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Minority Proximity to Whites in Suburbs: An Individual-Level Analysis of Segregation[1]

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A novel method for locational analysis at the individual level is used to analyze the determinants of proximity to non-Hispanic whites separately for Asians, blacks, Hispanics, and for non-Hispanic whites themselves. The resulting regression analyses, for which the percentage of non-Hispanic whites in a community serves as the dependent variable, reveal how the familiar *P** segregation measure is generated through locational patterns that map racial/ethnic-group members with specific personal and household characteristics into communities with specific majority-group proportions. The analyses are developed from two complementary theoretical models—spatial assimilation and place stratification—and applied to the suburban communities of the nation's largest metropolitan region, surrounding New York City, as of 1980. Consistent with the place-stratification model, proximity to non-Hispanic whites is very different for members of the white and black groups and little affected by their individual characteristics other than race. By contrast, Asians and Hispanics appear more consistent with the spatial-assimilation model.

Residing in proximity to whites is a critical indicator of assimilation for minorities, yet much evidence indicates that there is, in the aggregate, substantial minority segregation from whites in the United States (e.g., Massey and Denton 1987). A traditional perspective views residential segregation as entailing a dearth of informal contact between minority

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and majority populations, which promotes prejudice and is itself a prima facie sign of incomplete assimilation (e.g., Gordon 1964; Williams 1964). In addition, segregation is necessary to the stratification processes that inhere in such locational differentials as unequal schools serving different neighborhoods or unequal levels of services provided by different localities; these in turn are implicated in racial and ethnic inequality (Farley and Allen 1987; Logan and Schneider 1984; Massey, Condran, and Denton 1987). By this reasoning, an analysis of the conditions under which segregation breaks down should offer important insights into the processes of minority incorporation and assimilation.

In broad terms, suburbanization appears to be linked with a decline in segregation for American minorities—namely, Asians, blacks, and Hispanics—although the degree of reduction is quite variable across groups and metropolitan areas (Massey and Denton 1988). This linkage is tied to important shifts in the spatial patterning of minorities, who are increasingly found in suburbs rather than central cities, the classical settings of ethnic enclaves (Alba and Logan 1991; Frey and Speare 1988; Long and DeAre 1981; Waldinger 1989). Thus, changing residential patterns can be expected to result in lower overall segregation, although it is only for Asians and Hispanics that the level of suburban segregation is typically in the low to moderate range (Massey and Denton 1988). For blacks, the level of suburban segregation remains relatively high, even if it is, on average, notably lower than in central cities.

As the black case suggests, much remains to be learned about the precise connection between suburbanization and residential desegregation. It is clear from studies of black suburbanization that suburban residence is not inevitably linked to substantially greater proximity to whites: black suburbanites are so often found in suburbs with high proportions of nonwhites (as well as with other distinctive characteristics) that the term reghettoization might be applied (Guest 1978; Lake 1981; Logan and Schneider 1984; Stearns and Logan 1986*a*). But it is not clear under what conditions suburbanization for blacks means greater proximity to whites rather than continued segregation from them. There is even less knowledge about this issue for Asians and Hispanics.

One way to approach the issue is through an analysis of *locational attainment* within suburbia. We mean the term to denote an analysis that would focus on how the characteristics of individuals—in this case, of minority-group suburbanites—are linked to some feature of their communities—in this case, the percentage of non-Hispanic whites among residents. Such an analysis reveals how members of different groups convert such characteristics as income or English-language proficiency into proximity to the majority group and thus identifies the conditions under which suburbanization brings desegregation. Although this ap-

proach has much to recommend it, it has been difficult to implement in the study of desegregation because the most complete data about small areas, those of the U.S. Census of Population and Housing, are only available in aggregate form (see Massey and Denton 1988).

In this article, we rely on a novel method of constructing individual-level ordinary least squares (OLS) regressions, in part by using aggregate data. Applying this method, we analyze the process determining proximity to non-Hispanic whites separately for Asians, blacks, and Hispanics (as well as for non-Hispanic whites themselves, who are included for comparative purposes). Our analysis is conducted with 1980 census data for the suburban portion of the New York City Consolidated Metropolitan Statistical Area (CMSA), the largest metropolitan region in the nation as well as one of the most ethnically and racially diverse.

THEORETICAL BACKGROUND AND PREVIOUS RESEARCH

Two complementary theoretical models inform our analysis. The model of *spatial assimilation,* a continuation of the ecological tradition, views the spatial distribution of groups as a reflection of the state of their assimilation, broadly construed (Massey 1985). The basic tenets of the model are that residential mobility follows from the acculturation and social mobility of individuals and that residential mobility is an intermediate step on the way to more complete—that is, structural—assimilation (Massey and Mullen 1984). As members of minority groups acculturate and establish themselves in American labor markets, they attempt to leave behind less successful members of their groups and to convert socioeconomic and assimilation progress into residential gain, by "purchasing" residence in places with greater advantages and amenities. This process disperses minority-group members, opening the way for increased contact with members of the ethnic majority, and thus for desegregation.

In the spatial-assimilation model, entry into relatively advantaged suburban communities that contain many whites is a key outcome. It is seen principally as the outgrowth of individual-level processes: as individuals acquire human capital and acculturate, improving their ability to interact socially with members of the majority, their likelihood of achieving residence in advantaged suburbs increases. Thus, the locational process should be described well by individual-level variables, such as income, education, and English-language ability. In this way, the model subsumes a common, admittedly partial explanation for segregation; namely, that groups differ on average in the characteristics, especially income, that determine location (for the debate about this explanation in the black case, see Clark [1986, 1988] and Galster [1988]).

The model of *place stratification* addresses directly the hierarchical differentiation within suburbia and its reflection in the mapping of groups across suburban space. The model posits that places are ordered hierarchically and consequently are associated with more or less favorable life chances and quality of life for the people who reside in them (Logan 1978). This is as true within suburbia as it is between central cities and suburbs, on average. In addition, the hierarchy of places is seen as a means by which more advantaged groups, for example, affluent non-Hispanic whites, seek to preserve social distance from less advantaged ones. The place-stratification model thus subsumes frequently stated explanations for segregation that focus on mechanisms of public and private discrimination (see Farley and Allen 1987, pp. 150–55; Galster 1988). These mechanisms are complex and include a variety of individual and institutional actions, ranging from acts of violence against the pioneer minorities in a community to restrictive zoning (Logan and Stearns 1981; Rieder 1985; Shlay and Rossi 1981). These generate racially segmented housing markets (Foley 1973; Berry 1975; Stearns and Logan 1986*a*), which make it difficult for minorities to enter some communities and add to the cost they must pay for housing.

The place-stratification model thus envisions that racial and ethnic minorities are sorted by place according to their group's relative standing in society, and this limits the ability of even the socially mobile members of these groups to reside in the same communities as comparable whites. The model obviously indicates that group membership must be taken into account in analyzing locational processes. In addition, it implies that the members of some groups are not able fully to convert socioeconomic and assimilation gains into residence in the same communities as the majority; in other words, the "returns" on individual achievements, such as income and English-language ability, may differ substantially across groups. In effect, it "costs" members of some groups more to achieve desirable locational outcomes, if they are able to achieve them at all. We would expect this extra burden to be found especially in racially stigmatized groups, such as blacks and, among Hispanics, Puerto Ricans (on the higher segregation of Puerto Ricans compared to other Hispanics, see Massey and Bitterman [1985]).

These are not the only theoretical conceptions that might be entertained in a study of segregation. Another possibility, which our analysis cannot directly address, is that minority segregation is, at least in part, voluntary—that, even in suburbs, minority-group members seek out communities with disproportionate numbers of fellow group members. Support for this notion is found in Schelling's (1971) argument that high levels of racial segregation can arise from more modest group differences

in preferences for neighborhood composition (see also Clark 1991). Support can also be inferred, although not without ambiguity, from the model of the enclave economy (Portes and Bach 1985; cf. Sanders and Nee 1987; Portes and Jensen 1987), which envisions connections among ethnic solidarity, spatial concentration, and economic success. Nevertheless, although we cannot directly test the voluntary conception of segregation here, it is hard to imagine that a rigorous test of this or any explanation of residential patterns is possible without a method for accurately estimating individual-level effects. We will demonstrate such a method, which can be applied with widely disseminated U.S. census data sets.

Previous studies of segregation patterns, which have been formulated usually at the aggregate level and have focused only rarely on the segregation within suburbia, can be read as supporting both assimilation and stratification models. The key is that the models vary in their applications to different groups. In analyses at the metropolitan-area level, for example, Massey and Denton (1987, 1988; see also Denton and Massey 1988; Hwang et al. 1985; White, Biddlecom, and Guo 1991), find important differences among the segregation patterns of Asians, blacks, and Hispanics. In all regions of the country, in cities and in suburbs, blacks are most segregated from whites, while Asians, despite the recency of their immigration, tend to be least segregated (see also Farley and Allen 1987). Beyond these differences in its levels, segregation appear to respond differently to assimilation and socioeconomic variables in the three groups. Black segregation is resistant to socioeconomic improvement, in contrast to the more varied profile of Asian and Hispanic segregation. The segregation of the latter groups has been found to be affected by both assimilation and socioeconomic characteristics (Massey and Denton 1987, pp. 819–21).

