Where Black-White Mixed Couples Live

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Abstract: This study analyzes where households headed by black-white mixed-race couples live in cities. Using 2000 confidential US Census data, we investigate whether black-white households in twelve large US metropolitan areas are more likely to be found in racially diverse neighborhoods than households headed by white or black couples. Map analysis shows that concentrations of black-white headed households are most often found in moderately diverse white neighborhoods. This relationship, however, varies by metropolitan context. Controlling for socio-economic conditions reveals that black-white couples are drawn to diversity no matter which racialized group forms the majority in the neighborhood. In contrast, neighborhood racial diversity matters for households headed by black couples only when they enter spaces comprised of many whites or Asians; it matters for households headed by white couples only when they enter neighborhoods with a lot of blacks or Latinos. (Key Words: black-white mixed-race couples, neighborhood diversity, residential segregation.)
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Introduction

In the United States, the increase in mixed-race partnerships over the last 40 years stems from the scrapping of formal laws preventing such relationships and the gradual erosion of social taboos directed against interracial intimacies. The rising rates of mixed-race partnering has occurred against a backdrop of persistent neighborhood segregation in many US cities, which leads to this question: where do mixed-race households live in urban spaces that remain racially divided? Previous ethnographic accounts suggest that mixed-race households tend to avoid spaces dominated by a single racialized group, gravitating instead to a small subset of places with relatively higher levels of neighborhood racial diversity (e.g., Dalmage, 2000). The analysis in this paper systematically tests this hypothesis for black-white mixed couples -- the mixed-race relationship type that bridges the widest racial divide in US social life. More broadly, our goal is to connect the racial configuration of households to the racial makeup of neighborhoods where they reside.

In pursuing these objectives, our study opens up new opportunities to examine the spatial expressions of race hierarchies in US metropolitan areas at the neighborhood scale and to explore how these geographies connect with increased racial mixing within households. Just as the existence of multiracial people challenges normative assumptions about embedded racialized structures so do racially mixed households. In spatial terms, the
growing presence of mixed-race households amplifies the difficulty of demarcating neighborhoods by single race groups (Ellis et al., 2007). We suspect that this destabilization will manifest itself unevenly across metropolitan residential space and that households headed by black-white couples will avoid the most segregated neighborhoods and congregate instead in places where there is already a willingness to traverse racial boundaries; that is, locations where diversity is welcomed. More specifically, the research asks if mixed-race households inhabit the most diverse neighborhoods or if they gravitate to specific kinds of diverse neighborhoods that mirror the composition of the plural racial identities represented in the household. Our empirical analysis of twelve large US metropolitan areas investigates the characteristics of these locations.

We focus on black-white partnerships because anti-miscegenation statutes were directed in the first instance against blacks to preserve an imagined white racial purity. Blacks alone have been (and continue to be—Hollinger, 2005) subjected to the so-called “one-drop rule” (what Ifekwunigwe [2002] compellingly describes as “compulsory blackness”) and whites “form the only group for which purity is believed to be the admission ticket” (Dalmage, 2000, p. 7). Although limitations on black-white sex and partnership find expression in early colonial statutes, the wording of Virginia’s 1924 anti-miscegenation decree exemplifies this proscription: a white was a person with “no trace whatsoever of blood other than Caucasian.” Black-white racial borders and social intimacies have been central to the formal regulation of interracial marriage as well as other forms of racial oppression that stereotype certain individuals and groups as different and unable to live easily side by side (e.g., Moran, 2001; Kennedy, 2003; Romano, 2003). For example,
Blacks bore the brunt of restrictive housing covenants and continue to suffer from mortgage-lending discrimination (e.g., Massey and Denton, 1993; Holloway and Wyly, 2001; Squires and Kubrin, 2006). The legacies of these forms of institutional racism continue to shape the lives of African Americans and whites, just as the present day social norms that veto black-white interracial intimacies continue to frame patterns of racial mixing. Childs asks that “while … the racial landscape is changing, there is no denial of the lingering opposition to black–white relationships. Is America moving to a color-blind society or are we still blinded by the black–white divide” (2002, p. 140)?

Our paper explores the contextual forms of racial domination in urban neighborhood spaces, especially in terms of black-white mixing in households and neighborhoods. We analyze the distribution of black-white couples across neighborhoods using restricted access data from Census 2000 for a dozen large US metropolitan areas adopting two basic research strategies. The first is cartographic; we map tract-level concentrations of households headed by black-white couples against a backdrop that depicts a spectrum of intersections between neighborhood racial segregation and diversity. This allows us to not only render visible the mixed-race household (Onwuachi-Willig and Willig-Onwuachi, 2009) but also the places of rupture in black-white binaries and reveals a complex urban cartography of households headed by black-white racially mixed couples.

We augment this analysis of neighborhood patterns by regressing counts of households headed by black-white couples on a set of census-tract characteristics. This phase of the study approaches the question of the place of neighborhood racial diversity by controlling
for socio-economic status to single out the effects of a tract-level measure of racial compositional diversity — scaled entropy — on the counts of couples in each metropolitan neighborhood. Parallel examinations of the residential neighborhoods favored by households headed by white couples and black couples help to contextualize this analysis. We find that black-white couples are drawn to diversity no matter which racialized group forms the majority in the neighborhood. In contrast, neighborhood racial diversity matters for households headed by black couples only when they enter spaces comprised of many whites or Asians; it matters for households headed by white couples only when they enter neighborhoods with a lot of blacks or Latinos. Overall, the maps and models suggest that black-white households occupy a residential geography located in-between the distinct urban spaces delineated as white or black, Asian or Latino. These “in-between locations” tend to be more diverse than the average census tract but are usually not the most diverse neighborhoods found in each metropolitan area. Before describing methods and results further we first summarize the literatures on the history of mixed-race partnering and residential segregation.

