Does suburban residence mean better neighborhood conditions for all households? Assessing the influence of nativity status and race/ethnicity ☆

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Abstract

Suburban residence is considered symbolic of the American dream. Despite growth in suburban minority and immigrant populations, the question of whether access to high quality residential environments is available to all households has gone largely unexplored. This paper helps fill this gap by evaluating nativity-status and racial/ethnic differences in a range of neighborhood conditions for both suburban and central city residents. The study relies on data from the 2001 panel of the American Housing Survey and focuses on a range of neighborhood conditions, including indicators of social disorder, measures rarely examined in studies of locational attainment. Contrary to expectations based on spatial assimilation theory, we find that many foreign-born households reside in significantly *better* neighborhoods than their native-born counterparts. In addition, when nativity-status differences are in the favor of native-born households, suburban location does not necessarily attenuate them. With respect to the effect of race/ethnicity, we find that it is generally a more consistent predictor than nativity status of households' neighborhood conditions.
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1. Introduction

Suburban residence has long been considered symbolic of the American dream, largely because of its perceived link to the opportunity structure. Location in suburbs, as compared to central cities, affords households access to higher quality schools, more job opportunities, and better quality housing, and reduces their exposure to crime. Implicit—but largely unexplored—in these observations is the notion that all suburban households have access to such high quality residential environments.

In recent years, suburbs have increasingly become more diverse (Frey, 2001). Civil Rights legislation passed during the late 1960s and early 1970s reduced the strength of barriers that had prevented minorities from moving to such areas, resulting in an increase in the proportion of minorities, and particularly African Americans, living in the suburbs. Although the majority of the population in suburbs remains white, it is declining, albeit slowly, moving from 86% in 1990 to 81% in 2000 (U.S. Bureau of the Census, 1993, 2001). Part of the increase in diversity is due to the influx of immigrants, many of whom are nonwhite, who bypass central cities and settle directly in suburbs (Singer et al., 2001).

The increasing diversity of suburbs and the importance of suburban location demands a study of the neighborhood conditions that immigrants and minorities experience in suburbs, relative to their native-born and white counterparts. Several studies reveal that suburbs confer significant advantages to minorities, with such residents being more likely than their central city counterparts to live in whiter and more affluent neighborhoods (see for example, Alba et al., 1999; Logan et al., 1996a). However, recent studies suggest that previous work may have overstated the benefits of suburban living, particularly for minorities (Adelman, 2004; Alba et al., 2000a; Logan et al., 2002; Pattillo-McCoy, 1999). Such studies indicate, for example, little difference in the average household income in suburban versus urban Mexican ethnic neighborhoods (Logan et al., 2002), but a large and significant income advantage among the neighbors of suburban whites relative to those of suburban blacks (Adelman, 2004; Alba et al., 2000a).

Whether all households experience access to equally good neighborhoods within suburbs, therefore, remains an open question. Several limitations of the existing research necessitate a more in-depth analysis of this question. First, almost all of the studies on this topic use a fairly narrow range of neighborhood quality indicators—median household income of the neighborhood and the proportion of whites within the neighborhood (see for exceptions, Adelman, 2004; White and Sassler, 2000). As the work by Adelman (2004) reveals, focusing only on these two dependent variables can be misleading. Even when the neighborhood's median household income is relatively high, it is still possible for relatively different levels of poverty to exist for different groups (e.g., blacks and whites) because the spread of the income distribution surrounding the median income value could be very different. These two measures offer little information on the physical quality or social disorder present within the neighborhood, factors which can potentially affect the health of the residents (Rosenbaum, 2005) as well as the socialization of the neighborhood's youth. Thus, there is a need to expand the neighborhood outcomes examined in these studies beyond those derived from census data in order to learn more about the quality of life in such neighborhoods.

A second limitation of the existing research is that it could be overstating the extent of access that minorities and foreign-born households have to whiter and more affluent neighborhoods.[1] Because most extant studies rely on census data, the neighborhood characteristics they examine are at the census-tract level. Significant variation exists, however, *within* census tracts as to where minorities live, relative to whites. Indeed, levels of residential segregation are often greater at the block-group level, a smaller level of geography within census tracts, than at the census-tract level (Iceland et al., 2002). Thus, it would be better to gauge conditions within the immediate proximity of respondents' housing units. A third limitation relates to the recency of the data used in these studies. Most of the data for these studies come from the 1970, 1980, or 1990 decennial censuses. Therefore, little is known about the current access that minority groups have to better neighborhood outcomes in light of the fact that more minorities live in such areas.

The final limitation relates to the relative omission of foreign- and native-born households within each racial/ethnic group as distinct entities. That is, while immigration-related variables are frequently used to help explain the locational attainment process of racial/ethnic groups, rarely is the foreign-born contingent of a given racial/ethnic group analyzed separately from its native-born counterpart, or compared with native- and foreign-born whites (for an exception, see Adelman et al., 2001). Given the increasing diversity of suburban households, it is important to interact nativity status and race/ethnicity and evaluate the outcomes of all the resulting groups of households in order to see if suburban residence affords the same advantages to all households. Taken together, the limitations of the existing research on this topic may mask larger differences in neighborhood quality that exist between foreign- and native-born minority households, relative to whites, residing in suburbs.

The question that remains, then, is whether suburban living affords all households neighborhood conditions of equal or even similar quality. To address this issue, bivariate and multivariate analyses of the 2001 panel of the American Housing Survey (AHS) are conducted in this paper. The distinct advantages of these data are that they are current and they contain information from respondents on the quality of their neighborhoods—in terms of open green spaces and the presence of abandoned buildings, buildings with bars on the windows, and trash/litter/junk—within a half a block of their housing unit. These dependent variables, which are indicative of the physical quality and social disorder within the neighborhoods, offer an alternative way of examining households' locational attainment than has been used in the past. An additional strength of these data is that these indicators refer to the area within a half block in any direction from the front of the building in which the unit is located. Thus, the ''neighborhoods'' in our study are much smaller than those used in previous research, and may therefore capture variation in quality that would be muted with larger geographic units.

Several questions will be addressed in the analyses of these data: (1) Within suburbs and central cities, to what extent are white, black, Hispanic, and Asian immigrants living in poorer quality neighborhoods as compared to their native-born counterparts, and particularly to native-born and foreign-born whites? (2) Are nativity-status and racial/ethnic differences smaller within suburbs than within central cities? (3) Is race/ethnicity more salient

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[1] By affluent neighborhoods, we refer to those with higher median household incomes, as defined by various authors (e.g., Logan and Alba, 1993; Logan et al., 1996a).

than nativity status in predicting differences in households' neighborhood conditions in suburbs and central cities?

2. Explaining variation in the neighborhood conditions of households by residential location

The main theoretical model used to explain variation in foreign- and native-born households' neighborhood outcomes, within and between racial/ethnic groups, is *the spatial assimilation model* (Alba and Logan, 1991; Alba and Nee, 2003; Massey, 1985). The model identifies residential assimilation as one outcome of the status attainment process. Upon their arrival, it is assumed that immigrants settle in central-city neighborhoods, which are not typically of the highest quality, to live among coethnics. As immigrants acquire higher levels of education, enter the mainstream economy, and earn higher incomes, they seek to move to neighborhoods that are more in line with their improved socioeconomic status. Thus, over time, immigrants leave ethnic neighborhoods as they undergo this process, ultimately settling in neighborhoods inhabited by majority-group members. As a result, the spatial and social distance between majority-group members and immigrant and racial/ethnic minorities is significantly reduced over time.

The spatial assimilation model, therefore, maintains that the residential distribution of households across neighborhoods of varying socioeconomic status and quality is influenced by their acculturation and socioeconomic status. It suggests that, on the whole, immigrants should be disadvantaged, when compared to native-born and majority-group households, in terms of their neighborhood characteristics, but that these differences should diminish or disappear in the presence of controls for socioeconomic status and acculturation-related variables.

In addition to these variables, the model maintains that life-cycle factors will play an important role in shaping households' desires to move to better quality neighborhoods. Demographic transitions through the life course, such as marriage and childbearing, are critical in shaping households' housing needs and preferences (Rossi, 1955; Speare et al., 1975). Implied is the notion that married couples need more space than single individuals and that families with children not only need more space than married couples, but may have stronger preferences for neighborhoods with good schools, safe streets, other families with children, and other child-centered amenities (Rosenbaum and Friedman, 2001).

One of the main assumptions inherent in the spatial assimilation model is that the process ultimately involves a move to the suburbs. According to Alba and Logan (1991, p. 433), "In the spatial assimilation model, movement to the suburbs occupies a key position in the processes that connect residential assimilation with social mobility and with other dimensions of assimilation, such as intermarriage." Thus, suburban residence represents a significant stage in the assimilation process because it allows immigrants and minorities to inhabit neighborhoods that are more affluent and contain more majority-group members than coethnics (Massey and Denton, 1988). Implied here—but not explicitly tested—is that residence in suburbs is likely to attenuate nativity-status and racial/ethnic differences in households' neighborhood conditions.

