Published in final edited form as:
Demography. 2013 August ; 50(4): 1477–1498. doi:10.1007/s13524-012-0184-y.

Housing Tenure and Residential Segregation in Metropolitan America

Samantha Friedman,
Department of Sociology, University at Albany, SUNY, 348 Arts and Sciences Building, 1400, Washington Avenue, Albany, NY 12222

Hui-shien Tsao, and
Center for Social and Demographic Analysis, University at Albany, SUNY

Cheng Chen
Department of Sociology, University at Albany, SUNY

Samantha Friedman: samfriedman@albany.edu

Abstract

Homeownership, a symbol of the American dream, is one of the primary ways through which families accumulate wealth, particularly for blacks and Hispanics. Surprisingly, no study has explicitly documented the segregation of minority owners and renters from whites. Using data from Census 2000, this study aims to fill this gap. Analyses here reveal that the segregation of black renters relative to whites is significantly *lower* than the segregation of black owners from whites, controlling for relevant socioeconomic and demographic factors, contrary to the notion that homeownership represents an endpoint in the residential assimilation process. The patterns for Hispanics and Asians conform more to expectations under the spatial assimilation model. The findings here suggest that race and ethnicity continue to be as important in shaping residential segregation as socioeconomic status, and raise concerns about the benefits of homeownership, particularly for blacks.

Keywords

Residential segregation; Housing tenure; Race; Ethnicity; Socioeconomic status

Introduction

The disparity in wealth between minorities and whites persists as one of the most salient fault lines in the United States (Conley 1999; Oliver and Shapiro 1995). In 2002, the median net worth of U.S. 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 ($7,590), 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 % of their net worth, respectively, in the ownership of their homes; for non-Hispanic whites and Asians, the rates were 41.7 % and 42.7 %, respectively (Gottschalck 2008). Until the housing crisis in the mid-2000s, minorities made significant gains in achieving record high levels of homeownership, making the link between owning a home and wealth even more critical.

Given that property values tend to be lower in predominantly black neighborhoods than in predominantly white neighborhoods (Denton 2001; Massey et al. 1987), the data on homeownership and wealth taken together suggest that minority homeowners may be highly segregated from their white counterparts, perhaps more so than among renters. Surprisingly, no study to our knowledge has explicitly documented racial and ethnic segregation by housing tenure status.[1] Homeownership is considered symbolic of the American dream, and housing tenure is an important marker that gauges both current and future SES. Although prior research has examined metropolitan-level racial and ethnic residential segregation by SES (Clark and Blue 2004; Denton and Massey 1988; Iceland and Wilkes 2006; Iceland et al. 2005; Massey and Denton 1993; Massey and Fischer 1999; St. John and Clymer 2000), none of these studies focused on racial and ethnic segregation by housing tenure.

The primary goal of this study is to fill this gap and document and explicitly compare the segregation of minority homeowners and renters from whites, overall, and disaggregated by housing tenure, across metropolitan America. Our analysis is guided by the following four questions: (1) How does the segregation between minority homeowners and all whites compare with that between minority renters and all whites? (2) How do the levels of segregation between minorities and whites vary by housing tenure status (e.g., minority owner–white owner segregation relative to minority renter–white renter segregation)? (3) How do specific minority groups—blacks, Hispanics, and Asians—compare in their segregation from all whites and disaggregated by housing tenure? (4) Do controls for group characteristics—such as income, education, and demographic factors, as well as metropolitan variation in economic, social, and demographic factors—affect the differences in the segregation of minorities from whites, overall and disaggregated by housing tenure?

Using data from Census 2000, we calculate 18 indexes of dissimilarity in total, for black, Hispanic, and Asian homeowners, relative to all whites, white homeowners, and white renters; and for black, Hispanic, and Asian renters, relative to all whites, white homeowners, and white renters.[2] We then estimate racial- and ethnic-specific generalized linear regression models to examine the extent to which differences in group-specific and metropolitan-level characteristics explain differences in segregation from whites, overall, and by housing tenure.

Background

In general, two broad theoretical perspectives—the spatial assimilation and place stratification models—are used to explain why segregation persists between minorities and whites. The spatial assimilation model identifies residential assimilation, or in this case residential proximity to whites (who make up the majority group), as one outcome of the status attainment process (Alba and Logan 1991, 1993; Charles 2003; Massey 1985). In general, the model maintains that the residential distribution of households across neighborhoods of varying proximity to whites is influenced by household demographic factors, acculturation-related characteristics, and SES. According to the tenets of the model, minorities are segregated from whites largely because minorities have lower levels of income and education, as well as the fact that some minority groups (such as Hispanics and Asians) comprise relatively large shares of foreign-born population who presumably have low levels of English proficiency and little experience living in the United States. According to the theory, the segregation of minorities from whites should diminish or disappear in the

[1]Studies like those by the Taeubers (see Taueber and Taueber 1965) have indirectly shown that segregation between minorities and whites is lower among renters as compared with owners, but such studies do not calculate segregation measures by housing tenure.
[2]Although more recent data would be preferable to use, the key, group-specific independent variables used in the multivariate analysis (e.g., the ratio of black owner median income to white median income; the ratio of black renter median income to white median income) are unavailable from either of the publicly available versions of the 2010 census or the American Community Surveys (ACS).

presence of controls for income, education, nativity status, and life-cycle factors of households.

One of the main assumptions inherent to the spatial assimilation model is that the process involves the purchase of a home. Alba and Logan (1992:1318) envisioned homeownership as "an aspect of the residential mobility that follows from the acculturation and social mobility of minority group members" and allows minorities to "convert socioeconomic and assimilation progress into residential gain by 'purchasing' residence in places with greater advantages and amenities than are typically found in central-city ethnic enclaves." Thus, homeownership has the potential to allow minorities to inhabit neighborhoods with more majority group members than coethnics. To the extent that it does, the model suggests that segregation between minority homeowners and whites will be lower than the segregation of minority renters from whites.

With respect to the segregation of minorities and whites disaggregated by housing tenure, the expectations are less clear. The tenets of the model suggest that segregation will be lowest between minority and white owners and potentially the highest between minority renters and white owners, with the segregation between minority and white renters and minority owners and white renters likely falling in the middle. Presumably, minorities who are homeowners have acquired the education, financial capabilities, and knowledge of the housing market that would allow them to buy homes in greater proximity to whites—and in particular, to white owners. Minority renters could be more segregated from white owners and renters because they have less education than whites and because a disproportionate share of them, particularly in the case of Hispanics and Asians, are immigrants who may be more likely to settle among coethnics and have less knowledge of the housing market.