Background

At one time or another, forty-three states enacted anti-miscegenation statutes (www.lovingday.org/legal-map) and as late as 1959 twenty-nine states still boasted laws that prevented the marriage of blacks with whites. Even in the absence of formal regulation after 1967 social prohibitions restricted interracial romance and partnership.
The legacies of Jim Crow thus abound. Whites are the group least likely to marry or partner with members of another group. Blacks are next least likely (Qian and Lichter, 2007). Levels of black-white neighborhood residential segregation remain very high and have declined only modestly after 1980 (e.g., Logan et al., 2004). Socio-economic differences between racialized groups certainly shape residential segregation but social class has less effect on the segregation of blacks from whites than the segregation of other groups (Asians and Latinos) from whites (e.g., Iceland and Wilkes, 2006). Scholars report mixed results in terms of black-white segregation in the context of the emergence of more “multiethnic” metropolises. Logan et al. (2004) find such places have little impact whereas others (e.g., Frey and Farley, 1996; Iceland, 2004) conclude otherwise. Frey and Farley (1996), for example, argue that while black segregation from whites is well above that of Asian or Latino segregation from whites, it is lower in more racially diverse metropolitan areas. These studies, despite some differences in method, theory, or ontology, collectively signal that black-white social relations remain at the core of the United States’ experience with racial oppression.

We recognize, however, that some things have changed for the better. Since Loving v. State of Virginia - the 1967 Supreme Court ruling that declared state anti-miscegenation statutes unconstitutional - rates of mixed-race partnering have risen. In 1970, the census recorded 310,000 mixed marriages (less than 1 percent of all marriages), rising to 650,000 in 1980, and doubling again by 1990. The 2000 census documented 2.7 million mixed-race marriages, or almost 5 percent of all marriages. If we were to consider Latinos as a racialized minority and add cohabiting couples to the tallies, the rate of
mixed-race partnering would be even higher. Of course, substantial growth in the rate of mixed-race partnering in the four decades since *Loving* does not mean that social barriers to interracial romance have been equally erased among all groups. The once hegemonic social sanction against black-white intimacy has weakened but group differentials in mixed-race partnering rates suggest this particular proscription on interracial love resonates in partner choice today. Black-white partnering rates remain low relative to those between other non-whites and whites (Qian and Lichter, 2007).

Legal and social barriers against interracial love have not been the only problem faced by mixed-race couples. Finding a place to live together has often been hard. In the 1950s, realtors, landlords, and neighbors actively worked to deny the opportunity for black-white couples to live in a white neighborhood (e.g., Romano, 2003, p. 132). Even now, however, neighbors may not be so neighborly when confronted with people on the block in a mixed-race relationship. Randall Kennedy’s analysis of racialized personal ads (e.g., those specifying “SAF” or “SWPM”) featured one retired New York City police officer who specified “white” for the woman he sought; defending his actions, he said that dating a black woman would have “upset his ‘Archie Bunker’ neighbors … I was looking to make life easier” (Kennedy, 2001, p. 31-2).

Despite such bunker mentalities, a sizeable proportion of white people now declare interracial marriages as progressive, symbolizing anti-racist behavior and an expanded racial literacy. As white endogamy remains prevalent, however, whites apparently articulate these views but do not act on them. In addition, many African Americans seem
to view these same arrangements, especially if it’s a white woman and black man, as the opposite of progress, as “marrying up” and/or “marrying out”; put differently, a kinder way of saying “selling out” (Kennedy, 2008). Thus, a white parent or partner is not considered black by most in black majority communities because he or she has no ancestral claim to blackness. That person can walk away anytime. African Americans may even view the entire multiracial family with suspicion and even, at an extreme, disdain. They pay no heed to “the rules of race and thus become race traitors and wishy-washy crossovers” (Dalmage, 2000, p. 6). Running on parallel tracks, some whites see the white partner or parent in such a situation, especially if she is a white woman, as no longer white.

Nevertheless, racially mixed couples today do “face less hostility from family and friends and many have tolerant communities where they can live” (Romano, 2003, p. 294). What might those tolerant communities look like? In what may be the most comprehensive neighborhood ethnography of the mixed-race family, Heather Dalmage observes that black-white families in black neighborhoods face what she calls “borderism” (unique forms of racism and social sanction experienced by those who cross racial lines). She goes on to assert that in white neighborhoods borderism plays out primarily institutionally (except in classrooms and on playgrounds). In contrast, “[i]n racially mixed neighborhoods, multiracial family members find places where they do not have to contend with intense, daily, border patrolling” (Dalmage, 2000, p. 78-9).
Racially highly diverse neighborhoods, of course, may be few and far between. US metropolitan areas exhibit “deep inclinations toward segregation;” the relatively affluent try to maximize social homogeneity, predictability, and safety from crime (Atkinson, 2006). Planners, politicians, and private developers combine to group the middle class into exclusionary residential and commercial spaces. Some scholars note an alternative direction in urban planning and development that resists this trend toward segregation by encouraging the creation of mixed housing and sustainable communities with a more diverse social base (e.g., Brown and Chung, 2008), but such policies that “preach the value of integration and mix” inevitably collide with “embedded social requirements that are antagonistic to social integration between different social strata and identities” (Atkinson, 2006, p. 831).

