SEGREGATION IN SUBURBIA:
ETHNOBURBS AND SPATIAL ATTAINMENT IN THE URBAN PERIPHERY

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Running Head: Segregation in Suburbia
Word Count (Abstract): 235
Word Count (Manuscript, Notes, References): 9,952
Figures: 4
Tables: 6

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Abstract

Since the turn of the century, ethnoburbs—ethnic yet suburban communities of affluence—have made up an increasingly larger portion of America's metropolitan areas. Currently, however, little is known about how the emergence of ethnoburbs—and the growth of co-ethnic populations within them—has concurrently impacted the residential patterns of local populations. Using a sample of census tracts within the 150 largest Metropolitan Statistical Areas, I use the Longitudinal Tract Database to retroactively examine the trajectories of segregation that have given rise to contemporary ethnic communities. By contrasting black, Hispanic, and Asian ethnoburbs to traditional, central city enclaves, I compare neighborhoods that are similar in ethnic concentration but fundamentally different in socioeconomic context. Specifically, I evaluate the extent to which ethnoburbs' unique levels of neighborhood affluence buffer against otherwise higher levels of segregation from white residents. Findings show that although less segregated than enclaves without further controls, ethnoburbs have segregation levels that are greater than enclaves in the full model. These findings suggest that even amongst middle-class ethnic communities, segregation still remains a fundamentally racial phenomenon. Comparisons among racial and ethnic groups over time show that black ethnoburbs remain the most segregated of ethnoburb communities. Notably, and even despite overall patterns of integration, black ethnoburbs experience increased levels of segregation above and beyond those of poor urban neighborhoods, even after adjusting for a full host of controls. Implications and opportunities for future research are discussed.

Key Words: Segregation, Spatial Assimilation, New Destinations, Suburban, Urban, Ethnoburbs

INTRODUCTION

For the first time in American history, more than half of all racial and ethnic groups living in large metropolitan areas reside in the suburbs (Frey 2010). At the same time, and nearly thirty years after Wilson's work on the urban underclass (Wilson 1987), the metropolis today is again witnessing the rise of new concentrations of minorities in communities known as ethnoburbs. Rather than being poor and isolated, however, these communities both possess large concentrations of a single minority group and reside in affluent suburban settings.

Yet despite the emergence of these suburban ethnic neighborhoods, little is known about how the growth of ethnoburbs—and specifically the influx of co-ethnic residents—has concurrently affected levels of racial/ethnic segregation from white residents during this same time period. This current gap in the literature is important to acknowledge for several reasons. First, ethnoburbs represent a nuanced but increasingly visible type of ethnic community within America's metropolitan areas. As I will show, their growth—especially accelerated for Hispanic and Asian populations—suggests ethnoburbs will be a stable feature of America's metropolitan areas in the future. Second, as distinctly middle-class neighborhoods, ethnoburbs represent ethnic communities that untangle the historical overlap of racial/ethnic concentration and poverty. As communities with both high levels of affluence *and* an unmistakably ethnic character, ethnoburbs allow for a simultaneous assessment of key mechanisms as described by classic spatial assimilation and place stratification models. Specifically, I evaluate the theoretical and empirical significance of either class resources in promoting—or the continued limitations of racial/ethnic groups in achieving—integration with white residents in ethnoburb neighborhoods. Finally, the current analyses provide a compelling case to readdress ongoing debates on the nature of America's post-1965 color line. By leveraging their distinctly middle-class character, I

argue that ethnoburbs provide a natural control against neighborhood-level effects that may confound truly racially-motivated patterns of segregation. As a result, a comparison of segregation patterns across black, Hispanic, and Asian ethnoburbs provides an ideal assessment of the U.S. color line in an increasingly diverse American metropolis.

To address these questions, I use three waves of census data from 1990 to 2010 and the Longitudinal Tract Database to analyze the trends and changes of segregation for ethnoburbs and enclaves in the 150 largest metropolitan areas. As both communities exhibit similar forms of ethnic representation, I use this comparison to isolate the role of ethnoburbs' unique socioeconomic contexts for segregation outcomes. In addition, I select on those neighborhoods considered ethnoburbs in 2010 to present "retroactive trajectories" of segregation, or the specific twenty-year contexts of segregation/integration (1990-2010) in which ethnoburbs have emerged. The current study also adds to the literature on spatial attainment by selecting on ethnic communities, rather than individuals. This strategy builds on recent work examining segregation patterns in new immigrant destinations (e.g. Hall 2013), though ethnoburbs' middle-class socioeconomic character distinguishes these neighborhoods as a particular type of "destination." Finally, the study is the first to collectively examine ethnoburbs and processes of segregation at the aggregate level, thus providing a much-needed compliment to a growing number of case studies in this area.

BACKGROUND

The Rise of Ethnoburbs: Challenging Theories of Race and Residential Choice

For the majority of the past century, no space has better represented America's racial diversity than its urban epicenters. Yet while domestic and international migration may have brought racial/ethnic populations to urban areas, it has been the combination of social, economic,

and political factors that have established patterns of segregation and socioeconomic marginalization still visible in urban America today (Portes and Rumbaut 2001; Wilson 1987) As a result of these processes, segregated ethnic neighborhoods have been principally examined as a key dimension of contemporary U.S. stratification.

An established literature has documented the historical emergence of "underclass" populations, or the poorest of urban blacks spatially concentrated in declining urban areas (Marks 1991). Met by a racialized occupation structure, black workers coming as part of the "Great Migration" entered labor markets at their lowest rungs, limiting their potential for upward mobility (Lieberson 1980). Additionally, institutionalized racism through practices such as red-lining and racial steering began the formation of widespread urban ghettos that segregated black residents away from the economic, social, and cultural mainstream (Wilson 1987, 1996). Likewise, patterns of race, space, and marginalization have been well documented among America's post-1965 immigrant populations. For Hispanic and Asian immigrants, networks connecting sending and receiving communities create niche urban spaces that reduce the cost of migration for future migrants. Yet despite the utility of these urban ethnic communities, the persistent influx of poor, first-generation immigrants has similarly resulted in the concentration of low human capital and neighborhood instability (Haller, Portes, and Lynch 2011).

In sum, the literature on ethnic communities largely retains the following "traditional" narrative: though beginning as locations of opportunity and employment, class and status deficits make urban, ethnic communities unstable for assimilation into the American mainstream (Charles 2003). In turn, upwardly mobile residents attempt to leave these temporary ethnic spaces for higher quality suburban neighborhoods (Crowder and South 2005; Quillian 1999; Sanders and Nee 1987). Indeed, previous research on the integration of immigrant and minority

groups has long predicted majority-white, suburban destinations as one of the final steps in the assimilation process (Massey & Denton 1988).

At the turn of the century, however, the growing recognition of new trajectories of assimilation have provoked reconsideration of the final neighborhood destinations minority groups choose for residence. For example, although Alba, Logan, and Stults found that affluent Asian and Hispanic residents still tend to live in majority white neighborhoods, they note "in some regions this majority appears precarious, and further immigration seems almost certain to produce more suburban neighborhoods where minorities live with more minorities than with whites." (2000, 617). Today, ethnoburbs—suburban yet ethnic neighborhoods—represent the culmination of these predictions and reflect both unprecedented levels of minority population growth and the continued movement of minority groups into the American "mainstream" (Alba and Nee 2003).

Various case studies on ethnoburbs—also examined elsewhere as "edge gateways" (Price and Singer 2008) and "ethnic communities" (Logan, Zhang, and Alba 2002)—have identified the important ways such communities differ from their urban and poorer counterparts. Coining the term "ethnoburb," Wei Li (1998, 2009) documents the continued spatial shift of Chinese populations beyond traditional Chinatown destinations of Los Angeles and into the suburban areas of San Gabriel Valley. In catering to the growth of emerging Chinese populations, these communities visibly retain features similar to their urban counterparts, such as ethnically owned businesses and community organizations. In contrast to the low levels of human and financial capital found among Chinatown residents, however, the strong presence of highly educated, affluent, and professional co-ethnics characterizes ethnoburbs as distinctly middle-class ethnic neighborhoods. Comparable patterns have also been documented across the country. Consider

for example, the growth of satellite ethnic communities among both Chinese and Korean populations in Flushing, New York, where the influx of immigrant capital and middle class residents has increased property values by upwards of 100 percent by the end of the 1980s (Parvin 1991, 22). Ultimately, for the upwardly mobile, ethnoburbs provide the amenities, and resources of suburbia while retaining an ethnic character that allows for successful assimilation alternate from majority-white neighborhoods.

While satellite communities extending from traditional immigrant destinations represent one form of the ethnoburb phenomenon, it should be noted that ethnoburbs exist on a continuum including communities that, while not exactly identical to the Chinese ethnoburbs described above, exhibit important similarities. Recent research by Wen, Lauderdale, and Kandula (2009) confirms that ethnoburbs, defined according to criteria for ethnic concentration and socioeconomic affluence, have grown across the country from 1990-2000. Additionally, rather than being a phenomenon restricted solely to Asian groups, ethnoburb growth has also occurred concurrently among black and Hispanic groups (Wen, Lauderdale, and Kandula 2009). These findings are consistent with a growing number of case studies that have documented the growth of socioeconomically thriving black and Hispanic communities that significantly differ from the urban "underclass" and "barrios" more commonly the focus of prior research. For example, Karyn Lacy's (2007) recent work on the stable black middle-class examines the emergence of majority-black suburban neighborhoods dissimilar from the lower-middle-class black populations of studies past (e.g. Patillo-McCoy 1999) and more closely resembling the middle-class neighborhoods of their white counterparts (Adelman 2004; Lacy 2007). Likewise, Jody Vallejo's work in the Santa Ana region of Southern California examines the Mexican middle-class and their communities, defined as such across tract-level data indicating high levels of

income, education, home ownership, employment in white-collar occupations, and low rates of poverty (Vallejo 2012).