Ironically, despite the fact that whites have greater wealth than blacks, Hispanics, and Asians, it is unclear from the existing research whether those differences would change our main expectation that minority owners will be less segregated from whites than minority renters. Little research has examined the effect of wealth on individual proximity to whites (Adelman 2005; Freeman 2000; Woldoff 2008). The studies that exist report mixed findings of the effect of wealth on the percentage white in individuals' neighborhoods, with some finding no effect or a negative effect (Adelman 2005; Freeman 2000) and one finding a positive effect of wealth (Woldoff 2008).

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 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 (Massey and Denton 1993; 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 are more relevant than for renters. Owners view their housing as an investment and consider its value as it relates to their current and future wealth. Whites are the group with the most wealth and,

therefore, have the most interest in growing their wealth and in 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 the exchange values of owner-occupied housing. There are at least two ways in which discrimination constrains the residential options more for minorities in the sales market, relative to whites, than in the rental market. First, according to data from the 2000 Housing Discrimination Study (HDS), between 1989 and 2000, there was a significant increase in the sales market in the geographic steering of blacks to predominantly black neighborhoods, the specific mechanism linking discrimination to residential segregation (Ross and Turner 2005).[3] Second, although minorities have had increased access to homeownership, they have experienced significant levels of discrimination in financing the purchase of their homes, which has ultimately led them to be even more likely to buy homes in predominantly minority neighborhoods. Avery et al. (2006) found that in 2006, 54 % of blacks and 47 % of Hispanics received high-priced, subprime loans, while only 18 % of whites did. Even after controlling for the relevant individual and neighborhood credit risk factors, racial and ethnic disparities exist in the probability of acquiring a subprime loan (Avery et al. 2006; Calem et al. 2004).

Most relevant to the current study is the geography of subprime, conventional home purchase loans. In 2000, 29 % of these subprime loans were made in minority neighborhoods compared with 14 % of conventional home purchase loans made by traditional lenders (Williams et al. 2005).[4] For blacks, however, 58 % of all subprime, conventional loans in 2000 were made in minority neighborhoods, compared with 45 % of loans made by traditional lenders (R. Williams, personal communication, July 5, 2011). This racial bias in the geography of lending has likely segregated minority owners from whites, overall, and white owners at perhaps greater levels than that found between minority renters and whites—and in particular, white renters, given that financial institutions do not play a role in the acquisition of rental homes.

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 all whites than minority renters are from all whites. Minority owners likely experience greater levels of segregation from white owners than from white renters. Segregation between minority renters and white owners, however, is probably at least as large as segregation between minority owners and white owners. These differences are expected not to disappear or diminish in multivariate analyses controlling for income, education, nativity status, and other relevant factors.

Moreover, the place stratification model suggests that a racial and ethnic hierarchy will exist in levels of segregation of minorities from whites. More specifically, whites—and in particular, white owners—will likely distance themselves the most from blacks and the least from Asians, with Hispanics falling somewhere in the middle; and controls for socioeconomic and demographic factors will not diminish this racial and ethnic hierarchy of differences. This expectation largely stems from the fact that discrimination against blacks and Hispanics in the housing market remains high, reflecting the fact that whites make clear

[3]Steering was not measured in the rental market in the HDS.
[4]Minority neighborhoods are neighborhoods where the racial composition is at least 30 % nonwhite.

distinctions among minorities in terms of their residential preferences (Bobo and Zubrinsky 1996; Farley et al. 1994).

Studies of Metropolitan-Level Segregation by SES

Recent research that has examined the segregation of minorities from whites by SES at the metropolitan level of analysis has found support for the tenets of both of these theoretical models (Clark 2007; Clark and Blue 2004; Fischer 2003; Iceland and Wilkes 2006; Iceland et al. 2005; Massey and Fischer 1999; St. John and Clymer 2000). With respect to the spatial assimilation model, these studies have found that minorities with higher levels of income, education, and occupational status, and lower levels of poverty are less segregated from non-Hispanic whites than corresponding groups ranking lower on these dimensions of SES. Between 1990 and 2000, declines in black segregation from whites were greater for blacks with higher levels of SES than those with lower levels (Fischer 2003; Iceland and Wilkes 2006; Iceland et al. 2005). The segregation of minorities from whites is lower in suburbs than in central cities, also reflecting the impact of SES on segregation (Clark 2007; Clark and Blue 2004).

In addition to the patterns of segregation by SES being consistent with the expectations derived under the spatial assimilation model, multivariate analyses reveal that the median income of minority households relative to that of whites is a key predictor in explaining metropolitan variation in racial and ethnic residential segregation from whites (Iceland and Wilkes 2006; Logan et al. 2004; Wilkes and Iceland 2004). Moreover, between 1990 and 2000, it appears that blacks in higher-SES groups experienced greater declines in their segregation from whites than blacks in lower-SES groups (Iceland and Wilkes 2006). For Hispanics, overall, greater levels of income, relative to that of whites, were associated with significant declines in segregation from whites over time (Logan et al. 2004).

At the same time, however, it is clear that race and ethnicity continue to matter in shaping residential segregation. Higher-SES blacks are 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). Iceland and Wilkes (2006) found that among blacks, the difference between the dissimilarity scores of the highest and lowest income, poverty, education, and occupation groups is much lower than the difference in scores of Hispanics and Asians. In the metropolitan areas of Chicago, Miami, and New York, blacks in suburbs within the highest income groupings have higher levels of segregation from whites than Hispanics and Asians in both suburbs and central cities (Clark and Blue 2004).

Hypotheses

In the introduction, we pose four questions that guide this study. Here, we revisit these questions and provide hypotheses from each theoretical perspective.

1. *How does the segregation between minority homeowners and all whites compare with that between minority renters and all whites?* The spatial assimilation model predicts that segregation between minority homeowners and whites should be lower than that between minority renters and whites because minority owners have achieved upward social mobility by achieving homeownership status, thereby reducing the social distance between minorities and whites more than is the case for renters. The place stratification model would suggest that minority homeowners and whites would be more segregated from one another than minority renters and whites. Because of the existence of a place stratification system built upon

exchange values, white owners would be most likely to distance themselves from groups who threaten their profits from exchange values.