The simple hypothesis that households headed by mixed-race couples are drawn to diverse places emphasizes the positive appeal of racial diversity. Recent literature suggests that diversity may bring with it negative effects which could complicate this attraction for some. Robert Putnam (2007) concludes, for example, that ethnic/racial 

*homogeneity* in a community is positively related to trust, civic engagement, happiness and quality of life. In the same vein, a recent Seattle study (Guest et al., 2008) found that ethnic heterogeneity is among the strongest community characteristics that negatively predict the degree to which whites view neighbor relations as harmonious. It’s not clear from the study how other racialized groups view diverse neighborhoods. Hunt et al. (2007) offer an alternative view by studying black women’s responses to place diversity. Using census blocks as the spatial unit of analysis, they found an inverse relationship
between neighborhood percent black and perceived discrimination (i.e., higher percent black was associated with lower levels of discrimination). They concluded that diverse circumstances produced lower levels of discrimination than predominantly white contexts, and mostly black contexts evidence the lowest levels of discrimination for black women.

A recent analysis of broad patterns for households headed by mixed-race couples found that households headed by mixed-race couples resided in more diverse neighborhoods than households headed by white couples (Holloway et al., 2005). Generally, households headed by couples of a single non-white race tended to reside in more diverse neighborhoods than mixed-race households. Black-white pairings were an exception in that they lived in neighborhoods more diverse than households headed by black couples. This result may reflect 1) the concentration of blacks in non-diverse highly segregated neighborhoods and 2) perhaps the effort of black-white households to remove themselves from negative experiences they may encounter in predominantly white and black neighborhoods (Dalmage, 2000).

Although previous research on mixed-race partnering offers several guidelines for investigating interracial residential location we can also draw on certain subsections of the segregation literature for insight. First, assimilation theory, originally associated with immigration and urban ecology but which now has gained currency in mixed-race studies (e.g., Moran, 2001; Qian and Lichter, 2007), contends that residential integration marks a minority group’s cultural and structural assimilation into the dominant host group. This
perspective positions mixed marriage as the ultimate indicator of cultural assimilation for a minority group, resulting, at an extreme, in the loss of minority identity. Translated awkwardly from the context of immigrant integration and applied to the residential patterns of households headed by mixed-race couples, one reading of this approach thus predicts no substantial difference between same-race and interracial households.

Dalmage’s (2000) ethnography and Holloway et al.’s (2005) findings suggest otherwise.

The residential locations of mixed couples reflect and affect the forces that produce urban space. Thus a second current of debate in the segregation literature is the degree to which observable residential concentrations characterize choices of the minority group (e.g., Clark, 1991; 2007) or constraints imposed by a variety of institutional and government agents (e.g., Yinger, 1995). Within the group of scholars who argue that segregation does not issue primarily from the preferences of segregated groups, strong differences of opinion exist over whether racial or economic forces create segregation that patterns metropolitan areas by racial and ethnic categories. These debates offer points of purchase on the problem of understanding the residential geography of mixed-race households. We expect that their residential location will reflect a combination of choices and constraints.

On the choice side, mixed-race couples, much as everybody else, view neighborhoods as sites for creating and enacting their identities. As such, neighborhood choices reflect a multiplicity of factors that includes racial and ethnic identity, but also class, family status, age, and education. Racial and ethnic identity, of course, is not just a matter of personal choice. Social situation, how others view you and ensuing racialized group identities, likely constrain mixed couples’ neighborhood geographies.
We imagine these constraints operate in two ways. First, households headed by black-white couples likely confront discrimination in their search for housing. Existing theory is inadequate to predict the nature, extent, or impact of such discrimination, although this is likely to depend on the mix of groups (for example, it seems reasonable to expect that Asian-white couples experience less discrimination than black-white couples). Second, we can expect that the larger, more culturally dominant, of the two groups from which a member of a mixed household comes will respond less favorably to sharing its residential space with the couple than the smaller group, especially when the larger group is white and the minority group member is black (e.g., Emerson et al., 2001). Mixed-race couples challenge well-established lines of group difference and must negotiate the terrain (both literal and metaphorical) of cultural acceptance and resistance in all communities represented in the household. Thus, as Dalmage (2000) suggests, these couples may reject spaces that are largely the domain of one group and discover instead greater acceptance in mixed neighborhoods. Similarly, Twine (1999) reports on the sophisticated racial residential consciousness of white British mothers of mixed-race African-descent children attempting to raise their children with a black racial consciousness. They “perceive predominantly white residential communities as unsuitable for their children … because as “non-white” children they were likely to be targeted for racial abuse. They expressed a preference for living in multiethnic and multiracial communities because their children would not be hyper-visible” (p. 737).
This does not mean scholars should conceive of households headed by black-white couples as a distinct social category with a discrete geographical expression that sets them apart from same-race groups. Instead, following Spickard (1989), we argue that in the US black-white households may challenge group boundaries while sustaining identity connections with both of the groups represented. We therefore suspect that the residential patterns of black-white households, while distinguishable from those of white and black same-race households, will simultaneously reflect the distributions of those same-race groups. Specifically, we expect to find some households headed by black-white mixed-race couples living in and around predominantly black or white neighborhoods. Racially diverse locales may offer the biggest draw. We spend the remainder of this paper thinking through how to represent “neighborhood diversity” and measure its relative attraction for households headed by black-white couples, white couples, and black couples.

