of the population, slightly more than the white share.

Table 2 assigns each of the fifty-three metropolitan areas to one of four census regions. The shift away from low-diversity, white is evident in each region. Table 2 shows that in 1990, the West and the South already had a clear majority of metropolitan areas that we would class as moderately diverse, white-dominant. The "action" takes place in the Northeast and Midwest. In 1990 these regions were home to metropolitan areas that, as a whole, were relatively homogeneous and over 80 percent white. By 2010, whites still dominated numerically but not in the same proportions as twenty years earlier. This is surprising in light of the literature on new immigrant destinations; recent immigrants are now settling in emerging gateway cities, the majority of which are found in the South and West. Table 2

NIH-PA Author Manuscript

 $^{^{5}}$ That is, those metropolitan areas with populations over 1 million in 2010. All metropolitan areas were aligned to their 2000 boundaries.

makes plain that cities like Atlanta, Las Vegas, and Orlando are, of course, not the only places affected; immigration is reshaping the aggregate racial profiles of what Singer (2004) called former and continuous gateway metropolitan areas.

San Francisco, the archetypal continuous gateway, 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. Considering the metropolitan entropy distributions in their entireties for 1990, 2000, and 2010, the national trend of increasing diversity is apparent from the shift of the median entropy score for the fifty-three metropolitan areas from 0.3942 in 1990 to 0.5627 in 2010. In addition, the skewness of these three distributions moves 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.

Neighborhoods

Following convention, we use census tracts as proxies for neighborhoods and again start from a national viewpoint. The census now divides the entire United States into census tracts, and we have classified each tract according to our taxonomy.⁶ In 1990, over 66 percent of all census tracts were low-diversity, white-dominant. In 2010, that category was still the modal class, but the proportion had declined to 42.5 percent. Figure 1 provides a fuller perspective on the shifting patterns of U.S. 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. Of the 42,976 low-diversity, white-dominant tracts in 1990, more than 27,000 remained as such in 2010, but over one third (more than 15,000) shifted classification. The majority of those became moderately diverse, white-dominated. The other principal movements from this category were to moderately black (576) and Latino (497). The only other category to experience decline was the low-diversity, black type—from 5.3 percent of all tracts in 1990 to 4.9 percent in 2010. Of those tracts that transitioned from being low-diversity, black, most (767/857) became moderately diverse and black-dominant.

Whereas many formerly low-diversity, white-dominant and several hundred formerly lowdiversity, black-dominant tracts became more diverse, Table 3 shows an opposite trend for low-diversity Latino and Asian tracts. The latter increased from sixty-three to ninety-seven; the former grew from 1,085 in 1990 to 1,716 two decades later. These countercurrents, observed by simple tallies of tract types for the United States as a whole, make plain our thesis that the contemporary United States is becoming more residentially segregated and more diverse concurrently.

Although transitions often catch the eye, consider also which type of tracts did not change classification between 1990 and 2010. A considerable number of low-diversity, white-dominant tracts transitioned (about 36 percent of the 1990 total) but, crucially, 64 percent of tracts that were low-diversity, white-dominant in 1990 remained that way in 2010. Roughly

⁶Again aligned to 2000 boundaries. We dropped from subsequent analysis any tract that had a population of fewer than fifty.

75 percent of low-diversity, black-dominant tracts in 1990 also were low-diversity, black in 2010, almost the same proportion as Asian-dominated, low-diversity tracts. Of the 3,178 low-diversity, black tracts in 2010, just under 82 percent had been classed that way in 1990. Low-diversity Latino and American Indian tracts, however, were far less likely to shift status; for example, over 88 percent of low-diversity, Latino tracts in 1990 were counted that way in 2010. The lesson here is that, again, many segregated places can stay intact while diversity increases at other scales.