These communities reflect, in part, the continued movement of immigrant and minority populations away from central city destinations and into American suburbia. Indeed, suburbs today exhibit the same degree of racial/ethnic diversity as America's central cities in 1980 (Logan et al. 2014). For researchers, this steady but unmistakable shift in racial/ethnic group residence provides an opportunity to reexamine patterns of residential segregation. In what follows, I briefly summarize the growing literature on segregation among suburban ethnic communities and highlight the particular significance of examining segregation patterns within ethnoburbs.

Assessing the Segregation of Suburban Ethnic Communities: The Case for Ethnoburbs

Research on the segregation of ethnic communities has most successfully leveraged recent trends of suburbanization among racial/ethnic groups through the examination of new immigrant destinations. In contrast to traditional immigrant gateways (e.g. Chicago, New York), new immigrant destinations (e.g. Nashville, TN, Omaha, NE) exhibit important differences in immigration history, size, and urbanicity that may differentiate the process of assimilation for immigrant residents. In particular, these regions show much higher levels of immigrant population growth—at levels upwards of 1,000% since 1970—due to the continued deconcentration of immigrants across the U.S. (Singer 2004, 2009). In turn, research on the spatial assimilation of immigrants has examined the degree to which co-ethnic residents are more or less integrated with non-Hispanic whites in new destinations relative to traditional immigrant gateways. Specifically, two theoretical perspectives have been used to help explain the potentially varying trajectories of residential sorting for racial/ethnic minorities, both in general

and specifically within new areas: the spatial assimilation model and the place-stratification model.

According to the classic spatial assimilation model, locational attainment for ethnic groups depends critically on class and socioeconomic differences. As immigrants secure better fortunes in the non-ethnic labor market and accrue higher levels of socioeconomic and cultural capital, the model holds that these families move away from poor ethnic neighborhoods into whiter (and often suburban) neighborhoods with greater amenities and services (Massey & Denton 1988). For non-immigrant groups, the central tenet of the spatial assimilation model still holds: with greater capital, non-immigrant groups are predicted to move out of poorer, inner city ghettos and into majority-white and higher quality neighborhoods (Charles 2003). In contrast, the place-stratification model emphasizes racial factors that continue to limit minority group assimilation, especially for black residents. While not denying the importance of human capital and socioeconomic resources, place-stratification scholars view racial prejudice and discrimination as intervening factors that problematize the acquisition of residential gains. Recent research has also shown that the white flight phenomenon continues to remain a key feature shaping the U.S. urban landscape, triggered especially by the presence of black residents (Crowder and South 2008). Other works have also shown that race continues to limit spatial assimilation among immigrant populations, as white out-mobility is shown to result even from the increase of immigrants in nearby, rather than directly within, local neighborhoods (Crowder, Hall, and Tolnay 2011; Hall 2013; Pais, South, and Crowder 2009).

Current research on the segregation of immigrants in new destinations has come to mixed conclusions. While some work expresses optimism on the ability of groups to convert socioeconomic resources into more integrated residencies, a growing counter-literature continues

to evidence the heightened sensitivity of native-born whites to the growth racial/ethnic populations in historically majority-white areas of the metropolis. Park and Iceland (2006), for example, find that segregation levels in new destinations were lower than traditional gateways in 2000, and that the processes of the spatial assimilation model operate largely as expected for Hispanic and Asian residents. These findings are consistent with findings of greater integration for upwardly mobile black and immigrant residents in suburban, rather than central city enclave/urban underclass neighborhoods (Clark and Blue 2004). In contrast, Lichter et al. (2010) find that the suburbanization of Latinos into exurban areas has facilitated the growth of neighborhoods where Latinos are more highly segregated from native whites. Likewise, Hall (2013) finds that heightened levels of segregation for immigrants in new destinations remains, even after controls for acculturation and socioeconomic status. Finally, while research has shown that the black middle class does, on average, experience less residential segregation than their poorer counterparts, levels of segregation have declined more slowly as the result of suburbanization relative to the declines in segregation among central city neighborhoods (Patillo-McCoy 2005; Fischer 2008).

Ultimately, understanding the contexts of segregation concurrent with the rise of ethnoburbs specifically, however, is important for several reasons. Foremost, ethnoburbs represent ahistorical ethnic communities with middle-class socioeconomic contexts. Like new immigrant destinations, ethnoburbs represent ethnic communities capturing a concentrated share of minority population growth in non-traditional destinations. However, as distinctly middle class suburban neighborhoods, ethnoburbs provide a growing subset of ethnic communities that do not overlap with disadvantage and other undesirable neighborhood contexts. Ethnoburbs are thus ideally suited for analyses that isolate the effects of minority population growth and more

accurately assess racially motivated patterns of segregation within ethnic communities. In turn, it is important to understand how the affluence of ethnoburbs does or does not provide an advantage relative to other neighborhoods with an overrepresentation of minority residents, namely ethnic enclave and urban underclass neighborhoods that have more commonly been the focus of past research.[1]

Finally, ethnoburbs allow for an important re-assessment of traditional theories of spatial attainment at the neighborhood level. On one hand, the classic spatial assimilation model suggests that the socioeconomic context of ethnoburbs, in contrast with the poverty of enclaves, should alleviate fears of neighborhood deterioration among local white residents, thus limiting their out-mobility. As a result, co-ethnic residents within ethnoburbs should achieve heightened levels of integration with white residents. On the other hand, place stratification theories suggest that race may still be a strong factor driving segregation from white residents, as has been found in research on multiethnic neighborhoods (Crowder and South 2008). Consequently, the growth of racial/ethnic minorities in ethnoburbs, irrespective of the neighborhood socioeconomic context, may result in continued segregation from white residents, especially as such populations emerge in formerly predominantly white, suburban neighborhoods

To these ends, the current study uses demographic methods to compliment and advance a literature on ethnoburbs that has been largely restricted to case study analyses (although see Wen, Lauderdale, and Kandula 2009). More importantly, by examining the processes of segregation that have occurred concurrently with recent minority population growth, I provide important context on trajectories of spatial assimilation that characterize ethnoburb communities. By documenting the integration and/or segregation of ethnic communities, rather than racial/ethnic individuals, I also reintroduce an assessment of race and economic relations among racial/ethnic

groups occurring at the neighborhood level. Much like the groundbreaking studies of black urban neighborhoods (Wilson 1987) and enclaves (Massey and Denton 1987) before them, analyzing segregation among ethnoburbs builds on this tradition and permits an evaluation of just how far race relations have come, and how they project to evolve, in the most diverse era of the American metropolis.

DATA, MEASURES, AND METHODS

I use three waves of census data from 1990 to 2010 to analyze the changes and trends of neighborhoods considered ethnoburbs according to 2010 Census data. Though minority populations have grown in small towns and rural areas (Lichter and Johnson 2009), the residential patterns of immigrant and native-born minorities remains a geographically uneven phenomenon most heavily concentrated in the nation's largest metropolitan areas.[2] Nevertheless, I expand my sample to the 49,931 census tracts nested within the nation's 150 largest metropolitan areas to reflect the growth of racial/ethnic minorities in "new destinations" such as Nashville, TN and Albuquerque, NM. Census tracts,[3] designed to capture local communities homogenous in population characteristics, economic status, and living conditions, now cover the entire United States as of the 2000 census. Using census tracts thus provides an effective and reliable way of conducting neighborhood analyses that are nationally representative in scope.

Data on key concepts of race, income, and residence are drawn from U.S. Census data STF-3 in 1990 and SF3 in 2000 and 2010. Socio-demographic variables used as key independent variables and controls are drawn from the long form data from 1990 and 2000, and from the American Community Survey in 2010. I use list-wise deletion to exclude any census tracts with missing data from the analysis. Tracts with missing census data most often indicate areas with too few households, and in the case of the American Community Survey, too few cases in the

unweighted sample to compute reliable estimates. The list-wise deletion procedure results in the loss of 639 observations.

Finally, although census tracts were designed to be permanent statistical subdivisions, physical boundaries may change if necessary due to new development, population growth, and the drawing of new census tracts. As a result, I utilize the Longitudinal Tract Database (LTDB) (Logan et al. 2012) to ensure correspondence of the same neighborhoods from 1990-2010. Census data from years 1990 and 2000 have been standardized to 2010 census tract boundaries for all analyses. Like the Neighborhood Change Database (Tatian 2003), the LTDB uses a combination of population and area weighting that standardizes census tract boundaries to allow for longitudinal analysis. Unique to LTDB, however, is its inclusion of a flag variable identifying those census tracts located in central city boundaries, which I use as a proxy for distinguishing between urban and suburban neighborhoods. Because "suburb" is not a standard census category, I follow previous research by defining those individuals living within city boundaries as "urban," and those living within metropolitan statistical areas but outside of city boundaries as "suburban" (Alba et al. 1999).

Identifying Ethnic Neighborhoods: Ethnoburbs and Ethnic Enclaves

Although a formal definition of "ethnic neighborhood" remains an evolving enterprise (see Logan and Zhang 2010), two considerations in defining ethnoburbs and ethnic enclaves are worth note: determining representation thresholds for ethnic concentration and determining a neighborhood's socioeconomic profile.

On which criteria should a neighborhood be considered "ethnic?" As it relates to processes of segregation, a neighborhood's racial composition is inherently tied to perceptions of one's community at the individual level (Crowder 2000). Consequently, I use a proportion

(percentage) rather than absolute number criterion that taps more directly into a minority group's

local representation irrespective of a neighborhood's size.[4] In addition, I account for the uneven

distribution of minority populations by considering their representation both nationwide and

across local metropolitan areas. Specifically, I define tracts as neighborhoods of a certain

racial/ethnic group if the proportion of group x in tract y exceeds both the mean percentage

across all metropolitan areas and the percentage of the local metropolitan area in which tract y is

nested (Hall 2013). For Asian ethnoburbs, however, I include only those tracts with a proportion

of at least twenty percent Asian residents. As Figure 1 indicates, this adjustment creates a more

viable comparison of racial composition among black, Hispanic, and Asian ethnoburbs. It should

[Insert Figure 1 here]

thus be noted that this definition creates a conservative estimate on the number of Asian

ethnoburbs within my sample.[5]

In addition, past theory and research points to a key difference among ethnoburbs and

ethnic enclaves with respect to the socioeconomic context, or what can also be described as the

neighborhood desirability of each. As ethnoburbs reflect more middle-class and affluent

communities, I define these neighborhoods as tracts at or exceeding the 75th percentile of median

household income across metropolitan areas in the current sample. Likewise, I define ethnic

enclaves to reflect their traditionally poorer character by including only those tracts where

poverty levels meet or exceed twenty percent (South and Crowder 1997; Massey et al. 1994).