Data

We use confidential long-form data from the 2000 US census to analyze neighborhood-scale concentrations of households headed by mixed black-white and same-race couples against the backdrop of neighborhood racial composition. While publicly released data offer information about the location of mixed-race couples down to the scale of the PUMA (Public Use Micro Sample Area--areas of about 100,000 people), confidential census data provide information about the location of such couples at the census-tract
scale. This level of detail requires analysis be conducted in secure facilities and that any results be screened to ensure confidentiality. We examine tract patterns of these household types in twelve large metropolitan areas: Chicago, Dallas, Detroit, Houston, Los Angeles, Miami, New York, Philadelphia, San Diego, San Francisco, Washington DC – considered both separately cartographically and together in a regression model. These metropolitan areas represent a variety of regions and range widely in their racial compositions and rates of mixing (Holloway et al., 2005) and yield a total sample of about 18,000 households headed by black-white partnered and married couples.

The 2000 census, of course, was the first census that allowed respondents to claim a multiracial identity by checking all the race categories that applied. The majority of multiracials claimed to be white and another race; overall, 2.4 percent of the population “checked more than one box”, adding new dimensionality to studies of racial mixing. We considered including in our analysis households in which a mixed black-white multiracial person had a black (or white) partner. However, total counts of mixed black-white/white and black-white/black headed households are very small; about 1,500 and 1,000 total respectively across our full twelve metropolitan area sample. This makes the mapping and the modeling analysis of these groups’ geographies difficult to interpret, so we dropped them from this analysis. We also limit our study to households headed by partnered and married male-female couples. We made this choice knowing that 1) such households represent a declining proportion of households, 2) new household formations are varied and increasingly so, and 3) the history of the configuration and meaning of households varies considerably by race (Buzar et al., 2005). Regarding the last point,
Moran (2001) and others have persuasively argued the normative family in US society is a reflection of white privilege: i.e., emphasizing two parent nuclear families and devaluing alternatives disproportionately found in African American and other groups which more strongly focus on the extended family. We certainly do not intend to reinscribe this racialized normativity with our sample selection. Our concentration on these households derives from the fact that two thirds of all types of mixed-race households are headed by such couples. The residential geographies of other types of mixed-race households, including those headed by same-sex couples and those comprised of housemates, certainly warrant analysis. These other household types are relatively rare, however, making it difficult to perform separate analyses for them that would meet census confidentiality standards. Pooling them with heterosexual couples would avoid this problem but would complicate interpretation of the results given that the sample would then include households who follow different logics of residential location. Finally, our interest in mixed-race heterosexual couples overlaps with another project investigating the racialization of children born to and living with mixed-race parents (Holloway et al., 2009).

Analysis

Several recent papers have attempted to capture the growing racial diversity of neighborhoods in US metropolitan areas (e.g., Fasenfest et al., 2006; Friedman, 2008; Johnston et al., 2009). We add to those efforts with a method that allows us to visualize
diversity’s multiple forms in a new way. Our two-part analysis thus begins with a mapping exercise. To save space, we do not provide a map of all twelve metropolitan areas; rather, we show the neighborhood geographies of single race black-white headed households for Los Angeles (Figure 1), Atlanta (Figure 2), Detroit (Figure 3), and New York (Figure 4). Additional maps are available from the authors (or at http://www.mixedmetro.us). Each map comprises two layers. The base layer depicts intersections between racial segregation and diversity across the urbanized space of each metropolitan area by augmenting the standard index of scaled entropy to categorize the extent and type of racial diversity in a neighborhood. $E$ is the scaled entropy indexed by $j$ neighborhoods. Scaled entropy ranges from 0-1; it reaches its maximum value when all six racialized groups are equally present in a neighborhood, and it is sensitive to very small shares (and absent groups). After considerable experimentation, we arrived at the following organization:

- **Low Diversity**: $E_j < 0.37$ (typically, one group > 80 percent of tract population)
- **Moderate Diversity**: $0.74 > E_j > 0.37$
- **High Diversity**: $E_j > 0.74$ (and no group > 45 percent of tract population)

These categories of entropy capture the level of diversity in neighborhoods but they do not convey which racial group is dominant at low and moderate levels of diversity. Accordingly, we further distinguish “low diversity” (darker shading) and “moderate diversity” (lighter shading) tracts by the racial group with the largest share. In so doing, we begin to enunciate a new cartographic discourse on race that describes neighborhoods
as “low diversity, white-dominant; or “moderately diverse, Asian dominant”; and so on.
We use yellow for predominantly white neighborhoods, pink for Asian locales, green for black census tracts, and blue for Latino residential quarters. Brown areas represent “highly diverse” neighborhoods. In these neighborhoods no group is dominant; no group has more than 45 percent of the population, meaning by definition that these places have at least 10 percent of their population made up by a third group (or combination of remaining groups). These are places constituted not only by roughly equal numbers of African Americans and whites; they include other racialized groups such as Latinos or Asians.

These urban racial landscapes captured in Figures 1-4 also contain information on the concentrations of black-white headed households, superimposed on the patterns of relative diversity. We deploy the familiar location quotient to measure and depict these concentrations.

\[
LQ_j = \frac{P_{ij}/P_j}{P_{im}/P_m} \tag{1}
\]

\(LQ_j\) is the location quotient for black-white headed households in census tract \(j\); \(P_{ij}\) is the count of such households in tract \(j\); \(P_j\) total population of tract \(j\); \(P_{im}\) is the count of all black-white headed households in metropolitan region \(m\); \(P_m\) is the total population of metropolitan area \(m\). This ratio equals one when the proportion of households headed by black-white couples in a neighborhood is the same as the proportion in the metropolitan region. We define two levels of concentration for black-white headed households based
on Z-scores computed relative to metropolitan-specific means. We depict these two levels of concentration cartographically using thin and thick borders. The dark green spaces with a thick outline (neighborhoods identified with location quotient $Z$-score $[ZLQ] > 2.58$) reference tracts with disproportionately high over-representations of such households. Within their metropolitan contexts, these are approximately the 0.5 percent of neighborhoods with the largest share of black-white mixed-race households. The neighborhoods highlighted with a thin border reference tracts with $ZLQ$ that range between 1.96 and 2.58. These two categories together capture approximately the 2.5 percent of neighborhoods within each metropolitan area with the highest share of black-white mixed-race households.

