# Housing Tenure Differences in Racial and Ethnic Residential Segregation

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## Introduction

The disparity in wealth between minorities and whites persists as one of the most salient fault lines in the United States (Oliver and Shapiro 1995; Conley 1999). In 2002, the median net worth of households with a non-Hispanic white householder was $87,056, more than 15 times the median net worth of households with a black householder ($5,446), more than 10 times that of Hispanics ($7,950), and nearly 1.5 times that of Asians ($59,292) (Gottschalck 2008). Homeownership is one of the primary ways through which families accumulate wealth, particularly for blacks and Hispanics. In 2002, black and Hispanic households held 61.1 and 58.5 percent of their net worth, respectively, in the ownership of their homes while for non-Hispanic whites and Asians the rates were 41.7 and 42.7 percent (Gottschalck 2008). The fact that blacks and Hispanics are less likely to be homeowners no doubt contributes to the minority-white disparities in wealth.

But recent trends suggest that minority homeownership itself may also not be as helpful to minorities in their accrual of wealth as it is for whites. In recent years, while minority homeownership has increased slightly more than that of whites, minority wealth has either declined or grown minimally relative to that of whites. Between 1995 and 2002, the homeownership rates for whites, blacks, Hispanics, and Asians increased by 3.1, 4.6, 3.3, and 3.9 percentage points, respectively. During the same period, the median net worth of whites from home equity grew by $27,096 (from $40,881 to $67,977) (Davern and Fischer 2001; Gottschalck 2008).[1] For blacks, however, there was actually a decline by $898. Hispanic wealth from home equity increased during the period, but only by $509.[2] Thus, it appears that in the short term, even when blacks and Hispanics achieve home ownership, they are not able to garner as much wealth from their investment as whites. With foreclosure rates reaching record levels, disparities between minorities and whites in median net worth from home equity will certainly continue to grow.

[1] We compare the median net worth from these two census reports in 2000 dollars, thereby adjusting for inflation.
[2] Because there are no data for Asians in 1995, the difference in median net worth from home equity is not reported.

Given that property values tend to be lower in predominantly black neighborhoods than in predominantly white neighborhoods[3], the trends in homeownership and wealth taken together suggest that minority homeowners are likely to be highly segregated from their white counterparts. Surprisingly, however, little is known about how housing tenure shapes racial and ethnic segregation. The primary goal of this study is to document the segregation of minority and white homeowners and renters across metropolitan America. To characterize such segregation, we use data from Census 2000 and calculate indices of dissimilarity for racial and ethnic minority groups, relative to non-Hispanic whites, by housing tenure. We then estimate multivariate models to examine the extent to which differences in group-specific and metropolitan-level characteristics explain differences in homeowner and renter residential patterns. We are particularly interested in understanding the extent to which black homeowners are segregated from white homeowners, relative to the other minority groups, and relative to the segregation of minority renters from white renters.

From a policy perspective, an examination of the residential segregation of minorities from whites is important given the tax incentives given to homeowners by the federal government and the concerted efforts that were made during the mid-to-late 1990s and early 2000s by the federal government and numerous nonprofit organizations to broaden minority access to the owned market. Some question whether homeownership has really benefitted minorities, particularly low-income minorities (Apgar 2004; Denton 2001; Shlay 2004); others consider it to be an important asset, however (see Herbert and Belsky 2008 for an extensive review of this literature). With the current foreclosure crisis, interest in the debate over the benefits of homeownership for minorities has been renewed.

Much of the research on the benefits of homeownership takes place at an individual level of analysis and is based upon survey data like the Panel Study of Income Dynamics or the National Longitudinal Study of Youth (Herbert and Belsky 2008). Little attention has been given to the settlement patterns of the population of minority homeowners and renters as they relate to those of

[3] Massey et al. (1987) document this for Philadelphia and Denton (2001) documents this for Washington, DC using 1990 data, but no recent research, to our knowledge, has explicitly examined these statistics.

white homeowners and renters. An examination of the segregation that exists between these groups can inform the debate over the benefits of homeownership by providing an aggregate portrait of the access that minority renters and owners have to the areas in which white renters and owners live, areas that are typically of higher quality and afford more access to the opportunity structure. It remains to be seen whether minority owners are more or less segregated from white owners than are minority renters from white renters.

**Background**

Homeownership is the quintessential symbol of the "American dream." Its significance derives from its linkage to factors that promote social mobility for current and future generations, such as greater levels of wealth, better physical and psychological health, and positive outcomes for youth (Conley 2001). At an individual-level, recent research suggests that the benefits derived from homeownership are not enjoyed equally by all households and are instead stratified by race/ethnicity. For example, black and Hispanic homeowners receive a lower housing-equity payoff at preretirement ages (Flippen 2004), enjoy less real appreciation of housing values over time (Flippen 2004), and live in lower quality housing (Friedman and Rosenbaum 2004) and neighborhoods (Fong and Shibuya 2000) than their white counterparts with similar socioeconomic and demographic characteristics. Such results suggest that the benefits that minority households can gain from homeownership are constrained by the neighborhoods in which they can locate (Denton 2001; Horton 1992).

Studies on residential segregation offer a way to characterize the differential distribution of groups across different neighborhoods, but ironically, such studies have failed to explicitly examine the distributions of racial and ethnic groups of homeowners and renters. The location of owner-occupied housing is strongly related to neighborhood quality, with such housing providing more access to the opportunity structure, including higher quality schools, lower crime rates, better neighborhood amenities, and often better connections to higher-quality employment opportunities. Given the link between housing tenure and neighborhood quality, it is surprising that no studies have

investigated the segregation of minority homeowners and renters from white homeowners and renters.

Theoretically, it is important to bring housing tenure into the discussion of racial and ethnic residential segregation because of it is an important marker used in American society to gauge socioeconomic status, both current and future socioeconomic status as home ownership is inextricably linked to people's wealth. Since the publication of the books *American Apartheid* (Massey and Denton 1993), *The Declining Significance of Race* (Wilson 1978), and *The Truly Disadvantaged* (Wilson 1987), debate continues to exist over the saliency of race and ethnicity versus socioeconomic status in causing segregation. In general, two broad theoretical perspectives are used to explain why segregation persists between minorities and whites in the aggregate.

The main theoretical model used to explain variation in segregation across metropolitan areas is *the spatial assimilation model* (Alba and Logan 1991; Charles 2003; Massey 1985). The model identifies residential assimilation as one outcome of the status attainment process. In general, the model maintains that the residential distribution of households across neighborhoods of varying socioeconomic status and quality is influenced by household demographic factors, acculturation-related characteristics, and socioeconomic status. The sorting of households by housing tenure and across neighborhoods is a function of their residential needs and preferences and their economic ability to satisfy those needs and preferences. Demographic transitions through the life course, such as marriage and childbearing, constitute one of the main sets of factors that shape housing needs and preferences (Rossi 1955; Speare et al. 1975). Whether those needs and preferences are realized, however, depends upon the resources households have at their disposal. Households with higher levels of income, education, and access to wealth are likely to enjoy the most freedom in choosing where to live and are the most equipped at realizing their preferences. Such households, therefore, are more likely to be homeowners and live in neighborhoods with the best amenities relative to those with less income, education, and access to wealth.

With respect to characterizing residential segregation, the spatial assimilation model suggests that the variation in segregation is built upon the way households sort themselves at the micro level.

