The Neighborhood Patterns and Processes of Asian Ethnic Groups in the U.S.

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Abstract

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Today, Asians are the fastest growing ethnoracial group in the United States and are an extremely diverse population made up of at least 20 different national origin groups with varying social, economic, and political characteristics. Yet, there is limited research on the neighborhood patterns and processes of distinct Asian ethnic groups. This dissertation thus contributes to the existing residential segregation literature by using standardized U.S. decennial census data for the years 1980, 1990, 2000, and 2010 to examine three neighborhood patterns of dissimilar Asian ethnic groups. First, I explore how various characteristics of Chinese and Vietnamese ethnic neighborhoods have evolved from 1980 to 2010 and how the trajectory of these characteristics varies across different immigrant destination types. I find important enduring differences in neighborhood contexts between Chinese and Vietnamese ethnic neighborhoods, and between newer and more traditional destinations. For example, Chinese ethnic

neighborhoods, on average, have remained relatively socioeconomically advantaged, while Vietnamese clusters have become more racially diverse and have lower socioeconomic status. Second, I investigate what social and economic neighborhood characteristics are associated with the development of ethnic neighborhoods for Chinese, Asian Indians, Filipinos, and Vietnamese, and explore how these associations vary across immigrant gateways. I find that the dynamics associated with the degree of co-ethnic contact in ethnic neighborhoods differs depending on the Asian ethnic group and matters more in some immigrant destination types than others. For instance, poor English language proficiency is more strongly associated with the development of highly concentrated Chinese and Filipino ethnic neighborhoods in traditional destinations, while it is more pertinent for the development of Asian Indian and Vietnamese ethnic neighborhoods in non-traditional destinations. Finally, I explore the role of Asian ethnic groups in the emergence and stability of racially diverse neighborhoods. I find that some Asian ethnic groups matter more for certain aspects of this process, while other Asian ethnic groups are more important for other aspects. Specifically, Filipinos and Asian Indians are more likely to encourage Black entry into neighborhoods and the development of diverse neighborhoods, while Chinese and Japanese are more likely to prevent White loss thereby providing the opportunity for racially diverse neighborhoods to remain stable. Overall, the findings from my dissertation illuminate significant variations in the neighborhood dynamics for different Asian ethnic groups, further highlighting the importance of disaggregating the Asian population and the continued salience of ethnic group distinctions in understanding the experiences of Asians in the United States.

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CHAPTER 1: INTRODUCTION

The Asian population has shaped and is continuing to dramatically change the American demographic landscape. Asians from different countries, namely China, Japan, the Philippines, and Korea, first arrived in the U.S. in the mid-19th Century. However, the U.S. Asian population remained relatively small throughout the first half of the 20th century due to restrictive immigration policies, such as the Chinese Exclusion Act and the 1924 Immigration Act that effectively banned all immigration from Asia. It wasn't until the implementation of the 1965 Immigration and Nationality Act that ignited a large wave of immigrants from an assortment of Asian nations. Other events and policies have since further expanded the U.S. Asian population, including the Vietnamese War that led to a wave of Vietnamese, Cambodian, Laotian, and Hmong refugees, as well as the 1990 H-1B visa program that spurred the arrival of highly educated and highly skilled immigrants, predominantly from India.

Asians are now the fastest growing ethnoracial group in the United States, increasing from 10.5 million in 2000 to 18.9 million in 2019, an increase of 81% (Pew Research Center 2021a). In comparison, Latinos, the second fastest growing ethnoracial group in the U.S., increased 70% over the same period. Given the rapid growth of the Asian population, they are projected to become the largest immigrant group in the U.S. in the next few decades, surpassing Latinos in 2055. By then, Asians are expected to represent 36% of the immigrant population in the U.S., while Latinos are expected to make up 34% (Pew Research Center 2021b).

This significant demographic shift raises important questions concerning to what extent and how Asians are faring and being incorporated into American society. An expansive body of literature has examined the social and economic outcomes of Asians, finding evidence that Asians overall are reaching or have reached parity with Whites, especially along educational

attainment, income levels, and interracial marriage rates (Lee and Bean 2004; Sakamoto, Goyette, and Kim 2009).