However, the precise configuration of effects in past research appears to be sensitive to equation specification and segregation measure. For instance, in contrast to the findings reported above, Hwang et al. (1985) find only modest support for the proposition that Hispanic segregation is reduced by socioeconomic improvement. This sensitivity is likely to be, at least in part, a result of problems associated with ecological inference, that is, a function of the aggregate level of past analysis and the resulting difficulties inherent in inferring individual-level effects. The only published analyses that avoid these inferential difficulties are by Villemez (1980), Massey and Denton (1985), and by Gross and Massey (1991), but, while they are at the appropriate, that is, individual, level, these analyses also employ a limited range of independent variables. A limited number of independent variables is also characteristic of aggregate-level analyses and is probably attributable to the multicollinearity existing among ag-

gregate variables, which constrains variable choice. For example, no model we have encountered has included home ownership among the independent variables, even though it is obvious that ownership, and the wealth it reflects, may be implicated in the locational patterns behind spatial segregation (Clark 1986).

METHOD

The Locational-Attainment Model

The two theoretical models outlined earlier can best be addressed by a model of the following form:

$$Y_{ij} = a + b_1X_{1ij} + b_2X_{2ij} + b_3X_{3ij} + \epsilon_{ij}, \quad (1)$$

where Y_{ij} is a community-level measure of racial composition for community j (say, the percentage of non-Hispanic whites among residents) and thus is assumed to be constant for all i in the same j (i.e., for all individuals in the same community); X_{1ij} is the household income (or another human-capital variable) for individual or household i in community j; X_{2ij} is English-language ability (or another assimilation measure); and X_{3ij} represents other (possibly control) variables, such as household configuration or age. The model is estimated for the individual or the household as the unit and separately by racial/ethnic group. Each b coefficient, then, establishes the degree of conversion of a minority individual's or household's characteristics, such as income, into a residential setting with low segregation (i.e., a community with many whites or, alternatively, many nongroup members). Estimating effects of this sort has, in fact, been a rather consistent goal of research on residential processes (see, e.g., Villemez 1980; Massey and Denton 1985; Massey et al. 1987; White et al. 1991).

Under the assumption that high scores on the dependent variable mean low segregation (true when that variable is the percentage of non-Hispanic whites in a community), the spatial-assimilation model would lead one to expect that both X_1 and X_2 have positive effects (i.e., b_1, $b_2 > 0$). In its ideal-typical form, it also supports the expectation that these effects are quite similar across groups. The place-stratification model, on the other hand, calls attention to variations in the intercept or, alternatively, in predicted values from the models, since it posits that individuals who have the same human-capital and assimilation values will be located in settings of markedly different segregation in accordance with their racial/ethnic group membership. This model also leads to expectations about differences in b coefficients. In an ideal-typical reading of the model (e.g., an apartheid system), racial/ethnic group membership is determinative of segregation, and therefore other personal characteristics of group

members should have little effect on their exposure to the majority population. One would, therefore, expect the b coefficients to express small effects and, at the limit, none at all.

The alternatives just stated are extremes. Another possible pattern is that the intercept—and the predicted y values for low x values (e.g., low incomes)—are smaller for a minority group than for the majority, but that at least some of the minority's b coefficients are larger. Viewed from one perspective, this situation would appear to fit an empirically plausible scenario for assimilation: although some members of a minority, especially those with poor English, low incomes, and so on, are disadvantaged compared with similar whites (as indicated by the difference in intercepts and predicted y values when x values are low), minority-group members with improved personal characteristics begin to catch up (implied by their greater returns on variables such as language and income). Viewed from another perspective, however, this situation can be interpreted in terms of the stratification model. In brief, even though some whites may be disadvantaged in terms of income or other characteristics, they are locationally advantaged by virtue of their racial/ethnic membership (i.e., they have better locational outcomes than similar minority-group members). For minority-group members to achieve the same locational outcome as whites, they generally must have superior individual characteristics—in other words, it costs them more. In the abstract, both these interpretations seem plausible. Empirically, perhaps the question can be settled on the basis of whether minorities achieve *equal* outcomes with similar whites for some subset of values on language, income, and other characteristics. If so, then one would favor the assimilation model, if not, if whites are always more advantaged in locational terms than their minority peers, then the stratification model should get the nod. This, in fact, is the criterion we will follow in drawing conclusions.

The Dependent Variable: Percentage of Non-Hispanic Whites in a Community

The dependent variable, a measure of racial/ethnic composition, can be understood in two ways. The first is as one of a series of community characteristics that influence the life chances and quality of life of residents (in which case, the assumption above of constancy for all individuals in a community is unproblematic). This view is particularly congenial to the place-stratification model, according to which a community's racial and ethnic composition is a factor that tends to affect its chances in the competition over resources (e.g., tax base), in maintaining desirable living conditions (e.g., low crime rate), and in attracting new residents (especially affluent whites). Such a view gains credibility from the re-

search by Logan and Schneider (1984) that demonstrates that suburban communities with high percentages of black residents generally have a high population density, are proximate to the central city, have a weak property tax base and limited services, and experience residential instability and further growth in the minority population. Other research shows that suburbs with large minority populations also tend to have high crime rates (Stahura, Huff, and Smith 1980).

In the second view, community-wide racial/ethnic composition is a measure of the proximate composition of the neighborhood in which an individual resides. In this case, the assumption that Y_{ij} is constant for individuals in the same community is obviously more problematic, since, at a micro level, segregation varies within communities, not just across them. Nevertheless, we believe that a community-wide measure is tenable as an approximation to the composition of smaller neighborhoods. One way of demonstrating this is to change the level of aggregation and observe if the results are affected, and this we have done. The results we report here are based on a measure of racial/ethnic composition at the level of the suburban place (more will be said below about this level of aggregation); but we have also computed analyses using an areal unit about 40% as large in population terms, the census tract, and found largely similar results (reported in Logan, Alba, and Fisher [1992]).

We have chosen the percentage of non-Hispanic whites as the measure of racial composition to analyze here because it links the analysis to a well-known measure of segregation, ${}_xP_y^*$, the asymmetric exposure index (Lieberson and Carter 1982), which is generally interpreted as the probability that members of group x have residential "contact" with group y. The exposure index plays an important role in the literature on segregation because, as Massey and Denton (1987, p. 806) point out, it measures "the extent to which minority and majority members must physically confront one another by virtue of sharing a common tract of residence."[2]

[2] As is well known, the P^* family of indices is sensitive to group size in a region (Stearns and Logan 1986*b*). One reviewer has accordingly raised with us the possibility that any differences we detect in the locational patterns of groups may be a function of group size. The reviewer reasons that, if all groups have a similar tendency to form residential clusters, the clusters of larger groups will exert a more powerful influence on our dependent variable and thus on the results of our modeling procedure. Of course, if group size in a region does influence the pattern of segregation, this may be an interesting result, not a confounding influence. The point suggests two strategies of attack. The first is to analyze a number of different metropolitan regions in which the same groups are of different sizes and then test whether the regression results vary in accordance with group size. We are following this strategy in the larger project of which this article is a part (ultimately, our analysis will encompass the 11 largest metropolitan regions in the nation). A second strategy is to vary the level of aggregation at which the dependent variable is calculated. As that level becomes smaller, the

In our case, group y is identified with non-Hispanic whites. Further, the mean of our dependent variable, when calculated at the individual (not aggregate) level for the members of a particular group, is the value of P^* (multiplied by 100) across communities and can be interpreted as the average exposure of members of that group to non-Hispanic whites; this follows directly from the standard formula for ${}_xP_y^*$.[3] When whites are the group in question, then the mean is the same as the so-called isolation index. A multivariate analysis taking the form above can thus be viewed as an analysis of the P^* index in terms of its individual-level determinants for different groups. As such, it also directly addresses an issue fundamental to both theoretical models that has mostly been addressed indirectly or at an aggregate level in segregation research: To what extent can segregation be explained by compositional, or "endowment," differences among groups? (See, e.g., Jaynes and Williams 1989, pp. 144–46; the term "endowment," which refers here to a group's average level of location-relevant characteristics such as income, is taken from Jones and Kelley [1984].) If endowment differences account for segregation, in whole or in part, then differences among intercepts, or among predicted segregation levels based on the model above, should be smaller than differences among P^* values for different groups.

Estimating the Model

One feature of the analytical model that must be recognized in order to address the difficulties involved in estimating it is that it requires variables from different levels—aggregate and individual. The dependent variable is a community characteristic; the independent variables, however, are at the individual level or the household level. To be sure, other familiar sociological models also have such a cross-level character: this is true, for example, of the status-attainment model (Blau and Duncan 1967), since occupational prestige, the dependent variable in the model,

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clusters of smaller groups should have a greater effect on the values of the dependent variable, and the results obtained for these groups should increasingly resemble those obtained for larger ones. As already noted, we have carried out an analysis based on the census tract, a smaller population unit than we use here. The results are quite similar to those we report here, suggesting that group size is not a confounding factor.

[3] The standard formula (Massey and Denton 1987, p. 806) is:

$$ {}_xP_y^* = \Sigma(x_i/X)(y_i/t_i), $$

where x_i and y_i are the numbers of members of groups x and y, respectively, in community i, X is the total population size of group x, and t_i is the population size of community i. Note that this formula amounts to the weighted average of the proportion of group y in each community, where the weighting factor is the community size of group x.

is a characteristic of an occupational group and is predicted by the characteristics of individual incumbents. The theoretical reasoning that connects the dependent variable to the independent variables is also similar in both cases: the individual characteristics are presumed to determine access to the groups (occupations or communities) by some market-based sorting or allocation process. In the status-attainment model, education affects occupational access because some occupations require a certain level of education and, in other cases, employers prefer to hire individuals with higher levels of educational attainment. In a locational-attainment model, education is construed as a measure of "permanent income," which determines access to communities through the housing costs and other costs associated with living in them, and also as a measure of various "tastes" that are associated with choice of a community, such as the tastes for a community that has certain cultural amenities (or is at least near them) or for a school system that prepares students to enter prestigious colleges.