According to the tenets of the model, minorities are segregated from whites largely because of income and educational differentials that exist between the groups as well as the fact that some minority groups like Hispanics and Asians are comprised of relatively large shares of foreign-born population with low levels of English proficiency and little experience living in the US. Segregation is greatest between blacks and whites, and Hispanics and whites, relative to Asians and whites, mainly because blacks and Hispanics have lower levels of income and education than Asians, relative to whites. Yet, the segregation of minorities from whites within metropolitan areas should diminish or disappear in the presence of controls for life cycle factors, acculturation-related characteristics, and the socioeconomic status of households.

The spatial assimilation model generates a number of expectations with respect to characterizing the variation in minority-white segregation by housing tenure. First, minority renters are expected to be more segregated from white owners than are minority owners are from white owners. Minority renters have lower levels of income and education than minority owners, and in the case of Hispanics and Asians, minority renters are likely to be comprised of higher levels of immigrants than minority owners. Moreover, having some wealth is a prerequisite to buying a home and because minority renters likely lack such wealth, they are likely to be more segregated than are minority owners. Second, Asian renters are likely to be the least segregated minority group from white renters than are black and Hispanic renters largely because of their greater levels of income and education. Third and for the same reasoning, it is likely that among owners, Asians are the least likely to be segregated from whites, relative to black and Hispanic owners.

What does the spatial assimilation model predict about the variation in minority-white renter segregation as compared to minority-white owner segregation? To the extent that homeownership is considered as one of the endpoints in the process of upward social and spatial mobility, the model suggests that segregation might be greater between minority and white renters than is the case between minority and white owners. Presumably, minorities, including immigrant minorities, who are homeowners, have acquired the English-language proficiency, education, financial capabilities, and knowledge of the housing market that would allow them to buy homes equal in quality and in

neighborhoods of equal quality to whites, thereby lowering segregation from whites. Among renters, however, minorities could be more segregated from whites because of the fact that large shares of them, particularly in the case of Hispanics and Asians, are immigrants. According to the spatial assimilation model, recent arrival to the United States, the tendency of immigrants to settle among people of the same ethnicity in traditional gateway neighborhoods, their lack of knowledge of the housing market, and low levels of English proficiency could make minority renters more segregated from white renters than is the case between minority and white owners.

Perhaps another reason why minority and white renters could be more segregated than minority and white owners relates to variation that exists in their socioeconomic status. In general, the household income of renters is much more concentrated in the lower end of the income distribution than that of owners (Joint Center for Housing Studies 2009). For example, in 2005, just over 70 percent of renters had household income that fell in the bottom two income quartiles compared to only 40 percent of owners. However, there is considerable variation by race and ethnicity among renters in the distribution of their household income. Whereas 82 percent of black renters and 75 percent of Hispanic renters have household incomes that fall in the bottom two income quartiles, 69 percent of white renters and 61 percent of Asian renters have household incomes falling in the same categories (Joint Center for Housing Studies 2009). Minority and white home owners, on the other hand, have more similar distributions of household income.[4] Moreover, Denton (2001) finds that among owners, the ratio of black to white housing value is nearly .90, indicating that whites and blacks are likely to be buying some of their housing in similar areas. Given that the variation in household income depends upon race, ethnicity, and housing tenure, it is likely that among renters, minorities are more segregated from whites than among owners. Minority renters are less likely to overlap with white renters because the differences in their income distributions prevent minorities from affording housing in neighborhoods where white renters live. However, among owners, because variation in

[4] Authors' calculations of the 2007 panel of the American Housing Survey reveals that for owners, the values of household income at the 25$^{th}$ and 75$^{th}$ percentiles for whites, blacks, Hispanics, and Asians were much more similar than for their renter counterparts.

socioeconomic status may be considerable both among whites and minorities, there is the potential for greater overlap in the neighborhoods in which both groups reside.

The significance of structural constraints in maintaining racial/ethnic inequality in residential location has given rise to a second theoretical model, the *place stratification model* (Alba and Logan 1991, 1993; Logan and Alba 1993; Logan and Molotch 1987). The model maintains that household access to the best residential opportunities involves the actions of other more powerful groups in society as well as structural factors that differentially allocate housing opportunities on the basis of race and ethnicity. A hierarchical ordering exists among groups within society, and more advantaged groups use their power to maintain social and physical distance from the least advantaged groups (Logan and Molotch 1987). This power is often manifested in various forms of discriminatory actions, which effectively constrain minority choices within the housing market and cause them to be segregated (Friedman et al. 2010; Massey and Denton 1993; Turner et al. 2002; White 1987; Yinger 1995). Prominent among these mechanisms is the racial and ethnic steering of groups to neighborhoods in which their race or ethnicity predominates (Ross and Turner 2005; Turner et al. 2002; Yinger 1995).

Nowhere is this more relevant than to the study of residential segregation by housing tenure. Housing is a commodity that may be viewed in two very distinct ways, through its use and exchange values (Logan and Molotch 1987). For owners, exchange values have much more relevance than for renters. Owners generally view their housing as an investment and consider its value as it relates to their current and future wealth. As shown in the statistics discussed at the outset, whites have the most wealth and the largest increases in wealth relative to minorities. Therefore, they have the most interest in maintaining their wealth and the power derived from such wealth. The discriminatory actions taken to constrain minority residential choices are precisely the outgrowth of the power used by whites to maximize their profit from exchange values generated by owner-occupied housing.

The power dynamic built upon exchange values of housing that is inherent to the place stratification model allows us to generate a number of expectations regarding the relationship among race and ethnicity, housing tenure, and segregation. In direct contrast to expectations derived under

the spatial assimilation model, minority owners are expected to experience greater levels of segregation from white owners than minority renters are from white renters. Because white owners want to maximize their wealth from their housing investments, they are expected to consciously and actively segregate themselves from racial and ethnic minority owners, who are perceived by whites to threaten the upward trajectory of exchange values derived from their housing. However, white renters are expected to have lower levels of segregation from minority renters because benefit little from exchange values. It is expected that segregation between minority renters and white owners is probably as large, if not larger, than segregation between minority and white owners. Minority renters, like their owner counterparts, could also threaten white owner acquisition of wealth from their exchange values.

The place stratification model suggests that a racial and ethnic hierarchy will exist in levels of segregation from whites. More specifically, it is expected that white owners and renters will distance themselves the most from blacks and the least from Asians, with Hispanics falling somewhere in between. This expectation largely stems from the fact that whites make clear distinctions among minorities in terms of their residential preferences (Farley et al. 1994; Bobo and Zubrinsky 1996). A plethora of studies also have shown that among minorities, blacks generally fare the worst in terms of their locational attainment (see Charles 2003 for an overview of these studies).

Given the debate over the salience of socioeconomic status versus race and ethnicity, what has the recent research that has examined the segregation of minorities from whites by socioeconomic status found? The results of this research generally find support for the tenets of both of these models. With respect to the *spatial assimilation model*, studies have found that the median income of minority households relative to that of whites is a key predictor in explaining metropolitan-to-metropolitan variation in racial and ethnic residential segregation from whites (Iceland and Wilkes 2006; Wilkes and Iceland 2004). The segregation of minorities from whites is lower in suburbs than in central cities, also reflecting the impact of household income on segregation (Clark and Blue 2004; Clark 2007). Moreover, it appears that the effect of socioeconomic status on residential segregation may be getting stronger. Declines in segregation from whites between 1990 and 2000 were greater

for high SES blacks than for low SES blacks (Iceland and Wilkes 2006; Iceland, Sharpe, and Steinmetz 2005).