Findings from several studies focused on the residential outcomes of racial and ethnic groups have largely supported the main tenets of the spatial assimilation model. For example, socioeconomic status is found to be positively associated with residential outcomes, such as location in suburban areas, tract-level median income, and proportion of residents

who are white (Alba and Logan, 1991, 1993; Alba et al., 1999, 2000a,b; Logan et al., 1996a,b). Socioeconomic status is also found to be positively related to non-census derived measures of neighborhood quality in New York City, such as neighborhood crime, poverty and teen fertility rates, and school quality (Rosenbaum et al., 1999; Rosenbaum and Friedman, 2006). In addition, acculturation-related variables, such as nativity status, years in the United States, and English proficiency, are found to be positively associated with residential outcomes, although for Asians, the effect of English proficiency is not always statistically significant (Alba and Logan, 1991, 1993; Alba et al., 1999; Logan et al., 1996a,b).

While the traditional version of the spatial assimilation model views suburban residence as the key endpoint of the process, the recent emergence of immigrant enclaves in suburban areas raises questions concerning the relevance of this position. For example, Logan et al. (2002) find that for Cubans in the New York metropolitan area, and Mexicans, Chinese, Japanese, and Vietnamese in the Los Angeles metropolitan area, ethnic neighborhoods are more likely to be found in suburban locations, contrary to the assumptions of the model. In a similar vein, Allen and Turner (2003) examined immigrants' settlement patterns in 15 metropolitan areas and found that about 40% of Hispanic and almost half of Asian immigrant enclave populations lived in suburbs. How these changes translate into residential outcomes for these groups remains an open question. The emergence of suburban ethnic enclaves also raises the possibility that the convergence of residential conditions postulated by spatial assimilation theory may be in question. Specifically, it may be that a similar pattern of differences in neighborhood conditions prevail in both central city and suburban locations. In other words, groups' access to suburbs will not necessarily afford them better neighborhood conditions, relative to whites.

In support of this possibility is the often-reported finding that black suburban residents live in lower-quality neighborhoods than do their white counterparts (Adelman, 2004; Alba et al., 1994; Alba et al., 2000a; Logan and Alba, 1993, 1995; Logan et al., 1996a,b). This racial difference points to the relative inability of the spatial assimilation model to successfully describe the locational attainment process for groups characterized by African ancestry. The difficulties that blacks, Puerto Ricans, and non-white Hispanics face in terms of spatially assimilating suggest that opportunities for converting social and economic achievement into improved residential outcomes are constrained by being black. The significance of structural constraints in maintaining racial/ethnic inequality in residential outcomes 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 posits that even in the presence of controls for the individual-level characteristics relating to acculturation, socioeconomic status, and life-cycle stage, significant disadvantages in housing and neighborhood outcomes will remain, relative to whites, for those groups most adversely affected by structural barriers within the housing market.

The place stratification model maintains that households' 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/ethnicity, thereby weakening the effectiveness of socioeconomic factors in achieving parity in housing outcomes. The model maintains 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 (Logan and Molotch, 1987). This power is often manifested in various forms of discriminatory actions, which effectively

constrain minorities' choices within the housing market (Massey and Denton, 1993; Turner et al., 2002; White, 1987; Yinger, 1995).

According to this model, the lower quality of blacks' and Hispanics' neighborhoods, relative to that of whites, is ultimately due to the discrimination that the former groups encounter within the housing market rather than to differences between the groups in terms of their individual- or household-level characteristics. Results from the 2000 Housing Discrimination Study are consistent with this proposition (Turner et al., 2002). In paired tests conducted among white and black, and white and Hispanic renters and home buyers, researchers found that both Hispanics and blacks were favored significantly less often in housing transactions than were their white counterparts. In fact Hispanics were even *less* likely to be favored, relative to whites, than were black home seekers.

In contrast, the pattern of residential attainment among Asians is more similar to that posited by spatial assimilation theory. That is, when controlling for socioeconomic status and acculturation-related variables, Asians achieve similar residential outcomes and in some cases even better outcomes than do whites. Logan et al. (1996a), for example, show that the median income in Asian neighborhoods is actually greater than that in non-Hispanic white neighborhoods in Chicago and Los Angeles when other socioeconomic and demographic factors are controlled. At least part of the ability of Asians to avoid the kind of market barriers faced by blacks and Hispanics is due to varying white preferences; whites are generally more open to residential integration with Asians than other minorities. For example, in Los Angeles, while 34% of whites were opposed to living in a hypothetical neighborhood where half of their neighbors would be black, only 23% felt the same about Asians (Bobo and Zubrinsky, 1996).

How immigrants fit into the place stratification framework is less clear. Some research suggests that race/ethnicity will continue to be important in shaping immigrant households' neighborhood attainment, although these studies have focused only on New York City (Rosenbaum et al., 1999; Rosenbaum and Friedman, 2001) Research outside of New York City on housing outcomes suggests this to be the case (Friedman and Rosenbaum, 2004). Discrimination is likely limited to certain groups of immigrants, notably those of African and Hispanic ancestry.[2] White immigrants, on the other hand, should not be subjected to discrimination due to their race per se, and these immigrant households should experience few, if any, disadvantages in gaining access to well-appointed neighborhoods. Because the large majority of today's immigrants are nonwhite and 45% of Hispanics are foreign-born (U.S. Bureau of the Census, 2002a,b,c,d), it is important to test whether locational attainment among immigrant households is shaped by their race/ethnicity.

Perhaps, however, nativity status itself is just as important or more important in shaping households' neighborhood outcomes, once other socioeconomic and demographic variables are controlled. Although the spatial assimilation model suggests that such nativity-status differences should disappear, it might be the case that immigrant households experience discrimination within the housing market on the basis of observable characteristics such as their accents or cultural differences (e.g., wardrobe, behavior). Alba et al.

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[2] The potential for this is voiced by segmented assimilation theorists (Alba and Nee, 2003; Bankston and Zhou, 1997; Hirschman, 1996; Portes and Rumbaut, 1996, 2001; Portes and Zhou, 1993; Waters, 1994, 1999, 2001; Zhou, 1997). This theory argues that immigrants who share the racial/ethnic ancestry of historically disadvantaged groups may be at risk of experiencing downward mobility over time and generation because of the constraints on opportunity inherent to the racial/ethnic stratification system.

(1999) find that among several groups, including non-Hispanic whites, Mexicans, Cubans, and Salvadorans, foreign-born households were less likely to live in suburbs than their native-born counterparts, controlling for English-language ability, socioeconomic status, and a range of other relevant demographic variables.

Another possibility is that race/ethnicity and nativity status are both important and interact to affect households' neighborhood outcomes. This is particularly salient in the case of foreign-born blacks (see for example Crowder, 1999). Alba et al. (1999) find that foreign-born Afro-Caribbeans are significantly more likely to live in suburbs than their native-born counterparts. Logan et al. (1996b) find that such neighborhoods have higher proportions of whites. White and Sassler (2000) find that foreign-born Jamaicans and Africans are significantly more likely to live in neighborhoods with higher socioeconomic status than their native-born counterparts, respectively. These findings are consistent with the fact that foreign-born blacks' socioeconomic profile is more advantageous than that of their native-born counterparts (Butcher, 1994; Dodoo, 1997; Kalmijn, 1996). However, because these analyses control for socioeconomic status, they suggest that whites may be more open to living among foreign-born versus native-born blacks (cf. Waters, 1999).

The diversity of findings related to the locational attainment of foreign-born groups, the persistence of racial/ethnic inequalities in the housing market, and the fact that the foreign-born population comprises a larger segment of the population now than in any decade since 1930 (Singer, 2004), points to the importance of controlling for interactions between nativity status and race/ethnicity in models predicting neighborhood outcomes. Doing so addresses the issue of how nativity status and race/ethnicity determine households' locational attainment. Are foreign- and native-born non-whites *both* more likely to live in poorer quality neighborhoods than *both* native- and foreign-born whites? If so, then race/ethnicity is the more important determinant, a finding that would provide support for the basic tenets of the place stratification framework. Or, are foreign-born households more likely than native-born households, regardless of race/ethnicity, to live in poorer quality housing? If this turns out to be the case, then it is nativity status that plays the larger role, suggesting that discrimination may operate on the basis of observable characteristics associated with nativity status.