2. *How do the levels of segregation between minorities and whites vary by housing tenure status?* The spatial assimilation model predicts that segregation between minority and white homeowners should be the lowest because these two groups have both achieved upward social mobility, which has likely reduced the social distance between them. The tenets of the place stratification model, however, would suggest just the opposite. White owners would be more likely to distance themselves from minority owners and minority renters, but white renters are not likely to distance themselves as much from minority renters, primarily because rental housing does not generate income from exchange values for renters.

3. *How do specific minority groups compare in their segregation from all whites and disaggregated by housing tenure?* According to the spatial assimilation model, all minority groups would be equally segregated from whites, with homeowners experiencing the least segregation and renters experiencing the most. On the other hand, the place stratification model maintains that a racial and ethnic hierarchy likely exists, whereby blacks are the most segregated and Asians are the least segregated, and segregation is likely to be greatest among homeowners.

4. *Do controls for group characteristics—such as income, education, and demographic factors, as well as metropolitan variation in economic, social, and demographic factors—diminish the differences in the segregation of minorities, by housing tenure, from whites, overall and disaggregated by housing tenure?* According to the spatial assimilation model, the answer would be yes. The place stratification model would predict that the higher levels of segregation between minority homeowners and whites would persist, relative to the segregation between minority renters and whites, despite these controls.

Data and Methods

Data from the short-form files of Census 2000 (Summary File 1) are used for the cross-sectional analysis of residential segregation by housing tenure undertaken here.[5] Consistent with previous research, we focus on segregation at the metropolitan-level of analysis (e.g., Iceland et al. 2002). We calculate 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 research (e.g., Iceland et al. 2002; Massey and Denton 1993).

We use the index of dissimilarity to characterize the segregation of minorities from whites, overall and by housing tenure. The index of dissimilarity measures the evenness of two groups over a geographic unit of interest, in this case census tracts. 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 (Iceland et al. 2002).

[5]The analysis here is cross-sectional and is unable to ascertain the lifetime segregation of a given individual who may transition within and between housing tenure statuses. Our results could overstate the level of segregation between white and minority homeowners because we might be capturing minorities who have been “trapped” in neighborhoods that have deteriorated. Prior analyses of recent homebuyers (Fischer and Lowe 2011), however, found the same patterns of segregation shown here.

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 (no segregation) to 1 (complete segregation). It may be interpreted as the proportion of either group that would have to move in order to achieve a fully integrated residential distribution. In general, dissimilarity indices greater than 0.60 are considered to be "high"; indices between 0.30 and 0.60 are "moderate"; and those less than 0.30 are "low" (Massey and Denton 1993). The index of dissimilarity is one of several measures that may be calculated to characterize the residential separation of minority groups from whites. We focus on this index because of its widespread use in the literature and ease of interpretation.

Our analysis of segregation relies on data on the total population in occupied housing units by housing tenure. The race and ethnicity of the population in these units is based exclusively on the race and ethnicity of the householder, and the tables that we use from Census 2000 include data for only those householders who reported being a member of one racial and ethnic group. These are limitations of our research, given that using such data excludes householders that self-identify as multiracial, and ignores the facts that racial and ethnic intermarriage exists and that individuals in such households may not identify as the same race or ethnicity of the householder. Although residential segregation among blacks, Hispanics, and Asians is lower among those married to a white partner than to those married to a partner within their own race and ethnicity (Holloway et al. 2005), intermarriage rates are quite low among blacks and much more prevalent among Asians and Hispanics (Qian and Lichter 2007). Our results may overestimate the level of segregation of Hispanics and Asians, although segregation scores for Asians are generally not as high as for blacks and Hispanics.

If we focus only on the segregation of householders and ignore the population within such households, we could underestimate the segregation of blacks, Hispanics, and Asians who have more people per household, on average, than whites. According to Census 2000, non-Hispanic whites in metropolitan areas had an average household size of 2.4, but blacks, Hispanics, and Asians had average household sizes of 2.7, 3.6, and 3.1, respectively (U.S. Census Bureau 2002). Therefore, we analyze the data on the population in occupied housing units rather than focusing on the householder alone. Moreover, homeownership brings benefits not only to the householder but also potentially to other household members. In the short term, households who own their homes can benefit from stable housing costs and potential income tax deductions taken for the interest paid on their mortgages. The extra disposable income that may be gained from such benefits can help all household members. In the long term, an owned home is a financial asset that can be used as capital toward other types of loans that benefit household members (e.g., for college tuition).

We calculate indices of dissimilarity for all pairwise comparisons in which non-Hispanic whites overall and white owners and renters form the reference groups, and black (refers to Hispanic and non-Hispanic blacks), Asian, and Hispanic renters and owners make up the minority groups.[6] This differs from previous research that does not make a distinction among whites by housing tenure (Iceland and Wilkes 2006; Iceland et al. 2005).

Our analysis proceeds as follows. First, we report the percentage of the metropolitan population in owner- and renter-occupied housing by race and ethnicity in 2000. Next, we present weighted mean indices of dissimilarity, weighted by the minority population

[6]We use the terms "non-Hispanic white" and "white" interchangeably throughout the article. There is some overlap between the black and Hispanic categories because we use predefined categories from SF1 of Census 2000. We do not use SF2, which would allow us to define mutually exclusive racial and ethnic categories, because there are significant levels of data suppression at the census-tract level of analysis.

relevant to each index. Then we report the results of racial- and ethnic-specific multivariate regression analyses that control for group-specific and metropolitan-level characteristics. In the multivariate analyses, the models are not weighted but instead control for the metropolitan population size, similar to previous research (Iceland and Wilkes 2006). The main dependent variable is the dissimilarity index. Two models are run within each of the racial- and ethnic-specific regression models. Our key independent variable in the first set of models is a dummy variable indicating whether the dissimilarity index is calculated for minority renters as compared with minority owners, both relative to all whites. In the second set of models, the key independent variable is a set of dummy variables derived from a classification of the dissimilarity scores based on the race, ethnicity, and housing tenure of the groups being compared. For each racial- and ethnic-specific model, we focus on four groups: minority-white owners; minority renters–white owners; minority-white renters; and minority owners–white renters. Because the same metropolitan area is represented more than once in each of these two sets of models for blacks, Hispanics, and Asians, 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)—to account for the fact that our independent variables have a correlated error structure (Liang and Zeger 1986).