However, the cross-level character of locational-attainment models has made them difficult to estimate in past research. The critical stumbling block—which is found in much research on spatial processes—is that, in general, no single data set provides data in the form required for direct model estimation.[4] In particular, census data, which offer the most complete geographical coverage as well as a wide array of community and individual characteristics, are available either in an aggregate form or an individual one, which, in the past, forced analysts into an uncomfortable choice between the two. The aggregate form, the summary tape files (STFs; U.S. Bureau of the Census 1982, 1983*a*), allows analysts to distinguish among small geographical units (e.g., census tracts) but does not allow individual records to be linked to them. The alternative, the Public Use Microdata Samples (PUMS; U.S. Bureau of the Census 1983*b*), provides individual-level data but describes their geography only in terms of very large units (counties or county groups), thus precluding

[4] For the dependent variable under investigation here, there is in fact an unusual census data set at the individual level, the F version of the PUMS, prepared for Douglas Massey and Nancy Denton. This data set represents a 1% sample of households and individuals in the 50 largest metropolitan areas. Each household is tagged with a small set of tract characteristics, including percentage of non-Hispanic whites, and a small random error has been added to each tract variable to protect confidentiality. A key limitation of this data set from the point of view of an analysis of segregation is that the metropolitan areas are not identifiable. Since the metropolitan context unquestionably plays an important role in segregation and in residential patterns in general (see Massey and Denton 1987; Alba and Logan 1991), it is important either to take metropolitan characteristics into account or to analyze segregation separately by metropolitan area. Nevertheless, the PUMS F file does offer an alternative route of investigating segregation (see Gross and Massey 1991; White et al. 1991).

insight into community differentiation. For the most part, analysts have chosen the finer spatial distinctions afforded by aggregate census data, thus risking the ecological fallacy in drawing conclusions about the locational processes affecting individuals and households. The magnitude of this risk remains unknown, despite a few attempts with unusual data sets to create parallel analyses with both levels of data (e.g., Massey and Denton 1985; Gross and Massey 1991).

Our results in this article are based on a novel method that uses both aggregate-level and individual-level data files to construct regression analyses that bridge the two. This method can be used to analyze locational processes in terms of a wide range of community characteristics, not just the percentage of non-Hispanic whites, which we analyze here. It can also be used to include community characteristics as independent variables, that is, as contextual influences, although we do not so employ them in this analysis. It is, finally, applicable at different levels of aggregation, such as the place and census tract, as long as the requisite tables (see below) are available. We will only outline the method here because we have described it at greater length elsewhere (Alba and Logan 1992). The method derives from a fundamental principle of OLS regression: the estimation of regression coefficients requires only pairwise (i.e., correlations or covariances) and univariate (i.e., means and standard deviations) information for all variables (Hanushek and Jackson 1977). The key element is a matrix of correlations or covariances, and this we construct by combining data from STFs and PUMs.

First, from STFs (mainly the 1980 STF4B file [U.S. Bureau of the Census 1983*a*], which reports tables by racial/ethnic group) we calculate the correlations between the aggregate dependent variable and the individual-level independent variables. This is straightforward as long as one can find STF tables that show the distributions of the various independent variables by racial/ethnic group in each community.[5] Since the per-

[5] Of course, these distributions must all be based on the same unit, and this requirement can necessitate a thorough search of census tabulations. For our analysis, we have selected tables (distributions) for individuals (rather than, say, households), in part because these tables offer the widest range of characteristics. In only one case, that of household income, did we have to resort to a tabulation for households. But the table we selected presents income categories by size of household and is thus readily converted to a table whose counts represent individuals. Partially missing data, or the coverage of tables, give rise to another issue. Many census tabulations do not cover all residents of a place—for example, household-income and home-ownership tabulations include only individuals residing in households, ignoring those in institutions, and language tabulations include only persons more than four years old. To be usable in our analysis, these and similar tables must be completed by adding appropriate categories to contain the remaining cases. This, in turn, generates a novel feature in our variable construction: variables that share the same category. As

centage of non-Hispanic white residents is also known for each community (from the STF3A file [U.S. Bureau of the Census 1982]), it follows that the x and y values are known for all members of a group and thus a correlation (or covariance) can be calculated. For instance, the correlation between individual-level nativity, represented as a dummy variable (foreign birth = 1), and the community percentage that is non-Hispanic white is readily calculated from tables that show the number of group members who are native born, the number who are foreign born, and the percentage of non-Hispanic whites for each community. In any community, $x = 0$, and y is the community percentage of non-Hispanic whites for every group member who is native born; $x = 1$, and y is the same percentage for every group member who is foreign born. Standard computing formulas for the correlation coefficient apply to this situation. The same principles hold, moreover, when the x variable is a scale, rather than categorical.

Second, from the PUMS data, we calculate the correlations among the independent variables at the individual level. It is not necessary to know about the specific communities in which individuals reside to do this, but it is necessary to make the boundaries of the region extracted from the PUMS data coincide quite closely with that mapped by the communities extracted from the STF data.[6] Third, the correlations derived from the two different sources are assembled into a single matrix, which is then submitted to a standard regression program such as SPSS-X, along with means and standard deviations of all variables (which are readily calculated from the community-specific distributions of the STFs).

Two issues arise at the outset in the construction of these models: Which is the unit of analysis, the individual or the household? What is the geography of the analysis? Practical considerations determine our decision on the first issue. The key lies in the availability of tables for specific independent variables at the appropriate level, for our method cannot function without such tables. Even though the household is prob-

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table 1 will show below, several variables contain a group-quarters category (which, to be sure, represents the same population in each case). Interpretation of the effects of these shared categories must reflect their involvement in several variables (see n. 17 below).

[6] Since metropolitan regions and the geography of the PUMS data are both defined in terms of counties, it is not hard to make the metropolitan boundaries coincide in the two data sources. A small divergence arises, however, because our study is focused on suburbs and thus requires us to exclude central city residents. This is easily done in data from the Summary Tape Files, but several small central cities (such as Sayreville, New Jersey, with a population under 30,000 in 1980) are not identifiable in the PUMS data we are using (A geography). Their residents are therefore included in our PUMS calculations, creating an overall error of approximately 2.3% in the sample definitions.

ably the more appropriate unit for analyses of spatial location, theoretically critical variables (such as English-language ability and generation in the United States) are available in STFs only for individuals. Distributions of these variables for household heads cannot be simply assumed without great risk of error. Therefore, to avoid the risk associated with the omission of theoretically important variables, we have elected to base the analyses that follow on individuals, and thus have included all residents of the region under study (regardless of age or status in a household). To investigate the possibility of bias as a result of this decision, we have also run some parallel analyses at the individual and household levels for a limited set of variables available at both levels in STFs and found that there was a reassuringly close correspondence between the two sets of results.[7]

With respect to the second issue, we have focused our analysis on locational processes among suburban communities (for the New York City CMSA, as already noted).[8] Our decision to focus on suburbs is justified by the likely heterogeneity of spatial processes in suburbs and central cities, especially where segregation is concerned, and is supported by some practical considerations as well. Previous research (e.g., Massey and Denton 1988) demonstrates that, for all minority groups, segregation is lower in suburbs than in central cities. Indeed, because minorities are few in number in many suburban areas, the probability of coresidence with whites usually is greatly enhanced by movement to suburbs (see Massey and Denton 1988, table 3). In other words, given two minority-group members with similar personal characteristics other than residence, it is highly plausible that the suburban one lives in a community with a greater proportion of whites than does the central city denizen. Thus, it does not seem appropriate to combine suburban and central city areas in the same analysis, since the effects of individual-level characteristics are likely to be dissimilar in the two types of social space. Further, to combine them would risk confusing the process of suburbanization per se with what we see as the more interesting process determining location

[7] These results, which closely parallel the analysis described in Alba and Logan (1992), are available from Richard Alba.

[8] The description in the text refers to the New York–New Jersey portion of the CMSA identified by the Census Bureau as the "New York–Northern New Jersey–Long Island CMSA." For convenience, we excluded the small Connecticut portion of the CMSA from our analysis; it contains just 5% of the region's suburban residents and even smaller percentages of its minority suburbanites. The New York–New Jersey portion of this CMSA includes eight primary metropolitan areas: Bergen-Passaic, N.J.; Jersey City, N.J.: Middlesex-Somerset-Hunterdon, N.J.; Monmouth-Ocean, N.J.; Nassau-Suffolk, N.Y.; New York, N.Y.; Newark, N.J.; and Orange County, N.Y.

within suburbia (on the differences among groups in the attainment of suburban residence, see Alba and Logan [1991]). In effect, the problem here is the reverse of the now familiar problem of selection bias (Berk 1983; cf. Stolzenberg and Relles 1990). Because, for most minority groups, suburban residence is rather strongly affected by such individual characteristics as household composition and English-language proficiency (Alba and Logan 1991), an analysis that includes both central city areas and suburban areas risks confounding the determinants of suburban rather than central city residence with those channeling suburbanites into a location in the hierarchy of suburbs.