However, the general portrayal of Asians in these studies centers on the average success of the panethnic Asian group and masks the heterogeneity in social, economic, and political characteristics that exists within the Asian population (Lee and Kye 2016). Indeed, Asians in the U.S. are an extremely diverse population, as a recent collection of articles in a special Russell Sage Foundation issue about Asian Americans have shown (Lee and Ramakrishnan 2021). Census data show that the Asian population in the U.S. is made up of at least 20 different national origin groups, including Chinese, Asian Indians, Filipinos, Vietnamese, Koreans, Japanese, Cambodians, Nepalese, and Bhutanese, to name a few. These distinct groups do not share a common language, religion, or culture. There are significant variations across these groups in the modes of departure from countries of origin, modes of entry to the U.S., and contexts of arrival (Portes and Rumbaut 2006). Large disparities between Asian ethnic groups also exist across social, economic, and political characteristics and outcomes, including educational attainment, poverty levels, earnings, occupational status, and intermarriage rates (Lee and Ramakrishnan 2021; Lee and Zhou 2015; Min and Kim 2009). In fact, there is generally more *intra*group variation among Asians than there is *inter*group variation between Asians and other ethnoracial groups (Kim and White 2010; Lee and Ramakrishnan 2021).

A growing number of scholars thus highlight the significance and need to stop lumping Asian ethnic groups together (Hall 2013; Kim and White 2010; Lee 2021; Lee and Kye 2016; Lee, Ramakrishnan, and Wong 2018). Aggregating dissimilar Asian ethnic groups paints an incomplete and misleading picture that all Asians in the U.S. are advancing and faring well in American society. Instead, we need to disaggregate Asians into distinct ethnic groups and focus

on “how ethnic boundaries are brightened and preserved” (Lee and Kye 2016:266) when understanding the experiences and incorporation prospects of Asians. Doing so would help to reveal a more accurate and complete narrative of how Asians in the U.S. are faring, thereby challenging and dispelling the dominant notion about Asians and their “successful” incorporation trajectory. This endeavor would also have important theoretical implications, allowing scholars to ascertain the extent to which and how theoretical arguments may hold for different ethnic groups. Some scholars have even argued that data disaggregation is a civil rights issue for Asian Americans in order to more equitably distribute federal, state, and local funds between more visible and less visible Asian ethnic groups (Lee et al. 2018).

I heed this call by studying the neighborhood patterns and processes of distinct Asian ethnic groups. Neighborhoods are a prime site to study incorporation chances because they provide amenities, resources, and services that can either offer opportunities for or act as barriers to individual outcomes, wellbeing, and life course trajectories (Chetty and Hendren 2018; Ellis and Almgren 2009; Sharkey 2008; Sharkey and Faber 2014). Neighborhoods are also where groups form and maintain group boundaries and identities, which can also shape incorporation prospects. Interactions with neighbors of the same or different ethnoracial identity, participation in social institutions, and establishment of social networks in the residential space are some of the ways to maintain neighborhood attachment and social cohesion, which can reinforce, reshape or erode group boundaries and collective identities, as well as influence group outcomes and trajectories. The scant evidence on this topic suggests that residential dynamics indeed vary across Asian ethnic groups (Lee 2021; Logan and Zhang 2013; Walton 2015), bolstering the importance of disaggregating the Asian population into distinct ethnic groups in this field of study.

In this dissertation, I investigate three aspects of neighborhood dynamics. First, I explore the evolution of ethnic neighborhoods and their characteristics for distinct Asian groups, paying attention to variations across immigrant destination types. Second, I examine what social and economic characteristics lead to the development of ethnic neighborhoods for different Asian groups and how the associations vary across immigrant gateways. Third, I investigate the role of distinct Asian ethnic groups in the emergence of racially diverse neighborhoods. Throughout this dissertation, I illuminate the varied residential dynamics across distinct Asian ethnic groups, further problematizing the predominant practice of treating Asians as a single, homogenous group and helping to create a more comprehensive portrait of the residential experiences of a diverse and rapidly growing population.

For the remainder of this introduction, I briefly discuss the existing knowledge about residential patterns of Asians. I then review the data that I use to investigate neighborhood patterns of different Asian ethnic groups, before briefly introducing each of the three empirical chapters of my dissertation.