Finally, the LTDB includes a dummy variable flagging those tracts located within a

central city in 2010 (1=central city), referred to as a "principal city" in an MSA or metropolitan

division (Logan et al. 2012). In addition to meeting the criteria above, ethnoburbs were defined

as suburban neighborhoods, while ethnic enclave are considered "urban" if located in central city or principal city areas. Full definitions for ethnoburbs and enclaves are summarized below:

Ethnoburbs: Suburban census tracts at or exceeding 75th percentile of nationwide median household income, *where proportion of group x in tract y is greater than the group's mean percentage across top 150 MAs and the immediate MA in which tract y is nested.

*Asian Ethnoburbs: …, where proportion of group x in tract y is at least twenty percent and greater than the immediate MA in which tract y is nested

Ethnic Enclaves: Urban census tracts with poverty levels at or exceeding twenty percent, *where proportion of group x in tract y is greater than the group's mean percentage across top 150 MAs and the immediate MA in which tract y is nested.

*Asian Enclaves: …, where proportion of group x in tract y is at least twenty percent and greater than the immediate MA in which tract y is nested

Ultimately, the final 2010 sample includes 493 and 4,419 black ethnoburbs and enclaves, 439 and 3,113 Hispanic ethnoburbs and enclaves, and 695 and 376 Asian ethnoburbs and enclaves, respectively.

OUTCOME MEASURES AND CONTROLS

Segregation Outcomes.— I use the dissimilarity index, the most commonly used measure of residential segregation, to examine the degree to which minority residents in ethnoburb neighborhoods are integrated with non-Hispanic whites:

$$\frac{1}{2}\sum_{t=1}^{T}\left|\frac{p_{tj}}{P_j} - \frac{p_{tk}}{P_k}\right|$$

where j refers to the minority group population in a given census tract and k refers to the reference group population from which minorities are segregated (non-Hispanic whites for all analyses). As a measure of evenness, index scores range from 0 (complete integration) to 1 (complete segregation) and indicate the percentage of a group's population that would have to relocate for each census tract within a broader geographical area (defined by researcher) to have

an equal share of that group's residents. All index scores have been multiplied by 100 to

facilitate interpretation.

I measure the segregation of census tracts from the broader county in which they are

situated, such that p_{tj} is the population of a minority group in tract t and p_j is the population of

that group at the *county* level. Dissimilarity indices thus consider the degree of separation for

groups *relative* to a broader geographical area in which groups are situated. As such, it is

important to note that the overrepresentation of ethnic groups in specific neighborhoods does not

necessarily require that these groups will, as a result, show high levels of segregation from white

residents. To the contrary, in considering both the distribution of whites at both local *and*

extralocal levels (i.e. within the broader county a census tract is situated), patterns of segregation

among ethnoburbs may still show significant variation dependent on the distribution of white

residents in *and* around ethnoburbs.[6]

Neighborhood Context.—While a neighborhood's racial composition is a strong predictor

of white out-mobility, the desirability of neighborhoods regarding socioeconomic status,

advantage, and/or disadvantage is also likely to have an independent effect that influences a

household's decision to move. To account for these effects, I control for tract-level

characteristics that capture the range of advantage and disadvantage in neighborhoods as

measured by the following variables: *median household income*, *proportion of residents 25 and*

older with a high school degree or less, *proportion of residents 25 and older with a BA*,

proportion of residents with managerial/professional jobs, *proportion of residents living in*

poverty, *proportion of residents headed by a single female*, *proportion of families with children*

in poverty, and the tract-level *unemployment rate*. Because these variables are highly correlated,

I use principal components analysis to create indices of neighborhood context (e.g. see Wodtke

et al. 2011). Using promax rotation, which allows for correlation between indices, the ten

variables loaded onto two factors, which I have titled indices of *educational/occupational*

attainment and *concentrated disadvantage*, respectively.[7] In addition, to account for tract-level

differences in immigrant populations and immigration characteristics, I consider and control for

the following variables: *proportion of foreign-born residents, proportion of recently immigrated*

residents (within the past ten years), *proportion of naturalized foreign-born residents, proportion*

of residents who do not speak English well, and *proportion of residents who speak a non-English*

language at home. As above, I use principal components analysis to generate a composite score

representing an index of immigrant neighborhoods.[8] I include the change since 1990 for all

indices as separate independent variables to reflect the effect of increases or decreases in

neighborhood contexts over time. Descriptive characteristics for all indices and the variables that

comprise them are presented in Table 1.

[Insert Table 1 about here]

Controls.—Finally, the full model includes ecological controls for a list of variables

likely to confound the effect of independent variables on segregation levels. The following

variables are controlled for their 2010 values, as well as their change in value since 1990. Tract-

level controls include *total population, percentage of structures older than thirty years, percent*

of recently occupied housing (within past 10 years), *percent of vacant housing units, percent*

housing in multi-unit structures, region, and *urban location within a central city*. Because the

racial composition at both local and extralocal levels is an important factor for my outcome

variables, I also control for total population of each racial/ethnic group at the county level. To

also account for the possibility that ethnic neighborhoods may cluster or span several census

tracts, I control for the *total number of ethnoburbs* and *total number of ethnic enclaves* at the

county level. Full descriptive characteristics for all control variables are included in the

Appendix.

STATISTICAL MODELS AND ANALYTICAL STRATEGIES

Recent evidence suggests that ethnoburbs have shown significant increase in number

over the past quarter-century (Wen, Lauderdale, and Kandula 2009). I leverage this demographic

trend to examine how black, Hispanic, and Asian ethnoburbs in 2010 have retroactively affected

local white populations over the prior twenty-year period. As Figure 2 illustrates, I use statistical

models to analyze the "trajectory" of tracts as they emerge into ethnoburbs from 1990-2010. As a

[Insert Figure 2 here]

recent and highly active phenomenon, the majority of census tracts considered ethnoburbs in

2010 did not meet such definitions in 1990. Furthermore, black, Hispanic, and Asian ethnoburbs

have all seen unmistakable increases in each group's share of co-ethnic residents, as shown in

Figure 1. In sum, by using a tract's status as a black, Hispanic, or Asian ethnoburb in 2010 as

individual predictors, I assess and compare how patterns of segregation for ethnoburbs have

correspondingly increased or decreased over this same time period.

I use multivariate OLS regression models to estimate dissimilarity scores in 2010 and the

change in dissimilarity from 1990-2010. To estimate the relationship between dependent

variables, ethnic neighborhoods, and neighborhood contexts, I estimate the following model:

$$Y_{ci} / Y_{\Delta ci} = \beta_0 + \beta_1 \text{Ethnoburbs}_{ci2010} + \beta_2 \text{Enclaves}_{ci2010} + \beta_3 \text{Advantage}_{ci2010(\Delta)} \\ + \beta_4 \text{Disadvantage}_{ci2010(\Delta)} + \beta_5 \text{Immigrant}_{ci2010(\Delta)} + \beta_6 \text{Controls}_{ci2010(\Delta)} + e_{ci2010(\Delta)}$$

where Y_{ci} and $Y_{\Delta ci}$ represents, in census tract c for minority group i, current levels of dissimilarity

(2010) and the change in dissimilarity from 1990-2010, respectively. Each set of multivariate

analyses includes four models entered in stepwise fashion to examine the effect of key

independent variables and controls. Whereas the first model shows the general effect of

ethnoburbs on dependent variables, Models 2 assesses the effects of neighborhood context

indices—specifically the middle class context of ethnoburbs and the more disadvantaged

contexts for enclaves—in driving Model 1 coefficients. Model 3 adds controls for immigrant

neighborhood contexts. Finally, by adding a sizable list of known variables that may confound

rates of segregation, the full model shows the effect of racial composition within black, Hispanic,

and Asian ethnoburbs on dependent variables.

RESULTS

THE GROWTH AND RESIDENTIAL PATTERNS OF ETHNOBURBS

[Insert Table 2 about here]

The data, summarized in Table 2, show several noteworthy trends. First, ethnoburbs have

grown in number for all groups. This trend is surprising given that the criteria used to define an

ethnoburb's racial/ethnic composition and median household income were raised for each

decennial year, to reflect nationwide trends. In other words, ethnoburb growth since 1990

appears to be a dynamic phenomenon rather than the mere consequence of minority population

growth in general. Furthermore, the counts presented here are conservative for Asian groups,

whose ethnoburbs have been defined as those at or exceeding twenty percent. The growth of

even extremely densely concentrated Asian ethnoburbs (relative to their nationwide average)

suggests a trajectory of growth more comparable to the rapid growth of Hispanic ethnoburbs

since 1990. Indeed, the growth comparison of Hispanic to black ethnoburbs—the former having

grown an incredible 1,652%, the latter by 40%--suggests trajectories at least somewhat

consistent with nationwide demographic change. Table 2 also confirms the majority of

ethnoburbs still reside in the nation's largest metropolitan areas, although the number of these

communities outside of the ten largest metropolitan areas has also increased over time.

Using the dissimilarity index, Figure 3 and Table 3 show how segregation trends from non-Hispanic whites for ethnoburbs and ethnic enclaves in 2010 has changed over time. Several patterns are immediately clear. First, a consistent hierarchy of segregation appears *within* all groups: segregation from white residents is higher for all groups in ethnic enclaves than ethnoburbs. Second, the dissimilarity indices also show a near consistent hierarchy of

[Insert Figure 3 and Table 3 about here]

segregation *among* groups by race/ethnicity. White residents, on average, are least segregated from Asian neighborhoods, are more moderately segregated from Hispanic neighborhoods, and are most segregated from Black neighborhoods. In fact, of the six trend lines shown, there is almost no overlap at any point.