On the other hand, if the experiences of households vary by race/ethnicity and nativity status, less support may be evident for both the spatial assimilation and place stratification models. For example, if foreign-born blacks live in better quality neighborhoods than their native-born counterparts, this would contradict the spatial assimilation model. How foreign-born blacks fare in terms of their neighborhood outcomes, relative to native-born whites, will determine the level of support for the place stratification model. By comparing foreign- and native-born households from specific racial/ethnic groups, we provide a more-complete test of hypotheses concerning immigrant-status differences in neighborhood outcomes derived from the spatial assimilation and place stratification models than has been accomplished so far.[3] These specific comparisons go beyond just including variables of nativity status and race/ethnicity separately; by interacting race/ethnicity and

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[3] Previous research that has performed such an analysis to predict the neighborhood conditions of households in New York City suggests that race/ethnicity is the dominant predictor (Rosenbaum et al., 1999; Rosenbaum and Friedman, 2001, 2006). Adelman et al. (2001) have also employed such an analysis and found similar results for the entire United States in 1970 and 1980.

nativity status we can gauge the relative status of all foreign- and native-born segments of racial/ethnic groups in terms of their locational attainment.

With respect to predicting nativity-status and racial/ethnic differences by residential location, the place stratification model suggests that these differences will persist across both locations. The existence of a dual housing market is not expected to be place specific. In fact, it could be the case that discrimination within suburbs may be *greater* because powerful, majority-group members may have more at stake in protecting their wealth interests. Whites are the group most likely to own homes within suburbs, relative to other groups (Fong and Shibuya, 2000).

3. Hypotheses

The preceding discussion suggests the following hypotheses. Consistent with the spatial assimilation model, we expect that education, income, age of the householder, presence of children, and headship by married couples will all be positively associated with higher-quality neighborhood locations as will time since arrival. These relationships should hold regardless of location in central cities or suburbs. With respect to the analysis of neighborhood conditions by residential location, we expect that at the bivariate level, immigrants in central cities, particularly those who have arrived more recently, will live in poorer quality neighborhoods than their native-born counterparts, but nativity-status differences in neighborhood conditions will be minimal among suburbanites. In the multivariate analyses, such differences should disappear or be moderated to the extent that the assimilation-related factors can be controlled.

The tenets of the place stratification model suggest, however, that group differences in neighborhood conditions among households in central cities and suburbs will remain even in the face of controls for individual-level factors. The pattern of residual group differences predicted by the place stratification model may follow a ''racial hierarchy,'' with native-born whites living in the highest-quality neighborhoods, and foreign- and native-born blacks and Hispanics occupying the lowest-quality neighborhoods. Foreign-born whites and Asians, regardless of nativity status, are likely to exhibit few, if any, neighborhood disadvantages relative to native-born whites. The pattern of differences, however, may reveal that foreign-born households are disadvantaged regardless of race/ethnicity because of discrimination experienced on the basis of observable characteristics related to language-speaking ability or cultural differences. With respect to how the results vary across location, it may be the case that suburban location *exacerbates* racial/ethnic and/or nativity-status differences because of majority members' increased stake in maintaining their advantaged position in the suburban housing market.

4. Data and methods

4.1. Data

The analyses are based on data from the American Housing Survey (AHS), a multistage probability sample of approximately 50,000 housing units located throughout the United States that is surveyed every other year. We take advantage of the data from the 2001 AHS, the first panel of AHS data to ask the nativity status of individuals in households, because these data allow for an analysis of immigrants' neighborhood conditions across

metropolitan areas within the United States.[4] Up until now, researchers studying immigration and residential location on a national level have had to obtain data from special tabulations of decennial census data not easily available to study neighborhood outcomes like median household income, percent in poverty, and percent of the population that is white (e.g., Alba et al., 2000a,b; Logan et al., 2002). Sampling weights (scaled down to maintain unweighted cell sizes) are used in all bivariate and multivariate analyses to correct for sampling design effects and potential undercoverage.[5]

With respect to nativity status, birth place and citizenship are identified for all household members. For individuals born outside of the United States, year of entry is also identified. One limitation of the data is that information on English proficiency is not collected. This has the potential of overstating the effect that nativity status has on immigrants' neighborhood conditions. However, in recent years, the effect of English language proficiency on immigrants' locational attainment has decreased, particularly for Asians (Alba et al., 1999), suggesting that any overstatement of group differences arising from the omission of this variable will likely not be large.

The central dependent variables in our analyses are households' neighborhood conditions. To measure neighborhood conditions, we use the reference person's[6] answers to questions about the characteristics of the neighborhood immediately surrounding the housing unit that are indicative of physical quality and social disorder. The immediate neighborhood is defined as being a half block in any direction from the front of the building in which the unit is located. We focus on the presence four conditions: trash, litter, or junk in the streets, roads, empty lots or on any properties; lack of open spaces, such as parks, woods, farms, or ranches; abandoned buildings; and buildings with bars on the windows. By examining aspects of neighborhood quality beyond those available in the census, particularly measures indicative of physical and social disorder, we make a significant contribution to the literature on disparities in neighborhood conditions.[7] In addition to using these four separate outcomes, we also examine a summary index of neighborhood problems created by adding the four dichotomous indicators. This index, therefore, ranges

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[4] A comparison of data from the AHS with data from the 2001 CPS and 2000 Census Supplemental Survey (C2SS) reveals that the AHS slightly undercounts the foreign-born population (see Drew, 2002, for details). In the AHS, 10.6% of households are headed by a foreign-born person as compared to 11.6% of households in the CPS and 11.5% of households in the C2SS. However, the differences in the data between the AHS and the other surveys are not substantial enough to call into question the viability of these data.

[5] Weighting the data results in each sampled unit being inflated to the number of housing units represented within the United States population. Using such data produces statistical significance in all of our bivariate and multivariate analyses because the test statistics calculated in these analyses are based upon this large number of observations. To maintain the sample size and, at the same time, preserve the weighting structure introduced by the weights, we divide each sampled unit's weight by the average weight and use these new, scaled-down weights in our analyses.

[6] The reference person is the person 18 years or older in the household who rents or owns the housing unit and answers the survey. The reference person's name appears on the lease or deed, mortgage, or contract to purchase. If no household member within the unit owns or rents the unit, the reference person is the first household member listed on the questionnaire. The terms reference person and householder are used interchangeably to refer to the same person (ICF Consulting, 2004, p. 417).

[7] Although these dependent variables are subjective in nature, the items ask respondents about the presence of particular physical or tangible conditions rather than respondents' opinions or attitudes. The fact that the questions delineate the geographic area comprising the neighborhood, moreover, improves the chance that respondents' characteristics are much less likely to influence their responses to questions about the neighborhood (Lee and Campbell, 1997). These factors heighten the objectivity of respondents' reports.

in value from 0 (no negative conditions) to 4 (all negative conditions are present) and measures the extent to which undesirable conditions are concentrated in neighborhoods. The mean and standard deviation for the overall sample are .90 and .75, respectively, showing that the distribution is not normally distributed. Indeed the percent of households with a 0 or 1 response on this summary measure is 86.1%.

We examine the five dependent variables for households within both central cities and suburbs. As other researchers have done (e.g., Alba and Logan, 1991; Alba et al., 1999), we define suburbs as areas that are inside metropolitan areas but not within central cities. Although this approach cannot differentiate between older (inner-ring) and newer (outer-ring) suburbs, there is no alternative provided within the AHS data due to efforts to maintain respondents' confidentiality. Without the ability to control for type of suburb, the racial/ethnic and nativity-status differences we uncover may be slightly overstated.

Our key predictors are the race/ethnicity and nativity status of households, both of which are defined according to the reference person's characteristics. We use four categories of race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, and Asian and Pacific Islander).[8] Each racial/ethnic group is disaggregated by nativity status; reference persons born in the United States or in outlying areas (e.g., Puerto Rico), are considered native born, while those born outside of the United States are considered foreign born. Because year of entry is an important predictor of neighborhood outcomes for foreign-born households, we further disaggregate foreign-born households according to year of entry, resulting in two groups: foreign-born households who entered in 1980 and later, and those that entered before 1980.[9] Thus, for central city dwellers and suburbanites of each racial/ethnic group, we have three dummy variables: native-born households, foreign-born households that entered in 1980 or later, and foreign-born households that entered before 1980.[10]

We also control for a range of other variables, including measures of life cycle and socioeconomic status. Life cycle factors are represented by the householder's age and three dummy variables indicating: (1) whether the household is headed by a female; (2) whether the household is headed by a married couple and (3) whether children under 18 are present. Socioeconomic status is measured by the reference person's educational attainment (represented by three dummy variables indicating whether the reference person has less than a high school education, a high school diploma, or some college or more education), total household income, and a dichotomous variable indicating whether any members of the household receive public assistance. We also use a dichotomous variable to assess whether adults other than those in the nuclear family are living in the housing unit. Although we do not specify whether these "other" individuals are extended kin or friends

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[8] It would have been preferable to disaggregate Hispanics by their race. However, the majority of Hispanics within the AHS sample—66.2%—are white. Only 2.7% are black; the rest are of other races. We ran models disaggregating Hispanics by race (white versus nonwhite), which produced similar results to those shown in Table 3.

[9] We have to include year of entry in this manner because it is not a relevant characteristic for the native-born households in our model. Given the need for adequately sized cells to sustain the analysis, we were limited to using 1980 as a cutoff point.