The patterns of the most racially mixed tracts altered in interesting ways. Table 3 shows that in 1990, highly diverse tracts represented just 0.3 percent of the total; twenty years later, this proportion had grown to over 1.5 percent, making this category the one that changed the most in percentage terms.⁷ Table 3 cannot show, however, that much of this growth took place between 1990 and 2000. In that decade, the tally of highly diverse tracts increased by 676. Between 2000 and 2010, the count increased by only 109. Table 3 does signal the considerable churn in this type of tract; only about a third of all highly diverse 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 to disaggregate some of the row and column totals in Table 3 by state. Consider the overall trend of black-dominated tracts. In the aggregate, low-diversity, black-dominant tracts declined from 3,455 to 3,178—an 8 percent drop. Whereas many states experienced similar or even larger declines in proportion, ten states registered increases in the count of low-diversity, black-dominant 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, although the number of moderately diverse, black-dominant tracts increased from 2,590 to 4,080 nationally, several states experienced movement the other way. In Maryland, for example, seven tracts shifted from low to moderately diverse, black-dominant, whereas forty-five transitioned in the other direction.

Between 1990 and 2000, only 3 of Vermont's 179 tracts transitioned (from low- to moderate-diversity, white). New Hampshire and Maine exhibit much the same stasis. These are some of the states least affected by immigration. Shifting context, declines in the counts of moderately diverse, black tracts are often associated with shifts to the moderately diverse, Latino 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 low- and moderate-diversity Latino tracts more than doubled between 1990 and 2010 (to 69 and 195, respectively, out of a total of 1,081—about 24 percent of the total). 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 nondiverse and thirty-nine moderately diverse Latino tracts (about 2.5 percent of the

 $^{^{7}}$ The total number of tracts involved in these transitions (1,114, or 1.72 percent) is not very large, especially as compared to the tracts that transitioned out of the low-diversity, white category.

total number of 2010 tracts), and nine white- and two black-dominated tracts had transitioned to moderately diverse, Latino status in North Carolina (0.7 percent of the 2010 total).

For the final phase of analysis, we shift 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 Web site (http://www.mixedmetro.com) that allows users to interactively examine racial landscapes cartographically. Whereas the mixedmetro project explores patterns in large U.S. metropolitan areas, the focus here falls on three metropolitan statistical areas (MSAs). We pay particular attention to the two MSAs at the extremes in 2010: Pittsburgh had the lowest entropy among the MSAs, and San Francisco had the highest. These two places contrast in another way: Pittsburgh is a "former" immigrant gateway and San Francisco is a "continuous" gateway (Singer 2004). We also feature the MSA positioned at the metropolitan-scale standardized entropy median in 2010—Richmond.

Table 4's panels juxtapose the 1990 to 2010 transition matrices for these 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 heavily white neighborhoods transitioned to moderately white and black-dominated during the two decades but at nowhere near the rate recorded in the nation as a whole.

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 1990, 2000, and 2010; the white share 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 low-diversity, white-dominant tract transitioned to moderately diverse, Latino 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-dominant and no Asian-dominant tracts between them. They record quite different entropy scores, however: Richmond had proportionately far more moderately diverse, white-dominated tracts than Pittsburgh in both 1990 (9 percent and 4 percent, respectively) and 2010 (41 percent and 16 percent). Richmond also had thirty-two low-diversity, black-dominated tracts in 2010—more than Pittsburgh (which is twice as large as Richmond in terms of total population) had in either 1990 or 2010.

Table 4's third panel features San Francisco. Between 1990 and 2010, the count of lowdiversity tracts dropped by 75 percent. In 2010, for example, only 9 percent of its tracts were of low diversity. The number of black-dominated tracts halved over the two decades. There were nineteen low-diversity, black-dominated tracts in 1990 but none in 2010. These declines were accompanied by growth in Latino- and Asian-dominated tracts, as well as in highly diverse tracts. The counts of both low and moderately diverse Asian- and Latinodominated tracts more than doubled in the two decades. The count of highly diverse tracts increased almost fourfold.