Still, despite current segregation patterns, trend lines indicate potential changes in the near future. In agreement with prior literature (Iceland, Sharp, and Timberlake 2013), blacks show declines in segregation across both types of ethnic neighborhoods, and, in fact, are the only groups to show rates of decline over time.[9] As Figure 2 shows, for Hispanic and Asian groups, all ethnic neighborhoods have become further segregated over a twenty-year span. Thus, while a cross-sectional view of present-day segregation suggests the persistence of a Black/non-Black color divide, this may soon become a more complex and diverse arrangement should the direction of current trends continue.

MULTIVARIATE ANALYSES

*Segregation in Black, Hispanic, and Asian Ethnoburbs.—*Table 4 presents dissimilarity indices for black, Hispanic, and Asian neighborhoods in 2010.[10] Segregation levels for all groups are individually modeled using linear equations that estimate the dissimilarity of each group from non-Hispanic whites. For ease of interpretation, coefficients for ecological controls are not

shown, and all estimates for ethnic neighborhoods and key independent variables are shown in a

single table. Model 1 presents the net levels of segregation within ethnic neighborhoods in 2010

[Insert Table 4 about here]

relative to all other census tracts (reference group). Coefficients suggest that ethnic

neighborhoods show strong and significant effects of being more highly segregated relative to

dissimilarity levels in all other census tracts. Additionally, each group's ethnoburbs are less

segregated from whites than are ethnic enclaves for all groups, mirroring expectations of the

spatial assimilation model.

But to what degree can these effects be attributed to the neighborhood contexts of

ethnoburbs and enclaves, respectively? As expected, controlling for neighborhood context in

Model 2 has the effect of reducing coefficients across all ethnic enclaves, although this effect is

strongest for blacks. For ethnoburbs, however, the expected benefits of neighborhood advantage

are not as apparent, as coefficients are nearly identical to the prior model for all groups. This

puzzling non-effect is explained by a paradoxical effect for educational/occupational attainment,

the index of variables representative of factors more readily present in middle-class

neighborhoods. Indeed, coefficients in Model 2 confirm that higher *absolute* levels of

educational/occupational attainment increases levels of segregation, while *growth* in attainment

from 1990-2010 is associated with lower levels of segregation in 2010 for all groups.

Likewise, coefficients for immigrant context in Model 3 also show mixed effects:

whereas increases in absolute levels of a neighborhood's immigrant context have the effect of

increased segregation, growth in a neighborhood's immigrant context over time is associated

with lower levels of segregation in 2010 for all groups. Nevertheless, the effect of controlling for

immigrant neighborhood context on ethnoburbs shows a clear effect for Hispanics and Asian

ethnoburbs, whose coefficients now fail to reach significance. In contrast, black ethnoburbs continue to remain more highly segregated than the reference category (b=3.40; p<.001).

Finally, to show the degree to which these effects may be approximated to an ethnoburb's racial/ethnic composition, Model 4 adds all controls. The full model shows several clear trends. Net of all controls, ethnoburbs show strong and significant effects of being more highly segregated relative to segregation levels in all other census tracts. More interesting, however, is the relationship of this effect to that of each group's respective enclaves. For both Hispanic and Asian ethnoburbs, levels of segregation are now distinctly higher than each group's ethnic enclaves, while black ethnoburbs show segregation levels essentially identical to those of enclaves. These patterns are a stark shift in the relationship of ethnoburbs and enclaves originally shown in Model 1, and suggest that while the affluence of ethnoburbs does appear to generally reduce segregation levels, white residents still remain sensitive, if not more so, to the presence of racial/ethnic minorities in ethnoburbs in comparison to traditional enclave destinations.

[Insert Table 5 about here]

To assess patterns of segregation in ethnoburbs over time, Table 5 presents coefficients predicting the change in dissimilarity indices from 1990-2010. The first model suggests that Hispanic and Asian ethnoburbs became increasingly segregated over this time period. And while black ethnoburbs have retained an overall trajectory of integration (see intercept), this has occurred, surprisingly, more slowly in ethnoburbs than in enclaves. From 1990-2010, both black and Asian ethnoburbs became segregated at a rate three points higher than dissimilarity levels for each group in all other census tracts. Hispanic ethnoburbs also became more highly segregated during this time period, although the effect is much smaller in comparison. In contrast to ethnoburbs, however, enclaves for black and Hispanic groups show significant levels of *lower*

segregation than the reference category over this time period, whereas the effect for Asian enclaves fails to reach significance.

Furthermore, adding controls for neighborhood context in Models 2 and 3 does little to change the significance or direction of these relationships. Model 2 again shows that absolute levels of educational/occupational attainment in 2010 have the effect of increasing segregation, whereas growth in attainment is associated with greater integration from 1990-2010, although Asian ethnoburbs are an exception to this latter trend. Nevertheless, all ethnoburbs show effects of becoming more quickly segregated, or more slowly integrated, over this time period. As a result, ethnoburbs continue to retain their surprisingly inverse relationship to ethnic enclaves, who show effects of reduced segregation for black and Hispanic groups, and insignificant effects for Asians.

Model 3 shows that variables for immigrant neighborhood context also show mixed effects for both Hispanic and Asian ethnoburbs, although in divergent ways. For the former, tracts with higher absolute levels of immigrant neighborhood contexts became, on average, more integrated from 1990-2010, whereas those neighborhoods seeing increases in immigrant contexts became more segregated over this same time period. In contrast, the inverse is true for Asian ethnoburbs. Ultimately, these controls result in coefficients for Hispanic ethnoburbs show a slight increase from prior models, whereas Asian ethnoburbs now show a clear reduction in the size of the coefficient. Collectively, the direction of Hispanic and Asian ethnoburbs coefficients suggests that these neighborhoods may have already had strong immigrant infrastructures by 1990. Lastly, the coefficient for black ethnoburbs remains unchanged, showing a significant effect of increased segregation identical to the size and strength of coefficients in Model 2.

Finally, Model 4 adds all controls that, importantly, accounts for total white and minority residents at the county level. Asian ethnoburbs now show *lower* levels of segregation (*b*=-1.594 p<0.001) relative to Asian dissimilarity in all other census tracts, an effect that is strong and significant. Furthermore, Asian ethnoburbs now show rates of integration greater than those of Asian enclaves. Similarly, the strength of the coefficient for Hispanic ethnoburbs is reduced and now fails to reach statistical significance, although Hispanic ethnoburbs do not show a comparable effect of lower segregation levels than other tracts from 1990-2010. Nevertheless, Hispanic enclaves now show an effect of accelerated segregation from 1990-2010, an effect unshared by Hispanic ethnoburbs. Noticeably absent from these trends, however, are black ethnoburbs. The full model suggests that unlike Hispanic and Asian ethnoburbs, it is black *ethnoburbs* and not enclaves that have continued to become more quickly segregated relative to all other tracts from 1990-2010.

Summarizing Trajectories of Ethnoburb Segregation--- To provide an overview of past, present, and future trends of ethnoburb segregation, I combine results from the multivariate analyses on current levels of segregation (Table 4) and the change in segregation (Table 5), respectively, to plot trajectories of segregation from 1990-2010 for all ethnic neighborhoods. Additionally, past trends are used to project future segregation patterns in a linear fashion for 2010-2030. Because segregation patterns may not reflect recent history or continue in linear fashion, future projections (right hand side of graphs) in Figure 4 should be interpreted with appropriate caution.

[Insert Figure 4 here]

[Insert Table 6 here]

Trajectories as plotted according to "general" and "full" models are understood as follows: the top set of models draws upon Model 1 coefficients and shows the "general" effect of ethnoburbs on both current levels of segregation (2010) and their change over time (1990-2010). In contrast, the bottom set of models uses coefficients from Model 4 to estimate full model effects, where predicted levels of segregation and the change from 1990-2010 are net of all controls.

As the general models show and confirm, ethnoburbs in 2010 displayed significantly lower levels of segregation beginning in 1990 relative to each group's ethnic enclaves. Over the next twenty years—as ethnoburbs gained in their proportion of co-ethnic residents (see Figure 1)—levels of segregation between ethnoburbs and enclaves converge and become more comparable. For Hispanic and Asian ethnoburbs, this is due to accelerated rates of segregation in ethnoburbs. For Asian ethnoburbs, however, even these elevated rates equate to just a 2.65 point increase in dissimilarity from 1990-2010. In contrast, Hispanic ethnoburbs show a greater magnitude of increase, with dissimilarity levels rising by an average of 5.21 points over this time period. For black ethnoburbs, segregation levels show convergence with enclaves not due to increased segregation, but because of *slower* rates of integration over time. Whereas dissimilarity levels for counties with black enclaves declined, on average, by 7.55 points, ethnoburbs declined by only 4.2 points by 2010.

To project trajectories of segregation for ethnoburbs net of all controls, the bottom set of models draws from Model 4 coefficients from Tables 4 and 5. On one hand, ethnoburbs for all groups retain the pattern of either increasing or decreasing segregation displayed in the general model: Hispanic and Asian ethnoburbs still show increases in segregation and, for black ethnoburbs, integration over time. On the other hand, the relationship of ethnoburbs to ethnic

enclaves for all groups has fundamentally changed. Whereas black, Hispanic, and Asian ethnoburbs showed lower levels of segregation than their respective enclaves in 1990 and 2010, this difference has been reduced dramatically and nearly completely in the full model. Furthermore, Hispanic and Asian ethnoburbs show increases in segregation at a more accelerated rate than enclaves, whereas black ethnoburbs—still showing an overall integration effect—integrate more slowly than enclaves over time. Collectively, these patterns indicate that, should current trends continue, segregation in ethnoburbs, net of all controls, will surpass levels for enclaves among all groups by 2030.