The models contain a number of control variables at the group and metropolitan levels of analysis obtained from the long-form data of Census 2000 (Summary Files 3 and 4). At the group level, we control for the ratio of the group's median income to that of the specified white group in the segregation calculation, percentage of families with children, percentage foreign-born, and group size. With the exception of percentage foreign-born, all these variables are based on the minority group's housing tenure. In other words, dissimilarity scores for Hispanic-white owners contain information on Hispanic owners' ratio of median income relative to that of white owners, percentage of families with children, and group size. For Hispanic-white renter segregation scores, the data are specific to Hispanic renters. However, for the variable *percentage 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 are unavailable without special access to the confidential version of Census 2000.

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; Massey and Denton 1993). These variables are used to capture metropolitan variation in housing- and labor-market structure and population demographics that have been found to explain variation in segregation scores. Specifically, we include control variables for each metropolitan area's total population; percentage minority; percentages of each minority group that are homeowners; percentage of the population in manufacturing, government, and the military; percentage of the population older than age 65; percentage of housing units built in the past 10 years; percentage of the population enrolled in at least college; and the percentage of the population in suburbs; and region (dummy variables for Midwest, South, and West).

Results

Our descriptive analysis starts in Table 1 with an examination of the U.S. metropolitan area population that lives in renter- and owner-occupied housing units by race and ethnicity. Just over 69 % of the metropolitan population live in owner-occupied housing, and nearly 31 % live in renter-occupied housing. The data disaggregated by race and ethnicity, however, reveal a significant white-nonwhite disparity in access to homeownership, consistent with findings noted elsewhere (e.g., Alba and Logan 1992; Flippen 2001). While 75.0 % of the white population live in owner-occupied housing, less than half of blacks and Hispanics and fewer than 60 % of Asians live in such housing.

Table 2 presents the mean dissimilarity scores for minority owners and renters in 2000, relative to whites, overall and disaggregated by housing tenure. The scores are weighted by the size of the relevant minority group. 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 whites than minority renters. Although two-thirds (0.66) of black owners would have to move in order to be evenly distributed with whites, 70 % of black renters (i.e., D = 0.70) would have to move. The same pattern is also present for Hispanics and Asians, although the levels of segregation are considerably lower and are considered “moderate” than is the case for blacks whose scores are “high.”

With respect to dissimilarity indexes disaggregated by the housing tenure of minorities and whites, is the segregation between minority and white homeowners the lowest? For blacks, this is not the case. Columns 2 and 3 of Table 2 reveal that the segregation between black and white renters is the lowest (0.62), with segregation between black and white owners being 0.05 units higher (0.67). For Hispanics, segregation from whites is equally low among owners and renters (at 0.51) and is greatest between Hispanic renters and white owners (0.65). For Asians, a similar pattern emerges.

How do specific minority groups compare with one another in their segregation from whites, overall and by housing tenure? The results in Table 2 reveal that a racial and ethnic hierarchy exists in the levels of segregation from whites, with blacks falling at the bottom of the hierarchy. In examining the segregation of minority owners from whites (column 1), we find that the dissimilarity scores for blacks, Hispanics, and Asians, respectively, are 0.66, 0.50, and 0.46. Among owners (column 2), the magnitude of the differences is very similar to the pattern when all whites are the reference group. Among renters, however, the differences are slightly smaller (column 3), with that between black and Hispanic renters in their segregation from white renters being 0.11, and the scores between black and Asian renters, relative to whites, being 0.16 units. Whereas all the dissimilarity scores between blacks and whites, regardless of housing tenure, are “high” for Hispanics and Asians, only the segregation scores between renters and white owners fall in the “high” range (i.e., 0.65 and 0.63, respectively). Thus, blacks are the most segregated minority group from whites, regardless of whether they are homeowners or renters; Asians are the least segregated; and Hispanics fall in between.

There is also a racial and ethnic hierarchy present in comparing the segregation of minority renters from whites relative to minority owners from whites, within specific racial and ethnic groups. Column 1 (Table 2) reveals that the average dissimilarity score between Hispanic renters and whites is 0.09 units higher than the average dissimilarity score between Hispanic owners and whites. For Asians, there is a 0.10-unit difference between these average dissimilarity scores. However, the difference in the average dissimilarity indexes between black renters and whites and black owners and whites is only 0.04 units. The same pattern is also found when examining the segregation of minority owners and renters relative to white owners (column 2; Table 2). Thus, for blacks, homeownership status does not reduce the level of segregation from whites and white owners as much as for Hispanics and Asians.

The data in Table 2 are unadjusted means of dissimilarity scores and do not account for differences in socioeconomic and demographic characteristics between minorities and whites. Table 3 reports descriptive statistics on such characteristics. Across all groups, renters have lower “average” median household income than their owner counterparts (column 1 of Table 3). The average values of median income for Asian owners and renters are the largest, surpassing those of whites. Interestingly, the average values of median income for black owners and renters are similar to those for Hispanic owners and renters,

respectively, standing in contrast to the disparities in segregation shown in Table 2. For example, among owners, black and Hispanic median household income is $44,003 and $46,515, respectively; comparatively, according to Table 2, black-white owner segregation is 0.67, which is 0.16 units higher than Hispanic-white owner segregation.

The results in column 2 of Table 3 regarding the average percentage of families with their own children are also noteworthy. For whites, Hispanics, and Asians, owners make up a greater average percentage of families with their own children than do renters. For blacks, however, the opposite is true. On average, nearly 44 % of black renters are families with their own children, compared with an average of about 36 % of black owners. With respect to nativity status, there is also clear variation across groups (column 3). On average, 71 % of Asians and 32.1 % of Hispanics are born outside the United States, whereas the average levels for whites and blacks are 2.6 % and 5.2 %, respectively.

Table 4 reports the results of our racial- and ethnic-specific multivariate models that examine the effect of housing tenure on dissimilarity scores, controlling for group-specific and metropolitan-level characteristics. For each racial and ethnic group-specific model, Table 4 reports the coefficients and standard errors from two sets of generalized linear models. One set of models includes a dummy variable indicating whether the dissimilarity score is for renters compared with all whites versus owners compared with all whites. The second set of models includes dummy variables for segregation scores for the minority group of interest and whites where both groups are disaggregated by housing tenure. The reference group in these models is made up of segregation between minority and white owners.