These transitions play out in space, of course. Figure 1 depicts San Francisco's neighborhood geographies for 1990 and 2010. In mapping urban neighborhoods using our typology, we distinguish low-diversity tract areas using darker shading and moderatediversity 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, and purple identifies Latino residential spaces. 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, only 54 percent were. The eastern areas, especially near the bay, were white-dominated in 1990. Twenty years later, they were not. In their place are new suburban low diversity and Asian areas mixed in with moderately diverse, Asian- and Latino-dominated neighborhoods. Clusters of highly diverse tracts have emerged to the east and north. New concentrations of racialized minorities have formed at the same time the low-diversity, black neighborhoods in Oakland in 1990 have become black and Latino (moderately diverse) or highly diverse. Remaining low-diversity, white 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 prevalence of moderately diverse neighborhoods.

Conclusions

This survey of transformations in the ethnic and racial diversity of the United States uses four spatial scales. 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. New forms of segregation and enhanced diversity are folded together in ways that defy simple characterization or simplistic metaphor.

A spatial perspective is critical to understanding the evolving patterns of racial segregation and diversity. Viewing an imaginary map of the entire set of census tracts using our schema, the observer would see a preponderance of low-diversity, white-dominant tracts, along with some areas of black-dominated regions (in the South) and Latino regions (mainly in the Southwest). This overall impression would alter slightly between 1990 and 2010; in 1990, 84 percent of the tracts were either low or moderately diverse, white-dominant; 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.

These alterations in metropolitan areas have several origins, and immigration-wrought demographic transformations rank high on that score. This immigration effect deserves the space of a completely separate article. Suffice it to say that increased numbers of immigrants —and their offspring—will mold future racial and ethnic diversity; were immigration to be

completely stopped today, the country would still register increases in 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 United States than does immigration (Pew Hispanic Center 2011).

This immigration-led demographic refashioning has been—and in all likelihood will continue to be—geographically concentrated. Consequently, alterations to the racial morphology of the United States are unevenly distributed. Diversity at the national scale does not capture the experience of diversity in most communities. These scale and place differences inform our expectations and evaluations of access to education for different groups. In K–12 education, for example, neighborhood racial segregation in combination with neighborhood school-assignment policies keep schools racially segregated. This outcome continues even while districts and their surrounding metropolitan areas grow more diverse because of the tendency for segregation and diversity to unfold differentially across scales. Our expectations about how diverse each school should be and how segregated each school actually is derive from the racial composition of the population in the district, not from populations beyond its borders.

What are the expectations for higher education? This is a harder question. Some institutions —community colleges, for example—serve primarily local populations. Others, such as elite private universities and colleges, have clearly articulated national, even international, recruitment objectives. State universities occupy a middle ground, favoring in-state students because of their funding source but recruiting nationally and internationally to boost their reputations and coffers, as well as to diversify the student experience. If we assess higher education institutions relative to national trends in racial composition, we should expect them to be moderately diverse and white-dominated. Set in their state and metropolitan area contexts, diversity expectations will vary depending on the local composition of the population. The growing internationalization of student bodies in the United States complicates these assessments through the conflation of race and nativity for non-white groups. Resolving these difficult issues is beyond the scope of our article, but our method and findings and the articles that follow help point the way.

Biographies

RICHARD WRIGHT holds the Orvil E. Dryfoos Chair in Public Affairs and is Professor of Geography at Dartmouth College, Hanover, NH 03755. richard.wright@dartmouth.edu. His research and teaching primarily concerns racial mixing in households and neighborhoods, regional labor market processes, and migration, nativism, and the racialization of immigrants and the native-born.

MARK ELLIS is a Professor of Geography and Director of the Center for Studies in Demography and Ecology at the University of Washington, Seattle, WA 98195. ellism@u.washington.edu. His research investigates questions associated with immigration, internal migration, local labor markets, and residential segregation. STEVEN R. HOLLOWAY is a Professor of Geography at the University of Georgia, University of Georgia, Athens, GA 30602–1502. holloway@uga.edu. His research centers on critical race studies, with specific foci on residential segregation, racial mixing, and housing market processes. He also studies the contingent nature of racial socialization and collective efficacy across the urban continuum and has emerging interests in the socio-racial dimensions of the urban–nature nexus.