Finally, having understood the relationship of ethnoburbs to enclaves more generally, how can we interpret a comparison of segregation among black, Hispanic, and Asian ethnoburbs? Black ethnoburbs, net of full controls, show the smallest reduction in segregation levels when compared to the general model. In other words, controls for socioeconomic and demographic factors account for the *lowest* portion of 2010 segregation levels for black ethnoburbs. Whereas these controls for Asian and Hispanic ethnoburbs account, on average, for 22% and 33% of segregation levels, this same reduction for black ethnoburbs amounts to only 7%. And although black ethnoburbs still retain the steepest rates of integration from 1990-2010—on average, a reduction of 7.55 points over a twenty-year span—this also indicates the uniquely high levels of segregation in the areas black ethnoburbs have emerged. Indeed, levels of dissimilarity in 1990 for black ethnoburbs are roughly 40% and 60% greater for Hispanic and Asian ethnoburbs, respectively, in the same year. Finally, even projecting the continuation of past integration trends through 2030, black ethnoburbs, on average, would still be 7 and 11 points further segregated than Hispanic and Asian ethnoburbs, respectively.

DISCUSSION & CONCLUSION

Concurrent with larger patterns of minority population growth and suburbanization, ethnoburbs have grown impressively over the last quarter century for all racial/ethnic groups, although especially so for Hispanics and Asians. However, little is currently known on how the growth of ethnoburbs—especially given their emergence in traditionally non-ethnic areas of the metropolis—has concurrently affected levels of segregation from non-Hispanic white residents. To this end, the current study provides the first quantitative analysis examining the link between the growth of ethnoburbs and the contexts of segregation in which they emerge. Using the LTDB to examine census tracts in the 150 largest metropolitan areas from 1990-2010, I assess segregation among both ethnoburbs and enclaves—communities similar in ethnic concentration, yet distinct in socioeconomic context. Findings reveal 1) the affluence of ethnoburbs does relatively little to facilitate integration with white residents and 2) the segregation of black, Hispanic, and Asian residents, even within affluent neighborhood settings, remains a fundamentally racial phenomenon.

As suburban middle-class communities, ethnoburbs should, according to some prior research, achieve heightened levels of integration with white residents (Timberlake 2002; Clark and Blue 2004). This hypothesis is consistent with predictions of the classic spatial assimilation model, whereby residence in higher quality neighborhoods leads to increased integration with white residents (Massey and Denton 1988). On a descriptive level, findings do show that ethnoburbs today have largely accomplished this task, achieving lower levels of segregation relative to ethnic enclaves for all groups. But to what degree is this relationship explained by ethnoburbs' unique socioeconomic contexts? The findings here suggest, very little. Indeed, whereas results show support for the inverse hypothesis among ethnic enclaves—that accounting for neighborhood disadvantage reduces levels of segregation—multivariate analyses do *not* show

evidence that the neighborhood context of ethnoburbs buffers against otherwise higher levels of segregation. Furthermore, whereas the higher levels of segregation among enclaves are explained almost entirely by socioeconomic and neighborhood context factors, ethnoburbs continue to show strong and significant segregation outcomes to an extent greater than their poor urban counterparts in the full model.

Collectively, the residual and persistent finding of increased segregation for ethnoburbs suggests that the segregation of minority residents continues to remain a fundamentally racial phenomenon. These results are consistent with prior research that has shown heightened levels of segregation for immigrants in new immigrant destinations and, in a similar fashion, the continued segregation of black residents even in suburban settings (Hall 2013; Fischer 2008). Unclear in these works, however, is whether such segregation dynamics reflect the racially motivated or socioeconomically motivated concerns of white residents. By confirming similar patterns of segregation within ethnoburbs, this study expands and reinforces this literature by confirming the continued role of racial/ethnic segregation within even clearly affluent subsets of new immigrant and suburban ethnic communities.

Theoretically, these findings suggest that the pattern of segregation among ethnoburbs strongly supports place-stratification perspectives. However, a more nuanced interpretation may be that mechanisms of both place-stratification and spatial assimilation perspectives operate in a complimentary rather than contradictory fashion. Specifically, the class context of ethnoburbs logically suggests their emergence in those areas predicted by the spatial assimilation model—suburban areas of the metropolis distinct from urban enclaves. Yet these findings suggest that it is precisely *because* ethnoburbs emerge in formerly majority white areas—which may lack infrastructures for racial/ethnic relations (Price and Singer 2008; Tienda and Fuentes 2014)—that

higher levels of segregation result. Indeed, the mixed effects of ethnoburb educational/occupational advantage—whereby absolute levels increase and growth decreases segregation—would appear to support this view. In other words, while increases in affluence may generally lead to integration, the fact that the majority of such neighborhoods are, or have been, traditionally white neighborhoods may indirectly suppress such outcomes. Such an interpretation is also supported by the more accelerated rates of segregation over time for Hispanic and Asian ethnoburbs—and slower integration rates for black ethnoburbs—relative to all other census tracts over the past twenty years. In sum, while their uniquely suburban and socioeconomic character accords ethnoburbs initially higher levels of integration than past ethnic communities, white residents appear to be especially sensitive to the growth of minority populations in traditionally non-ethnic areas of the metropolis.

Finally, ethnoburbs provide an unprecedented opportunity to reexamine the "color line" metaphor of American race relations. Indeed, among a variety of methods used to gauge America's color line, assessing patterns of neighborhood segregation—or the geographic separation of races—has traditionally been utilized as one of the clearest measures of social distance and assimilation (Charles 2003, 2006; Waters and Jimenez 2005). Ultimately, trajectories of segregation from the full model seem to more strongly indicate degrees of black exceptionalism, or what others have argued as a black/non-black divide (Lee and Bean 2010). Even despite being the only neighborhoods to show patterns of integration from 1990-2010, black ethnoburbs still show the highest levels of segregation over this same time period. Suburban location and socioeconomic affluence also have a discernably more limited role in accounting these very segregation patterns. Whereas a considerable portion of Hispanic and Asian ethnoburbs segregation can be explained, in part, by socioeconomic and ecological factors,

the segregation of black ethnoburbs appear especially motivated by racial concerns. Furthermore, Hispanic and Asian ethnoburbs, net of all controls, have achieved comparable if not more favorable trajectories of segregation relative to ethnic enclaves; this has not held true for black ethnoburbs. Although all groups follow nationwide trends—slight to moderate increases in segregation for Hispanics and Asians and decreasing segregation for blacks—black ethnoburbs are the only group whose ethnoburbs show a systematic penalty in more slowly integrating than even poor black neighborhoods over during this time period.

Despite these contributions, this study is not without limitations. First, these findings do not address the specific mechanisms determining why white residents choose to leave and live separated from ethnoburb neighborhoods. Although the analysis includes a comprehensive list of controls, conclusions remain limited without individual level data. Second, and related to this point, little information is known about the residents of ethnoburbs, especially the white residents who choose to leave them. On one hand, the emergence of white flight from ethnoburbs may reflect out-mobility that is class- rather than race-based in nature. In contrast to fears of neighborhood decline, however, the affluence of ethnoburbs could spur a rise in property values and housing costs that pushes out poorer white residents. On the other hand, white flight may instead reflect a growing racially-based resentment among residents as once majority-white neighborhoods turn multiethnic in nature. Likewise, although white flight is one explanation, ethnoburbs may also reflect the individual decisions, rather than structural constraints, of minorities who select into such neighborhoods perceived as desirable precisely because of their dominant racial/ethnic context. Unfortunately, this study does not allow definitive conclusions on the viability of these hypotheses, although this should be seen as a fruitful area for future work. Finally, future research may help illuminate the degree to which black, Hispanic, and

Asian ethnoburbs are substantively similar or different communities. As neighborhoods represent a unique combination of political, industrial, and residential influences, future research providing thicker descriptions of ethnoburbs may permit more valid comparisons among groups.

In conclusion, this study presents a portrait of ethnoburbs as communities undergoing dynamic changes of fundamental importance for race, segregation, and assimilation scholars. Today, ethnoburbs represent the culmination of decades of unprecedented minority growth, and for researchers, communities that should provoke inquiry into promising new areas of study. As communities with characteristics closely mirroring, if not eclipsing, that of the American mainstream (Alba and Nee 2003), future research may begin to more closely examine how these communities may change our understanding of race-related outcomes closely linked to the economic context of local neighborhoods. Ultimately, while this study has provided a first step in the demographic and quantitative examination of ethnoburb communities, many avenues for future research remain.

NOTES

1. This is especially important for black middle-class neighborhoods, which recent research has argued may, and should, be more accurately considered lower middle-class, if not neighborhoods only marginally improved relative to their central city counterparts (Lacy 2007). Often located in older areas typically adjacent or near the central city, such neighborhoods more closely resemble their poorer urban counterparts across indicators of crime, poverty, unemployment, and other indicators of disadvantage (Patillo-McCoy 2005). In contrast, upper-middle class black neighborhoods, considered as black ethnoburbs in the current analyses, should more closely resemble suburban neighborhoods more closely approximating those of white middle class residents.

2. Consider, for example, that the 100 largest metropolitan areas house 80 and 88 percent, respectively, of the U.S. Hispanic and Asian population (Frey 2010).

3. This paper defines neighborhoods as equivalent to census tracts used by the U.S. census, the practice most commonly used in neighborhood-level research (Sampson, Morenoff, and Gannon Rowley 2002).

4. Specifically, the use of census data allows researchers to define ethnic neighborhoods according to either a threshold of *total* individuals or a *percentage* total of all residents within a neighborhood. While both have been used in prior research, each method has its set of advantages and disadvantages. For example, in some neighborhoods a population of 100 groups members may be a significant presence, whereas in other areas this may be an insignificant total. Likewise, a census tract

that is 8% Hispanic may not be considered "ethnic," whereas a tract that is 8% Asian represents a near two-fold increase relative to percentage of Asians nationwide. For a more thorough discussion on defining ethnic neighborhoods, as well as an overview of recent and novel approaches, see Logan et al. 2011, Logan and Zhang 2010.