We focus first on the results for our key variables, the dummy variables gauging the segregation of minorities from whites, overall and by housing tenure. Column 1 of Table 4 reveals that controlling for relevant variables, black renters are *less* segregated from whites than black owners, contrary to the descriptive results shown in Table 2 and expectations generated under the spatial assimilation model. Black renters have segregation scores that are, on average, 0.056 units lower than black owners. Controlling for the ratio of black income to white income causes the segregation of black renters from whites to be lower than the segregation of black owners from whites (analyses not shown). Columns 3 and 5 reveal that for Hispanics and Asians, the results are consistent with the tenets of the spatial assimilation model. Controlling for other relevant factors, Hispanic and Asian renters are more segregated from whites than Hispanic and Asian owners, respectively. Interestingly, the difference in segregation by housing tenure from whites is larger for Asians than Hispanics, indicating that homeownership affords Asians more access to whites than is the case for Hispanics.

Turning to the second set of results in Table 4, we address the question of whether segregation between minority and white homeowners is the lowest, relative to segregation between minorities and whites with other housing tenure statuses. For blacks, the answer is more mixed than for Hispanics and Asians. Column 2 of Table 4 reveals that controlling for group-and metropolitan-specific characteristics, the segregation of black renters from white renters is, on average, 0.071 units *lower* than that between black owners and white owners, contrary to the tenets of the spatial assimilation model. In addition, black owner segregation from white renters is *lower* than black owner segregation from white owners. For blacks, the only coefficient in the expected direction is that gauging the comparison of the segregation between black renters and white owners with that between black and white owners. Column 2 shows that black renters are, on average, 0.059 units more segregated from white owners than black owners. The low magnitude of this number, however, suggests that among blacks, homeownership affords marginally more access to whites than renting.

The results for Hispanics and Asians are more consistent with the tenets of the spatial assimilation model than are the results for blacks. Columns 4 and 6 of Table 4 reveal that the segregation of Hispanic and Asian renters from white renters is 0.029 and 0.014 units greater, respectively, than the segregation of Hispanic and Asian owners from white owners, controlling for relevant factors. Likewise, Hispanic and Asian renter segregation from white owners are 0.163 and 0.203 units greater, respectively, than Hispanic and Asian owner segregation from white owners. The segregation of Asian owners from white renters is 0.068 units greater than the segregation between Asian and white owners, controlling for relevant factors.

How do blacks, Hispanics, and Asians compare in their segregation from all whites and disaggregated by housing tenure? Comparing the coefficients gauging the segregation of minority renters to whites relative to minority owners to whites (i.e., results in columns 1, 3, and 5 of Table 4) reveals that the unique finding that black renters are less segregated from whites than black owners is significantly different from the finding that Hispanic and Asian renters are more segregated from whites than Hispanic and Asian owners (not shown but available from the authors). The same finding is present when comparing the coefficients gauging minority-white renter segregation with minority-white owner segregation (e.g., −0.071 to 0.029 and −0.071 to 0.014). The unique finding for blacks is significantly different than the expected pattern for Hispanics and Asians.

In comparing the coefficients measuring the difference between minority renter–white owner segregation and minority-white owner segregation, we find that homeownership brings lower “returns” in the way of access to white neighbors to blacks than is the case for Hispanics and Asians. Black renter–white owner segregation is only 0.059 units greater than black-white owner segregation, controlling for other factors. This difference is significantly smaller than that for Hispanics (i.e., 0.163) and for Asians (i.e., 0.203). Thus, Hispanic and Asian owners live in neighborhoods with more whites than their renter counterparts, and the difference in access to whites between owners and renters is significantly larger than that between black renters and owners, controlling for other relevant characteristics.

Do controls for the group-specific characteristics as well as metropolitan-level factors affect the differences in the segregation of minorities from whites, overall, and disaggregated by housing tenure? Table 5 in the appendix reports the unadjusted coefficients for our key comparisons of the segregation scores by housing tenure, relative to whites, overall, and disaggregated by housing tenure. Comparing these coefficients with those in Table 4, we find that there is little evidence that these control variables diminish the differences in segregation of Asians from whites, overall and by housing tenure. For blacks, controlling for their income, relative to that of whites, actually reverses the direction of the sign of the coefficient gauging the comparison of segregation of black renters from whites, relative to black owners from whites (see column 1 of Table 5 (appendix) and Table 4). In the tenure-specific model for blacks, however, the addition of control variables reduces only the magnitude of the difference in segregation between black renters and white owners relative to that between black owners and white owners. For Hispanics, controlling for the group- and metropolitan-specific variables reduces the gap in segregation between Hispanic renters from whites and Hispanic owners from whites (i.e., from 0.145 to 0.055).

How do the control variables relate to explaining variation in segregation across metropolitan areas? Among the group-specific characteristics, the coefficients in the Table 4 reveal that these factors affect the segregation of blacks, Hispanics, and Asians differently. For blacks and Hispanics, higher levels of minority group income, relative to white income, are associated with lower levels of metropolitan-level segregation. However, for Asians, the relationship between the variables income and segregation is not significant. With respect to

the coefficients for percent of families with their own children, for Hispanics only, this factor is positively and significantly related to segregation (see columns 3 and 4). The percentage of foreign-born individuals within each group is negatively related to segregation for blacks and positively related to segregation for Hispanics. There is no impact of the percentage foreign-born on Asian segregation. For all groups, segregation is unrelated to group size.

As far as the metropolitan-level characteristics are concerned, we find that across all models and groups, the log of the total population is positively related to segregation. Another consistent finding is that the segregation of minorities from whites is lower in the West than the Northeast. The other metropolitan-level factors, however, vary in their impact on the segregation of blacks, Hispanics, and Asians from whites.

Discussion and Conclusions

The primary goals of this study were to examine how housing tenure shapes racial and ethnic segregation in metropolitan America and test how well the tenets of the spatial assimilation and place stratification models explained such patterns of segregation. To fulfill these goals, the analysis focused on answering four main questions. First, how does the segregation between minority homeowners and all whites compare with that between minority renters and all whites? Consistent with expectations derived under the spatial assimilation model, our descriptive analyses revealed that the segregation between minority renters and whites was greater than that between minority homeowners and whites. However, in the multivariate analysis for blacks, controlling for other relevant factors, the segregation of renters from whites was *lower* than the segregation of owners from whites, contrary to the tenets of the spatial assimilation model. For Hispanics and Asians, however, the results were consistent with descriptive analyses and the tenets of the model.

Second, how do the levels of segregation between minorities and whites vary by housing tenure status? Supporting hypotheses derived under the spatial assimilation model, both our descriptive and multivariate analyses indicated that for all minority groups, the segregation between minority and white homeowners was lower than that between minority renters and white homeowners. Thus, minority homeownership facilitates access to white owners. The segregation between minority and white owners, however, was not always the lowest. In the multivariate analysis, we found that the segregation scores between black and white renters and between black owners and white renters were significantly lower than that between black and white owners, thereby providing evidence less consistent with the tenets of the spatial assimilation model.