In addition, our definition of a suburban community is formulated in terms of jurisdictional boundaries, for we view communities as positioned in a hierarchy of advantage, engaged in a competition to preserve or enhance their advantages, and able to wield political and legal means (e.g., restrictive zoning) in this struggle. Jurisdictional boundaries are obviously critical to the identification of these collective actors, and therefore many of the communities on which our study is based are incorporated places (e.g., villages, towns). It would make little sense to include a much larger central city as just another place in this scheme. An alternative would be to conduct the analysis separately within central city and suburban areas, at the census-tract level. Although there is obvious value in this alternative, it does run afoul of the practical problem that, in census data (at least in 1980), tract data do not permit a clean separation of the major racial/ethnic groups. Tables for whites and blacks include Hispanics (this is not the case for the place-level tables we employ here), and this obviously muddies a comparison of coefficients across equations.[9] (Elsewhere, however, we [Logan et al. 1992] present separate

[9] In data terms, the difference between what we can accomplish here with place-level data and what could be accomplished with tract-level data can be understood in the following way: For the current analysis, we use the 1980 STF4B file, which provides place-level tables for as many as 38 different racial/ethnic groups, including non-Hispanic whites and blacks, but does not provide data for areas within places. Thus, large cities cannot be decomposed into neighborhoods, and it makes little sense to retain central cities in the analysis. An alternative is to use the STF4A file, which reports tables at the census-tract level, but only for six broad and overlapping racial/ethnic categories. As noted, the STF4A tables for whites include Hispanics, and the same is true for blacks. Tables are also provided for Hispanics, regardless of race. There is no way of disentangling these populations to construct tables for non-Hispanic whites, for instance. But it is obviously desirable to have mutually exclusive racial/ethnic categories insofar as this is possible. In effect, 1980 census data files force one to choose—either drop central cities or use substantially overlapping racial/ethnic categories (e.g., whites and Hispanics). Here, we have chosen the former, and we focus on whether the process of placement *within* suburbia is conducive to racial/ethnic integration or segregation. This data incompatibility, it appears, may be corrected in the 1990 census.

central city and suburban analyses by using tract-level variables for community characteristics.)

Data and Measures

The suburban region under analysis encompasses 674 suburban communities. Not all of these are incorporated places; some are so-called census-designated places, and others are constituted by the residual portions of larger entities (towns in New York, townships in New Jersey) after nested places have been subtracted.[10] Further, group-specific data may be missing, or "suppressed" in census terminology, for some communities, forcing us to combine places in the same town (or township) to arrive at a unit for which the necessary data can be inferred.[11] Consequently, the specific number of communities varies from group to group, from 616 for non-Hispanic whites to 353 for Asians.

From the 5% 1980 PUMS data, we have extracted separate files by group, containing all group members residing in the suburban portion of the New York City CMSA (i.e., outside of central cities). The numbers of cases in these files in effect determine the degrees of freedom for our analysis, because correlations derived from the PUMS data are necessarily based on a smaller number of sampled cases than the correlations derived from the STFs. In general, we have limited the number of cases for a group to 10,000, to prevent variations in group sizes from influencing the results.[12]

[10] Census-designated places are defined on the basis of recognized locality names although they are not incorporated as municipalities. Our method requires us to include these and other nonincorporated areas, since their residents cannot be distinguished in one of our data sources, the PUMS. In any event, in the thickly settled New York metropolitan region, all such areas are parts of fairly small political entities, i.e., towns, and thus fall within the scope of the place-stratification model.

[11] To overcome the suppression of data, we have derived group counts wherever possible from higher-level information. For example, if group data are suppressed for only one place in a town, then the data can be inferred by subtracting the counts for all other places from those of the town (reported as a different level of geography by the Census Bureau). When two or more places in a town have missing data and must be combined, the group data for the combined area can be generated by the same subtraction process.

[12] In fact, the correlations from the PUMS are based on as many cases as were available, but we have fixed the N at 10,000 in estimating regression results. For non-Hispanic whites and Asians, the number of cases is smaller than 10,000—they are 7,321 and 6,148 respectively. In the case of whites, the smaller N results from our use of the .1% sample for the majority group; in the case of Asians, the smaller N is simply a reflection of this group's size in the suburban population (and thus the 5% sample).

In the analysis to follow, we estimate a separate regression equation for each of four major racial/ethnic groups (non-Hispanic whites, non-Hispanic blacks, Hispanics, and Asians). The *dependent variable,* to repeat, is the percentage of a community's residents who are non-Hispanic white. The equations include a number of demographic, socioeconomic, and assimilation variables characterizing individual group members. Because of the categorical format of census summary tables, which are obviously pivotal for our data construction, we have represented each independent variable as a set of dummy variables. This construction also has the advantage of giving the intercept a simple, empirically meaningful interpretation (as will become clear in our subsequent discussion). The independent variables and their means by racial/ethnic group are presented in table 1. In addition, we discuss here the rationale for each variable's inclusion in our model.

1. *Assimilation.*—English-language ability (those who speak only English at home, who speak English well, and who do not speak English well), along with nativity and immigration status (native born, immigrated before 1975, and immigrated 1975 or later) are the measures included. The spatial-assimilation model would anticipate less desirable spatial outcomes, and thus less proximity to non-Hispanic whites, for recent immigrants and more desirable locations for those who speak English well. In other words, some locational payoff is expected from assimilation status.

2. *Socioeconomic status.*—This includes home ownership, household income, and education. A central tenet of spatial-assimilation theory is that, controlling for other relevant characteristics, minority-group members who have achieved higher socioeconomic standing will gain access to desirable locations equal to those of majority-group members of the same status. The theory implies a positive effect of socioeconomic variables on proximity to the majority. (We would also expect to find this relationship among non-Hispanic whites, although its slope may be lower because even less affluent whites reside in communities that are largely white.) By contrast, the stratification hypothesis is that the coefficient linking income to spatial advantage (i.e., the "return to earnings") will be lower for members of those minority groups that experience discrimination in the housing market.

We will be especially attentive to the coefficients for home ownership. This is another innovation in our modeling strategy, since it has been recognized that the failure of income alone to explain segregation may be due to the omission of any measure of wealth. Home ownership is, in part, a reflection of wealth, and is a virtual prerequisite for residing in many high-status suburban communities.

3. *Demographic composition.*—The variables include *age,* in five cate-

TABLE 1

INDEPENDENT VARIABLE CONSTRUCTION AND MEANS BY GROUP

VARIABLES	SOURCES		MEANS			
	Summary Tape File	Table	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics	Asians
Age	STF4B	PB5				
Under 5 years old†	. . .	. . .	.054	.075	.088	.115
5–17 years old†	. . .	. . .	.203	.266	.255	.234
18–24 years old†	. . .	. . .	.112	.124	.128	.070
25–64 years old*	. . .	. . .	.509	.471	.483	.546
65 years old and older	. . .	. . .	.122	.063	.046	.036
Household structure	STF4B	PB19				
Married couple	. . .	. . .	.795	.556	.736	.869
Other family	. . .	. . .	.100	.294	.173	.059
Nonfamily	. . .	. . .	.088	.116	.072	.052
Group quarters (nonhousehold)†	. . .	. . .	.018	.034	.019	.020
Home ownership	STF4B	HB3				
Owner-occupied unit	. . .	. . .	.785	.501	.454	.626
Renter-occupied unit*	. . .	. . .	.197	.466	.527	.353
Group quarters†	. . .	. . .	.018	.034	.019	.020
Household income	STF4B	HB45				
Under $5,000*	. . .	. . .	.038	.104	.096	.033
$5,000–$9,999	. . .	. . .	.066	.127	.122	.039
$10,000–$14,999	. . .	. . .	.086	.136	.137	.070
$15,000–$19,999	. . .	. . .	.113	.129	.147	.090
$20,000–$29,999	. . .	. . .	.263	.230	.251	.239
$30,000–$39,999	. . .	. . .	.187	.140	.126	.202
$40,000–$49,999	. . .	. . .	.102	.057	.056	.125

$50,000–$74,999	. . .	. . .	.088	.037	.036	.121
$75,000 and over	. . .	. . .	.037	.006	.011	.062
Group quarters†	. . .	. . .	.018	.034	.019	.020
Educational attainment	STF4B	PB48				
Grammar school*	. . .	. . .	.083	.090	.164	.045
Some high school	. . .	. . .	.078	.101	.079	.028
High school graduate	. . .	. . .	.234	.197	.162	.094
Some college	. . .	. . .	.095	.083	.067	.076
College graduate	. . .	. . .	.141	.064	.057	.339
Under 25 years old†	. . .	. . .	.369	.465	.471	.419
English language ability	STF4B	PB11				
Speaks only English*	. . .	. . .	.843	.883	.188	.187
Speaks English well or very well	. . .	. . .	.092	.038	.522	.593
Speaks English not well or not at all	. . .	. . .	.011	.005	.202	.105
Under 5 years old†	. . .	. . .	.054	.075	.088	.115
Immigration status	STF4B	PB10				
Native born*	. . .	. . .	.916	.919	.587	.273
Immigrated pre-1975	. . .	. . .	.078	.059	.337	.423
Immigrated 1975 or later	. . .	. . .	.006	.022	.077	.303
Ethnicity among whites	STF3	28				
British	. . .	. . .	.039	. . .	. . .	. . .
French	. . .	. . .	.005	. . .	. . .	. . .
German	. . .	. . .	.066	. . .	. . .	. . .
Irish	. . .	. . .	.086	. . .	. . .	. . .
Italian	. . .	. . .	.166	. . .	. . .	. . .
Polish	. . .	. . .	.043	. . .	. . .	. . .
Other single ancestries and mixed ancestries*	. . .	. . .	.595	. . .	. . .	. . .
Ethnicity among Hispanics	STF3	13				
Mexican	. . .	. . .	. . .	. . .	.031	. . .
Puerto Rican	. . .	. . .	. . .	. . .	.374	. . .
Cuban	. . .	. . .	. . .	. . .	.204	. . .
Other*	. . .	. . .	. . .	. . .	.392	. . .