5. Further sensitivity analyses show that this does not change any of the study's substantive findings.

6. Although prior work has more commonly used the dissimilarity index to measure the segregation of census tracts within metropolitan statistical areas (Hall 2013, Lee et al. 2008), this adjustment serves several practical purposes. First, measuring segregation levels at the county level permits an examination of the potentially differing segregation levels between ethnoburbs and enclaves within the same metropolitan area, which would otherwise be masked by a uniform MSA dissimilarity measure. Second, I draw from recent findings on white flight that have shown the importance of spatially proximate neighborhoods as a critical factor in either the acceleration or mitigation of white flight (Crowder and South 2008, Crowder et al. 2011). As a smaller set of geographic boundaries, counties may better estimate the local dynamics of segregation likely to be most active as ethnoburbs emerge in once predominantly white communities. Finally, prior research has established that most residential moves cover relatively short distances (Crowder and South 2008; Crowder, Hall, and Tolnay 2013).

7. *Educational/Occupational attainment* consists of the following factors: median household income, proportion of residents 25 and older with a high school degree or less, (negatively loaded) proportion of residents 25 and older with a BA, and proportion of residents with managerial/professional jobs. *Concentrated Disadvantage* consists of female headed households, unemployment, percent poverty, and percent of families with children in poverty. Although several studies have used *proportion white* and *proportion black* as factor variables for neighborhood context in past research, I drop those variables here due to the likely confounding effect on dependent variables.

8. Census tracts with a heavy presence of immigrants may exhibit a lack of resources that reflect the early processes of acculturation and assimilation. Recent research has also highlighted patterns of white out-mobility with the increased presence of immigrant groups (Crowder et al. 2011).

9. Among census tracts and at the micro-level, prior research on black-white segregation has found consistent declines in segregation. At the macro level, however, metropolitan areas with large black populations remain highly segregated. Furthermore, changes in segregation throughout the 1980s and 1990s were not uniform among metropolitan areas, and segregation levels in many areas persist. For further discussion see Lee et al. 2008.

10. I present unstandardized coefficients to facilitate more meaningful and substantive interpretations. Fully standardized coefficients show the same relationships both among ethnoburbs and between ethnoburbs and enclaves for all groups. These results are available upon further request.

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TABLES AND FIGURES

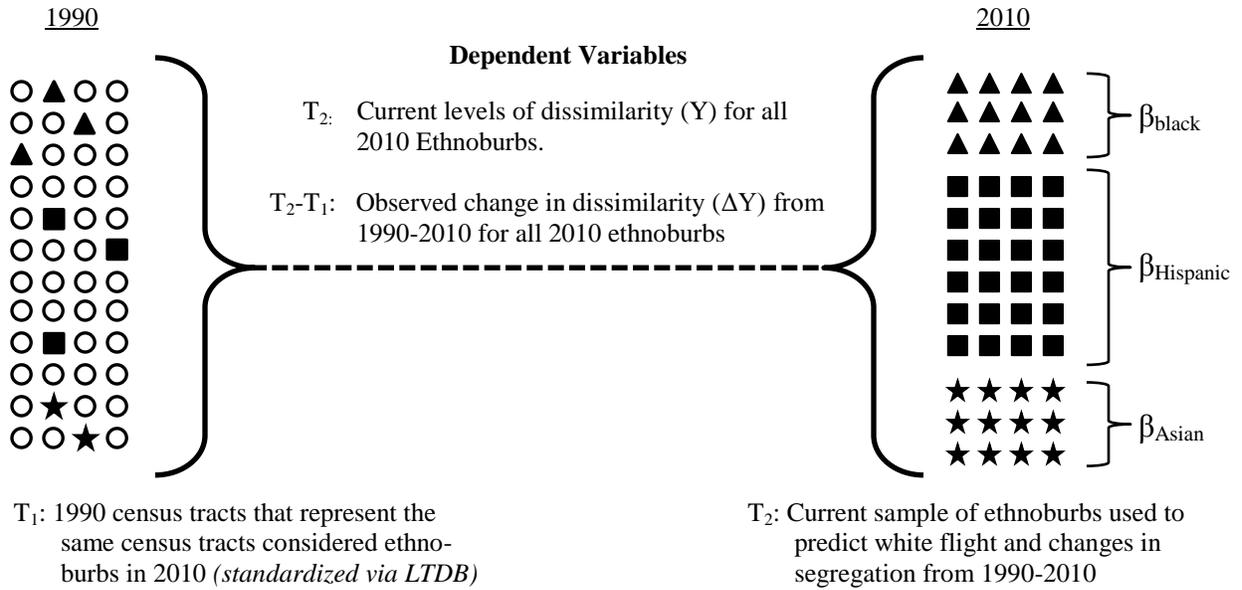Figure 1: Growth in percent co-ethnic for black, Hispanic, and Asian Ethnoburbs 1990-2010
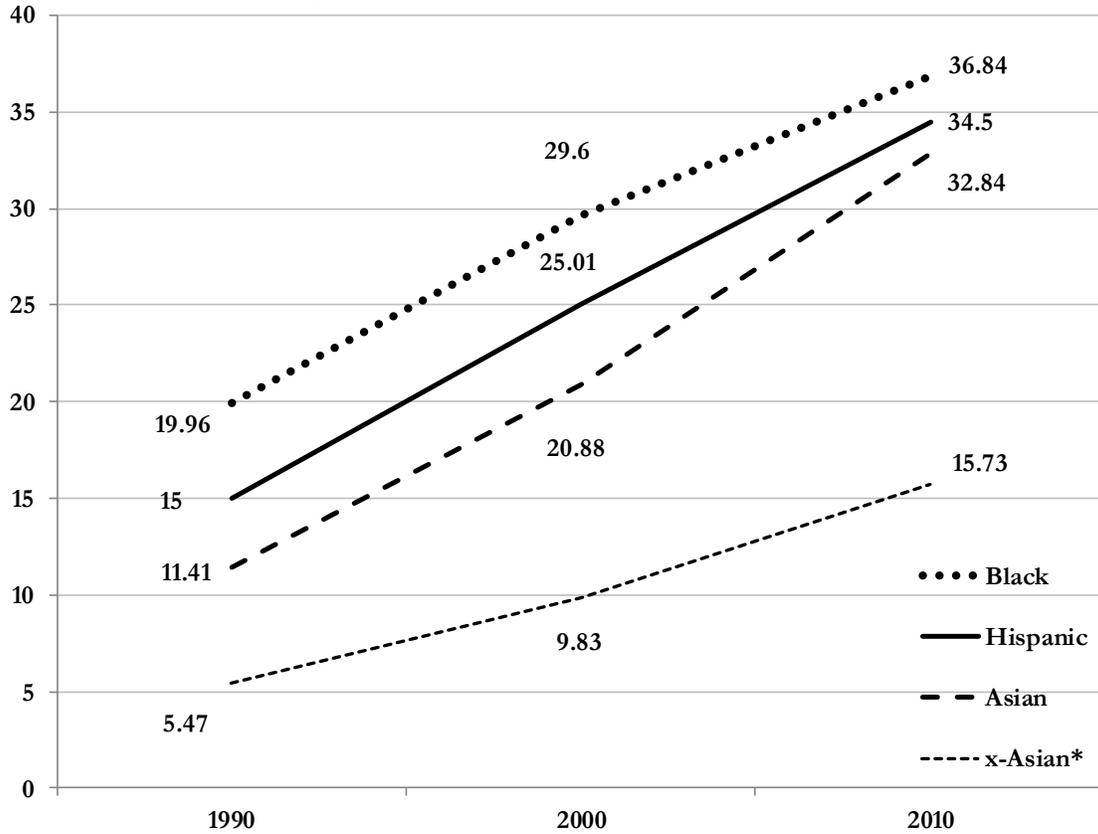
*Denotes Asian ethnoburbs if defined according to criteria whereby a tract x is considered an Asian ethnoburb if the percentage Asian in tract x exceeds the average Asian percentage of all metropolitan areas in the sample and the immediate metropolitan area in which tract x is nested.

Table 1: Descriptive Statistics for Dependent, Independent, and Select Control Variables (N=49,031)†

Dependent Variable	Mean	(SD)	Minimum	Maximum
Segregation Levels				
Black-white dissimilarity	51.63	15.89	0.00	83.49
………Δ	-7.22	7.10	-50.75	44.79
Hispanic-white dissimilarity	42.97	13.18	0.00	68.72
………Δ	4.40	8.08	-35.58	53.29
Asian-white dissimilarity	34.36	8.63	0.00	55.44
………Δ	-.33	5.59	-59.25	31.59
Independent Variables				
Ethnoburbs (Counts)				
Black Ethnoburbs (1= Black Ethnoburb)	493	-	-	-
Hispanic Ethnoburbs (1=Hispanic Ethnoburb)	439	-	-	-
Asian Ethnoburbs (1=Asian Ethnoburb)	695	-	-	-
Ethnic Enclaves (Counts)				
Black Ethnic Enclaves (1= Black Enclave)	4,419	-	-	-
Hispanic Ethnic Enclaves (1=Hispanic Enclave)	3,113	-	-	-
Asian Ethnic Enclaves (1=Asian Enclave)	376	-	-	-
Neighborhood Context Indices				
Concentrated Advantage	0.18	1.07	-2.16	4.58
Median Household Income	60595.94	29620.62	2499	250001
Proportion of residents 25 and older w/ HS Degree or less	0.42	0.19	0	1
Proportion of residents 25 and older w/ BA degree	0.30	0.19	0	1
Proportion of residents with managerial/professional jobs	0.36	0.16	0	1
Δ Concentrated Advantage	-0.01	0.54	-3.60	5.11
Concentrated Disadvantage	-0.03	1.03	-1.44	8.50
Proportion of residents living in poverty	0.14	0.12	0	1
Proportion of families headed by a single female	0.14	0.10	0	1
Proportion of families with children in poverty	0.09	0.10	0	1
Unemployment Rate	0.09	0.06	0	1
Δ Concentrated Disadvantage	0.00	0.66	-7.53	5.46
Immigrant Neighborhoods	0.21	1.05	-0.87	39.12
Proportion of foreign-born residents	0.15	0.15	0	1.00
Proportion of recently immigrated residents	0.05	0.06	0	0.79
Proportion of naturalized foreign-born residents	0.07	0.07	0	0.88
Proportion of residents who speak English not well	0.05	0.08	0	0.70
Proportion of residents who speak a non-English language at home	0.24	0.23	0.00	1.00
Δ Immigrant Neighborhoods Index	0.01	0.63	-7.54	35.15

Data Source: *Longitudinal Tract Database;* Reference group is non-Hispanic whites for all segregation analyses. All dissimilarity scores have been multiplied by 100 to ease intepretation; *Note:* † The symbol Δ is used to indicate the change in values for specified variable from 1990-2010; all other values for 2010.