[10] It would have been preferable to use the double cohort method (see Myers and Lee, 1996) to assess immigrants' neighborhood conditions over time. To do so, we would need data at two points in time, ideally separated by ten years. However, the AHS did not begin asking respondents about their immigration experience until 2001. The interaction with year of entry is an inadequate assessment of immigrants' neighborhood conditions over time, requiring caution in our interpretations.

of the family, this measure allows us to take account of immigrants' disproportionate use of a multiple-earner economic strategy, which could enable a move to a high quality location. In other words, a complex household with many earners of a given status may have a higher total household income than a household with fewer earners of the same status. Controlling for this aspect of household structure, then, clarifies the meaning of household income as an indicator of status, and thus its statistical influence. We also control for households' housing tenure.[11]

Finally, we control for the broader context in which native- and foreign-born households reside, as variation in neighborhood conditions is associated with supra-neighborhood level housing market conditions. Previous research has shown that metropolitan-level characteristics, including levels of construction, vacancy rates, and the proportion of the population living in suburbs, can shape the mobility of households (South and Crowder, 1997a,b, 1998; South and Deane, 1993), which in turn is likely to affect their locational attainment. Ideally, we would like to control for these effects and the specific characteristics of metropolitan areas that affect neighborhood conditions. Due to the Census Bureau's efforts to maintain confidentiality of respondents within the AHS, however, we cannot identify the specific metropolitan areas in which 40% of housing units are located, and thus cannot create the desired measures for a large portion of our sample. To avoid losing these cases and introducing a significant degree of selection bias, we use one simple measure to control for geographic context, geographic region. We use four dichotomies indicating location in the North, Midwest, South, and West, with the latter used as the reference category. In general, we expect households living in the North and West to experience poorer neighborhood conditions, regardless of central city/suburban location, than those living in the South and Midwest, because the former two areas have higher levels of immigration and tighter housing markets. We further expect that households residing in the North will live in lower quality neighborhoods than households in other regions because neighborhoods in the North are among the oldest in the country.

4.2. Methodology

Bivariate analyses are conducted to identify how nativity status interacted with race/ethnicity predicts neighborhood conditions for both central city dwellers and suburbanites. In addition, nativity-status and racial/ethnic differences in demographic and socioeconomic characteristics are compared overall, and then disaggregated by their residential location. Throughout the bivariate analyses we perform significance tests as appropriate.

To describe the relationship between nativity-status/year-of-entry, race/ethnicity, and neighborhood outcomes, while controlling for a range of theoretically relevant independent variables, we specify several descriptive logistic regression models[12] which estimate

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[11] The AHS does not contain a measure of household wealth, an omission common to many data sets. Therefore, our approach is comparable with that used by others (e.g., Alba et al., 1999; Logan et al., 1996a,b), with the result that the effects of nativity status or race/ethnicity on neighborhood conditions may be overstated. However, the limited research that does consider the role of wealth indicates that wealth differentials are unable to fully account for the residual effects of race/ethnicity (Conley, 1999; Oliver and Shapiro, 1995).

[12] For the four dichotomous dependent variables we use simple logistic regression techniques, and for the index of neighborhood problems we estimate ordinary least squares (OLS) models. For the latter dependent variable, we first estimated ordered logit models. The results from the OLS models were similar to the results from the ordered logit models so we report the former results for ease of interpretation.

the following logit specifications of P_i, the probability that household i lives in neighborhoods with: (1) trash, litter, or junk in the streets, roads, empty lots or on any properties; and (2) a lack of open spaces, such as parks, woods, farms, or ranches; (3) abandoned buildings; (4) buildings with bars on the windows; and (5) more neighborhood problems, all where $0 < P_i < 1$

$$\log \left(\frac{P_i}{1 - P_i} \right) = \alpha + \sum_j \beta_j N_{ji} + \sum_n \beta_n X_{ni},$$

The vector N represents the interactions of race/ethnicity, nativity status, and year of entry of the reference person. Native-born, non-Hispanic white households form the reference group. For each of the five dependent variables specified above, we run models for central city residents and suburbanites, for a total of ten models. The vector X measures the control variables used in the analysis (i.e., the measures of life cycle and socioeconomic status, and region).[13]

5. Results

Our analysis begins with an overview of the differences in neighborhood characteristics of native- and foreign-born households stratified by race/ethnicity (Table 1). The data indicate that native-born black and all Hispanic households—regardless of nativity status—live in lower quality neighborhoods on all five dimensions than do native-born white households, irrespective of geographic location.[14] For example, among central city residents, 11% of native-born whites report the presence of trash or junk within one-half block of their housing units whereas the respective percentages for native-born black and Hispanics and foreign-born Hispanics are at least 1.5 times higher. Similar magnitudes of difference are evident in suburbs and with respect to the indicators for abandoned buildings and buildings with bars on windows (in both central-city and suburban locations). Less pronounced, although significant, differences are evident for the lack of open spaces indicator and the index of neighborhood problems. Unexpectedly, native-born blacks are not always the most disadvantaged relative to native-born whites. For example, within suburbs, while just under 10% of native-born blacks report living nearby buildings with window bars, just over 17% of foreign-born Hispanics report the same condition.

In contrast to the striking gap separating the neighborhood conditions of native-born whites on the one hand, and native-born blacks and all Hispanics on the other, the neighborhood conditions of foreign-born whites and blacks, and all Asians (regardless of nativity status) do not exhibit a uniform pattern of difference when compared to native-born whites' neighborhood conditions. Consistent with the findings above, all of these groups are significantly more likely than native-born whites to report the presence of buildings with barred windows nearby and to have higher scores on the summary index, regardless of whether they live in central cities and suburbs. However the results regarding the pres-

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[13] Given the cross-sectional nature of our data, we cannot make any conclusions about the causal nature of the relationships between our independent and dependent variables. Although neighborhood conditions may be affected by education, income, and family composition, these latter characteristics may also be affected by neighborhood conditions.

[14] The only exception to this pattern is the finding that within central cities, native-born Hispanics do not significantly differ from native-born whites with regard to the lack of open spaces within their neighborhoods.

Table 1

Neighborhood characteristics of foreign- and native-born households by race/ethnicity and residential location in metropolitan America, 2001 (weighted)

Characteristic	Percent							
	Native born				Foreign born			
	NH Whites	NH Blacks	Hispanics	Asians	NH Whites	NH Blacks	Hispanics	Asians
Panel A. Central City Dwellers								
Reference person reports within 1/2 block of housing unit								
Trash or junk	11.00	22.56**	17.66**	15.34	9.67	12.48	20.11**	12.61
No open spaces	74.36	76.62*	74.45	67.72†	76.57	77.59	81.17**	79.46*
Abandoned buildings	4.56	18.73**	8.12**	7.61	3.40	7.58†	8.40**	3.80
Buildings with bars on windows	12.09	27.81**	22.53**	24.59**	18.53**	24.60**	29.53**	20.23**
Index of neighborhood problems[a]	1.02	1.46**	1.23**	1.15*	1.08†	1.22**	1.39**	1.16**
N	6212	2268	870	122	413	177	839	392
Panel B. Suburbanites								
Reference person reports within 1/2 block of housing unit								
Trash or junk	5.62	10.98**	10.57**	1.40*	4.78	5.12	9.74**	1.33**
No open spaces	58.80	69.43**	66.78**	71.26**	70.86**	65.38	75.04**	69.81**
Abandoned buildings	2.46	5.24**	5.31**	0.94	0.98*	4.40	3.71*	0.00**
Buildings with bars on windows	2.56	9.93**	11.42**	4.69†	3.75†	11.15**	17.34**	6.20**
Index of neighborhood problems[a]	0.69	0.96**	0.94**	0.78*	0.80**	0.86**	1.06**	0.77**
N	14,786	1482	790	195	635	100	768	444

[a] This measure is an index that we created by adding together the dummy variables of the four neighborhood conditions. The maximum value is 4; the minimum value is 0. High values refer to poorer quality or the existence of a number of bad neighborhood conditions.

* $p \leqslant 0.05$; ** $p \leqslant 0.01$; † $p \leqslant 0.10$ indicates difference between native-born whites and the group is significant; shading indicates a significant difference of at least $p \leqslant 0.10$ between native- and foreign-born blacks, Hispanics, or Asians.

ence of trash or junk in the neighborhood reveal that these groups are not necessarily disadvantaged relative to native-born whites. Among central-city residents, foreign-born blacks and whites and native- and foreign-born Asians are equally likely as native-born whites to report trash or junk within one-half block of their homes. Within suburbs, the same pattern emerges, but Asians live in better quality neighborhoods on this dimension than native-born whites. More specifically, Asians are significantly *less* likely than native-born whites to report the presence of this outcome.