At the same time, however, it is clear that race and ethnicity continue to matter in shaping residential segregation. While socioeconomic status is important in explaining variation in minority segregation from whites, its impact varies by the race and ethnicity of the minority out-group being considered. In other words, it is least useful in explaining variation in white-black segregation, with higher-status blacks being much more segregated from whites than similarly-situated Hispanics and Asians (Clark and Blue 2004; Iceland and Wilkes 2006; Massey and Denton 1993; Massey and Fischer 1999; St. John and Clymer 2000).

The main goal of this paper is to build upon what is currently known about residential segregation by socioeconomic status by explicitly considering the housing tenure of minority and white households. Unlike other indicators of socioeconomic status, housing tenure is directly related to people's residential circumstances, with owners occupying better quality housing than renters and living in better quality neighborhoods. Moreover, housing tenure is a unique indicator of socioeconomic status in that it reflects both the current and future well being of households. Household income, poverty, and education – those indicators primarily used in past research -- relate mostly to the current well being of households. While declines in segregation may be witnessed among blacks of higher socioeconomic status in recent years, it remains to be seen how housing tenure shapes the segregation of blacks from whites, relative to the segregation of Hispanics and Asians.

**Data and Methods**

Data from the short-form files of Census 2000 (SF1) are used for the analysis of residential segregation by housing tenure presented here. Consistent with previous research, we focus on segregation at the metropolitan-level of analysis (e.g., Iceland et al. 2002). We present estimates for metropolitan statistical areas (MSA), primary metropolitan statistical areas (PMSA), and in New England, New England Consolidated Metropolitan Statistical Areas (NECMA), all defined by the Office

of Management and Budget (OMB) on June 30, 1999. Census tracts are the building blocks upon which our measures of residential segregation are constructed, again consistent with previous segregation research (e.g., Iceland et al. 2002; Massey and Denton 1993).

We use the index of dissimilarity to characterize inequalities in the residential distribution of minorities from whites by housing tenure. The index of dissimilarity measures the evenness of two groups over a geographic unit of interest, in this case census tracts and is computed as:

$$D = .5 \sum_{i}(i = 1)^{n} \left| (x_i / X) - (y_i / Y) \right|$$

where n is the number of tracts in a metropolitan area, $x_i$ is the population size of the minority group of interest in tract *i*, X is the population of the minority group in the metropolitan area as a whole, $y_i$ is the population of the reference group in tract *i*, and Y is the population of the reference group in the metropolitan area as a whole. Dissimilarity scores are calculated for metropolitan areas with at least 1,000 people in each racial and ethnic group largely because segregation indices are less reliable for areas with smaller minority populations than in areas with larger populations (Iceland et al. 2002). In total we focus on 265 metropolitan areas meeting those criteria.

Although not without limitations, the index of dissimilarity is the most commonly used measure of residential segregation found in the literature. It ranges from 0, indicating no segregation, to 1, indicating complete segregation. It may be interpreted as the percent of either group that would have to move in order to achieve a fully integrated residential distribution. In general, dissimilarity indices that are over .60 are considered to indicate “high” levels of segregation; indices between .30 and .60 indicate “moderate” segregation; and less than .30 indicate “low” segregation (Massey and Denton 1993). The index of dissimilarity is one of several measures of segregation that may be calculated to characterize the residential separation of minority groups from whites. We focus on this index or the “D-score” because of its widespread use in the literature and ease of interpretation. Throughout the paper, we use the terms index of dissimilarity, D-score, and segregation interchangeably recognizing that other measures may be used to gauge segregation.

Our analysis of segregation of owners and renters relies upon data on the total population in occupied housing units by housing tenure. The race and ethnicity of the population in these units is

based upon the race and ethnicity of the householder. While Census 2000 allowed people to report more than one race, the tables that we use from SF1 are focused on the population in occupied housing units where householders reported being a member of only one racial group. We calculate indices of dissimilarity for all pairwise comparisons of black[5], Asian, Hispanic, and non-Hispanic white[6] owners and renters, although for theoretical purposes we focus mostly on the segregation scores where white owners and renters are the reference groups. Unlike previous research that does not make a distinction among whites but instead uses all whites as the reference group (Iceland et al. 2005; Iceland and Wilkes 2006), the analysis here explicitly examines white renters and owners separately as reference groups. As discussed above, there are important theoretical reasons for making such distinctions.

Our analysis proceeds as follows. First, we provide an overview of the percent of the population in owner- and renter-occupied housing by race and ethnicity in metropolitan America in 2000. Then, weighted mean indices of dissimilarity are presented, weighted by the total population within the metropolitan area. We then focus on the ten metropolitan areas with the highest levels of segregation on the each of the key dissimilarity scores.

So as to more precisely estimate the effect of race, ethnicity, and housing tenure on residential segregation, these descriptive analyses are then supplemented by multivariate regression analyses that control for group-specific and metropolitan-level characteristics. In the multivariate analyses, the main dependent variable is the dissimilarity index. Our key independent variable is a set of dummy variables derived from a classification of the dissimilarity scores based upon the race, ethnicity, and housing tenure of the groups being compared. In total, there are 9 groups: 1) white – black owners; 2) white owners – black renters; 3) white – black renters; 4) white –Hispanic owners; 5) white owners – Hispanic renters; 6) white – Hispanic renters; 7) white – Asian owners; 8) white renter – Asian owners; and 9) white – Asian renters. Thus, in each metropolitan area, a total of 9 scores are calculated. Because the same metropolitan area is represented more than once in the multivariate

[5] Here black refers to both Hispanic and non-Hispanic blacks.
[6] We use the terms non-Hispanic white and white interchangeably throughout the paper.

analysis, we are unable to use standard multiple regression techniques that assume the observations in the analysis are independent. We, therefore, use generalized linear models and more specifically generalized equation estimation (GEE), in order to account for the fact that our independent variables have a correlated error structure (Liang and Zeger 1986).

Because we are interested in comparing the segregation between minority and white owners to the segregation between minority and white renters, we estimate several models varying the reference group of the comparisons. First, we use white-black owners as the reference group. Then we re-estimate the models using white-Hispanic owners as the reference group. Finally, we use white-Asian owners as the reference group. In all of these models, the regression coefficients for the dummy variables in the models tell us whether and to what extent the dissimilarity score of the specified group is greater than the specified reference group. So, for example, if white-black owners are our reference group, the coefficient for the dummy variable for white-black renters would tell us whether and to what extent the segregation of white-black renters is greater than that for white-black owners. Because our theoretical models generate different expectations of the differences in segregation found between minority and white owners and between minority and white renters, it is important for us to examine all minority-white owner subgroups (i.e., white-black, white-Hispanic, white-Asian) as our reference groups.

The models also contain a number of control variables at the group and metropolitan levels of analysis. At the group level, we control for group size, median income, percent of families with children, and percent foreign born. With the exception of percent foreign born, all of these variables are housing tenure-specific. In other words, dissimilarity scores for white-Hispanic owners contain information on Hispanic owner: group size, median income, and percent of families with children. For white-Hispanic renter segregation scores, the data on group size, median income, and percent of families with children are specific to Hispanic renters. However, for the variable percent foreign born, the data are the same for Hispanic owners and renters. This stems from the fact that data for this variable by housing tenure is unavailable without special access to the confidential data at the U.S. Census Bureau.