TABLE 1 (*Continued*)

Variables	Sources		Means			
	Summary Tape File	Table	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics	Asians
Race among Hispanics	STF3	14				
White*	. . .	. . .	. . .	. . .	.770	. . .
Black	. . .	. . .	. . .	. . .	.037	. . .
Other	. . .	. . .	. . .	. . .	.194	. . .
Ethnicity among Asians	STF3	12				
Japanese	. . .	. . .	. . .	. . .	. . .	.126
Chinese	. . .	. . .	. . .	. . .	. . .	.258
Korean	. . .	. . .	. . .	. . .	. . .	.116
Filipino	. . .	. . .	. . .	. . .	. . .	.173
Asian Indian	. . .	. . .	. . .	. . .	. . .	.269
Vietnamese	. . .	. . .	. . .	. . .	. . .	.018
Other Asian*	. . .	. . .	. . .	. . .	. . .	.040

NOTE.—"Sources" reports the tables used in the construction of correlations between the dependent and independent variables. Correlations between independent variables are taken from PUMS data. In subsequent regressions, all independent variables are expressed as dummy variables; hence, their means here are proportions.

* Omitted category.

† Category shared among variables (see n. 5).

gories identifying group members under the age of 18 (i.e., children) as well as those who are 65 years old and older, and *household composition,* distinguishing people in married-couple households, other family types, nonfamily households, and institutional settings (known as "group quarters" in census terminology).[13] Both variables have previously been shown to be independently associated with community characteristics and with suburban residence. Their effects are widely understood to indicate a preference for, or greater willingness to invest in, location by married couples with children. This suggests that members of married-couple households and children may be more likely than others to be in communities with high percentages of non-Hispanic whites. This interpretation is compatible with (but not critical to) the spatial-assimilation model. In any event, these variables are implicated in the construction of others, and it is necessary to control for variables that are likely to be associated with locational outcomes (see table 1).

4. *Ethnic subgroup composition.*—For all groups except blacks, this is a series of dummy variables to indicate membership in more specific categories of origin, such as Chinese or Japanese among Asians. The assimilation model provides little reason to expect differences among subgroups in locational outcomes, net of other predictors. Differences between Chinese and Japanese might be interpreted, for instance, in terms of the recency of arrival of the subgroup in the United States, but there should be no further differentiation. Subgroup differences are more important to the stratification model, which would predict locational disadvantages for those subgroups which experience the most severe discrimination. Among non-Hispanic whites, these might include those from the periphery of Europe, that is, Poles, Italians, and, perhaps, Irish. Among Hispanics, they would especially affect Puerto Ricans and possibly Mexicans; race would be expected to have an additional effect on Hispanic residential patterns (Denton and Massey 1989). Among Asians, the least advantaged might be Filipinos, while the Japanese, Koreans, and Chinese (except for those from the People's Republic of China) might be relatively advantaged because of the current power of the Japanese, Korean, Taiwanese, and Hong Kong economies.

In constructing these categories among whites, we have been cognizant of the broad decline of ethnic differentiation in the white population (Alba 1990; Lieberson and Waters 1988). Therefore, we have distinguished only

[13] Some other age categories are necessary for the proper construction of other variables. Thus, the under-five-years-old category is required for completion of the English-language variable, which is tabulated in the census only for persons five years old and older; the 18–24 category completes a set of categories for those less than 25 years old, required for the completion of the educational attainment variable, which is tabulated for persons 25 years old and older.

categories of single ancestry (e.g., Italian ancestry only), on the grounds that any ethnic differences should be most detectable for such categories. Individuals with mixed ancestry are classified in the omitted category, as are individuals with single ancestries who come from smaller ethnic groups (e.g., Swedish).

FINDINGS

Mean Differences among Groups

Table 2 shows the means in community percentage of non-Hispanic whites by major racial/ethnic group and, within each group, by ethnic subgroup. The values in the table are means across individuals; they have been generated by weighting the percentage of non-Hispanic whites in a community by the number of members of a given group who reside there. According to the formula for P^* (see n. 3 above), the values therefore represent the exposure or proximity to whites (P^*) of the average group member in the suburbs surrounding New York City. (Correlation ratio, or η^2, values are also presented; they are taken from analyses of variance between group or subgroup membership and the community percentage variable.)

The table shows substantial and expected differences among the major racial/ethnic groups and, to a limited extent, within these groups. Aside from non-Hispanic whites themselves, Asians are the group with the greatest residential proximity to whites: the average Asian suburbanite resides in a community that is about 85% non-Hispanic white. Blacks, on the other hand, have surprisingly low residential proximity to whites in light of the fact that this suburban region is heavily non-Hispanic white (in 1980, whites composed 86% of its population). The average black suburbanite is in a community that is more than 40% minority. Hispanics fall midway between the black and Asian proximities.

There is only slight variation in proximity according to ethnic subgroup among whites and Asians. Even though the differences among whites are statistically significant, the range of variation is minute, from 88.1% (for persons of French ancestry) to 90.0% (for those in the residual category). The dispersion is slightly wider among Asians, from 82.9% for Asian Indians to 87.9% for Chinese.

Substantively more important differences are found among Hispanics. At one end of the spectrum are Mexicans, who approach the Asian groups in terms of residence in communities with many non-Hispanic whites. At the other end are Cubans, who are equal to blacks in their tendency to reside in communities with relatively high proportions of minority residents. In between come Puerto Ricans and the other Spanish groups

TABLE 2

MEAN PERCENTAGE OF NON-HISPANIC WHITES (or P^*) IN SUBURBAN COMMUNITIES OF RACIAL/ETHNIC GROUPS

Racial/Ethnic Group	% (P^*)
Major groups:	
Non-Hispanic whites	89.7
Non-Hispanic blacks	57.8
Hispanics	70.2
Asians	85.4
η^2	.283
White national-origin groups:	
English	89.4
French	88.1
Germans	89.9
Irish	89.7
Italians	88.5
Polish	89.0
Other single ancestries and mixed ancestries	90.0
η^2	.002
Hispanic origin groups:	
Mexicans	80.5
Puerto Ricans	72.4
Cubans	57.5
Other Spanish	74.0
η^2	.084
Hispanic racial groups:	
Whites	71.7
Blacks	59.8
Others	66.3
η^2	.017
Asian groups:	
Japanese	86.9
Chinese	87.9
Koreans	87.8
Filipinos	83.5
Asian Indians	82.9
Vietnamese	83.0
Other Asians	83.7
η^2	.022

NOTE.—All analyses of variance are statistically significant. Values in the table are weighted means, where the weight is the number of group members in each suburb.

(the "other" category mixes Caribbean groups, such as Dominicans, with Central and South Americans). There is also substantial variation by race for Hispanics, with black Hispanics tending to reside in communities with the lowest percentages of non-Hispanic whites and white Hispanics in communities with the highest percentages. The range of these differences rivals that by ethnic origin.

Locational Analysis Results

How are such differences generated? Do different groups convert their human-capital and other personal characteristics into location in similar ways? And are there conditions under which minorities achieve parity with their white peers? Regression analyses that address these questions, produced by the method described earlier, are reported in table 3.

Overall, the analyses reveal quite different patterns of attaining residential proximity to whites. But there are important resemblances between the patterns for blacks and whites, even though their proximity levels mark the extremes. Two of the coefficients in the table give initial insight into the patterns for these two groups, the intercept and R^2. Because of the construction of the independent variables as categorical, the intercept here has a more compelling interpretation than is usually true in regression analysis. Specifically, given our choice of omitted categories, it can be interpreted as the predicted percentage of non-Hispanic whites in the community of residence of a group member with a particular set of characteristics: someone of working age (25–64-years old), who resides in a nonfamily, renter household with less than $5,000 in annual income, speaks only English and was born in the United States, and has only a grammar school education.[14] (For whites, membership in the residual ethnic subgroup is also assumed.) According to the intercept for whites, a white with these characteristics would be expected to reside in a suburb 83% of whose residents are also non-Hispanic white. This value

[14] Because the independent variables are represented as dummy variables, the categories in the text also represent the categories of comparison for the coefficients (and associated statistical tests) reported in the table. The reader will note that, in the case of the socioeconomic variables, these omitted categories occur at the low end in each case and therefore, according to the assimilation model, the predicted sign of the coefficients in the table should be positive (increases in SES produce increases in proximity to whites). In the case of the assimilation variables, we have not followed this convention, however. The reason is that it would lead us to choose omitted categories for these variables (poor English and recent immigration) that are quite rare among suburban whites and blacks. This would, in turn, lead to awkwardness in discussing the intercepts, and so we chose the typical categories (speaks only English and native born), instead. The assimilation model would therefore predict negative coefficients for these variables.