A similar overall pattern is exhibited on the indicator gauging the presence of abandoned buildings in the neighborhood. With the exception of foreign-born blacks living in central cities, the other groups are either equally as likely or significantly *less* likely than native-born whites to report the presence of abandoned buildings in their neighborhoods. More specifically, the groups who are significantly *less* likely to report the presence of abandoned buildings in their neighborhoods are foreign-born whites and Asians living in suburbs. Interestingly, although foreign-born blacks in central cities are significantly more likely than native-born whites to report the presence of abandoned buildings within their neighborhoods, this significant difference disappears in suburbs.

On the final dimensions of neighborhood quality—the absence of open spaces in the neighborhood—the results are not consistent in terms of groups exhibiting an advantage or disadvantage relative to native-born whites. For example, within central cities foreign-born whites and blacks as equally as likely as native-born whites to report an absence of open spaces in their neighborhoods. The same is true for suburban, foreign-born blacks. Within central cities, native-born Asians are actually significantly *less* likely to report an absence of open spaces in their neighborhoods, relative to native-born whites. However, when focusing on native-born Asians as well as foreign-born whites in suburbs, we find that both groups are significantly more likely than whites to report a lack of open spaces. Thus, for these two groups, suburban location appears to widen the differences in the absence of open spaces as compared to native-born whites, but these findings may also reflect a greater propensity of native-born whites to live in outer-ring suburbs with greater open spaces. Foreign-born Asians, regardless of geographic location, are significantly more likely than native-born whites to report an absence of open spaces in their neighborhoods.

We also compared nativity-status differences in neighborhood conditions among the racial/ethnic groups. With respect to whites, of the six significant nativity-status differences that exist across central cities and suburbs, only one (the presence of abandoned buildings) pointed to a relative immigrant advantage. For blacks, Hispanics, and Asians, significant within-group nativity status differences are indicated by the shaded cells in Table 1. Similar to the case among whites, among Hispanics, all significant nativity-status differences indicate that immigrants live in more problematic neighborhoods. In contrast, among Asians two of the three significant nativity-status differences indicate a relative immigrant advantage, while among blacks *all* significant differences indicate that immigrants live in better neighborhoods.

Taken together, the results from Table 1 reveal that race/ethnicity is a key predictor of neighborhood outcomes, while nativity status tends to vary more in its effects. However, the results do not exactly conform to expectations generated under the place stratification model. As predicted, native-born whites occupy some of the best neighborhoods, as do foreign-born whites and both foreign- and native-born Asians. Moreover, Hispanics and native-born blacks seem to occupy the worst residential areas. Unanticipated were

the findings that foreign-born blacks *also* appear to reside in higher quality areas, and that foreign-born Hispanics appear to live in neighborhoods of lower quality than those in which native-born blacks live. However, consistent with our hypotheses derived from the place stratification model is the finding that the neighborhood quality disadvantages experienced by Hispanics and native-born blacks are as salient in suburbs as in central cities. This suggests that suburban residence is less of an "equalizer" with respect to the neighborhood quality than had been thought.

The results in Table 1 also reveal that nativity-status differences in residential outcomes within racial/ethnic groups are not always in the direction expected under the spatial assimilation model. For several neighborhood conditions, no significant nativity-status differences exist or they are in the opposite direction than would be expected. Moreover, among the nativity-status differences that are consistent with the spatial assimilation model, suburban location does not necessarily attenuate their size. Multivariate analyses, however, are needed to confirm all of these results.

Theory suggests that the differences we see in neighborhood outcomes for central-city and suburban residents may reflect group differences in key social and economic characteristics. Table 2 presents these data for central-city dwellers (panel A) and suburbanites (panel B). As in Table 1, two sets of significance tests are presented, one to evaluate nativity-status differences within racial/ethnic groups, and one to evaluate differences using native-born whites as the common reference group.

Despite living in the highest quality neighborhoods, native-born whites do not consistently exhibit the social and economic advantages predicted to result in superior neighborhood conditions (Table 2, panels A and B). For example, while native-born white households tend to have the oldest heads and to be the least likely to contain other adults, they are among the most likely to be headed by non-married householders. Similarly, in central cities, while nearly 66% of native-born white householders have at least some college, Asian householders, regardless of nativity status, are as likely or significantly more likely to have attended or graduated from college. A similar pattern is evident in suburbs as well. Moreover, native-born Asian and foreign-born black households are as likely as native-born white households to receive public assistance.[15] However, native-born whites are the least likely to be renters, a factor that may help to heighten their neighborhood quality. Thus, the absence of a clear social and economic advantage for native-born whites, in the face of a fairly clear advantage in terms of neighborhood outcomes, signals additional support for the ideas underlying the place stratification framework.

The relative absence of nativity-status differences in many neighborhood conditions and the finding of a number of superior conditions among immigrants may stem from the generally superior characteristics of immigrant households. For example, foreign-born black households are significantly less likely to be headed by non-married households, more likely to be headed by a college educated individual, and less likely to receive public assistance than their native-born counterparts. Headship by a non-married individual is also less prevalent among foreign- than native-born Asian and Hispanic households, although levels of college completion are lower among the foreign born of these groups (yet the levels of college attendance and completion among foreign-born Asian householders are very

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[15] In suburbs foreign-born Asians are also statistically similar to native-born whites in their receipt of public assistance.

Table 2

Household characteristics of foreign- and native-born households by race/ethnicity and residential location in metropolitan America, 2001 (weighted)

Characteristic	Percent							
	Native born				Foreign born			
	NH Whites	NH Blacks	Hispanics	Asians	NH Whites	NH Blacks	Hispanics	Asians
Panel A. Central City Dwellers								
Household characteristics								
Entered after 1980	na	na	na	na	48.58	72.88	69.99	75.88
Age (mean)	48.44	44.97**	42.59**	34.46**	52.79**	40.16**	41.56**	41.60**
Sex of the householder (ref. male)	43.59	61.57**	48.23**	43.26	47.01	49.24	38.08**	36.26**
Non-married household	56.03	72.52**	53.36	62.70	49.74*	60.27	43.50**	34.51**
Presence of								
Children under 18	27.18	45.23**	48.51**	28.46	24.48	47.70**	63.41**	43.00**
Others in the household beyond the nuclear family	20.17	27.23**	28.19**	30.88**	25.88**	33.18**	43.77**	44.83**
Renter household	37.56	59.84**	57.45**	63.54**	44.35**	75.42**	66.56**	55.72**
Education								
Less than high school	11.47	27.00**	32.05**	14.47	17.71**	23.64**	57.20**	15.94**
High school degree	22.57	30.64**	26.05*	10.76**	25.31	25.08	20.47	20.43
College and more	65.97	42.36**	41.90**	74.77*	56.98**	51.28**	22.33**	63.63
Total household income (median)[a]	46,650	26,000	30,375	49,000	36,000	29,570	30,000	44,001
Receiving public assistance	3.78	12.90**	10.80**	6.28	6.36**	4.47	7.37**	8.45**
Region of housing unit								
North	16.49	20.46**	24.22**	12.08	44.07**	60.43**	18.13	26.59**
South	31.07	44.06**	38.86**	16.13**	14.67**	24.77†	30.60	10.00**
Midwest	25.86	26.28	8.08**	8.17**	13.02**	7.32**	7.30**	11.95**
West	26.58	9.20**	28.84	63.62**	28.24	7.48**	43.96**	51.46**
N	6212	2268	870	122	413	177	839	392
Panel B. Suburbanites								
Household characteristics								
Entered after 1980	na	na	na	na	40.10	68.57	61.23	74.88
Age (mean)	50.02	45.52**	42.97**	42.00**	53.50**	44.22**	42.19**	42.63**
Sex of the householder (ref. male)	38.01	53.78**	44.90**	36.21	35.84	44.74	35.00†	31.13**
Non-married household	39.62	60.59**	42.71†	35.95	37.12	37.10	31.00**	27.72**

Table 2 (*continued*)

Characteristic	Percent							
	Native born				Foreign born			
	NH Whites	NH Blacks	Hispanics	Asians	NH Whites	NH Blacks	Hispanics	Asians
Presence of:								
Children under 18	35.23	47.82**	52.60**	38.36	33.82	60.89**	62.02**	49.42**
Others in the household beyond the nuclear family	21.43	28.93**	29.00**	32.36**	23.29	33.89**	44.28**	37.51**
Renter household	20.72	43.70**	39.42**	32.67**	27.26**	44.38**	45.83**	37.92**
Education								
Less than high school	12.12	22.07**	27.91**	8.05†	15.33*	12.13	52.57**	9.61**
High school degree	28.79	24.55**	24.72*	11.99**	21.49**	22.12	18.94**	13.81**
College and more	59.09	53.38**	47.37**	79.96**	63.18*	65.75	28.49**	76.58**
Total household income (median)[a]	54,000	34,000	36,000	65,000	51,000	42,000	35,000	66,000
Receiving public assistance	2.66	8.46**	6.57**	1.95	3.95*	1.06	4.67**	3.55
Region of housing unit								
North	24.06	12.78**	12.06**	14.01**	27.68*	31.26†	8.79**	15.56**
South	32.96	60.06**	35.28	15.35**	20.69**	50.54**	38.86**	24.18**
Midwest	24.20	15.20**	8.96**	8.93**	17.38**	2.19**	4.28**	9.84**
West	18.79	11.97**	43.69**	61.71**	34.25**	16.02	48.07**	50.41**
N	14786	1482	790	195	635	100	768	444

[a] Significance tests are not conducted for this variable.