Third, how do specific minority groups compare in their segregation from all whites and disaggregated by housing tenure? Supporting hypotheses under the place stratification model, our descriptive analysis showed evidence of the existence of a racial and ethnic hierarchy in segregation by housing tenure, with blacks falling at the bottom of the hierarchy, Asians at the top, and Hispanics in the middle. The multivariate analysis revealed a similar pattern, but a black-nonblack dichotomy better characterized it. In comparing the key coefficients across our models, we found that homeownership brings less access to whites, overall, for blacks than for Hispanics and Asians. Black owners are particularly disadvantaged relative to black renters. Our analyses revealed that for blacks, the segregation between black and white homeowners is not much lower than that between black renters and white homeowners, indicating that homeownership does not reduce the level of segregation from white homeowners as much as for Hispanics and Asians.

Finally, do controls for group-specific and metropolitan-level characteristics diminish the differences in racial and ethnic segregation by housing tenure? We found the answer to be

generally no, particularly for blacks and Asians, supporting the tenets of the place stratification model. The difference in segregation between black renters and whites becomes lower than that between black homeowners and whites, controlling for relevant group-specific and metropolitan-level characteristics. Likewise, as mentioned earlier in this article, the segregation between black and white renters continues to be significantly lower than that between black and white owners, controlling for relevant factors. One difference that diminishes substantially is the segregation of Hispanic renters from whites relative to Hispanic owners and whites.

Taken together, the findings here provide support for hypotheses derived from both the spatial assimilation and place stratification models and are similar to those in other work that examines racial and ethnic residential segregation by SES. Higher-status minorities generally experience less segregation from whites than do lower-status minorities (e.g., Clark and Blue 2004; Iceland and Wilkes 2006). Our finding that minority renters are more likely to be segregated from white homeowners than are minority homeowners is consistent with this finding. At the same time, previous research has found that higher-status blacks are much more segregated from whites than similarly situated Hispanics and Asians and those of lower social standing, revealing the unique situation of blacks (Iceland and Wilkes 2006; Massey and Fischer 1999; St. John and Clymer 2000). We find a similar pattern here.

The one important finding in our study that differs from previous research is the fact that for blacks, a rise in socioeconomic status—defined here in terms of housing tenure—is not associated with a decline in residential segregation, controlling for other relevant factors. In our multivariate analyses, we found that black homeowners are more segregated from whites than black renters are from whites, contrary to the pattern we found for Hispanics and Asians and to the tenets of the spatial assimilation model. Moreover, the segregation of black renters from white renters is significantly lower than that between black owners and whites owners, controlling for other relevant factors. Also noteworthy and related to this finding is the fact that collectively, the group-specific and metropolitan-level characteristics did little to explain differences in segregation scores and for blacks, actually reversed the sign of the difference between renter-white and owner-white segregation.

These findings have important theoretical implications for the study of residential segregation. They suggest that housing tenure is an important but different aspect of socioeconomic status that warrants further attention. Because housing is a commodity that can be viewed through its use and exchange values (Logan and Molotch 1987), blacks may be more constrained by wealthier and more powerful whites in the sales market than in the rental market, consistent with the main assumptions of the place stratification model (Alba and Logan 1993; Logan and Alba 1993; Logan and Molotch 1987). It is likely that discrimination in the mortgage market—and in particular, the fact that blacks have been more likely than whites to acquire subprime loans—has been important in contributing to this pattern (Avery et al. 2006; Calem et al. 2004). Although blacks have been successful at achieving homeownership, it appears that it may not enough for them to gain proximity to whites and potential opportunities to accrue wealth.

Of course, one of the main limitations of this study is its reliance on cross-sectional data. Future research should examine these patterns over time. A recent study by scholars at Pew Research Center necessitates such an approach (Kocchar et al. 2011). They found that between 2005 and 2009, the median wealth of Hispanic and black households fell by 66 % and 53 %, respectively, but for whites it fell by only 16 % (Kocchar et al. 2011:1). The declining housing values prompted by the housing crash and the foreclosures afterward have likely contributed to these racial and ethnic disparities in the declines in wealth. How the mortgage-lending bust has affected residential segregation by housing tenure remains to be

seen. Has the residential segregation of minority owners and renters from whites declined over time, consistent with the general patterns in segregation or are their differences by housing tenure? Have the changes in the volume and types of lending between the mortgage-lending peak and bust periods affected segregation by housing tenure?

In conclusion, there is much more to be learned about the role of housing tenure in shaping racial and ethnic segregation in metropolitan America. The findings here suggest that perhaps some of the guarded optimism that has been expressed in recent research, which has found that segregation tends to be lower as minority SES improves, should be tempered given the findings for black homeowners. This article also suggests that mortgage-lending policies and other policies that precipitated the housing market crash in the late 2000s should be more explicitly linked to the study of residential segregation, overall and by housing tenure, than has been present in previous research. With more attention to these factors, the growing disparities in wealth between whites and minorities may be better understood.

Acknowledgments

We thank Eric Fong, Glenn Deane, Nancy Denton, Scott South, and several anonymous reviewers for their helpful comments. Support for this research was provided by a grant to the Center for Social and Demographic Analysis at the University at Albany from NICHD (R24 HD044943).

Appendix

Table 5

Generalized linear regression models of the association between race/ethnicity, housing tenure, and dissimilarity (unadjusted coefficients)

	Black				Hispanic				Asian			
	All White (1)		Tenure-Specific (2)		All White (3)		Tenure-Specific (4)		All White (5)		Tenure-Specific (6)	
Variables	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**
(ref. = Minority owners–all whites)												
Minority renters–all whites	0.064***	0.004			0.145***	0.005			0.137***	0.004		
(ref. = Minority owners–white owners)												
Minority renters–white renters			−0.058***	0.004			0.019***	0.004			0.010*	0.004
Minority renters–white owners			0.105***	0.005			0.191***	0.005			0.192***	0.004
Minority owners–white renters			−0.003	0.004			0.037***	0.004			0.057***	0.004
Intercept	0.528***	0.008	0.542***	0.008	0.350***	0.007	0.363***	0.007	0.403***	0.005	0.408***	0.005
Number of Unique Metropolitan Areas	296		296		303		303		262		262	
QIC	593.987		1187.873		607.987		1,215.974		525.985		1,051.970	
Marginal R^2	.057		.173		.292		.317		.437		.470	

* $p < .05$;

** $p < .01$;

*** $p < .001$

References

Adelman RM. The roles of race, class, and residential preferences in the neighborhood's racial composition of middle-class blacks and whites. Social Science Quarterly. 2005; 86:209–228.