TABLE 3

INDIVIDUAL-LEVEL REGRESSION ANALYSES OF COMMUNITY PERCENTAGES OF NON-HISPANIC WHITES

Independent Variables	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics	Asians
Age:				
Under 5 years old[b]	.76 (.86)	−2.73* (1.38)	−6.49* (1.03)	4.78* (1.25)
5–17 years old[b]	1.08 (.68)	−1.45 (1.12)	.23 (.72)	3.55* (1.10)
18–24 years old[b]	.59 (.73)	−3.07* (1.23)	.94 (.79)	2.71* (1.28)
25–64 years old[a]	0	0	0	0
65 years old and older	−.50 (.51)	1.86 (1.20)	2.93* (.97)	1.15 (1.09)
Household structure:				
Married couple	1.50* (.55)	1.57 (.89)	−.94 (.79)	−.33 (.84)
Other family	.37 (.65)	−.80 (.93)	−1.14 (.88)	−1.17 (1.05)
Nonfamily[a]	0	0	0	0
Group quarters[b]	3.49* (1.30)	28.39* (1.77)	21.60* (1.65)	10.29* (2.01)
Home ownership:				
Owner-occupied unit	5.81* (.38)	.14 (.61)	9.82* (.47)	7.81* (.47)
Renter-occupied unit[a]	0	0	0	0
Household income:				
Under $5,000[a]	0	0	0	0
$5,000–$9,999	.64 (.89)	1.08 (1.08)	1.26 (.82)	5.56* (1.50)
$10,000–$14,999	1.05 (.88)	2.05 (1.08)	3.17* (.84)	3.81* (1.34)
$15,000–$19,999	.69 (.82)	1.95 (1.12)	4.53* (.83)	3.00* (1.40)
$20,000–$29,999	.80 (.80)	2.05* (1.04)	5.25* (.79)	6.48* (1.28)
$30,000–$39,999	1.11 (.84)	3.13* (1.17)	6.92* (.90)	6.62* (1.32)
$40,000–$49,999	.85 (.85)	5.42* (1.47)	8.25* (1.11)	8.42* (1.34)
$50,000–$74,999	1.08 (.89)	5.87* (1.67)	10.67* (1.27)	8.29* (1.37)
$75,000 and over	1.31 (1.03)	15.07* (3.57)	9.00* (2.00)	10.38* (1.48)

TABLE 3 (*Continued*)

Independent Variables	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics	Asians
Education:				
Grammar school[a]	0	0	0	0
Some high school	.17 (.73)	−1.84 (1.24)	1.56 (.86)	1.33 (1.43)
High school graduate	.50 (.63)	−3.03* (1.11)	4.28* (.71)	2.01 (1.13)
Some college	1.00 (.71)	−1.98 (1.30)	4.72* (.93)	1.76 (1.18)
College graduate	.67 (.68)	1.00 (1.41)	7.06* (.99)	4.22* (1.05)
English language ability:				
Speaks only English[a]	0	0	0	0
Speaks English well or very well	−1.95* (.56)	.88 (1.41)	−8.45* (.57)	.95 (.56)
Speaks English not well or not at all	−4.49* (1.40)	−2.44 (3.88)	−13.48* (.77)	1.83* (.81)
Immigration status:				
Native born[a]	0	0	0	0
Immigrated pre-1975	−.76 (.62)	1.13 (1.15)	−4.27* (.63)	−1.29* (.59)
Immigrated 1975 or later	−.77 (1.83)	1.31 (1.79)	−3.89* (.87)	−.60 (.61)
Ethnicity among whites:				
British	.19 (.73)			
French	−1.10 (1.90)			
German	.51 (.57)			
Irish	−.37 (.51)			
Italian	−.64 (.39)			

Polish	−.06 (.69)			
Other single ancestries and mixed ancestries[a]	0			
Ethnicity among Hispanics:				
Mexican			2.52* (1.17)	
Puerto Rican			−2.51* (.57)	
Cuban			−13.76* (.57)	
Other[a]			0	
Race among Hispanics:				
White[a]			0	
Black			−16.29* (1.04)	
Other			−3.34* (.51)	
Ethnicity among Asians:				
Japanese				3.81* (1.09)
Chinese				2.55* (1.00)
Korean				2.75* (1.10)
Filipino				−2.14* (1.05)
Asian Indian				−1.17 (1.00)
Vietnamese				−1.22 (1.60)
Other Asian[a]				0
Intercept	82.65* (.97)	55.35* (1.35)	74.20* (1.24)	69.37* (1.87)
R^2	.060	.041	.290	.119
Adjusted R^2	.056	.038	.288	.115

NOTE.—SEs are reported in parentheses.
[a] Omitted category.
[b] Category shared among variables.
* Statistically significant at the .05 level (two-tailed).

is not much below the mean in table 2. The intercept for blacks shows a very different residential experience in suburbs, since the community of a black with these characteristics is predicted to be just 55% non-Hispanic white (the white and black intercepts are significantly different: $t = 16.42$, $p < .001$).[15] A comparison of whites and blacks who are equal in the ways just specified has done little to reduce the gap between the two groups in table 2.

The low R^2 values suggest a reason for this. For both groups, individual characteristics offer scant explanation for residential proximity to whites. For non-Hispanic whites, this evidently means that residence in a largely white community is typical for individuals with rather differing family, socioeconomic, and assimilation characteristics. For blacks, the conclusion suggested is that residence in a disproportionately minority community is typical under a wide variety of individual circumstances.

These conclusions are further borne out by an examination of regression coefficients (whose standard errors appear in parentheses). Just a few variables are statistically significant in the equation for non-Hispanic whites. Home owners reside in communities with higher proportions of non-Hispanic whites than renters do (by a margin of six percentage points). Those who speak a language other than English at home reside in communities with modestly higher minority proportions, and the magnitude of this difference varies according to ability to speak English (i.e., those who do not speak English well are in communities with the highest minority proportions). This last finding indicates that the least acculturated, or most ethnic, whites are the ones most residentially proximate to minorities, which is consistent with spatial-assimilation theory but contradicts a finding from aggregate-level data that white ethnic communities tend to exclude minorities (Logan and Stearns 1981). Other than these effects, there is little else to explain proximity. Noteworthy is that household income has no direct effect on proximity (once ownership status is controlled), nor does ethnic suborigin (once English-language proficiency is controlled). The last remaining significant coefficients are associated with household structure. Individuals in married-couple households reside in communities with slightly higher proportions of non-

[15] The statistical significance of differences between coefficients across equations is assessed, here and subsequently, using a well-known t-test, whose formula is given by

$$t = \frac{b_1 - b_2}{\sqrt{\mathrm{SE}_1^2 + \mathrm{SE}_2^2}}.$$

The necessary SEs are reported in parentheses in table 3; we consistently determine the sign of t by comparing groups in left-right order in the table. Except where stated otherwise, we also evaluate significance with two-tailed tests.

Hispanic whites than do individuals in nonfamily households. A somewhat larger difference favors individuals in institutional settings, indicating that the communities in which most institutions (such as college dormitories, hospitals, and nursing homes) are found are more homogeneously white than suburbs are, on average.

Similarly, the set of variables that plays a role in the black equation is also small, but it is not the same as that in the white equation. Most important, home owning does not improve the ability of blacks to live near whites, despite our expectation that ownership should give members of minorities access to more privileged communities. Instead, higher household income is associated with greater proximity to whites, but in a nonlinear way. Little change in proximity occurs up to the income level of $40,000, and there is a considerable leap upward in proximity to non-Hispanic whites for individuals in the highest income category, $75,000 and over.[16] In both respects, the black equation is significantly different from the white one (the t-value for the difference in home-ownership coefficients is 7.89, $p < .001$; significant differences in the income coefficients first appear for the $40,000–$49,999 category [$t = -2.69$, $p < .01$] and continue into the higher income categories).

Other than household income, the only remaining effects of note among blacks are associated with household structure. One is indirectly revealed through age, that is, blacks less than 25 years old reside in communities with lower white proportions, suggesting that families with children are disadvantaged in achieving coresidence with whites. Also, there is a large effect associated with residence in institutional settings: the communities in which most of the institutions are found result in blacks in these settings living in much greater proximity to whites than does the average group member.[17]

[16] That these income steps do lead to successively greater proximity to whites can be demonstrated by varying the omitted category of income in the black equation, since it serves as the reference point for the remaining income coefficients and associated statistical tests. For example, when the omitted category is set as $30,000–$39,999, then a significant increment in proximity appears for the next higher income category ($t = 1.85$, $p < .05$, one-tailed) and subsequent ones. Likewise, the highest income category significantly increases proximity compared to the next lower one, $50,000–$74,999 ($t = 2.42$, $p < .05$). Analogous procedures, whose details we do not report here, demonstrate that, for Asians and Hispanics also, the pattern of proximity increasing with income, evident in table 3, is statistically meaningful. We have also used this approach to verify the ordinality of the effects of language among whites and Hispanics and that of education among Hispanics.

[17] To understand the large magnitude of the group-quarters effect, it is also necessary to take into account the role this category plays in several variables. As table 1 shows and as n. 5 above describes, this variable is shared among three variables. Given the omitted categories of these variables, the group-quarters coefficient reports the ex-

The differing profile of effects in the white and black equations implies that the comparison between members of these groups whose personal and household characteristics other than race are similar depends on the precise characteristics one posits. To evaluate the differences between the races in proximity to whites, then, we cannot rely only on the comparison of intercepts discussed earlier. Accordingly, we have calculated predicted values of proximity for six types in each racial/ethnic group, which we label "poor natives," "poor immigrants," "average SES natives," "average SES immigrants," "affluent natives," and "affluent immigrants." Each type represents a distinct combination of socioeconomic and assimilation characteristics, with the values of other variables held constant at the omitted categories in table 3. A "poor" individual is defined as one with a grammar school education who lives in a renter household with less than $5,000 in annual income (these are the omitted categories in table 3); an "average SES" individual is a home owner with a high school diploma whose household income lies between $20,000 and $29,999 (these are the categories of the average suburbanite in this region in 1980); and an "affluent" individual is a college graduate who is a home owner and has an annual household income of $75,000 or greater. A "native" is a native-born individual who speaks only English at home; an "immigrant" arrived in the United States after 1974 and does not speak English well. Calculating the predicted values for any of these types is straightforward and involves only adding the intercept and the coefficients of those characteristics that depart from the omitted categories. Thus, the predicted percentage of non-Hispanic whites in the community of residence of a black, average SES native is 54.51 (55.35 + .14 + 2.05 − 3.03). The remaining predicted values are presented in table 4.