1. Residential patterns of Asians

There is a wealth of knowledge about residential segregation patterns of major ethnoracial groups, including Whites, Blacks, Latinos, and Asians, at the metropolitan level. This body of literature finds that Asians are overall less segregated from Whites compared to Blacks and Latinos (Iceland 2009; Krysan and Crowder 2017). In 2010, along the dissimilarity index averaged across metropolitan areas, Asians had a segregation level from Whites of 0.33, Latinos had a level of 0.36, and Blacks had a score of 0.46 (Krysan and Crowder 2017). However, while Black-White segregation levels, measured along the dissimilarity index, have declined from

1980 to 2010, Asian-White and Latino-White segregation levels have remained stable over the same period (Krysan and Crowder 2017).

Moreover, the isolation index indicates that Asians have been increasingly residing in isolated neighborhoods over time (Krysan and Crowder 2017; Logan and Zhang 2013). That is, relative to 30 years ago, more Asians today live in neighborhoods with other members of their same group or other Asians; Asians' overall exposure to members of their own Asian ethnic group or other Asian groups increased from 0.17 in 1980 to 0.22 in 2010 (Logan and Zhang 2013). It is important to note though that the isolation index is sensitive to the relative size of the population that is being measured (Massey and Denton 1988). Thus, increasing segregation of Asians along the isolation index is partly attributed to the growing numbers of Asians in the United States, especially through immigration (Iceland 2009; Iceland and Scopilliti 2008). As such, since the Asian population is the fastest growing ethnoracial group in the United States (Pew Research Center 2021a) and since recently arrived groups tend to settle in places where co-ethnics already exist (Massey et al. 1993; Massey and Denton 1987), trends of increasing residential isolation among the U.S. Asian population are likely to continue.

These studies, however, have focused on the panethnic Asian grouping, thereby masking variations across dissimilar ethnic groups. Only a handful of studies have disaggregated the Asian category and examined the residential patterns of distinct Asian ethnic groups (Kim and White 2010; Lee 2021; Logan and Zhang 2013; Logan, Zhang, and Alba 2002; Walton 2015, 2017). The evidence from these limited studies provides an indication that indeed important differences in residential patterns emerge across Asian groups. For example, Logan and Zhang (2013) showed that all Asian ethnic groups, with the exception of Japanese, actually have higher segregation levels, measured along the dissimilarity index, than the overall panethnic Asian

category (0.407[1]). Vietnamese (at 0.558) had the highest out of the six Asian groups. Chinese and Asian Indians also had segregation levels (0.487 and 0.492, respectively) that were higher than that of Latinos (0.485) and the overall Asian level (0.407). In comparison, Japanese had the lowest average metropolitan level of segregation in 2010 at 0.336 and was the only group with a segregation score below the overall Asian segregation measure.

A few other studies have focused on the patterns of local-level ethnic neighborhoods where distinct Asian ethnic groups cluster together (Lee 2021; Logan et al. 2002; Walton 2015, 2017). For example, Lee (2021) found that, in 2010, Vietnamese ethnic neighborhoods are located in geographically unique areas away from neighborhoods of other Asian ethnic groups, while Chinese ethnic neighborhoods generally occupy similar spatial areas as other Asian neighborhoods. These few studies thus challenge the dominant notion in the literature that all Asian groups have the same residential patterns and bolster the importance of studying distinct Asian ethnic groups in the residential segregation literature. Yet, what is apparent from these few studies is that we still know relatively little about where different Asian groups live across metropolitan areas, what their neighborhood contexts are like, who they live with, and what their residential trajectories are like. As Asians are the fastest growing ethnoracial group, these investigations are critical now more than ever to understand broader immigrant incorporation processes of this population and to ascertain the future of the American residential landscape.

2. Data

[1] This dissimilarity level of 0.407 as calculated by Logan and Zhang (2013) is higher than the dissimilarity level of 0.33 calculated by Krysan and Crowder (2017), which was noted above. A key distinction is that Logan and Zhang (2013) used a weighted metropolitan average measure of the dissimilarity index whereas Krysan and Crowder (2017) employed an unweighted metropolitan average. The weighted average counts metropolitan areas with a larger number of group members more than metropolitan areas with fewer group members. Thus, Logan and Zhang (2013) calculated a higher average dissimilarity score since metropolitan areas with more Asians generally have higher Asian-White segregation levels (Lichter et al. 2010; Park and Iceland 2011).