At the metropolitan level of analysis, we employ a number of control variables traditionally used in other segregation research (e.g., Farley and Frey 1994; Iceland and Wilkes 2006; Massey and Denton 1993). These variables are used to capture the metropolitan-to-metropolitan variation in housing- and labor-market structure and population demographics that have been found to explain metropolitan variation in segregation scores. Specifically, we include control variables for each metropolitan area's: total population; percent: minority, in manufacturing, in government, in the military, over 65 years old, of housing units built in the last 10 years, of the population enrolled in college, of the population in suburbs; and region (dummies for West, South, Midwest, and Northeast (with the latter being the reference group)). One of our primary goals is to evaluate housing tenure differences in residential segregation between minorities and whites controlling for these characteristics.

**Results**

Our descriptive analysis starts in Table 1 with an examination of the US metropolitan area population that lives in renter- and owner-occupied housing units by race and ethnicity. Nearly 73 percent of the metropolitan population lives in owner-occupied housing and 27 percent lives in renter-occupied housing. But the data disaggregated by race and ethnicity reveal a significant white-nonwhite disparity in access to homeownership, consistent with findings noted elsewhere (e.g. Alba and Logan 1992; Flippen 2001). While 75.8 percent of the white population or 3 out of 4 whites live in owner-occupied housing, less than half of blacks and Hispanics and fewer than 2 out of 3 Asians live in such housing. If anything, the results in Table 1 reveal slightly larger white-nonwhite disparities because they take into account the fact that minority households are larger and include more population than white households.

Table 2 presents the mean dissimilarity scores for owner and renters by race/ethnicity for 2000, weighted by the overall, metropolitan area population. It is clear that residential segregation is shaped by housing tenure, consistent with the tenets of the *spatial assimilation model*. The results in column 1 of Table 2 reveal that minority owners are less segregated from white owners than are

minority renters. While 63 percent of black owners would have to move in order to be evenly distributed with white owners, 71 percent of black renters would have to move to achieve integration with white owners. The effect of homeownership on reducing minority-white segregation is also present for Hispanics and Asians. For both groups, the dissimilarity scores for minority -- white owner segregation are .19 units lower than the minority renter – white owner segregation scores. It is noteworthy that the effect of homeownership on the segregation of nonblack minorities from whites is much greater than that for blacks. The difference between the white – black owner segregation and white owner – black renter segregation score is .08 units, a difference that is more than 50 percent lower than that found for Hispanics and Asians. This finding supports the notion that race and ethnicity continue to shape residential segregation patterns above and beyond housing tenure or social class, consistent with expectations derived under the *place stratification model*.

Indeed, there are several other findings from Table 2, which support the notion that race and ethnicity may matter more than social class or housing tenure in particular. The results in columns 1 and 2 reveal that a racial and ethnic hierarchy exists in the levels of segregation from whites among both owners and renters, and it is actually greater among homeowners, contrary to the tenets of the *spatial assimilation model.* More specifically, in examining the segregation of minority owners from white owners, we find that the d-scores for blacks, Hispanics, and Asians, respectively are .63, .44, and .43, with blacks having scores .19 units greater than nonblacks. Among renters, however, the disparity between black and other minority renters in their segregation from whites is only .10 and .13 units (i.e., black, Hispanic, and Asian renter d-scores are .57, .47, and .44, respectively). Thus, it is clear that white owners and to a lesser degree white renters are making clear distinctions about which minorities they want in their neighborhoods. The socioeconomic status of minorities does not erase these white out-group preferences.

Examining the data in the columns 5 through 8 in Table 2 reveals that black homeowners are also the most segregated group from Hispanic and Asian homeowners, respectively. Among renters, the same pattern is true when comparing black-Asian segregation to white-Asian and Hispanic-Asian segregation, but relative to Hispanic renters, the dissimilarity scores of blacks, Asians, and whites are

almost equal (.48, .51, and .47, respectively). What these results suggest is that black owners are not only the most segregated minority group from whites, but that they are the most segregated group from Hispanics and Asians, suggesting that for owners, locational attainment might be best characterized by a black-nonblack dichotomy rather than a white-nonwhite one.

The idea that race and ethnicity might matter more than social class is also suggested by a comparison of the segregation of minority and white owners to that of minority and white renters. Examining the segregation of blacks, we find that white-black owner segregation (.63) is greater than white-black renter segregation. Just the opposite is true for Hispanics. White-Hispanic owner segregation (.44) is less than White-Hispanic renter segregation (.47). For Asians, the scores are just about equal (.43, .44). Taken together, the results here suggest that perhaps for blacks, home ownership may not be as beneficial as renter-occupied housing. Black renters are more integrated with white renters than black owners are with white owners. The same is not true with Hispanics and Asians. To more precisely estimate the impact of race, ethnicity, and housing tenure on segregation, we need to partial out the effects of other variables that control for metropolitan housing- and labor-market characteristics, demographic-related variables, and group-specific socioeconomic and demographic factors discussed above.

Before moving on to describe some of the control variables that we use in our multivariate analysis, we first identify the top ten most segregated metropolitan areas by race, ethnicity and housing tenure in Table 3. One of the most important findings here is that white-black segregation among owners is much greater than white-Hispanic or white-Asian segregation, regardless of housing tenure, in their respective top ten metropolitan areas but is also greater than white – black segregation among renters. For example, in Gary, IN, white – black owner segregation is the greatest at .89, .17 units more than the largest white -- Hispanic owner segregation score in Lawrence, MA , .24 units greater than the largest white – Asian owner segregation score in Amarillo, TX, and .07 units more than the largest white – black renter segregation score in New York NY. Another interesting finding is that regardless of housing tenure, white -- black segregation is largest in Northeast and Midwest metropolitan areas. High levels of segregation of Hispanics and Asians from whites, however, are not

exclusive to the Northeast and Midwest but are also found in metropolitan areas in the West and South.

Table 4 examines the average socioeconomic and demographic characteristics of minority owners and renters across metropolitan America. There are several notable findings. First, across all groups, minority renters have lower "average" median household income than their minority owner counterparts. Interestingly, the average values of median income for black owners and renters are similar to those for Hispanic owners and renters, respectively, standing in sharp contrast to the segregation results in Table 2. For example, among owners, black and Hispanic median household income, on average, is $46,173 and $48,134, respectively, but according to Table 2, white-black owner segregation is .63, .19 units higher than white-Hispanic owner segregation. Taken together, these findings reinforce the notion that socioeconomic status may play less of a role than structural factors in explaining variation in minority-white residential segregation.

The results in Table 4 regarding the average percent of families with their own children are also noteworthy. For Hispanics and Asians, owners are comprised of a greater average percentage of families with their own children than are renters. For blacks, however, the opposite is true. On average, nearly 44 percent of black renters are comprised of families with their own children as compared to an average of 37 percent of black owners. If the benefits to homeownership are as great as some suggest (e.g., Herbert and Belskey 2008), then black children could be missing out on this opportunity. Perhaps blacks are experiencing more discrimination than Hispanics and Asians on the basis of family status (Massey and Lundy 2001).