SANDY WONG is a graduate student at The Ohio State University, Columbus, OH 43210–1361. wong.484@osu.edu. Her research focuses on applications of GIS to the analysis of mortality and morbidity. She is also interested in geovisualization, immigration, and neighborhood racial segregation and diversity.

Literature Cited

- Ellen, IG. Sharing America's neighborhoods: The prospects for stable racial integration. Cambridge, MA: Harvard University Press; 2001.
- Ellis, M.; Wright, R.; Townley, M. New destinations and immigrant poverty. Paper presented at the National Poverty Center Conference on Immigration, Poverty, and Socioeconomic Inequality; Berkeley: University of California; 2011.
- Farrell CR, Lee BA. Racial diversity and change in metropolitan neighborhoods. Social Science Research. 2011; 40:1108–23. [PubMed: 21691412]
- Frey WH. Migration to the South brings U.S. blacks full circle. Population Today. 2001; 29:1-2.
- Frey, WH. [last accessed 23 January 2012] Brookings Institution and University of Michigan Social Science Data Analysis Network's analysis of 1990, 2000, and 2010 Census decennial census tract data. 2011. http://www.psc.isr.umich.edu/dis/census/segregation2010.html
- Holloway S, Wright R, Ellis M. The racially fragmented city? Neighborhood racial segregation and diversity jointly considered. The Professional Geographer. 2012; 64:63–82.
- Liu LY. The place of immigration in studies of geography and race. Social and Cultural Geography. 2000; 1:169–82.
- Migration Policy Institute. Migration Policy Institute data hub. Washington, DC: 2007. http:// www.migrationinformation.org/DataHub/charts/children2.shtml [last accessed 23 January 2012]
- Pew Hispanic Center. The Mexican-American boom: Births overtake immigration. Washington, DC: Pew Hispanic Center; 2011. http://pewhispanic.org/reports/report.php?ReportID=144 [last accessed 23 January 2012]
- Roseman CC, Lee SW. Linked and independent African American migration from Los Angeles. The Professional Geographer. 1998; 50:204–14.
- Singer, A. The rise of new immigrant gateways. Washington, DC: Center on Urban and Metropolitan Policy, Brookings Institution; 2004.
- White M. Segregation and diversity measures in population-distribution. Population Index. 1986; 52:198–221. [PubMed: 12340704]
- Wilson RE. Visualizing racial segregation differently: Exploring changing patterns from the effect of underlying geographic distributions. Cityscape: A Journal of Policy Development and Research. 2011; 13:163–74.
- Wright R, Holloway S, Ellis M. Reconsidering both diversity and segregation: A reply to Poulsen, Johnston, and Forrest; and Peach. Journal of Ethnic and Migration Studies. 2011; 37:167–76.

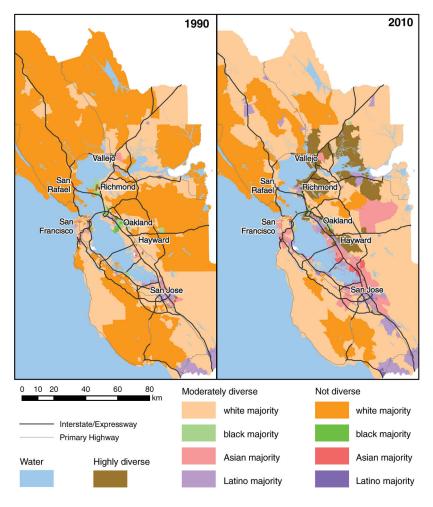


Figure 1. San Francisco, 1990 and 2010. (Color figure available online.)