Figure 2: Assessing the Effects of 2010 Ethnoburbs in Retroactive Analyses (1990-2010)

1990

2010

Dependent Variables

T_2: Current levels of dissimilarity (Y) for all 2010 Ethnoburbs.

T_2-T_1: Observed change in dissimilarity (ΔY) from 1990-2010 for all 2010 ethnoburbs

β_{black}

$\beta_{Hispanic}$

β_{Asian}

T_1: 1990 census tracts that represent the same census tracts considered ethno-burbs in 2010 *(standardized via LTDB)*

T_2: Current sample of ethnoburbs used to predict white flight and changes in segregation from 1990-2010

Note: ▲ , ■ ,★, and O represent black, Hispanic, and Asian ethnoburbs and non-ethnoburb tracts, respectively. Figure illustrates "retroactive" analysis of census tracts from 1990-2010 for those tracts considered ethnoburbs in 2010. Note the majority of 2010 ethnoburbs were not such in 1990.

Table 2: The Growth of Asian, Black, and Hispanic Ethnoburbs 1990-2010*

MSA	Black Ethnoburbs			Hispanic Ethnoburbs			Asian Ethnoburbs		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
NYC	94	96	86	58	96	151	61	105	150
LA	30	10	14	18	28	73	151	99	116
CHI	11	19	15	12	47	33	17	21	27
DAL	3	17	20	3	8	4	0	1	11
HOU	3	16	16	3	8	14	9	11	18
PHI	22	26	28	1	6	4	0	2	3
DC	67	88	101	26	66	112	52	75	98
MIA	0	1	7	42	75	90	0	0	0
ATL	14	16	7	0	9	9	1	3	16
BOS	2	1	2	0	0	2	1	0	8
Other	105	146	197	136	253	301	153	191	248
Total	**351**	**436**	**493**	**299**	**596**	**793**	**445**	**508**	**695**
% Change	**-**	**24**	**40**	**-**	**99**	**1,652**	**-**	**14**	**56**

*Value in parentheses indicate percent change since 1990

Figure 3: Ethnic Neighborhood Segregation from 1990-2010 (Reference: Non-Hispanic Whites)
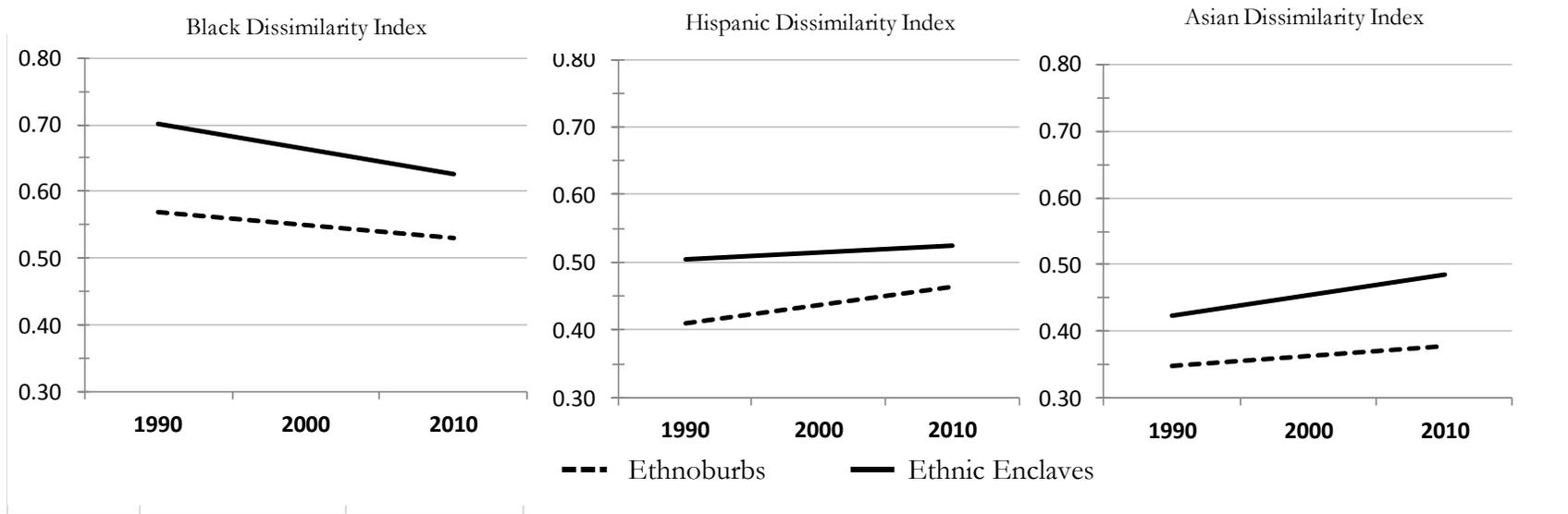
Table 3: Dissimilarity Indices by Group, 2010 Ethnic Neighborhoods

Year	Black		Hispanic		Asian	
	Ethnoburbs	Ethnic Enclaves	Ethnoburbs	Ethnic Enclaves	Ethnoburbs	Ethnic Enclaves
2010	0.53	0.63	0.46	0.52	0.38	0.50
2000	0.55	0.67	0.45	0.53	0.36	0.43
1990	0.57	0.70	0.40	0.50	0.35	0.43

Table 4: OLS Regression Estimates of Segregation from Ethnic Neighborhoods (Select Coefficients)

Variable	Model 1		Model 2		Model 3		Model 4	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Blacks								
Ethnoburbs	2.84***	(0.54)	2.87***	(0.54)	3.40***	(0.52)	1.88***	(0.39)
Ethnic Enclaves	11.70***	(0.21)	5.54***	(0.26)	10.4***	(0.27)	1.98***	(0.17)
Educ./Occ. Index			2.26***	(0.092)	2.44***	(0.088)	1.37***	(0.063)
.........Δ			-1.58***	(0.14)	-0.66***	(0.14)	-0.97***	(0.096)
Disadvantage Index			4.25***	(0.11)	3.16***	(0.11)	0.88***	(0.076)
.........Δ			-1.19***	(0.11)	.47***	(0.12)	.23***	(0.071)
Immigrant Context					5.36***	(0.079)	1.83***	(0.069)
.........Δ					-3.75***	(0.14)	-0.92***	(0.089)
Intercept	50.40***	(0.078)	50.8***	(0.081)	49.8***	(0.078)	47.7***	(0.34)
Hispanics								
Ethnoburbs	3.43***	(0.33)	3.87***	(0.35)	-0.41	(0.40)	1.30***	(0.26)
Ethnic Enclaves	8.31***	(0.19)	7.64***	(0.20)	.18	(0.22)	-0.69***	(0.16)
Educ./Occ. Index			3.34***	(0.077)	3.59***	(0.069)	2.21***	(0.065)
.........Δ			-3.40***	(0.11)	-2.06***	(0.12)	-0.92***	(0.094)
Disadvantage Index			3.84***	(0.095)	2.77***	(0.088)	1.21***	(0.074)
.........Δ			-2.14***	(0.092)	-0.48***	(0.091)	0.26***	(0.069)
Immigrant Context					6.02***	(0.11)	2.37***	(0.11)
.........Δ					-2.67***	(0.27)	-0.21	(0.16)
Intercept	41.9***	(0.066)	41.8***	(0.069)	40.8***	(0.063)	29.0***	(0.30)
Asians								
Ethnoburbs	3.92***	(0.28)	3.48***	(0.29)	.52	(0.30)	1.18***	(0.23)
Ethnic Enclaves	8.17***	(0.32)	7.67***	(0.33)	1.76***	(0.33)	-0.23	(0.24)
Educ./Occ. Index			1.24***	(0.051)	1.37***	(0.048)	0.69***	(0.040)
.........Δ			-1.49***	(0.075)	-0.82***	(0.077)	-0.42***	(0.062)
Disadvantage Index			1.91***	(0.062)	1.28***	(0.060)	0.74***	(0.048)
.........Δ			-1.49***	(0.063)	-0.53***	(0.063)	-0.20***	(0.046)
Immigrant Context					3.32***	(0.063)	1.04***	(0.043)
.........Δ					-1.81***	(0.14)	-0.51***	(0.053)
Intercept	33.8***	(0.042)	33.9***	(0.045)	33.3***	(0.043)	28.2***	(0.23)