The results in Table 4 also make clear that nativity status and group size vary across minority groups. On average, 71 percent of Asians are born outside of the United States, whereas the average levels for Hispanics and blacks are 33 and 6.6 percent, respectively.[7] The average numbers of owners and renters among blacks and Hispanics ranges from 50,000 to 60,000. However, the average numbers of Asian owners and renters are considerably smaller.

[7] We could not get the data on nativity status disaggregated by housing-tenure status. We would have to access the confidential data to obtain such measures.

Taken together, the data in Table 4 reveal that the economic and demographic characteristics of minority owners and renters are quite varied. However, it is unclear that controlling for such factors will completely eliminate the black-nonblack disparities that exist in residential segregation (Table 2). As pointed out above, black and Hispanic owners have relatively equal levels of average median income, which means controlling for this factor will do little to reduce the gap in segregation. Moreover, Hispanic owners are comprised of a larger average share of foreign-born population than blacks. Controlling for this variable will therefore do little to make white-black owner segregation more similar to white-Hispanic owner segregation. Asian owner and renter average values for median household income are the largest among the three minority groups, and controlling for differences in income between Asians and the other minorities will no doubt reduce the disparities that exist between Asian-white segregation (owner or renter) and black-white or Hispanic white segregation. However, because their average shares of foreign-born population are also large, the positive impact of percent foreign born could nullify the negative effect of income on segregation.

Table 5 reports the selected racial-, ethnic-, and housing-tenure-group coefficients from nine generalized linear regression models that control for these socioeconomic, demographic, and metropolitan characteristics.[8] The selected coefficients (and standard errors) in the table come from three sets of models in which we explicitly compare the segregation scores of nine specific combinations of groups based upon their race, ethnicity, and housing tenure. The only difference across the three sets of model is the reference group to which the other coefficients are being compared. In the first block of results in Table 5 (i.e., Panel A), the reference group is white -- black owners. In the second block of results (i.e., Panel B), the reference group is white – Hispanic owners. In the final block of results (i.e., Panel C), the reference group is white – Asian owners. In all of these models, the regression coefficients for the dummy variables in the models tell us whether and to what extent the dissimilarity score of the specified group is greater than the reference group specified.

[8] These regression models are not weighted by the population size of metropolitan areas as was the case in the descriptive analyses reported in Table 2. In the multivariate analyses reported in Tables 5 (Model 3) and 6, we control for population size in metropolitan areas. This is the standard approach to doing such analyses (see for example, Iceland and Wilkes 2006).

For each block of results in Panels A through C (i.e., where the reference group is changed), Table 5 reports three sets of coefficients and standard errors. The coefficients and standard errors in columns 1 and 2 (i.e., "Model 1") come from models that just include the dummy variables indicating the groups for which the dissimilarity scores are being calculated. The results in columns 3 and 4 (i.e., "Model 2") come from models that add the group-specific characteristics (those reported in Table 4) to the dummy variables in Model 1. The coefficients and standard errors in columns 5 and 6 (i.e., "Model 3") come from final models, which add the metropolitan-area control variables to Model 2 (i.e., metropolitan-area: total population; percent: minority, in manufacturing, in government, in the military, over 65 years old, of housing units built in the last 10 years, of the population enrolled in college, of the population in suburbs; and region). Table 6 reports the coefficients for the two sets of control variables in Models 2 and Models 3.

There are several noteworthy findings in Table 5. As in the descriptive results in Table 2, it appears that housing tenure shapes the racial and ethnic residential segregation. Consistent with the tenets of the *spatial assimilation model*, renters of a specific racial and ethnic group are significantly more likely to be segregated from white owners than owners of the given racial and ethnic group, controlling for all relevant characteristics. For example, in column 1, the coefficient for the white owner – black renter group in Panel A indicates that the dissimilarity score of black renters, relative to white owners, is .114 units greater than the segregation score of black owners, relative to white owners. Controlling for other relevant factors in Model 2 and Model 3 reduces the size of the difference in these scores, but the difference remains statistically significant. A similar set of findings is revealed by the coefficients of the white owner – Hispanic renter group in Panel B and the white owner – Asian renter group in Panel C.

How do the distributions of white and minority owners compare to that of white and minority renters? The unadjusted coefficients for the group indicators in column 1 of Table 5 reveal that there is an interaction by race and ethnicity. In Panel A, the coefficient for the white – black renter group indicates that the segregation of black renters from white renters is .055 units lower than the segregation of black owners from white owners, in contrast to expectations derived under the *spatial*

*assimilation model*. In Panels B and C, however, the results reveal just the opposite. The coefficients for the white – Hispanic renter group and the white – Asian renter group show that the segregation scores of Hispanic and Asian renters from white renters are .021 and .011 units greater than the segregation of Hispanic and Asian owners from white owners, respectively.

However, these interaction effects do not hold once control variables are included in the models (see columns 3 and 5 in Table 5). With respect to blacks (Panel A), column 5 reveals that the coefficient for the white – black renter group actually becomes larger in magnitude with controls for relevant group-specific and metropolitan-level characteristics. Thus, the segregation of black renters from white renters is .142 units lower than the segregation of black owners from white owners in our final model, indicating that home ownership may not be as beneficial to blacks as some has questioned in recent years. With respect to Hispanics and Asians (Panels B and C, respectively), the results reveal that the coefficients for the white – Hispanic renter and the white – Asian renter groups actually reverse in the sign of the coefficients and are statistically significant, compared to the unadjusted results in column 1. The segregation of Hispanic renters from white renters is .044 units lower than the segregation of Hispanic owners from white owners, controlling for all the relevant group-specific and metropolitan-level characteristics (Panel B). The segregation of Asian renters from white renters is .071 units lower than the segregation of Asian owners from white owners. In analyses not shown, we found that one variable is responsible for the switching in signs of the coefficients for the white – Hispanic renter and white – Asian renter group. Controlling for median household income of minority renters and owners actually reverses the signs of these coefficients. As suspected earlier in our discussion of the results in Table 4, it is clear that controlling for the economic differences between minority renters and owners did not change the relative position of owners. Instead it significantly improved the residential situation of minority renters, relative to white renters. Thus, the findings in Table 5 that compare minority-white renter segregation to minority-white owner segregation reveal less support for the tenets for the *spatial assimilation model*. More support is evident for the notion that white owners are protecting their exchange values and wealth interests by distancing

themselves from racial and ethnic minorities and particularly those that are black, consistent with expectations derived under the *place stratification model.*

How do minority group owners and renters compare to one another in their segregation from whites? Consistent with tenets of the *place stratification model*, there is evidence of the persistence of a black-nonblack dichotomy, controlling for group-specific and metropolitan-level characteristics. The results in column 5 for Panel A reveal that the segregation of black owners from white owners is the highest, relative to all other combinations of Hispanic and Asian renters and owners, relative to white owners. The only group with slightly higher levels of segregation than black owners, relative to white owners, is black renters. Controlling for other relevant characteristics, the segregation of black renters from white owners is .027 units greater than the segregation of black owners from white owners. Although statistically significant, the difference in magnitude between the two segregation scores is not very large.