Figure 1, 2, 3, and 4 about here

Space limits full descriptions of Figures 1-4. Indeed, we devote the entirety of a related study to the base layer itself (Holloway et al., 2010). Figures 1-4 illustrate that the neighborhood geographies of black-white headed households are not simple. Of most relevance to the questions that frame this analysis, there is no obvious spatial association of tracts with black-white partner concentrations with high diversity neighborhoods. These concentrations, however, are not randomly distributed across the intra-urban space of these four metropolitan areas. Many appear to be proximate to areas categorized as low diversity black. We can amplify this simple generalization by summarizing these maps in a table. Table 1 shows the proportions of the census tracts classified as having overrepresentations ($ZLQ>1.96$, including those where $ZLQ>2.58$) of black-white headed
households across five classifications of neighborhood racial segregation/diversity: highly diverse (HD) tracts, moderately diverse white dominated (MDW) tracts, moderately diverse black dominated (MDB) tracts, moderately diverse Latino dominated (MDL) tracts, and non-diverse tracts regardless of the dominant racial group (we do not include a column for moderately diverse tracts dominated by Asians because there are so few [7] – we do include the count of such tracts in the last column of Table 1). We juxtaposed these patterns with the proportions of all census tracts across these categorizations. For example, less than 1 percent of all Chicago neighborhoods are highly diverse yet 3 percent of black-white tract concentrations are in highly diverse neighborhoods. Similarly, we can also see that 6 percent of Chicago’s neighborhoods are moderately diverse black-dominated yet almost 23 percent of black-white household concentrated neighborhoods fall in this category. The penultimate column shows that the majority of Chicago’s neighborhoods (55 percent) are not diverse (i.e. they are dominated by one racial group), but only 18 percent of black-white household tract concentrations are in non-diverse neighborhoods.

Table 1 about here

The following observations hold for every metropolitan area. First, the majority of neighborhoods with a considerable over-representation of black-white households are at least moderately racially diverse; only 163 out of the 993 high-concentration tracts (16 percent) are not diverse. This share reaches its maximum in Detroit (34 percent) and Philadelphia (31 percent), where a strong majority of all tracts are not racially diverse.
Second, the proportion of all neighborhoods lacking diversity is always larger than the proportion of such neighborhoods that have high concentrations of black-white headed households. In Los Angeles this difference is only 10.5 points, but in many other metropolitan areas this difference is large, particularly so in Detroit, Atlanta, Chicago, and Philadelphia. In other words, households headed by mixed black-white households are disproportionately found in racially diverse neighborhoods.

Looking more specifically at different types of diverse neighborhoods, in Atlanta, Chicago, Dallas, Detroit, Miami, New York, and Philadelphia we observe very little association between highly diverse neighborhoods and those with large over-representations of black-white headed households. For example, only 1.6 percent (6/386) of Atlanta’s census tracts are highly diverse, and there is no overlap of these tracts with concentrations of black-white headed households. Similarly in Detroit and Philadelphia, the likelihood of detecting unusually high concentrations of black-white headed household in highly diverse tracts is far lower than in, say, moderately diverse neighborhoods. That said, in almost all metropolitan areas the proportion of black-white household concentrations in highly diverse tracts is greater than the proportional share of high diversity tracts in the MSA. Atlanta and Detroit are the only exceptions to this trend. Both Atlanta and Detroit are home to very few highly diverse neighborhoods (10 out of over 1,500 total census tracts between the two places). In some metropolitan areas where highly diverse tracts are more numerous, however, these neighborhoods match with a substantial share of black-white household concentrations. In San Diego and San
Francisco, for example, highly diverse tracts account for 15 percent and 26 percent, respectively, of the tracts where black-white households concentrate.

So where are they located? Across the set of 12 metropolitan areas in our sample, neighborhoods with over-representations of black-white headed households are disproportionately found in moderately diverse white-dominated neighborhoods. Whereas 32 percent of all tracts (5,023 out of 15,705) fit this racial configuration, 41 percent of tracts with unusually high concentrations of black-white households can be characterized as moderately diverse and white-dominated. Moderately diverse and black-dominated areas, though fewer in number across the set of 12 metropolitan areas (1,231, or 8 percent of the total tracts), account for 23 percent of neighborhoods with disproportionately high concentrations of black-white households. The share of neighborhoods with concentrations of black-white couples that are moderately diverse and Latino-dominated largely matches the share of all tracts with that racial configuration.

Within these broad general patterns, perhaps four groups of metropolitan areas emerge. First, the largest share of tracts with disproportionate concentrations of black-white households in Atlanta, Detroit, and Miami are moderately diverse and black dominated. While this partly reflects the smaller share of tracts in these metropolitan areas that are racially diverse, especially Detroit, this pattern strongly suggests the attraction of black-dominated yet diverse spaces for black-white headed households. Second, Chicago, Dallas, New York, Philadelphia, and Washington DC each strongly resemble the overall
pattern -- over-representations of black-white headed households are disproportionately found in moderately diverse white-dominated neighborhoods. Third, Houston, Los Angeles, and San Diego each have a relatively large share of disproportionately concentrated tracts in moderately diverse and Latino-dominated areas, even though the largest share is moderately diverse and white dominated. These three metropolitan areas have the largest share of all tracts in this category of racial diversity/dominance. This suggests that black-white households find Latino-dominated forms of racial diversity attractive (or at least acceptable) when these areas exist within metropolitan contexts.