The comparison of the predicted values for various types of whites and blacks in table 4 establishes what table 3 implies: only the most affluent blacks, with incomes of $75,000 and higher (a category that represented less than 1% of suburban blacks in 1980), gain substantially in proximity

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pected difference between someone in an institutional setting and someone who resides in a nonfamily, rental household with less than $5,000 in income. These latter characteristics (income, in particular) are associated with low proximity to whites, enhancing the size of the group-quarters coefficient. It should also be noted from table 1 that only a small proportion of each group resides in group quarters (nevertheless, this subgroup cannot be removed from the analysis because its members are indistinguishable in some of the aggregate tables from which the analysis is constructed). Across all racial/ethnic groups, about 28% of the group-quarters population is in homes for the aged, 26% in college dormitories, 13% in mental hospitals, and 5% in military quarters. Inmates of correctional institutions account for a further 16% of the total. The remainder, including residents of rooming houses, is 13%.

TABLE 4

PREDICTED PERCENTAGE OF NON-HISPANIC WHITES IN COMMUNITY OF RESIDENCE FOR SIX TYPES FROM EACH RACIAL/ETHNIC GROUP

	Non-Hispanic Whites (%)	Non-Hispanic Blacks (%)	Hispanics (%)	Asians (%)
Natives:				
Poor	82.7	55.4	74.2	69.4
Average SES	89.8	54.5	93.6	85.7
Affluent	90.4	71.6	100.0	91.8
Immigrants:				
Poor	77.4	54.2	56.8	70.6
Average SES	84.5	53.4	76.2	86.9
Affluent	85.2	70.4	82.7	93.0

NOTE.—The six types represent distinct combinations of the socioeconomic and assimilation variables, with all other variables set at their omitted-category values. Definitions are as follows: poor = renter, income under $5,000, grammar school only; average SES = home owner, $20,000–$29,999 income, high school graduate; affluent = home owner, income of $75,000 and over, college graduate; native = U.S. born, speaks only English; immigrant = arrived after 1975, does not speak English well. Predicted values for these types are calculated from the coefficients in table 3 according to the method described in the text. The values for the "poor" category under "native" are the same as the intercepts in that table.

to whites. Even so, they do not close the gap with their white peers: an affluent native black is predicted to reside in a community that is 71.6% non-Hispanic white, while a similar white resides in one that is 90.4% white. Indeed, by this measure, an affluent black does not achieve residential parity with a poor white, who is predicted to reside in a community that is 82.7% white, if he or she is native, and 77.4% white, if an immigrant.

In contrast to the white and black equations, both the Asian and Hispanic equations show a much greater variety of effects. For these groups, there is a closer nexus between individual characteristics and residential proximity to whites than is found in the preceding equations, and this is borne out in higher R^2 values, especially for Hispanics. Nevertheless, although some similarities are found between the Asian and Hispanic equations, there are also some prominent differences.

Principal among the similarities are the large socioeconomic effects evident for both groups. For both Asians and Hispanics, owning a home gives access to communities with substantially higher white proportions than is true for renters. The difference associated with ownership is significantly higher among Hispanics than among Asians, but it is higher in either group than among non-Hispanic whites (the t-values for the Hispanic-Asian, white-Hispanic, and white-Asian comparisons are, re-

spectively: 3.02, $p < .01$; -6.63, $p < .001$; and -3.31, $p < .001$). In further contrast to the equation for whites, household income contributes to proximity for both minorities. In the Hispanic equation, proximity climbs with improvements in income, until an income level of $50,000 is attained; the Asian pattern is a bit harder to characterize, but proximity appears to move upward through several plateaus, with a sizable difference found between the lowest income level (under $5,000 a year) and all subsequent ones. (For Hispanics, significant differences from the white equation start with the coefficient for $15,000–$19,000 [$t = -3.29$, $p < .01$] and continue into higher income categories; for Asians, the systematic differences from the white pattern begin with the coefficient for $20,000–$29,999 [$t = -3.76$, $p < .001$].) Finally, education has a role in the Asian and Hispanic equations. Again, the pattern for Hispanics is one of a rather steady rise in proximity to whites as educational attainment increases. For Asians, the difference in proximity lies between college graduates and all others.[18]

A major difference between the two equations occurs for the assimilation variables. These are very central in determining proximity to whites for Hispanics, but almost inconsequential for Asians. Hispanics who speak Spanish at home reside in communities with higher minority proportions, all the more so if they do not speak English well. The difference made by language assimilation is considerably larger than that among whites. Immigration status adds to it, for Hispanics born abroad also reside in communities with higher minority proportions. This pattern, anticipated by spatial-assimilation theory, is not matched among Asians, however. Persons who speak Asian languages at home are not at all disadvantaged in terms of proximity to whites. The foreign-born (in particular, those who immigrated prior to 1975) are just slightly so. These findings demonstrate that recently arrived Asian immigrants who do not speak English well are able to attain proximity to whites largely according to their socioeconomic characteristics. This is in strong contrast to the potent role of assimilation among Hispanics and also to elements of spatial-assimilation theory.[19]

[18] The locational returns to a college education are significantly higher for Hispanics than for Asians (e.g., the t-value for a comparison of the coefficients for the some college category is 1.97, $p < .05$). Further, virtually all the significant education coefficients for both groups are also significantly higher than the corresponding coefficients for whites and blacks. For instance, the t-value for the high school graduate coefficients in the white-Hispanic comparison is -3.98 ($p < .001$). The only nonsignificant comparison is between black and Asian college graduates ($t = -1.83$).

[19] The differences between Hispanic and Asian coefficients are consistently significant. For instance, the t-value for the difference in coefficients for individuals who speak English well is -11.76 ($p < .001$), and the t-value for the coefficients for individuals

Hispanics and Asians differ further in the part played by ethnic suborigins. There are some modest differences among the Asian groups: Japanese, Chinese, and Koreans have moderately greater proximity to whites than members of the other groups. The differences among Hispanic groups are much more profound; the mean differences among them in table 2, then, are not simply due to different socioeconomic or assimilation endowments. Mexicans have the greatest proximity to whites, followed by those in the "other" category and Puerto Ricans, with a gap of approximately five percentage points separating the first and last of these groups. Cubans trail considerably behind the others, about 16 percentage points behind Mexicans. Hispanics are also sharply differentiated according to racial origin. Black Hispanics in particular have much lower proximity to whites, although there is also a significant difference between white Hispanics and those who define themselves as neither white nor black. Needless to say, white Hispanics are most proximate to white non-Hispanics.

Finally, there are differences between these two major groups in terms of the effects of age and household composition. Among Hispanics, as among blacks, there is some disadvantage associated with the presence of children in the household; this is specifically evident for children less than five years old.[20] Among Asians, by comparison, children, and by implication the households containing them, have greater proximity to whites than working-age adults. For both groups, residence in institutional settings means residence in communities with greater than average proportions of non-Hispanic whites.

In further contrast to the black case, the equations for Asians and Hispanics imply that certain characteristics tend to bring members of these groups into suburban communities with the same racial/ethnic composition (i.e., percentage of non-Hispanic whites) as the communities of residence of their white peers. (Note, however, that one cannot infer directly from our analysis that the Asians and Hispanics in question

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who arrived in 1975 or later is -3.10 ($p < .01$). In general, the Hispanic coefficients are also significantly different from those for whites and blacks. The only exception occurs for the white-Hispanic comparison for immigrants who arrived in 1975 or later ($t = 1.54$).

[20] Caution is warranted here because this effect is confounded with that of the language variable. As table 1 shows, the under-five-years-old age category is shared by age and English-language ability (defined only for persons five years old and older in census data). By the way the variables are constructed, the coefficient of this category compares young children to adults in English-speaking households. Since speaking English at home adds considerably to Hispanic proximity to whites, it is possible that the negative coefficient for young children reflects simply an uncontrolled language effect in this group.

reside in the same suburbs as their white peers.) This result, which is evident in the predicted values in table 4, is in accord with the spatial-assimilation model, especially because favorable socioeconomic characteristics achieve this outcome for Asian groups and the combination of favorable socioeconomic and assimilation characteristics (U.S. birth, speaking English at home) do the same for *most* Hispanics. For Asians in the other Asian category (which, as the omitted ethnic subgroup, is assumed in table 4), even average socioeconomic characteristics raise proximity to whites almost to the level of their white peers. For the Chinese, Japanese, and Koreans, who are more residentially proximate to whites (according to table 3), parity with their white peers is attained with the achievement of average socioeconomic characteristics, as it is for affluent Asians (of any subgroup). Being an immigrant, rather than a native, has only a small effect.

The story among Hispanics is more complex because it depends more on subgroup membership. For Hispanics who are white and in the other ethnic Spanish subgroup (the omitted categories), parity with whites occurs for natives with average or affluent socioeconomic characteristics.[21] The same statement holds for Mexicans, Puerto Ricans, and Hispanics in the other race category, since these groups all have small coefficients in table 3 and thus deviate only slightly from predictions for the omitted categories. For immigrant Hispanics in the same subgroups, near parity is achieved by those with affluent socioeconomic characteristics. But all these calculations are changed markedly for black Hispanics, which once again demonstrates the powerful influence of black race on residential outcomes, and for Cubans. According to table 3, the predicted values for black Hispanics are 16 percentage points below those in table 4; in other words, black Hispanics do not achieve parity with whites under any conditions (although affluent natives come close). Approximately the same holds for Cubans.

[21] The value in table 4 for affluent native Hispanics is impossibly high, although it clearly justifies the conclusion that they have attained parity with whites. The occurrence of such extreme values can be avoided by application of a logistic transformation to the dependent variable. We have not employed such a transformation here because it would remove the transparent connection of the analysis to the P^* segregation measure, which serves as an important motivation for our analysis. (A minor statistical inconvenience would also result, because some whites live in 100% white communities, but the logit transformation is not defined for the value 100.) However, as a check, we have repeated our analysis with the logit transformed variable. Aside from the obvious change in scale, the results are extremely similar to those in table 3, specifically in terms of the statistical significance and the relative size of coefficients. For the record, the predicted percentage of non-Hispanic whites in the community of an affluent native Hispanic is 95.8% in the logit results. The conclusion from table 4 is thus unaltered.