How do Hispanics and Asians compare? The coefficients in column 5 for Panel B reveal that the segregation between Asian and white owners is .063 units greater than the segregation between Hispanic and white owners, controlling for relevant group-specific and metropolitan-level characteristics. This stands in contrast to the finding that white – Asian segregation is lower than white – Hispanic segregation (Iceland et al. 2002). But it is consistent with the finding that education has little impact on Asian segregation from whites, compared to the effect of education on black – white segregation (Iceland and Wilkes 2006). Perhaps Asian owners are purposely distancing themselves more from whites than are Hispanic owners. This could relate to the fact that on average, a greater share of Asians owners in metropolitan America are born outside of the United States than the average share of Hispanic owners (see Table 4). Perhaps these Asian owners have stronger positive in-group preferences than do Hispanic owners that are not accounted for by our models.

Table 6 reports the coefficients for our group-specific and metropolitan-level control variables. For completeness, the table reports the same coefficients as Panel A of Table 5 for the dummy variables indicating the groups for which the dissimilarity scores are being calculated where white – black owners are the reference group. There are several control variables that are significantly

related to segregation. Among the group-specific characteristics, the coefficients for percent foreign-born and the group size are statistically significant and positively related to segregation. As far as the metropolitan-level characteristics are concerned, we find that the coefficients for the percent of the population in the armed forces, the percent of housing units built in the last 10 years, and the regional dummies for South and West are all negatively related to segregation. Thus, metropolitan areas with new construction, a large military presence, and that are located in the South and West are less likely to have high levels of minority – white segregation than metropolitan areas with less new construction, with a smaller military presence and that are located in the North and Midwest.

**Discussion and Conclusions**

The primary goal of this study was to examine how housing tenure shapes racial and ethnic segregation in metropolitan America. To fulfill this goal, the analysis centered around two main objectives. One was to calculate and examine indices of dissimilarity for racial and ethnic minority groups, relative to non-Hispanic whites, by housing tenure. The second objective was to examine the differences in homeowner and renter segregation of minorities, relative to white renters and owners, in the presence of controls for group-specific and metropolitan-level characteristics that affect segregation. These analyses have allowed us to compare the extent to which 1) minority renters are segregated from white renters, relative to the segregation of minority renters from white owners; and 2) minority renters are segregated from white renters, relative to the segregation of minority owners from white owners. They have also allowed us to explicitly compare the segregation of black, Hispanic, and Asians owners and renters, relative to white renters and owners.

The analyses here reveal a number of key findings related to these specific objectives. First, the segregation of minority renters relative to white owners is significantly larger than the segregation of minority owners relative to white owners, regardless of the minority group considered. Second, and somewhat in contrast to the previous result, we find that the segregation of minority renters relative to white renters is significantly lower than the segregation of minority owners relative to white owners. Third, the segregation of black owners from white owners is greater than the segregation of Hispanic

and Asian owners and renters from white owners. Thus, there appears to be the existence of a black-nonblack dichotomy when it comes to the segregation of minorities from whites by housing tenure. Fourth, Asian owners are significantly more likely to be segregated from white owners than are Hispanic owners.

The results in this paper differ from other work examining the residential segregation of racial and ethnic minorities by socioeconomic status. Previous research has found that minorities with greater socioeconomic status – defined by income, education, and occupation -- are less segregated from all whites and whites in the same social class, as compared to minorities with lower socioeconomic status (Clark and Blue 2004; Iceland and Wilkes 2006; Iceland et al. 2005; Massey and Denton 1993; Massey and Fischer 1999; St. John and Clymer 2000). The results here for housing tenure do not reveal that upward social mobility necessarily translates into residential integration with whites, in contrast to the tenets of the *spatial assimilation model*.

At the same time, however, our results are consistent with previous research in suggesting that race and ethnicity continues to matter in shaping residential segregation. Past studies have found that while socioeconomic status is important in explaining variation in minority segregation from whites, it is least useful in explaining variation in white-black segregation, with higher-status blacks being much more segregated from whites than similarly-situated Hispanics and Asians (Clark and Blue 2004; Iceland and Wilkes 2006; Massey and Denton 1993; Massey and Fischer 1999; St. John and Clymer 2000). We find similar, although slightly more disturbing evidence here. Black owners are more segregated from white owners than are Hispanic and Asian owners and renters. The only group that is more segregated than black owners are from white owners is black renters.

Taken together, our findings have a number of implications for theoretical explanations being considered to explain why minorities continue to be segregated. With the focus on housing tenure as a marker of social class, our findings reveal much weaker support for tenets of the *spatial assimilation model* than have previous studies. Instead, our results are much more suggestive of support for the notion that a hierarchical ordering exists among groups within society and that more advantaged groups use their power to maintain social and physical distance from the least advantaged groups,

consistent with the main assumptions of the *place stratification model* (Alba and Logan 1991, 1993; Logan and Alba 1993; Logan and Molotch 1987). In particular, white homeowners are the ones with the most interest in maintaining their wealth and the most power to do so. This power is often manifested in various forms of discriminatory actions, which effectively constrain minority choices within the housing market and cause them to be segregated (Friedman et al. 2010; Massey and Denton 1993; Turner et al. 2002; White 1987; Yinger 1995). Through these discriminatory actions, whites can maximize their profit by protecting the appreciation of the exchange values tied to their owner-occupied housing. The fact that minority owners – and in particular black owners – are more segregated from white owners than minority renters are from white renters is suggestive of support for the tenets of the *place stratification model.*

In addition to having theoretical implications, the findings in this study have important policy implications. Our findings strongly suggest that homeownership is not the panacea that it has been touted to be for minorities. The fact that minority homeowners, and in particular black homeowners, have high absolute levels of segregation from white homeowners means that homeownership will not bring the levels of wealth to minorities that it does for whites. In fact, it is possible that with the foreclosure crisis that minority wealth may have been more harmed by homeownership than if minorities had just been renters and invested their money in the stock market. Moving forward, policymakers should give serious consideration to alternatives in the tax structure that would allow minorities to accrue wealth in other ways not linked to homeownership.

Our study is not without limitations. While we have made strong arguments that our results tend to conform to the patterns suggested by tenets of the *place stratification model*, we have never explicitly linked any discriminatory actions to the variation in the segregation of minority owners and renters from white owners and renters. No doubt, research that could make a link and show that minority-white owner segregation is even greater than minority-white renter segregation in areas with more discrimination in the housing market than in areas with less discrimination would strengthen the evidence shown in our study.

Our study is based upon the assumption that more integration of minorities with white owners and to a lesser extent white renters would give minorities more access to the opportunity structure, (i.e., better schools, access to jobs, better amenities) than minorities living in neighborhoods with other minorities. This assumption is certainly consistent with what has been used in most previous research, namely that whites reside in the best quality neighborhoods that afford most access to the opportunity structure. However, previous research has not examined the neighborhood contexts of white owners and renters and compared them to minority owners and renters. Such research could strengthen the assumptions and implications made here.

The findings from this study point to a number of other suggestions for future research on the link between socioeconomic status and residential segregation. First, more studies need to employ multivariate analyses of the link between socioeconomic status and residential segregation. The vast majority of the studies in this area are descriptive in nature. Only two to my knowledge actually employ multivariate analyses (Clark and Blue 2004; Iceland and Wilkes 2006). Second, future research should examine the effect of housing tenure on residential segregation over time. Has minority-white owner segregation always been higher, relative to minority-renter segregation or is this related to the homeownership boom in the late 1990s and early 2000s? What will the trends look like based upon the 2010 census, capturing the period after the foreclosure crisis? Third, additional research should be done examining the interactions between metropolitan-level characteristics and housing tenure differences in racial and ethnic residential segregation. Finally, research should be done carefully examining whether the benefits of homeownership for minorities at an individual level outweigh the potential negatives based upon the neighborhoods in which minority owners locate. Such an analysis should be compared to one examining minority renters in order to determine whether owning or renting is ultimately better for minorities.