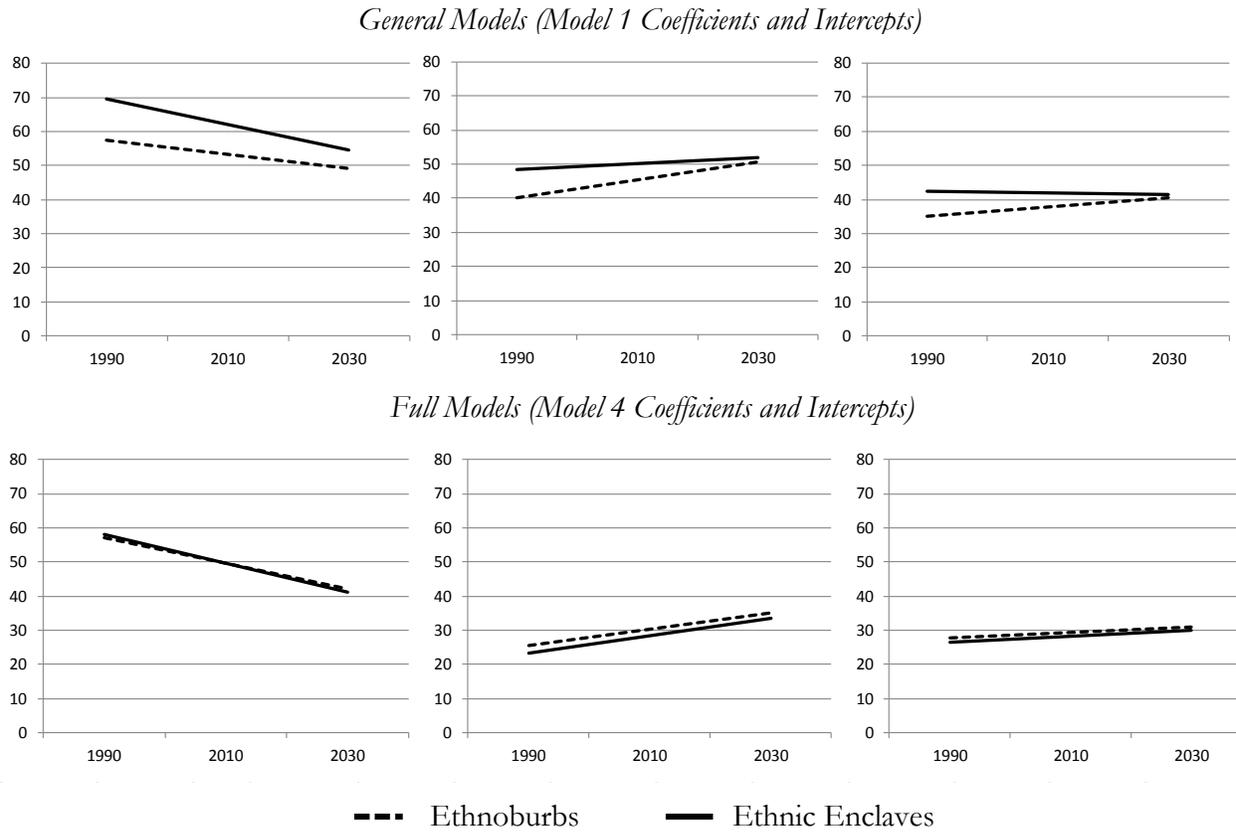N= 49,031; * p<0.05 ** p<0.01 *** p<0.001(two-tailed tests) *Data Source*: Longitudinal Tract Database. Robust std. errors are in parentheses. *Note:* Reference group is non-Hispanic whites for all analyses. Dissimilarity scores modeled individually for each group; Model 4 adds ecological controls for each group. Coefficients are omitted to ease interpretation--available upon request.

Table 5: OLS Regression Estimates of Change in Segregation within Ethnic Neighborhoods

Variable	Model 1		Model 2		Model 3		Model 4	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Blacks								
Ethnoburbs	3.10***	(0.294)	2.74***	(0.29)	2.74***	(0.29)	0.90**	(0.28)
Ethnic Enclaves	-0.38***	(0.08)	-1.34***	(0.11)	-0.43***	(0.11)	-0.11	(0.11)
Educ./Occ. Index			1.34***	(0.041)	1.39***	(0.041)	1.33***	(0.04)
………Δ			-1.56***	(0.064)	-1.27***	(0.066)	-1.03***	(0.067)
Disadvantage. Index			1.15***	(0.050)	0.98***	(0.049)	1.09***	(0.050)
………Δ			-1.45***	(0.050)	-1.19***	(0.051)	-1.01***	(0.049)
Immigrant Context					1.07***	(0.035)	0.42***	(0.038)
………Δ					-0.21**	(0.072)	-0.019	(0.043)
Intercept	-7.30***	(0.04)	-7.43***	(0.038)	-7.62***	(0.04)	-8.45***	(0.24)
Hispanics								
Ethnoburbs	0.77***	(0.20)	0.83***	(0.20)	1.17***	(0.19)	.26	(0.20)
Ethnic Enclaves	-2.64***	(0.14)	-1.91***	(0.14)	-0.24	(0.15)	0.40***	(0.12)
Educ./Occ. Index			0.66***	(0.050)	0.64***	(0.049)	0.31***	(0.044)
………Δ			-0.39***	(0.078)	-0.36***	(0.079)	-0.01	(0.071)
Disadvantage. Index			-0.26***	(0.063)	.11	(0.063)	0.01	(0.056)
………Δ			1.33***	(0.062)	.79***	(0.062)	0.08	(0.053)
Immigrant Context					-1.23***	(0.040)	-0.47***	(0.041)
………Δ					2.06***	(0.085)	0.95***	(0.052)
Intercept	4.44***	(0.04)	4.19***	(0.042)	4.42***	(0.04)	4.70***	(0.24)
Asians								
Ethnoburbs	3.05***	(0.17)	2.64***	(0.17)	1.04***	(0.20)	-1.07***	(0.18)
Ethnic Enclaves	0.34	(0.28)	.25	(0.29)	-1.79***	(0.27)	-0.81***	(0.20)
Educ./Occ. Index			0.45***	(0.037)	0.53***	(0.036)	0.25***	(0.034)
………Δ			0.14**	(0.042)	0.41***	(0.043)	0.34***	(0.040)
Disadvantage. Index			0.09*	(0.041)	-0.077	(0.041)	0.21***	(0.039)
………Δ			0.14**	(0.042)	0.41***	(0.043)	0.34***	(0.040)
Immigrant Context					1.30***	(0.043)	0.57***	(0.043)
………Δ					0.08	(0.11)	0.08	(0.059)
Intercept	-0.40***	(0.028)	-0.51***	(0.030)	-0.73***	(0.031)	2.69***	(0.16)

N= 49,031; * p<0.05 ** p<0.01 *** p<0.001(two-tailed tests) *Data Source*: Longitudinal Tract Database. Robust std. errors are in parentheses. *Note:* Reference group is non-Hispanic whites for all analyses. Dissimilarity scores modeled individually for each group; Model 4 adds ecological controls for each group. Coefficients are omitted to ease interpretation--available upon request.

**Figure 4: Trajectories of Segregation for 2010 Ethnoburbs
and Enclaves, General and Full Models**

General Models (Model 1 Coefficients and Intercepts)

Full Models (Model 4 Coefficients and Intercepts)

- - - Ethnoburbs ⸺ Ethnic Enclaves

Table 6: Past, Present, and Future Levels of Dissimilarity in Ethnic Neighborhoods

Ethnic Neighborhoods	1990 (M1)	2010 (M1)	2030 (M1)	1990 (M4)	2010 (M4)	2030 (M4)
Black Ethnoburbs	57.44	53.24	49.04	57.13	49.58	42.03
Black Enclaves	69.65	62.10	54.55	58.13	49.68	41.23
Hispanic Ethnoburbs	40.12	45.33	50.54	25.6	30.3	35
Hispanic Enclaves	48.41	50.21	52.01	23.21	28.31	33.41
Asian Ethnoburbs	35.07	37.72	40.37	27.76	29.38	31
Asian Enclaves	42.37	41.97	41.57	26.32	28.2	30.08

Note: 2010 segregation levels estimated using Table 4 coefficients and intercepts. 1990 segregation levels estimated using Table 5 coefficients and intercepts, then added/subtracted from 2010 segregation levels accordingly. Segregation levels in 2030 estimated by replicating linear trends from 1990-2010. Model 1 (M1) segregation levels approximate general effect. Model 4 (M4) segregation levels estimate effect of ethnoburbs net of all controls.

APPENDIX

Table 1: Full Descriptive Statistics for Control Variables (N=49,031)†

	Mean	(SD)	Minimum	Maximum
Population Controls (County Level)				
Total White Population	663,265	667,490	2,486	2,719,850
………Δ	-74,993	246,068	-879,716	569,045
Total Black Population	221,818	298,035	9	1,296,630
………Δ	34,542	60,123	-91,665	281,748
Total Hispanic Population	481,990	1,013,421	40	4,677,184
………Δ	204,321	331,122	-873	1,332,042
Total Asian Population	155,086	316,127	13	1,449,673
………Δ	78,200	128,252	-78	544,791
Ethnic Neighborhood Controls (County Level)				
Total # of Black Ethnoburbs	2.93	6.71	.00	78.00
………Δ	-.19	4.66	-17.00	13.00
Total # of Hispanic Ethnoburbs	7.10	14.70	.00	58.00
………Δ	4.69	10.54	-6.00	45.00
Total # of Asian Ethnoburbs	7.16	18.36	.00	79.00
………Δ	.13	6.70	-18.00	30.00
Total # of Black Enclaves	37.39	60.40	.00	249.00
………Δ	-1.41	16.76	-56.00	35.00
Total # of Hispanic Enclaves	40.08	86.27	.00	387.00
………Δ	1.55	20.00	-110.00	79.00
Total # of Asian Enclaves	6.00	15.22	.00	66.00
………Δ	-4.65	18.66	-87.00	11.00
Ecological Controls				
Percentage of structures older than 30 years	62.41	29.27	.00	100.00
………Δ	22.61	22.71	-100.00	100.00
Percent of recently occupied housing	58.14	81.62	.00	17300.00
………Δ	-7.58	81.44	-92.54	17244.47
Percent of vacant housing units	9.43	8.72	.00	412.50
………Δ	1.34	7.09	-67.31	408.93
Percent housing in multi-unit structures	29.96	28.23	.00	100.00
………Δ	-.12	11.56	-100.00	99.91
Region (Reference Category: Midwest)				
Northeast	25.37	43.51	.00	100.00
South	30.21	45.92	.00	100.00
Midwest	19.87	39.90	.00	100.00
West	24.56	43.04	.00	100.00
Urban Location (1= central city)	42.65	49.46	.00	100.00

Data Source: *Longitudinal Tract Database;* † The symbol Δ is used to indicate the change in values for specified variable from 1990-2010; all other values are for 2010.