*$p \leqslant 0.05$; **$p \leqslant 0.01$; †$p \leqslant 0.10$ indicates difference between native-born whites and the group is significant; shading indicates a significant difference of at least $p \leqslant 0.10$ between native- and foreign-born blacks, Hispanics, or Asians.

high and the difference is actually insignificant within suburbs). In addition, foreign-born Hispanics are significantly less likely to receive public assistance than their native-born counterparts. Among Hispanics, the tendency of foreign-born households to reside in lower quality neighborhoods may stem from their greater tendency to live in rental housing. Yet the absence of a significant difference on this predictor among Asians, and the finding that foreign-born blacks are *more* likely than U.S.-born blacks to rent (and to enjoy higher quality neighborhoods) casts doubt on this as an explanation.

5.1. Predicting neighborhood conditions among central-city and suburban residents

How do nativity status/year of arrival and race/ethnicity affect the neighborhood conditions of central-city and suburban residents, controlling for relevant household social and economic characteristics? Table 3 addresses this question by presenting the results of logistic and OLS models predicting our five neighborhood conditions by residential location. Because our main interest is in the effect of nativity-status and race/ethnicity, we discuss these coefficients first and then turn to the effects of the background characteristics.

The results shown in Table 3 indicate a persistent effect of race/ethnicity on the locational attainment of households even in the presence of controls for other relevant factors. Compared with native-born white households, native-born black and Hispanic households, as well as foreign-born Hispanics, generally live in neighborhoods with significantly higher levels of the five conditions than do native-born white households, irrespective of geographic location.[16] The most striking finding is that native-born blacks experience significantly worse neighborhood conditions on all indicators than do native-born whites in both central cities and suburbs, even after controlling for the relevant social and economic characteristics. This is suggestive of the existence of a dual housing market in which native-born blacks are relegated to housing in lower quality neighborhoods even when they possess the same socioeconomic attributes as whites, a finding consistent with previous research (e.g., Rosenbaum and Friedman, 2001; Turner et al., 2002).

However, as was the case in the bivariate analysis, foreign-born blacks, particularly those that have arrived more recently, are often not in the same position as native-born blacks in the hierarchy of metropolitan neighborhoods. For example, recently arrived, foreign-born blacks are only likely to be disadvantaged relative to native-born whites on one indicator within suburbs, i.e., living near buildings with barred windows, while foreign-born blacks who arrived before 1980 experience more undesirable conditions. In both central cities and suburbs they are significantly more likely than whites to report living near buildings with barred windows and to live in neighborhoods with greater concentrations of problems. In suburbs, early-arriving foreign-born blacks are also significantly more likely to live far from open or green spaces.

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[16] There are three exceptions to this pattern: (1) within central cities, native-born and earlier-arrived foreign-born Hispanics do not significantly differ from native-born whites with regard to the lack of open spaces within their neighborhoods; (2) within suburbs, recently-arrived foreign-born Hispanics do not significantly differ from native-born whites in reports of the presence of trash/junk within their neighborhoods; and (3) within suburbs, foreign-born Hispanics do not significantly differ from whites in reports of the presence of abandoned buildings within their neighborhoods.

Table 3
Logistic regression coefficients of models predicting neighborhood conditions by residential location of households, 2001 (weighted)

Variables	Central City Dwellers					Suburbanites				
	Trash	Open space	Abandoned buildings	Bars on windows	Index of problems[a]	Trash	Open space	Abandoned buildings	Bars on windows	Index of problems[a]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Nativity/race/ethnicity										
Native-born whites (ref.)										
Foreign-born whites										
Entered 1980 or later	−0.3716 (0.2377)	−0.0412 (0.1611)	−0.8307† (0.4653)	0.2853 (0.1908)	−0.0621 (0.0587)	−0.1602 (0.2757)	0.5627** (0.1405)	−1.4111† (0.7604)	−0.5829 (0.4782)	0.0763† (0.0394)
Entered before 1980	−0.2303 (0.2489)	0.2708 (0.1821)	−0.1318 (0.3488)	0.2808 (0.1837)	0.0415 (0.0574)	−0.1764 (0.2622)	0.4358** (0.1151)	−0.5919 (0.4808)	0.4216† (0.2463)	0.0933** (0.0324)
Foreign-born blacks										
Entered 1980 or later	−0.5218† (0.2904)	0.2362 (0.2132)	0.0776 (0.3446)	0.3179 (0.2379)	0.0090 (0.0734)	−0.9476 (0.7311)	0.0220 (0.2484)	0.3176 (0.6021)	1.2269** (0.4531)	0.0298 (0.0753)
Entered before 1980	0.1973 (0.3962)	0.4076 (0.3759)	0.1563 (0.5585)	1.3565** (0.3012)	0.3291* (0.1184)	0.6265 (0.5997)	0.9328* (0.4405)	0.6509 (0.8598)	2.0824** (0.4898)	0.4030* (0.1109)
Foreign-born Hispanics										
Entered 1980 or later	0.3635** (0.1223)	0.3711* (0.1194)	0.3315† (0.1763)	0.9248** (0.1128)	0.2658** (0.0384)	−0.1122 (0.1780)	0.7892** (0.1130)	−0.4201 (0.2906)	1.2922** (0.1590)	0.2476** (0.0305)
Entered before 1980	0.3362† (0.1790)	0.1808 (0.1659)	0.4696† (0.2460)	1.0595* (0.1471)	0.2582** (0.0535)	0.4235* (0.1957)	0.6786** (0.1371)	0.4422 (0.2868)	1.5746** (0.1665)	0.3419** (0.0370)
Foreign-born Asians[b]										
Entered 1980 or later	−0.1553 (0.1839)	0.4349* (0.1523)	NA	0.4668** (0.1531)	0.0931† (0.0492)	−1.6546** (0.4560)	0.4258* (0.1211)	NA	0.3237 (0.2487)	0.0195 (0.0348)
Entered before 1980	0.1260 (0.3203)	0.0645 (0.2466)	NA	0.1962 (0.2713)	0.0300 (0.0848)	−1.9320† (1.0241)	0.6550** (0.2171)	NA	0.6599† (0.3690)	0.1022† (0.0591)
Native-born blacks	0.6161** (0.0709)	0.1269* (0.0623)	1.2426** (0.0886)	1.0841** (0.0674)	0.3802** (0.0214)	0.4020** (0.0963)	0.4477** (0.0611)	0.4666** (0.1367)	1.3604** (0.1101)	0.2224** (0.0175)
Native-born Hispanics	0.2581† (0.1036)	−0.0016 (0.0867)	0.3510 (0.1456)	0.6420** (0.0948)	0.1335* (0.0305)	0.2981* (0.1271)	0.3163** (0.0794)	0.4960** (0.1760)	1.0736** (0.1312)	0.1837** (0.0231)
Native-born Asians	0.1418 (0.2596)	−0.2613 (0.1990)	−0.0163 (0.2233)	0.6301** (0.2179)	0.0780 (0.0749)	−1.6369** (0.6136)	0.4993** (0.1608)	−2.1933** (0.7436)	0.0151 (0.3475)	0.0354 (0.0450)
Household characteristics										
Age	−0.0147** (0.0019)	0.0056** (0.0015)	−0.0115** (0.0025)	0.0028 (0.0017)	−0.0010* (0.0005)	−0.0160** (0.0022)	0.0061** (0.0011)	−0.0164** (0.0032)	0.0011 (0.0027)	0.0001 (0.0003)
Family structure (1 non-married)	0.0663 (0.0681)	0.0308 (0.0540)	0.2134* (0.0922)	0.2085* (0.0621)	0.0568** (0.0186)	0.1743* (0.0725)	0.1958** (0.0365)	0.0415 (0.1073)	0.0894 (0.0879)	0.0625** (0.0109)
Sex (1 female)	0.0941 (0.0596)	−0.0544 (0.0480)	−0.0621 (0.0800)	−0.0058 (0.0552)	−0.0039 (0.0167)	0.0115 (0.0660)	0.0504 (0.0335)	−0.1283 (0.0985)	−0.1102 (0.0820)	0.0041 (0.0100)
Presence of										
Children under 18	−0.1289† (0.0658)	−0.1359† (0.0535)	0.0130 (0.0857)	−0.1197† (0.0616)	−0.0531** (0.0187)	−0.0014 (0.0711)	−0.0329 (0.0362)	−0.0067 (0.1055)	−0.0708 (0.0881)	−0.0102 (0.0108)
Others in the household beyond the nuclear family	0.2055** (0.0622)	0.0523 (0.0527)	0.2645** (0.0809)	0.1576** (0.0571)	0.0719** (0.0180)	0.1897* (0.0698)	−0.0397 (0.0359)	0.1145 (0.1047)	0.1827* (0.0823)	0.0101 (0.0107)
Housing tenure (1 rent)	0.2738** (0.0659)	−0.1582** (0.0530)	0.0034 (0.0870)	0.0711 (0.0598)	0.0156 (0.0183)	0.2262** (0.0731)	0.1832** (0.0400)	0.2296** (0.1083)	−0.0290 (0.0904)	0.0680** (0.0117)
Education (ref. ≥ college)										
Less than high school	0.3387** (0.0757)	0.3662** (0.0670)	0.5077** (0.0977)	0.0925 (0.0703)	0.1575** (0.0224)	0.3045** (0.0875)	−0.0621 (0.0471)	0.6534** (0.1215)	0.2598* (0.1025)	0.0460** (0.0140)
High school degree	0.1653* (0.0689)	0.2834** (0.0564)	0.4017** (0.0893)	−0.0175 (0.0643)	0.0950** (0.0192)	0.2157** (0.0716)	0.0116 (0.0357)	0.2617* (0.1079)	0.0807 (0.0932)	0.0275* (0.0107)
Total household income	−0.0143* (0.0056)	−0.0100* (0.0032)	−0.0277** (0.0095)	0.0042 (0.0040)	−0.0033** (0.0012)	−0.0298** (0.0059)	−0.0038* (0.0018)	−0.0355* (0.0094)	−0.0173** (0.0061)	−0.0027** (0.0005)
Receiving public assistance	0.5051** (0.0934)	−0.2212* (0.0902)	0.4785** (0.1130)	0.2704** (0.0928)	0.1567** (0.0319)	0.6391** (0.1210)	−0.4239** (0.0836)	0.5710** (0.1722)	0.5081** (0.1490)	0.0325 (0.0253)
Region (ref. West)										
North	0.4087** (0.0804)	−0.2132** (0.0676)	0.8797** (0.1213)	0.0241 (0.0706)	0.0817** (0.0235)	−0.4935** (0.0966)	−0.1795** (0.0467)	0.2127** (0.1435)	−1.7872** (0.1387)	−0.1389** (0.0138)
South	−0.1751† (0.0787)	−0.0503 (0.0611)	0.3153** (0.1198)	−0.5592** (0.0685)	−0.0960** (0.0209)	−0.2297** (0.0790)	−0.2018** (0.0426)	0.1675 (0.1275)	−1.0449** (0.0864)	−0.1168** (0.0126)
Midwest	−0.0298 (0.0856)	−0.1565* (0.0665)	0.6804** (0.1239)	−0.9309** (0.0842)	−0.1110** (0.0231)	−0.3720** (0.0941)	−0.2314** (0.0472)	0.0587 (0.1488)	−2.1373** (0.1656)	−0.1530** (0.0140)
Intercept	−1.6602** (0.1407)	0.9600** (0.1101)	−3.1812** (0.2027)	−1.9621** (0.1266)	1.0531** (0.0382)	−1.8941** (0.1548)	0.1495† (0.0775)	−3.3098** (0.2366)	−2.6449** (0.1877)	0.7679** (0.0230)
N			11291					19200		