Fourth, San Francisco appears relatively unique because 26 percent of its disproportionate black-white concentrated tracts are highly diverse. The greater share of all neighborhoods that are truly racially diverse (11 percent) only partially accounts for this pattern, which suggests that highly diverse racial configurations can be attractive to black-white headed households in metropolitan contexts where there are substantial numbers of such neighborhoods. San Diego and, to a lesser degree, Houston and Washington resemble San Francisco in the apparent attraction of highly diverse neighborhoods to black-white headed households; such areas are home to at least 10 percent of black-white concentrated tracts.

Despite the distributional patterns identifiable in Table 1, it is difficult to sort out the degree to which these patterns reflect the underlying character of the metropolitan areas, relative to more general associations. The second phase of the analysis thus pools the metropolitan data to develop a systemic perspective on the neighborhoods patterns of households headed by black-white couples. For this purpose we estimate a multivariate
model to augment the results found in the initial cartographic phase of the analysis. This model allows us to see if the effects of diversity and racial dominance on black-white household concentration hold up when we control for other neighborhood socioeconomic conditions and differences in metropolitan patterns of neighborhood segregation and diversity.

We regressed tract counts of black-white headed households against the racial characteristics of a neighborhood captured in three ways: tract entropy, a set of three dummy variables that capture if a tract is black, Asian, or Latino dominated, and another set of three variables--the interactions of racial dominance and entropy. We also included the counts of black-white households in adjacent tracts to account for spatial autocorrelation as well as a set of tract-level socio-economic and demographic control variables: median household income, percent lacking a high school diploma, and percent homeownership. A tract population variable controls for neighborhood size. The models include fixed-effect dummy variables for metropolitan areas that control for unobserved locational heterogeneity across the sample. All the continuous variables were mean-centered to facilitate parameter estimate interpretation. For perspective we replicated this analysis for households headed by white couples and black couples.

Tract counts of black-white headed households are often small or zero; specifically, the mean count was 1.1 with a standard deviation of 1.56. (For households headed by same-race white couples, the mean count is 83 [standard deviation 92]; for households headed by same-race black couples, the mean count is 12.3 [standard deviation 21.8].) We
applied negative binomial estimation procedures to avoid the problem of standard error inflation (Long and Freese, 2006), restricting our analysis to 16,666 urbanized tracts in the twelve metropolitan areas that had at least ten households of any type. Calibrating the models separately for black-white headed households and the two reference groups, they describe average tract characteristics of the places where black-white headed households reside, and affords a comparison between them and households headed by same-race white and same-race black headed households.

Table 2 about here

Table 2 distils the results of the regression modeling. In panel 2a, bold numbers are statistically significant parameter estimates ($p > .05$); the models as a whole are statistically significant. We exclude the estimations of the metropolitan area fixed effect controls, the spatial lag variable, fit statistics, and sample size to reduce clutter and comment first on the effects of neighborhood racial majorities. The dummy variable estimates for tract racial dominance indicate that households headed by black-white partners are more likely to locate in black-dominated neighborhoods than white ones (the excluded category). Mixed households are also more likely to be found in black- and white-dominated neighborhoods relative to Asian and Latino neighborhoods. Asian-dominated neighborhoods are the least likely to be home for black-white couples. In comparison, households headed by black couples are drawn to both black and Latino spaces relative to white but, not surprisingly, are particularly associated with black-dominated tracts. Households headed by white couples are drawn to white neighborhoods
relative to the other three types; the large negative value for black-dominated neighborhoods signals the particular rarity of white households in those types of tracts.

The variable of primary interest, entropy, is statistically significant in all three models. It is negative in the model for households headed by same-race white couples, and positive in other two models. The form of the model means that the interpretation of this parameter estimate translates into the impact of entropy in white-dominated tracts. Thus the negative estimate for same-race white households implies that neighborhood racial diversity is a “turnoff” within white-dominated spaces for same-race white households. In contrast, neighborhood diversity within white-dominated spaces is a draw for households headed by black-white households and same-race black households. But what about those neighborhoods where other races dominate and what about the effects of racial diversity on the geography of mixed-race black-white couples there?

Table 2, panel b, displays these results—perhaps the fulcrum of this whole analysis. Each row displays parameter estimates plus the set of exponentiated values. The first row of estimates in Table 2b is simply the entropy value reported in the overall model: that is, for white-dominated tracts. The other three rows are the sums of the impact of entropy in white-dominated tracts plus the interaction term between “entropy” and minority race dominance. This yields the effects of racial diversity in places where, respectively, blacks, Asians, and Latinos predominate. For example, to find the effect of racial diversity in black-dominated tracts for households headed by black-white couples
(0.0189), we simply added “tract entropy” (0.0243) to “tract entropy * Black dominated” (-0.0054).

To aid in interpretation we have paired with each of these parameter estimates their associated exponentiated values. These were calculated by multiplying the coefficients by the standard deviations of the predictor variable prior to exponentiating. This gives us the factor (multiplicative) change in the mean predicted count with a one standard deviation change in the level of the predictor variable. For example, when $e^{b_{StdX}} = 1.6144$ (i.e., the entropy estimate for mixed-race black-white households in white dominated tracts), we can say that a one standard deviation increase in entropy (neighborhood racial diversity in white-dominated tracts) will generate about a 61 percent increase in the number of black-white headed households in such a census tract.