Alba RD, Logan JR. Variation on two themes: Racial and ethnic patterns in attainment of suburban residence. Demography. 1991; 28:431–453. [PubMed: 1936377]

Alba RD, Logan JR. Assimilation and stratification in the homeownership patterns of racial and ethnic groups. International Migration Review. 1992; 26:1314–1341.

Alba RD, Logan JR. Minority proximity to whites in suburbs: An individual-level analysis of segregation. American Journal of Sociology. 1993; 98:1388–1427.

Avery RB, Brevoort KP, Canner GB. High-priced home lending and the 2005 HMDA data. Federal Reserve Bulletin. 2006 Sep.:123–166.

Bobo L, Zubrinsky C. Attitudes towards residential integration: Perceived status differences, mere in-group preferences, or racial prejudice? Social Forces. 1996; 74:883–909.

Calem PS, Hershaff JE, Wachter SM. Neighborhood patterns of subprime lending: Evidence from disparate cities. Housing Policy Debate. 2004; 15:603–622.

Charles C. Dynamics of racial residential segregation. Annual Review of Sociology. 2003; 29:167–207.

Clark WAV. Race, class, and place: Evaluating mobility outcomes for African Americans. Urban Affairs Review. 2007; 42:295–314.

Clark WAV, Blue SA. Race, class, and segregation patterns in U.S. immigrant gateway cities. Urban Affairs Review. 2004; 39:667–688.

Conley, D. Being black, living in the red: Race, wealth, and social policy in America. Berkeley: University of California Press; 1999.

Denton, NA. Housing as a means of asset accumulation: A good strategy for the poor?. In: Shapiro, RM.; Willf, E., editors. Assets for the poor: The benefits of spreading asset ownership. New York: Russell Sage Foundation; 2001. p. 232-268.

Denton NA, Massey DS. Residential segregation of blacks, Hispanics, and Asians by socioeconomic status and generation. Social Science Quarterly. 1988; 69:797–817.

Farley R, Frey WH. Changes in the segregation of whites from blacks during the 1980s: Small steps toward a more integrated society. American Sociological Review. 1994; 59:23–45.

Farley R, Steeh C, Krysan M, Jackson T, Reeves K. Stereotypes and segregation: Neighborhoods in the Detroit area. American Journal of Sociology. 1994; 100:750–780.

Fischer MJ. The relative importance of income and race in determining residential outcomes in U.S. urban areas, 1970–2000. Urban Affairs Review. 2003; 38:669–696.

Fischer, MJ.; Lowe, T. Examining the impact of the housing boom on neighborhood access for African Americans; Paper presented at the 2011 annual meeting of the Population Association of America; Washington, DC. 2011 Mar-Apr.

Flippen CA. Racial and ethnic inequality in homeownership and housing equity. The Sociological Quarterly. 2001; 42:121–149.

Freeman L. Minority housing segregation: A test of three perspectives. The Journal of Urban Affairs. 2000; 22:15–35.

Gottschalck, AO. Net worth and the assets of households: 2002 (Current Population Reports P70-115). Washington, DC: U.S. Census Bureau; 2008.

Holloway SR, Ellis M, Wright R, Hudson M. Partnering “out” and fitting in: Residential segregation and the neighborhood contexts of mixed-race households. Population, Space, and Place. 2005; 11:299–324.

Iceland J, Sharpe C, Steinmetz E. Class differences in African American residential patterns in US metropolitan areas: 1990–2000. Social Science Research. 2005; 34:252–266.

Iceland, J.; Weinberg, DH.; Steinmetz, E. Racial and ethnic residential segregation in the United States: 1980–2000 (U S Census Bureau, Series CENSR-3). Washington, DC: 7 U.S. Government Printing Office; 2002.

Iceland J, Wilkes R. Does socioeconomic status matter? Race, class, and residential segregation. Social Problems. 2006; 53:248–273.

Kocchar, R.; Fry, R.; Taylor, P. Wealth gaps rise to record highs between whites, blacks, and Hispanics. Washington, DC: Pew Research Center; 2011.

Liang K, Zeger SL. Longitudinal data analysis using generalized linear models. Biometrika. 1986; 73:13–22.

Logan JR, Alba RD. Locational returns to human capital: Minority access to suburban community resources. Demography. 1993; 30:243–268. [PubMed: 8500639]

Logan, JR.; Molotch, H. Urban fortunes. Berkeley, CA: University of California Press; 1987.

Logan JR, Stults B, Farley R. Segregation of minorities in the metropolis: Two decades of change. Demography. 2004; 41:1–22. [PubMed: 15074122]

Massey DS. Ethnic residential segregation: A theoretical synthesis and empirical review. Sociology and Social Research. 1985; 69:315–350.

Massey DS, Condran GA, Denton NA. The effect of residential segregation on black social and economic well-being. Social Forces. 1987; 66:29–56.

Massey, DS.; Denton, NA. American apartheid: Segregation and the making of the underclass. Cambridge, MA: Harvard University Press; 1993.

Massey DS, Fischer MJ. Does rising income bring integration? New results for blacks, Hispanics, and Asians in 1990. Social Science Research. 1999; 28:316–326.

Oliver, ML.; Shapiro, TM. Black wealth/white wealth: A new perspective on racial inequality. New York: Routledge; 1995.

Qian Z, Lichter DT. Social boundaries and marital assimilation: Interpreting trends in racial and ethnic intermarriage. American Sociological Review. 2007; 72:68–94.

Ross S, Turner MA. Housing discrimination in metropolitan America: explaining changes between 1989 and 2000. Social Problems. 2005; 52:152–180.

St John C, Clymer R. Racial residential segregation by level of socioeconomic status. Social Science Quarterly. 2000; 81:701–715.

Taeuber, K.; Taeuber, A. Negroes in cities: residential segregation and neighborhood change. Chicago, IL: Aldine; 1965.

U.S. Census Bureau. American factfinder detailed tables. Tables P17, P17B, P17D, P17H, P17I. Average household size—All households, black or African American alone, Asian alone, Hispanic or Latino, and white alone, not Hispanic or Latino, respectively. Census 2000 data from Summary File 1. 2002. Retrieved from http://factfinder.census.gov

Wilkes R, Iceland J. Hypersegregation in the twenty-first century. Demography. 2004; 41:23–36. [PubMed: 15074123]

Williams R, Nesiba R, McConnell ED. The changing face of inequality in home mortgage lending. Social Problems. 2005; 52:181–208.