Note. For the nativity/race/ethnicity coefficients, shading indicates a significant difference of at least $p \leqslant 0.10$ between native- and foreign-born blacks, Hispanics, or Asians.

a For this outcome, we report coefficients from OLS models.

b For the models of abandoned buildings in the neighborhood, we do not disaggregate Asians by nativity status because in suburbs, no foreign-born Asians lived in abandoned housing. Therefore, the coefficient in these models next to the native-born Asian category references all Asians.

* $p \leqslant 0.05$.
** $p \leqslant 0.01$.
† $p \leqslant 0.10$.

Net of the full range of controls, few disadvantages exist for foreign-born whites and Asians relative to native-born whites. For example, in central cities, foreign-born whites are not significantly disadvantaged on any indicator, although in the suburbs, they are significantly more likely to report an absence of open spaces and to be exposed to higher concentrations of neighborhood problems. Native-born Asians appear to do as well or even better in some cases than native-born whites; within central cities, the only characteristic for which native-born Asians are disadvantaged (relative to native-born whites) is the proximity of buildings with barred windows, while in suburban areas, the only significant disadvantage is the absence of open or green spaces. In fact, in the suburbs native-born Asians are actually significantly *less* likely than native-born whites to live amid signs of physical disorder, namely, in neighborhoods strewn with trash or junk, and nearby abandoned buildings.

As a whole, among this more advantaged group of foreign-born whites and all Asians, foreign born Asians appear to be the most disadvantaged. Within central cities, recently arrived Asians are significantly more likely than native-born whites to report barred windows and no nearby open spaces, and to be exposed to concentrations of neighborhood problems. Within suburbs, earlier arriving foreign-born Asians are significantly more likely to report these disadvantageous characteristics, relative to native-born whites.[17]

To evaluate the significance of within-group nativity-status differences, we re-estimated all ten of the multivariate models using native-born blacks, Hispanics, and Asians as the reference group instead of native-born whites (results are not shown but are available from the authors). When the coefficients for foreign-born blacks, Hispanics, and Asians were significantly different from those of their native-born counterparts, we shaded the cells in Table 3 accordingly.[18] The results reveal that the direction of nativity-status differences in neighborhood conditions is contingent on race/ethnicity, indicating mixed support for hypotheses generated under the spatial assimilation model. That is, consistent with expectations, for whites and Asians there are few significant nativity-status differences once the relevant socioeconomic and demographic variables are controlled. However, relative to U.S.-born blacks, recently-arrived foreign-born blacks are at a significant *advantage* on several outcomes, contradicting the hypotheses under the model.[19]

With respect to Hispanics, the results are even more mixed in their support for the spatial assimilation model. Although we find, in central cities, that foreign-born Hispanics do not significantly differ from native-born Hispanics in terms of the presence of trash or abandoned buildings, they are significantly more likely to report the absence of nearby open spaces, nearby buildings with barred windows, and to live amidst a concentration of numerous neighborhood problems in both central cities and suburbs. These findings stand in direct contrast to the hypotheses, derived from spatial assimilation, that nativity-status differences should narrow or disappear completely, and that suburban location should attenuate nativity-status differences.[20] In addition, recently-arrived, foreign-born

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[17] Only in one instance—in terms of lack of open spaces—are recently arrived Asians at a disadvantage relative to native-born whites.

[18] For each model, subtracting the foreign-born coefficients from the native-born coefficient within each racial/ethnic group determines the direction of the nativity status effect.

[19] Only in one instance are less recently arrived foreign-born blacks at a significant advantage over native-born blacks, namely, proximity to abandoned buildings in central cities.

[20] No nativity-status differences exist for foreign-born Hispanics in central cities who have been in the United States since before 1980 in open green spaces and for recently arrived, foreign-born Hispanics in suburbs for buildings with bars on windows.

Hispanics in suburbs are significantly *less* likely than native-born Hispanics to report trash or junk and abandoned buildings, another finding that contradicts the expectations of the spatial assimilation model.

All told, then, the results in Table 3 reveal the persistent effect of race/ethnicity in predicting neighborhood conditions, in both central cities and suburbs. However, as was the case in the bivariate analysis, the findings here do not adhere exactly to the racial/ethnic hierarchy hypothesized under the place stratification model, even after controlling for relevant social and economic characteristics. In general, native-born whites occupy a superior position in the housing market, but they are often joined in this position by foreign-born whites, Asians, and recently arrived, foreign-born blacks. Native-born blacks also do not necessarily experience the worst neighborhood conditions, as foreign- and native-born Hispanics often exhibit the greatest disadvantage. What is consistent with predictions under the place stratification model is that the disadvantages faced by Hispanics and native-born blacks exist in both central cities and suburbs. In fact, for native-born Hispanics, these neighborhood disadvantages appear to be more plentiful in suburbs. As a result, it appears that suburban residence does little to attenuate racial/ethnic differences in neighborhood outcomes, particularly with respect to a lack of open spaces and the index of neighborhood problems.

5.2. Effects of background characteristics

With regard to the effect of demographic and socioeconomic characteristics, we find support for the basic tenets of the spatial assimilation model. Specifically, households that are headed by householders who are older and more educated, do not receive public assistance, and own their housing typically live in higher quality neighborhoods. Households with more income and that are not headed by single householders also live in significantly better neighborhoods. For the most part, the predictors of neighborhood outcomes do not vary between households in central cities and suburbs.