Table 1

State and metropolitan area classification

	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

Counts of metropolitan areas by census region and type

	LDW	MDW	MDL	MDB
1990				
West	3	9		
Midwest	9	2		
South	5	16	1	
Northeast	6	2		
2000				
West	2	8	2	
Midwest	5	6		
South	1	20	1	
Northeast	5	3		
2010				
West		10	2	
Midwest	1	10		
South		20	1	1
Northeast	1	7		

Note: LDW = white, low diversity; MDW = white, moderate diversity; MDL = Latino, moderate diversity; MDB = black, moderate diversity.

NIH-PA Author Manuscript

Table 3

The transition matrix for all census tracts: 1990-2010

All tracts	White, low diversity	Black, low diversity	Asian, low diversity	Latino, low diversity	American Indian, low diversity	White, moderate diversity	Black, moderate diversity	Asian, moderate diversity	Latino, moderate diversity	American Indian, moderate diversity	Other, moderate diversity	High diversity	Total	1990 as%	2010 as%
White, low diversity	27,359	81		16	5	14,241	576	34	497	×		159	42,976	66.41	42.53
Black, low diversity	2	2,598		1		49	767		35			ю	3,455	5.34	4.91
Asian, low diversity			48					15					63	0.10	0.15
Latino, low diversity	1			955		10	2	1	116				1,085	1.68	2.65
American Indian, low diversity	3				118	ю			2	10			136	0.21	0.21
White, moderate diversity	141	136	9	104		5,943	1,239	462	2,758	24		632	11,445	17.69	31.98
1990 Black, moderate diversity	8	363		13		294	1,463	14	354	1		80	2,590	4.00	6.31
Asian, moderate diversity			41			7	ю	314	26			16	407	0.63	1.43
Latino, moderate diversity	4			626	1	139	23	53	1,426	2		24	2,298	3.55	8.19
American Indian, moderate diversity	1				6	4				40		б	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	27,519	3,178	76	1,716	133	20,692	4,080	926	5,302	85		981	64,709		

Note: Main diagonal numbers (in bold) indicate the number of census tracts that did not change classification between 1990 and 2010.

_
_
_
≡
÷
U
~
~
\rightarrow
a.
ithor
~
0
-
5
Janu
L L
_
=
<u> </u>
0
š
uscri
0
+

4	
Ð	
ab	
Та	

Transition matrices for Pittsburgh, Richmond, and San Francisco: 1990–2010

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				06	11				629
Black, low diversity		22			4	5				31
Asian, low diversity										
Latino, low diversity										
White, moderate diversity	1				13	12				26
u Black, moderate diversity		2			2	6				13
Asian, moderate diversity										
Latino, moderate diversity										
High diversity										
Total	529	24			109	37				669
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				LL	5		1		148
Black, low diversity		29			4	7				40
Asian, low diversity										
Latino, low diversity										
White, moderate diversity	1	2			18	20		1		42
Black, moderate diversity		1			5	16				22
Asian, moderate diversity										
Latino, moderate diversity										
High diversity										
Total	66	32			104	48		2		252
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		9	3	2	446
1990 Black, low diversity						14		4	-	10

Page 16

7
~
T
_
1.1
0
\rightarrow
a.
-
0
\simeq
uthor
-
<
/la
<u></u>
-
<u> </u>
<u> </u>
SD
USU
usci
uscri
nuscrip
uscrip
uscript

NIH	
PA A	
Author I	
Manus	
lanuscript	

	White,	Black,	Asian,	Latino,	White,	Black,	Asian,	Latino,		V
	low	low	low	low	moderate	moderate	moderate	moderate	High	Vri
Pittsburgh	diversity	ģħt								
Asian, low diversity			4				1			ა et al
Latino, low diversity				3				1		•
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				6	9	1	10	68		94
High diversity					2		13	14	8	
Total	107		12	12	668	39	257	209	145	1,449

Note: Main diagonal numbers (in bold) indicate the number of census tracts that did not change classification between 1990 and 2010.