Despite this evident heterogeneity among Hispanic subgroups, the residential parity between some Hispanics and their non-Hispanic white peers suggests that the sizable aggregate difference between the two groups in table 2 is due to endowment differences to an important degree. This is also demonstrated when we decompose the mean differences in table 2, using the regression coefficients in table 3 and the group means for the independent variables (for the method we employ, see Jones and Kelley [1984]). In this decomposition, the sources of the difference in means (89.7% for non-Hispanic whites versus 70.2% for Hispanics) are partitioned into three types: group specific (including discrimination), endowment (or group composition), and the interaction between these two.[22] For the white-Hispanic difference in means, the group-specific and endowment portions are nearly equal (at 15.5% and 13.6%, respectively, while the interaction portion is −9.5%). By comparison, very little of the white-black difference in means (89.7% vs. 57.8%) originates in endowment differences. Application of the decomposition formula reveals that group-specific factors constitute the greatest source by far (amounting to 30.1%, compared with 1.5% for the endowment portion and .4% for the interaction). Also, very little of the small white-Asian difference (89.7% vs. 85.4%) is compositional—in this case, however, because Asian suburbanites are as well endowed socioeconomically as whites.

CONCLUSION

In this article, we have examined segregation by analyzing locational patterns for individuals in terms of the racial/ethnic, socioeconomic, assimilation, and other characteristics that shape them. Our analysis has been guided by two major theoretical models—spatial assimilation and

[22] The standard formula for the decomposition is (see Jones and Kelley 1984, p. 326):

$$Y_w - Y_m = (a_w - a_m) + \Sigma X_m(b_w - b_m) + \Sigma b_m(X_w - X_m) + \Sigma(b_w - b_m)(X_w - X_m),$$

where the w and m subscripts designate non-Hispanic whites and a minority group (Hispanics), respectively, X and Y the means of these variables, and Σ is a summation over the independent variables. Jones and Kelley show that the distinction between the first two terms on the right-hand side is not meaningful (unless all independent variables have a true zero point, something that is not true here). Both terms are classified (Jones and Kelley 1984, p. 338) as constituting the "unexplained differences" between groups, although we prefer to call them "group-specific factors" (including discrimination); the third term is the difference due to endowments, and the last is the interaction. One peculiarity in the setup of the current paper is the presence of subgroup terms, which are specific to each group. We have classified their contribution to the difference in means with the group-specific portion of the decomposition.

place stratification—and focused on the locational patterns in suburbia, where segregation might be expected to be attenuated. Our dependent variable—a community-level measure that we have described throughout in terms of proximity to whites—measures, precisely stated, residence in the same suburban community as whites. This is, of course, a form of proximity, or spatial and social nearness, but it need not imply that whites and minorities have much social contact with each other or even that they are neighbors on the same block or adjacent ones. (To be sure, none of the conventional segregation measures, which rely on aggregate data, can demonstrate actual contact across racial/ethnic lines or even neighboring, unless they are measured at a fine level of aggregation.) Residence in a community with whites obviously reflects only the possibility of contact with them. More important perhaps, it places minorities in a "community of fate" with whites; since numerous inequalities are rooted in communities, the presence of many members of the majority tends to preserve a community's position of relative advantage. Our measure also links directly to a well-known measure of segregation, P^*, and one way of viewing our results is that they reveal how this measure of segregation is generated through individual-level locational patterns that map minority-group members with specific characteristics into suburban communities with specific majority-group proportions.

Although there is less segregation in suburbs than in central cities, we have nevertheless found salient differences across racial/ethnic groups in the level of segregation from non-Hispanic whites and, equally important, in the determinants (and, by implication, the processes) behind segregation. These differences can be understood in terms of our theoretical models if one grants that the models can vary in their applicability to different groups. The place-stratification model seems the more appropriate one for describing the locational patterns of whites and blacks. Our analysis shows that, for members of both groups, residential proximity to whites is determined substantially by race and little affected by other individual characteristics. For whites, this conclusion is perhaps to be anticipated from the demographic composition of suburbia, which is largely white and non-Hispanic. Yet the notion of place stratification still applies, for most whites appear to have little difficulty in avoiding those suburbs with disproportionate numbers of minority residents, even when they themselves have limited socioeconomic resources. Such resources also do little to help blacks achieve greater coresidence with whites: Only high income (or, less important for most blacks, residence in an institutional setting) allows entry into communities with greater proportions of whites.

The assimilation model, on the other hand, clearly applies to the patterns for Asians and Hispanics, but not identically. As other studies

of residential patterns have also found (e.g., Massey and Denton 1987; Waldinger 1989), Asians seem to be something of an exception to the classical ecological model, for many Asians are bypassing, or rapidly leaving, the initial stage of settlement in ethnic enclaves, typically in central cities. Consequently, individual assimilation status has little bearing on residential proximity to whites, according to our analysis. Socioeconomic status has substantial relevance, however. Asian proximity to whites is increased by home ownership, high income, and a college diploma. We do not believe that these results are attributable to any distinctive characteristics of the Asians who reside in the New York area, for example, the possibility that an unusual number of them are employees of foreign companies and thus affluent sojourners. While this characterization does appear to fit many suburban Japanese in the New York region, the Japanese represent just a small part of the suburban Asian population, and other Asian groups do not fit this profile. Moreover, in analyses conducted separately for each Asian group, we find results similar to those we report here (Alba, Logan, and Leung, in press).

Hispanics show the most varied profile of effects. Both assimilation and socioeconomic variables play important roles. The assimilation variables, which indicate that foreign-born Hispanics and those who do not speak English at home are less proximate to whites, suggest the presence of suburban Hispanic enclaves to which the less assimilated members of the group attach themselves. There are elements of a stratification pattern, too. As expected, the racial appearance of Hispanics is associated with large residential differences. Hispanics also reveal the strongest national-origin effects, with Mexicans most likely to reside in proximity to whites and Cubans—unexpectedly—least likely.

As striking as the differences we have found across groups appear to be, they cannot fully resolve the tension between different theoretical models. There could be voluntaristic aspects to the patterns we have described as fitting the stratification model. For blacks, a well-known argument holds that segregation results from the differing preferences of whites and blacks with respect to the racial composition of their communities (Schelling 1971; see also Farley et al. 1978; Clark 1991). Most blacks wish to live in integrated communities where other blacks form a substantial portion of the residents, while most whites, though willing to live in the same communities as blacks, prefer a small black presence. Without data about preferences, we cannot be sure of how much black preferences for residing in communities with other blacks lie behind the patterns we have uncovered. But, on the basis of our findings, we are skeptical that preferences alone can explain these patterns. The highest-income black suburbanites should have the greatest ability to realize their community preferences; as we have seen, they reside in communities with

substantially greater white proportions than do other black suburbanites, suggesting that other blacks might reside in such communities if they could. There may also be an element of voluntarism in the unexpectedly high segregation of Cubans from non-Hispanic whites. In the New York region, many Cuban immigrants have settled in a few suburban communities—such as West New York and Union City, both in New Jersey—which thus resemble urban ethnic enclaves, but in a suburban location. These settlements have grown through the chain migration of family and friends, which has built upon initial cores created by a government refugee resettlement program in the early 1960s (Rogg and Cooney 1980, p. 12).

There may, however, be discriminatory elements in the patterns among Hispanics that appear to be consonant with the assimilation model. We have found that Spanish-speaking suburbanites reside in communities with higher minority proportions, a result consistent with the voluntaristic assumptions of the assimilation model (i.e., the less assimilated prefer, or are more comfortable in, ethnic communities). However, we cannot rule out the possibility that these individuals are excluded from largely majority communities.

There are also issues for future research with regard to the metropolitan context of suburban segregation. Our study has examined locational patterns in the large suburban region of the New York City CMSA, which is of special interest because of its great racial/ethnic diversity and because it receives a disproportionate share of the nation's immigration (Kraly 1987). Its segregation levels are, to be sure, not typical of the nation's metropolitan areas as a whole, since previous research shows segregation levels to be higher in larger metropolitan areas and in the older areas of the Northeast and Midwest (Massey and Denton 1987, 1988). Nevertheless, the New York levels appear to be roughly on a par with those found in other large, racially and ethnically diverse metropolitan regions, such as Los Angeles (see, e.g., Massey and Denton 1987, table 3). It is therefore of interest to know whether the locational patterns associated with segregation look different in metropolitan areas where minorities form a smaller presence than they do in New York. Where whites have less need to establish social distance from minorities because the latter are few in number, the stratification model may have less applicability. Likewise, it is of interest to know whether locational patterns for specific groups differ in metropolitan areas where they form a greater presence than they do in New York. Mexicans in New York City suburbs appear to be more proximate to whites than do other Hispanic groups, but they do not constitute a large minority there. Would the same finding be obtained for Mexicans in Los Angeles? Perhaps the stratification model would better fit Mexicans in Los Angeles than it does those

in New York. To take fully into account such contextual factors as a group's percentage of the population, it is, of course, necessary to repeat our analysis for New York with a substantial number of metropolitan areas. This must await future research.

Our concluding remark highlights our method. In investigating the role of metropolitan context in suburban segregation or indeed a host of other locational issues concerned with the character of the communities in which individuals reside, whether that character is measured by home-ownership level, average incomes, crime rate, or school performance, the method we have employed here offers, we believe, an important new tool. It is suited for studying locational processes at an appropriate level of detail, with individuals as the unit of analysis and with models specific to different metropolitan areas. Our hope is that it will facilitate a new vein of comparative community research.

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