The effects of region, however, are somewhat inconsistent. For the most part, households in central cities in the North are significantly more likely than those in the West to live in lower quality neighborhoods; however, in suburbs the opposite is true. Regardless of residential location, Southerners are typically more likely than Westerners to live in better neighborhoods. In the Midwest, households in central cities are significantly more likely than those in the West to report living in neighborhoods with abandoned buildings. At the same time, however, these households are significantly more likely to report living near open green spaces and less likely to report the presence of buildings with bars on windows than their Western counterparts. In suburbs, Midwestern households are significantly advantaged on three of the four specific neighborhood conditions relative to households in the West. It is likely that the inconsistent findings across cities and suburbs reflects the fact that we cannot control for metropolitan-level characteristics, such as residential segregation and racial composition, that might affect households' access to better residential outcomes within these areas.

6. Discussion

The goals of this paper were essentially threefold. One objective was to evaluate the nature of nativity-status differences in neighborhood conditions, by asking whether such dif-

ferences exist across all racial/ethnic groups and whether such differences were consistent in direction for all groups. A second and related objective was to evaluate the relative importance of race/ethnicity and nativity status by comparing the neighborhood outcomes of the foreign- and native-born contingents of each group to native-born whites in particular. But our final, and overarching, objective was to evaluate whether nativity-status and racial/ethnic differences were similar among households in central cities and suburbs. While spatial assimilation theory suggests that differences should diminish or disappear among suburbanites, place stratification theory argues that foreign-born households, and especially those of African ancestry, should experience the least desirable housing outcomes, regardless of residential location.

In the bivariate and multivariate analyses, we found that some foreign-born households reside in significantly *better* neighborhoods than do their native-born counterparts. Moreover, when the nativity-status differences were in the direction predicted by the spatial assimilation model, suburban residence did not necessarily attenuate these differences, particularly in the case of proximity to open or green spaces.[21] We also found that race/ethnicity is a more consistent predictor of households' neighborhood conditions than is nativity status, using measures that tap into the extent of social and physical disorder immediately surrounding households' homes, rather than the typical census-derived measures of the census-tract environment. The use of these alternative measures has enabled us to tap into the heightened variation that accompanies smaller geographic units while demonstrating important group differences in neighborhood physical quality and infrastructure.

Our analyses revealed a definite racial/ethnic pattern of access to advantageous neighborhood environments, but not the clear cut hierarchy found in previous research (Rosenbaum et al., 1999; Rosenbaum and Friedman, 2001). Whites, Asians, and recently arrived, foreign-born blacks generally live in the best quality neighborhoods, and Hispanics and native-born blacks have the worst neighborhood conditions. Foreign-born blacks who had arrived before 1980 fall somewhere in between these two extremes. A very important finding was the fact that this pattern of access was not "equalized" in suburban locations; as predicted by the place stratification model, this finding argues against the notion that suburbs symbolize the land of opportunity and equal access for all households.

Our findings have a number of implications for both theory and public policy. As with other recent research (Alba et al., 2000b; Logan et al., 2002), our results make clear that the spatial assimilation model, in its current form, may be less salient in explaining the residential outcomes of immigrants and minorities than it was before the 1990s. As Logan et al. (2002, p. 321) put it, "this is not a time, if ever there were a time, for a one-pattern-fits-all theory of residential location." This could be the case because many immigrant newcomers are moving directly to suburbs, which had not previously been the case (Friedman et al., 2005; Singer et al., 2001), and because during the past two decades, many immigrants have moved to metropolitan areas that had not previously contained significant foreign-born populations and therefore do not have the traditional immigrant enclaves found in long-standing immigrant destinations such as New York and Chicago (Singer et al., 2001; Singer, 2004).

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[21] The finding pertaining to the absence of open spaces may result from our inability to differentiate outer-ring from inner-ring suburbs, which share many similarities to central cities.

These macro-level trends in immigrant settlement patterns have at least two implications for immigrants' neighborhood-level outcomes. For one, it is likely that immigrants living in suburbs will not necessarily reside in better neighborhoods than do native-born residents—contrary to predictions under the spatial assimilation model—because they may be residing in newly-established immigrant enclaves in suburbs. Logan et al. (2002) suggest that poorer immigrants may be particularly likely to live in such areas. Our results are somewhat consistent with this idea, especially in regard to the lower neighborhood quality experienced by the foreign born among all suburban Hispanics. Perhaps the fact that nativity-status differences persist within suburbs is reflective of the existence of immigrant enclaves.

On the other hand, because the United States continues to attract highly-skilled and extremely well-educated immigrants, these macro-level settlement patterns may actually translate into better neighborhood outcomes for immigrants as compared to their native-born counterparts. Logan et al. (2002) suggest that such immigrants may choose to form their own ethnic neighborhoods to preserve their cultural background. Although they have the means to spatially assimilate, they prefer to live in such homogeneous, residential environments. Our results allude to the existence of such neighborhoods. In particular, recently-arrived, foreign-born blacks appear to fit this pattern. In both central cities and suburbs, we found that, with a few exceptions, they experience significantly better neighborhood outcomes than their native-born counterparts, and at the same time, for the most part, reside in neighborhoods of at least equal quality as native-born whites.

Our results also clearly indicate that the spatial assimilation model does not predict the neighborhood conditions of Hispanics and native-born blacks as well as it does the conditions experienced by Asians, a consistent finding in the literature that gave rise to the place stratification model. Our results, however, strengthen the arguments of the model by indicating that the effect of race/ethnicity clearly carries over into suburbs. Indeed, our study provides preliminary confirmation for the notion that stratification and the mechanisms causing stratification may be greater in suburbs than in central cities because powerful, majority-group members living in suburbs may have more at stake in protecting their wealth interests.

Although our analyses cannot pinpoint the precise mechanisms underlying these patterns, it is likely that continuing racial discrimination in the housing market and mortgage-lending industry constrains the residential choices of affected households. Results from the 2002 Housing Discrimination Study support this interpretation by demonstrating that both blacks and Hispanics experience discrimination more frequently than similarly situated whites in both the rental and sales submarkets (Turner et al., 2002). Whites' avoidance of minorities also likely plays a part in supporting the discrimination perpetuated by institutional actors within the housing market (Charles, 2000; Farley et al., 1994).

However, our findings also suggest that the mechanisms causing stratification across places do not operate in the same manner for all blacks. As pointed out above, the neighborhood outcomes of recently-arrived foreign-born blacks are generally superior to those of native-born blacks and are often statistically similar to native-born whites. However, the neighborhood conditions of foreign-born blacks who arrived more than 20 years before the survey tend to be statistically indistinguishable from those of their native-born peers, and very often inferior to those of native-born whites. It could be the case that time since arrival increases the probability of experiencing discrimination as ethnic markers, such as accents, wane (Bashi and McDaniel, 1997), thereby eroding the advantages

enjoyed by the most recently arrived. Such a hypothesis has more typically been advanced in regard to generational differences (Rosenbaum and Friedman, 2006; Waters, 1999). No research, to our knowledge, has examined the racial attitudes of native-born whites toward foreign-born blacks according to the recency of their arrival. In order to further develop the place stratification model, such research is necessary.

Besides being unable to isolate the causes of the patterns we find, our analysis suffers from other limitations. For example, it would have been useful to have measures of the poverty rate (and the changes therein) for neighborhoods. In some instances we found that foreign-born households were significantly more likely than their native-born counterparts and native-born whites to report living near buildings with bars on windows, but at the same time no other differences emerged on the other indicators of social disorder. It may be that such immigrants are fostering the process of inner-city revitalization (cf. Winnick, 1990), but without knowing the economic status of the neighborhood, it is hard to draw that conclusion.

A final limitation of our analysis is that we were unable to identify specific metropolitan areas and examine the neighborhood conditions of nativity-status and racial/ethnic groups within such areas. Therefore, we could be overstating the effects of some individual-level characteristics, including our key variables, in predicting the neighborhood conditions of households. To truly add more depth to current theories explaining nativity-status and racial/ethnic differences in locational attainment, it is necessary to examine neighborhood conditions, by residential location, in areas that have been long-standing immigrant destinations and in areas that have recently emerged as major destinations (e.g., Washington, DC, Atlanta, Dallas-Ft. Worth).

In regard to public policy, our findings suggest that policies targeted at racial/ethnic minorities will be useful in improving minorities' access to better quality neighborhoods. These initiatives include efforts by the government to enforce federal, state, and local laws against racial/ethnic discrimination in housing. In addition to enforcement, attention needs to be given towards educating the public about fair housing, particularly with respect to Hispanics whose population growth has occurred mostly in the post-civil-rights era. Investment in minority communities, such as that promoted by the Community Reinvestment Act, is also critical in reducing the differences that exist in the neighborhood conditions between minorities and whites. A final strategy, indirectly related to race, is to promote metropolitan-level policies that curb suburban sprawl. It has been shown that racial/ethnic inequality is growing in areas that have experienced significant levels of suburban sprawl in the past few decades because whites and the non-poor are able to move further away from minorities and the poor within suburbs (Jargowsky, 2002; Squires, 2002). Clearly, both people- and place-based policies need to be utilized to their fullest extent to minimize the disadvantages in locational attainment faced by Hispanics and native-born blacks, relative to whites, to maximize the well-being of future generations.

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