The results in Table 2b show that, on the whole, within each of these regimes of neighborhood racial dominance, increased racial diversity is attractive to mixed black-white households. The positive effect of racial diversity holds across all regimes of racial dominance only for households headed by black-white couples, however. We say this because the exponentiated values for black-white households are all greater than one. This is not the case for the two reference groups; within white-dominated spaces, for example, increased racial diversity is not generally attractive to households headed by white couples. A one standard deviation increase in entropy (neighborhood racial diversity in white dominated tracts) will generate about an 11 percent decrease ($1 - 0.888*100$) in the number of same-race white headed households in an average census
tract. Similarly, within black-dominated spaces, increased diversity is not attractive to households headed by black couples. A one standard deviation increase in neighborhood racial diversity in predominantly black tracts produces about a 14 percent decrease (1-0.86*100) in the number of these households.

The effect of increasing racial diversity on the households under investigation appears contingent on the nature of racial plurality in the neighborhood. For mixed-race black-white households, diversity is slightly more important in Asian- and Latino-dominated tracts than it is in white and black-dominated tracts. In contrast, the variance in exponentiated estimates is greater for households headed by white or black same-race couples than mixed-race couples. Thus, for households headed by white couples, neighborhood racial diversity is extremely important as they enter black dominated spaces; a one standard deviation increase in neighborhood racial diversity in black-dominated tracts will generate about a 183 percent increase in the count of same-race white headed households. Put differently, households headed by single-race couples are more sensitive than mixed-race households to what we might call the context of diversity: i.e., the type of neighborhood racial dominance.

Conclusions

This essay conceived of urban spaces as assemblages of neighborhoods characterized as diverse or not depending on their racial makeup. With the idea that racially diverse places
would attract racially diverse couples, it then asked which of these places might be most conducive as a home for households headed by black-white partners. Maps of the neighborhood concentrations of black-white couples produce new and different geographies of interracial intimacies and urban cartographies of race. Metropolitan areas vary one to the next; Detroit, for example, is largely black and white and so the neighborhoods geographies of black-white couples necessarily differ from other places that have a different history and a different, more diverse, racialized landscape.

We hypothesized that the residential patterns of black-white households would be distinguishable from those headed by white and black couples. The models of neighborhood counts of households pooled across a metropolitan system confirm this as well as the importance of neighborhood racial diversity as an explanatory force. Previous research that used 1990 Census data (Holloway et al., 2005) strongly suggested that neighborhood diversity (similarly captured by entropy) was part of the story of neighborhood-scale geographies of mixed-race household location. The basic patterns in that study stand up to this more rigorous statistical analysis; here we controlled for other neighborhood characteristics and homed in on patterns of neighborhood racial structure. Our models tell us that the pull of diversity matters for households headed by black-white couples. The regression models also revealed that these three household types do indeed have different spatial expressions as well as different geographies relative to what we are calling the context of neighborhood racial diversity. Racially diverse locales, no matter which group is in the majority, offered the most consistent draw to mixed-race black-white couples. In direct contrast, households headed by white couples tended to locate in
predominantly white neighborhoods and were relatively more sensitive to changes in the diversity of black-dominated neighborhoods compared to mixed-race black-white couples. The model’s neighborhood socio-economic control variables amend and add nuance to our initial descriptive finding that black-white headed households locate primarily in moderately diverse white-dominated tracts. This is not surprising. If the models exactly replicated the cartographic analysis that would imply that social class played no role in the neighborhood location of households headed by black-white couples. Many variables shape metropolitan area social geographies, including both race and class.

These results point out several areas requiring further research. We understand that the generalizations we make about space need to be unpacked further. Our analysis requires that a highly diverse place must, by definition, include more than two groups. The entropy measure forces us to think about a multiplicity of groups being together (or not) in space. Thus highly diverse spaces are largely absent in the largely black-white world of, say, Atlanta. Black-white headed households may indeed seek diverse neighborhoods but in a different sense than suggested by previous research. Furthermore, by talking about, for instance, “moderately diverse white spaces” or “low diversity black neighborhoods”, we generalize across entire populations. Other markers of identity (e.g., class, or age) get erased; highly diverse spaces need not only to diversity along the lines of race. And, lest we forget, even the category “race” can “vary”. For example, in the Detroit of the 1920s, black-white segregation varied considerably depending on which “white” group served as the referent (Darden, 1983).
Our emphasis on mixing and the household in neighborhood context is important. When two or more bodies come together in households new questions surface as attention is no longer trained solely on the individual, inviting consideration of individuals in concert and contact with each other, navigating life and creating a home – variously jostled together and in various spaces (cf. Wright et al., 2003; Houston et al., 2005). Racially mixed households (of all kinds, some outside the scope of this paper) and the racializations possible in them draws attention to the placement of connected bodies and the variable implications stemming from such racial mixing (Houston, 2010). The racial composition of households bears witness to how racism shapes such intimate relationships. The spatial distribution of mixed-race households across neighborhoods indicates where forms of intimacy that challenge monoracial norms are most readily accommodated in segregated urban spaces.