Woldoff RA. Wealth, human capital, and family across racial/ethnic groups: Integrating models of wealth and locational attainment. Urban Studies. 2008; 45:527–551.

Yinger, J. Closed doors, opportunities lost: The continuing costs of housing discrimination. New York: Russell Sage Foundation; 1995.

Table 1
Population by housing tenure in metropolitan America, 2000

	Percentage of Population in:		
Racial/Ethnic Group	**Owner-Occupied Housing**	**Renter-Occupied Housing**	***N***
Whites	75.0	25.0	313
Blacks	44.9	55.1	296
Hispanics	47.1	52.9	303
Asians	58.3	41.7	262
Total	69.1	30.9	254

Source: Calculations based on Census 2000, Summary File 1 data. Metropolitan areas with at least 1,000 of the relevant population group are included.

Table 2
Mean dissimilarity scores for owners and renters by race/ethnicity, 2000

	Reference Group: Whites			
	All	Owners	Renters	*N*
Population Group of Interest	**(1)**	**(2)**	**(3)**	**(4)**
Blacks				
Owners	0.66	0.67	0.67	296
Renters	0.70	0.74	0.62	296
Hispanics				
Owners	0.50	0.51	0.53	303
Renters	0.59	0.65	0.51	303
Asians				
Owners	0.46	0.46	0.54	262
Renters	0.56	0.63	0.46	262

Source: Calculations based on Census 2000, Summary File 1 data. Indexes are weighted by the size of the minority group of interest. Metropolitan areas with at least 1,000 of the relevant minority group are included.

Table 3

Socioeconomic and demographic characteristics of owners and renters in metropolitan America, 2000

Group	Median Household Income (in dollars) (1)	Average % of Families With Own Children (2)	Average % Foreign-born (3)
White			2.6
All	44,064	29.7	
Owners	52,356	31.1	
Renters	27,984	26.6	
Black			5.2
Owners	44,003	35.9	
Renters	20,716	43.7	
Hispanic			32.1
Owners	46,515	51.7	
Renters	25,115	47.9	
Asian			70.5
Owners	64,083	50.2	
Renters	30,019	34.7	

Source: Calculations based on Census 2000, Summary File 4 data.

Table 4

Generalized linear regression models of the association between race/ethnicity, housing tenure, and dissimilarity

	Black				Hispanic				Asian			
	All White (1)		Tenure-Specific (2)		All White (3)		Tenure-Specific (4)		All White (5)		Tenure-Specific (6)	
Variables	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**
(ref. = Minority owners–all whites)												
Minority renters–all whites	−0.056**	0.018			0.055***	0.015			0.147***	0.009		
(ref. = Minority owners–white owners)												
Minority renters–white renters			−0.071***	0.006			0.029***	0.005			0.014*	0.006
Minority renters–white owners			0.059***	0.009			0.163***	0.009			0.203***	0.009
Minority owners–white renters			−0.020***	0.005			0.013	0.007			0.068***	0.009
Group-Specific Characteristics												
Ratio of minority group income to white income	−0.212***	0.029	−0.097***	0.016	−0.203***	0.030	−0.091***	0.019	0.013	0.012	0.015	0.011
% families with own children	0.001	0.001	0.000	0.001	0.002***	0.000	0.002***	0.000	−0.000	0.000	0.000	0.000
% foreign-born	−0.002**	0.001	−0.002***	0.001	0.001***	0.000	0.001**	0.000	0.000	0.001	0.001	0.001
Group size 10,000s	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
Metropolitan-Area Characteristics												
Log of total population	0.058***	0.006	0.063***	0.006	0.038***	0.005	0.041***	0.005	0.014**	0.005	0.019***	0.004
% minority	0.000	0.000	0.000	0.000	0.001**	0.000	0.002***	0.000	−0.000	0.000	−0.000	0.000
% minority that are owners	0.002	0.001	0.004***	0.001	−0.000	0.001	0.000	0.001	0.002*	0.001	0.002**	0.001
% in manufacturing	−0.000	0.001	−0.001	0.001	0.002*	0.001	0.001	0.001	0.001	0.001	0.001	0.001
% in government	−0.001	0.002	−0.003	0.002	−0.000	0.002	−0.001	0.002	0.002	0.002	0.001	0.002
% in military	−0.003**	0.001	−0.004***	0.001	−0.001	0.001	−0.002	0.001	−0.004***	0.001	−0.003***	0.001
% over 65 years old	0.012**	0.004	0.013**	0.004	0.008*	0.003	0.008*	0.003	−0.012***	0.003	−0.011***	0.002
% of housing units built past 10 years	−0.004***	0.001	−0.004***	0.001	−0.001	0.001	−0.001	0.001	−0.002**	0.001	−0.002***	0.001
% of population enrolled in college+	−0.000	0.001	−0.000	0.001	0.002*	0.001	0.002**	0.001	0.001	0.001	0.002**	0.001
% of population in suburbs	0.001*	0.000	0.001*	0.000	−0.001*	0.000	−0.001*	0.000	0.001*	0.000	0.001*	0.000
Region (ref. = Northeast)												

	Black				Hispanic				Asian			
	All White (1)		Tenure-Specific (2)		All White (3)		Tenure-Specific (4)		All White (5)		Tenure-Specific (6)	
Variables	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**	**Coeff.**	**SE**
Midwest	0.020	0.016	0.031	0.016	−0.073***	0.015	−0.066***	0.015	0.024*	0.012	0.023*	0.011
South	−0.043*	0.017	−0.033	0.018	−0.107***	0.016	−0.097***	0.016	0.021	0.014	0.018	0.013
West	−0.095***	0.018	−0.091***	0.018	−0.111***	0.017	−0.101***	0.017	−0.035*	0.014	−0.027*	0.013
Intercept	−0.038	0.093	−0.196*	0.092	−0.046	0.087	−0.229**	0.074	0.190	0.081	0.119*	0.077
Number of Unique Metropolitan Areas	296		296		303		303		262		262	
QIC	627.953		1,260.490		634.639		1,270.412		550.982		1,101.221	
Marginal R^2	.663		.654		.669		.640		.614		.631	

* $p < .05$;

** $p < .01$;

*** $p < .001$