In conclusion, housing tenure is a significant predictor of differences in racial and ethnic residential segregation. Minority owners are more residentially segregated from white owners than are minority renters from white renters. No doubt, such disparities contribute to the significant racial and ethnic differences in wealth that exist in American society. Ironically, whites and increasing

shares of blacks and Hispanics attribute the socioeconomic divide between whites and minorities to individual-level factors, like education and motivation (Hunt 2007). The findings in this study clearly point to the need for scholars, policy makers, and the public to focus less of their attention on individualistic factors causing segregation and more attention on the structural causes that maintain racial and ethnic stratification in American society.

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**Table 1. Population by Housing Tenure in Metropolitan America, 2000**

| | Percent of population in: | |
|---|---|---|
| Racial/Ethnic Group | Owner-occupied housing | Renter-occupied housing |
| Whites | 75.8 | 24.2 |
| Blacks | 47.5 | 52.5 |
| Hispanics | 46.7 | 53.3 |
| Asians | 59.9 | 40.1 |
| Total | 72.6 | 27.4 |

NOTE: For metropolitan areas with at least 1,000 in each racial/ethnic group.

**Table 2. Mean Dissimilarity Scores for Owners and Renters by Race/Ethnicity, 2000**

| | Reference Group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Whites | | | Blacks | | | Hispanics | | | Asians | | |
| Population Group of Interest | Owners (1) | Renters (2) | N | Owners (3) | Renters (4) | N | Owners (5) | Renters (6) | N | Owners (7) | Renters (8) | N |
| Whites | | | | | | | | | | | | |
| Owners | --- | 0.37 | 331 | 0.63 | 0.71 | 311 | 0.44 | 0.63 | 318 | 0.43 | 0.62 | 272 |
| Renters | 0.37 | --- | 331 | 0.64 | 0.57 | 311 | 0.47 | 0.47 | 318 | 0.51 | 0.44 | 272 |
| Blacks | | | | | | | | | | | | |
| Owners | 0.63 | 0.64 | 311 | --- | 0.41 | 311 | 0.53 | 0.63 | 302 | 0.6 | 0.69 | 265 |
| Renters | 0.71 | 0.57 | 311 | 0.41 | --- | 311 | 0.60 | 0.48 | 302 | 0.68 | 0.58 | 265 |
| Hispanics | | | | | | | | | | | | |
| Owners | 0.44 | 0.47 | 318 | 0.53 | 0.6 | 302 | --- | 0.41 | 318 | 0.48 | 0.6 | 271 |
| Renters | 0.63 | 0.47 | 318 | 0.63 | 0.48 | 302 | 0.41 | --- | 318 | 0.63 | 0.51 | 271 |
| Asians | | | | | | | | | | | | |
| Owners | 0.43 | 0.51 | 272 | 0.60 | 0.68 | 265 | 0.48 | 0.63 | 271 | --- | 0.51 | 272 |
| Renters | 0.62 | 0.44 | 272 | 0.62 | 0.58 | 265 | 0.60 | 0.51 | 271 | 0.51 | --- | 272 |

Notes: Includes only those metro areas with at least 1,000 weighted cases in the relevant population groups. Scores are weighted by the population size of the total metropolitan area.

**Table 3. Ten Metropolitan Areas with the Highest Segregation, by Housing Tenure, 2000**

| Evenness (Owners) | *D* | Evenness (Renters) | *D* |
|---|---|---|---|
| *White - Black Owner* | | *White - Black Renter* | |
| Gary, IN PMSA | 0.89 | New York, NY PMSA | 0.82 |
| Detroit, MI PMSA | 0.88 | Milwaukee--Waukesha, WI PMSA | 0.81 |
| Milwaukee--Waukesha, WI PMSA | 0.86 | Detroit, MI PMSA | 0.81 |
| New York, NY PMSA | 0.85 | Gary, IN PMSA | 0.80 |
| Chicago, IL PMSA | 0.84 | Newark, NJ PMSA | 0.79 |
| Cleveland--Lorain--Elyria, OH PMSA | 0.81 | Chicago, IL PMSA | 0.78 |
| Buffalo--Niagara Falls, NY MSA | 0.81 | Flint, MI PMSA | 0.74 |
| Newark, NJ PMSA | 0.80 | Benton Harbor, MI MSA | 0.74 |
| Johnstown, PA MSA | 0.79 | Cleveland--Lorain--Elyria, OH PMSA | 0.74 |
| Saginaw--Bay City--Midland, MI MSA | 0.79 | Saginaw--Bay City--Midland, MI MSA | 0.74 |
| | | | |
| *White-Hispanic Owner* | | *White-Hispanic Renter* | |
| Lawrence, MA--NH PMSA | 0.72 | Reading, PA MSA | 0.70 |
| Reading, PA MSA | 0.71 | Lawrence, MA--NH PMSA | 0.67 |
| Providence--Fall River--Warwick, RI--MA MSA | 0.66 | New York, NY PMSA | 0.67 |
| Los Angeles--Long Beach, CA PMSA | 0.64 | Bridgeport, CT PMSA | 0.65 |
| Salinas, CA MSA | 0.63 | Providence--Fall River--Warwick, RI--MA MSA | 0.65 |
| Tyler, TX MSA | 0.63 | Lancaster, PA MSA | 0.64 |
| Philadelphia, PA--NJ PMSA | 0.62 | Los Angeles--Long Beach, CA PMSA | 0.64 |
| Chicago, IL PMSA | 0.62 | Hartford, CT MSA | 0.64 |
| Santa Cruz--Watsonville, CA PMSA | 0.62 | York, PA MSA | 0.62 |
| New York, NY PMSA | 0.60 | Milwaukee--Waukesha, WI PMSA | 0.62 |
| | | | |
| *White-Asian Owner* | | *White-Asian Renter* | |
| Amarillo, TX MSA | 0.65 | Pittsburgh, PA MSA | 0.63 |
| Ann Arbor, MI PMSA | 0.60 | Stockton--Lodi, CA MSA | 0.61 |
| Fort Smith, AR--OK MSA | 0.59 | Terre Haute, IN MSA | 0.61 |
| Beaumont--Port Arthur, TX MSA | 0.59 | Atlantic--Cape May, NJ PMSA | 0.58 |
| San Francisco, CA PMSA | 0.58 | Hamilton--Middletown, OH PMSA | 0.58 |
| Terre Haute, IN MSA | 0.58 | Syracuse, NY MSA | 0.58 |
| State College, PA MSA | 0.56 | Peoria--Pekin, IL MSA | 0.57 |
| Atlantic--Cape May, NJ PMSA | 0.56 | Mobile, AL MSA | 0.57 |
| Lafayette, IN MSA | 0.55 | Benton Harbor, MI MSA | 0.56 |
| Mobile, AL MSA | 0.55 | Buffalo--Niagara Falls, NY MSA | 0.56 |