This paper demonstrates that black-white headed households fit into an in-between racialized neighborhood space in a select number of US metropolitan areas and have a different spatial expression than their same-race referents. Additional questions remain: Do other heterosexual mixed-race household types (Asian-White, Black-Latino, Latino-White, etc) occupy an in-between space resembling that found here for black-white headed households? Are the effects of diversity and racial concentration reported here using 2000 data constant over time? Or is the geography of mixed-race households and their response to neighborhood racial composition changing? Research on these questions will tell us more about where the growing fraction of the population in mixed-race
households locates and why. More broadly, it will add to our understanding of how processes at the household scale - including but not restricted to racial configuration - interact with processes that sustain segregation at the neighborhood scale. Comprehending this interaction is crucial if we are to interpret changes in segregation correctly, especially when considering the effectiveness of policies designed to reduce it and mitigate its impacts.
Notes

1 SAF refers to a single Asian female and SWPM references a single, white professional male.

2 Specifically, we used the urbanized tracts of these metropolitan places in order to comply with Census Bureau restrictions on the nature of information that we could remove from their restricted access research labs. Note that urbanized areas comprise contiguous spaces that have urbanized land use – they exclude only removed exurban and non-urban spaces.

3 Previous censuses have categorized people as mixed, such as the “mulatto” category added in 1850 as race scientists and ethnologists gained political leverage, and the “quadroon” and “octoroon” classifications added in 1890 (e.g., Kertzer and Arel 2002). All were dropped by 1930 as the census fell in line with the law of the land that used the “one drop rule” to regulate blackness.

4 The small numbers of households of mixed race individuals partnered with whites or blacks precludes their mapping.

5 The maps presented in this paper differ slightly from those available on the web site in two ways. First, we normalized 2000 census data to 1990 tract boundaries for both the base layer and the LQ layer. Second, the LQ layer is restricted to tracts inside urbanized areas as defined for the 1990 census. Please consult the technical description available on the web site for details about the maps presented there.

6 The standard entropy diversity measure for a tract is:

\[ E_j = s \sum_{k=1}^{K} \left( \frac{k_j}{t_j} \ln \frac{k_j}{t_j} \right) \]

where \( k \) indexes the racial groups. The maximum value of \( E_j \) is obtained when tract \( j \)'s population is evenly divided between the \( k \) racial groups. The number of racial groups limits the magnitude of the maximum value, so we include a scaling constant \( s \) so that \( E_j \) ranges between a minimum of 0 and a maximum of 1. For our computations, we calculated \( E_j \) based on individuals in 5 racial groups created from the 2000 Census (white, black, Indian, Asian and Pacific Islander, “Other Race”), plus Latino/as. The Asian and Pacific Islander category is a combination of two categories on the 2000 Census and conforms to the 1990 single aggregate category of Asian and Pacific Islander. We opted for this aggregation to ensure compatibility between this analysis based on 2000 data and future analyses based on comparisons of 1990 and 2000 data.

7 The spatial lag is constructed as the row-standardized sum of counts in adjacent tracts weighted by the inverse of squared tract-to-tract distances.
References


Cambridge, MA: Harvard University Press.


Table 1: Distribution of concentrations of black-white headed households by tract type

<table>
<thead>
<tr>
<th>Metropolitan Area</th>
<th>Highly Diverse</th>
<th>Moderately Diverse White</th>
<th>Moderately Diverse Black</th>
<th>Moderately Diverse Latino</th>
<th>Not Diverse</th>
<th>Tract Totals</th>
</tr>
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<td>62.5%</td>
<td>0.0%</td>
<td>12.5%</td>
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<td>2.6%</td>
<td>50.5%</td>
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<td>17.8%</td>
<td>101</td>
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<td>5.8%</td>
<td>9.5%</td>
<td>55.4%</td>
<td>1,807</td>
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<td>8.1%</td>
<td>14.7%</td>
<td>33.3%</td>
<td>753</td>
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Table 2: Negative Binomial Regression Results

Table 2a: Parameter Estimates

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<th>White Couples</th>
<th>White-Black Couples</th>
<th>Black Couples</th>
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<tr>
<td>Tract Population</td>
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<td>0.0001</td>
<td>0.0001</td>
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<tr>
<td>Med HH Income</td>
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<td>-0.0043</td>
<td>-0.0045</td>
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<td>% No HS Degree</td>
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<td>-0.0200</td>
<td>-0.0005</td>
</tr>
<tr>
<td>% Own Home</td>
<td>0.0101</td>
<td>0.0015</td>
<td>0.0114</td>
</tr>
<tr>
<td>Tract Entropy</td>
<td>-0.0060</td>
<td>0.0243</td>
<td>0.0502</td>
</tr>
<tr>
<td>Black Dominated</td>
<td>-2.0679</td>
<td>0.3756</td>
<td>2.8193</td>
</tr>
<tr>
<td>Asian Dominated</td>
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<td>-0.7658</td>
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Table 2b: The Effects of Entropy by Racial Dominance

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<th>Tract Type</th>
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<th>White-Black Couples</th>
<th>Black Couples</th>
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<td>e^bStdX</td>
<td>b</td>
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<td>White Dominant</td>
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<td>Black Dominant</td>
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<td>0.0189</td>
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<tr>
<td>Asian Dominant</td>
<td>0.0014</td>
<td>1.0288</td>
<td>0.0327</td>
</tr>
<tr>
<td>Latino Dominant</td>
<td>0.0251</td>
<td>1.6406</td>
<td>0.0259</td>
</tr>
</tbody>
</table>
Households headed by black-white couples:
- $z = 1.96$ to $2.58$
- $z > 2.58$

Moderately diverse
- White majority
- Black majority
- Asian majority
- Latino majority

Not diverse
- Not mapped

Highly diverse

Expressway or primary hwy.
Water
Figure Captions

Figure 1: Los Angeles
Figure 2: Atlanta
Figure 3: Detroit
Figure 4: New York