**Table 4. Socioeconomic and Demographic Characteristics of Minority Owners and Renters in Metropolitan America, 2000**

| | Blacks | | Hispanics | | Asians | |
|---|---|---|---|---|---|---|
| | Owners | Renters | Owners | Renters | Owners | Renters |
| Averages of: | (1) | (2) | (3) | (4) | (5) | (6) |
| Median Household Income | 46,173 | 21,702 | 48,134 | 25,658 | 64,679 | 30,830 |
| Percent of families with own children | 37.1 | 43.7 | 52.5 | 48.5 | 50.6 | 34.7 |
| Percent foreign born | 6.6 | 6.6 | 33.0 | 33.0 | 71.0 | 71.0 |
| Group size | 50,184 | 55,467 | 52,453 | 59,912 | 21,058 | 14,113 |

**Table 5. Selected Coefficients from Generalized Linear Regression Models of the Association between Race and Ethnicity, Housing Tenure, and Dissimilarity**

| | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| | No other covariates | | With group-specific characteristics | | With metropolitan-area characteristics | |
| Dummy Variables for Race/Ethnicity | Coefficient | S.E. | Coefficient | S.E. | Coefficient | S.E. |
| by Housing Tenure | (1) | (2) | (3) | (4) | (5) | (6) |
| *Panel A. (ref. White-black owner)* | | | | | | |
| White owner - black renter | 0.114** | 0.005 | 0.076** | 0.010 | 0.027** | 0.009 |
| White - black renter | -0.055** | 0.004 | -0.093** | 0.010 | -0.142** | 0.009 |
| White-Hispanic owner | -0.164** | 0.009 | -0.190** | 0.013 | -0.195** | 0.012 |
| White owner - Hispanic renter | 0.034** | 0.009 | -0.021 | 0.015 | -0.064** | 0.014 |
| White-Hispanic renter | -0.142** | 0.008 | -0.197** | 0.015 | -0.239** | 0.013 |
| White-Asian owner | -0.136** | 0.008 | -0.156** | 0.025 | -0.132** | 0.020 |
| White owner - Asian renter | 0.059** | 0.009 | 0.008 | 0.025 | -0.019 | 0.021 |
| White-Asian renter | -0.125** | 0.008 | -0.176** | 0.025 | -0.203** | 0.021 |
| *Panel B. (ref. White-Hispanic owner)* | | | | | | |
| White-black owner | 0.164** | 0.009 | 0.190** | 0.013 | 0.195* | 0.012 |
| White owner - black renter | 0.278** | 0.008 | 0.265** | 0.014 | 0.222** | 0.012 |
| White - black renter | 0.109** | 0.010 | 0.097** | 0.015 | 0.054** | 0.013 |
| White owner - Hispanic renter | 0.197** | 0.006 | 0.168** | 0.009 | 0.132** | 0.008 |
| White-Hispanic renter | 0.021** | 0.005 | -0.007 | 0.009 | -0.044** | 0.008 |
| White-Asian owner | 0.028** | 0.009 | 0.034* | 0.017 | 0.063** | 0.013 |
| White owner - Asian renter | 0.223** | 0.009 | 0.198** | 0.018 | 0.176** | 0.015 |
| White-Asian renter | 0.039** | 0.009 | 0.013 | 0.018 | -0.008 | 0.015 |
| *Panel C. (ref. White-Asian owner)* | | | | | | |
| White-black owner | 0.136** | 0.008 | 0.156** | 0.025 | 0.132** | 0.020 |
| White owner - black renter | 0.250** | 0.007 | 0.232** | 0.027 | 0.159** | 0.020 |
| White - black renter | 0.082** | 0.008 | 0.063* | 0.027 | -0.010 | 0.021 |
| White-Hispanic owner | -0.028** | 0.009 | -0.034* | 0.017 | -0.063** | 0.013 |
| White owner - Hispanic renter | 0.170** | 0.008 | 0.135** | 0.019 | 0.069** | 0.014 |
| White-Hispanic renter | -0.006 | 0.008 | -0.041* | 0.019 | -0.107** | 0.014 |
| White owner - Asian renter | 0.196** | 0.005 | 0.164** | 0.011 | 0.113** | 0.010 |
| White-Asian renter | 0.011** | 0.004 | -0.021 | 0.011 | -0.071** | 0.011 |
| Number of unique metropolitan areas | 265 | | 265 | | 265 | |
| Log likelihood | 1836.976 | | 1976.147 | | 2446.327 | |
| DF | 2376 | | 2372 | | 2360 | |

**p<0.01; *p<0.05

**Table 6. Generalized Linear Regression Models of the Association between Race and Ethnicity, Housing Tenure, and Dissimilarity**

| | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| | No other covariates | | With group-specific characteristics | | With metropolitan-area characteristics | |
| | Coefficient | S.E. | Coefficient | S.E. | Coefficient | S.E. |
| Variables | (1) | (2) | (3) | (4) | (5) | (6) |
| *Race/Ethnicity by Housing Tenure* | | | | | | |
| (ref. White-black owner) | | | | | | |
| White owner - black renter | 0.114** | 0.005 | 0.076** | 0.010 | 0.027** | 0.009 |
| White - black renter | -0.055** | 0.004 | -0.093** | 0.010 | -0.142** | 0.009 |
| White-Hispanic owner | -0.164** | 0.009 | -0.190** | 0.013 | -0.195** | 0.012 |
| White owner - Hispanic renter | 0.034** | 0.009 | -0.021 | 0.015 | -0.064** | 0.014 |
| White-Hispanic renter | -0.142** | 0.008 | -0.197** | 0.015 | -0.239** | 0.013 |
| White-Asian owner | -0.136** | 0.008 | -0.156** | 0.025 | -0.132** | 0.020 |
| White owner - Asian renter | 0.059** | 0.009 | 0.008 | 0.025 | -0.019 | 0.021 |
| White-Asian renter | -0.125** | 0.008 | -0.176** | 0.025 | -0.203** | 0.021 |
| *Group-specific Characteristics* | | | | | | |
| Median Income ($1,000s) | | | -0.001** | 0.000 | -0.003 | 0.000 |
| Percent families with own children | | | 0.001* | 0.000 | 0.002 | 0.000 |
| Percent foreign born | | | 0.001 | 0.000 | 0.001* | 0.000 |
| Group size (10,000s) | | | 0.003** | 0.001 | 0.001** | 0.000 |
| *Metropolitan-area Characteristics* | | | | | | |
| Log of total population | | | | | 0.042 | 0.004 |
| Percent: | | | | | | |
| Minority | | | | | 0.001 | 0.000 |
| In manufacturing | | | | | 0.001 | 0.001 |
| In government | | | | | -0.001 | 0.001 |
| In military | | | | | -0.005** | 0.001 |
| Over 65 years old | | | | | -0.000 | 0.001 |
| Of housing units built last 10 years | | | | | -0.003** | 0.001 |
| Of population enrolled in college+ | | | | | 0.001 | 0.001 |
| Of population in suburbs | | | | | 0.000 | 0.000 |
| Region (ref. Northeast) | | | | | | |
| Midwest | | | | | -0.018 | 0.010 |
| South | | | | | -0.049** | 0.012 |
| West | | | | | -0.093** | 0.013 |
| Intercept | 0.542** | 0.009 | 0.560** | 0.018 | 0.118 | 0.066 |
| Number of unique metropolitan areas | 265 | | 265 | | 265 | |
| Log likelihood | 1836.977 | | 1976.15 | | 2446.327 | |
| DF | 2376 | | 2372 | | 2360 | |

**p<0.01; *p<0.05