To explore and examine the neighborhood patterns and processes of different Asian ethnic groups, I utilize tract-level U.S. decennial census data for the years 1980, 1990, 2000, and 2010. Since the boundaries of census tracts can change across censuses due to population growth and decline, I use the Longitudinal Tract Database (LTDB) (Logan, Xu, and Stults 2014) to standardize tract-level estimates of population counts of ethnoracial groups, including distinct Asian ethnic groups, and other social and economic variables in 1980, 1990, and 2000 to the 2010 tract boundaries.

There are two reasons why the LTDB is advantageous for my analysis, especially over other longitudinal data sources, such as the Neighborhood Change Database (NCDB), that similarly standardize census variables to 2010 tract boundaries. First, the LTBD provides tract-level crosswalks to harmonize variables that are not included in the publicly available data. These crosswalks are helpful for my analysis because although the LTDB provides tract-level counts of the six largest Asian ethnic groups, they are based on the "Asian alone or in combination with one or more races" census category for 2000 and 2010. Since my analysis focuses on the single race Asian population (and it is beyond the scope of this dissertation to investigate the neighborhood dynamics of multi-racial Asians), I use the LTDB crosswalks to standardize the tract-level counts of distinct Asian ethnic groups for the "Asian alone" population. Second, the LTDB released 2000 estimates of several sociodemographic variables using differential privacy (DP) methods, such as percent non-Latino White and percentage of residents in the tract who are college educated. Since these DP estimates have been shown to be more accurate than the LTDB estimates that are based on interpolation methods (Logan et al. 2021), I use them in my analysis.

Although the LTDB provides the ability to conduct longitudinal analysis and to make comparisons for neighborhoods across decennial census years, an important limitation of standardizing tract boundaries is the error that is introduced in the population estimates, especially for tracts that experience complex boundary changes (Logan, Stults, and Xu 2016; Logan et al. 2014). All longitudinal datasets that standardize tract boundaries, including the LTDB and the NCDB, have this drawback. Nevertheless, these datasets are still the best methods available to conduct longitudinal analysis using census data.

3. Overview of chapters

This dissertation expands upon the literature by investigating the varied neighborhood experiences of distinct Asian ethnic groups along three aspects. First, in Chapter 2, I explore how various characteristics of Chinese and Vietnamese ethnic neighborhoods have evolved from 1980 to 2010 and how the trajectory of these characteristics varies across different immigrant destination types. I find important enduring differences in neighborhood contexts between Chinese and Vietnamese ethnic neighborhoods, highlighting the disparities and diversity within the Asian population. For example, Chinese ethnic neighborhoods, on average, are relatively socioeconomically advantaged, while Vietnamese clusters are more racially diverse and have lower socioeconomic status. There is little indication that these differences between Chinese and Vietnamese clusters are converging over time. I also find the residential contexts in Chinese and Vietnamese ethnic neighborhoods differ dramatically between newer and more traditional destinations; ethnic neighborhoods in emerging destinations are generally places of both opportunity and constraint, while those in established destinations are generally places of

prosperity. Importantly, this disparity between destinations appears to be intensifying over time, creating a bifurcated residential landscape for Asians in the United States.

In Chapter 3, I investigate what social and economic neighborhood characteristics are associated with the development of Asian ethnic neighborhoods for Chinese, Asian Indians, Filipinos, and Vietnamese, and explore how these associations vary across immigrant gateways. I find that, in general, poor English language proficiency, higher income, and lower education levels are associated with the clustering of Asian group members together in an ethnic neighborhood. Though I find that the association of these social and economic characteristics with the clustering of co-ethnics differs depending on the Asian ethnic group and matters more in some immigrant destination types than others. Ethnic neighborhoods in less traditional and newer destinations are thus developing in different ways than those in traditional destinations. For example, poor English language proficiency is more strongly associated with Chinese and Filipino clustering together in traditional destinations, while it is more pertinent in non-traditional destinations for Asian Indian and Vietnamese clusters.

In Chapter 4, I move away from ethnic neighborhoods and instead explore the role of Asian ethnic groups in the emergence and stability of racially diverse neighborhoods. I find that some Asian ethnic groups matter more for certain aspects of this process, while other Asian ethnic groups are more important for other aspects. Specifically, Asian groups that may be generally positioned relatively lower in the racial hierarchy closer to other ethnoracial minorities and outside the Asian group boundary, namely Filipinos and Asian Indians, are more likely to boost Black entry into neighborhoods where Whites are also present, thereby encouraging the development of diverse neighborhoods. In comparison, Asian groups that occupy a relatively higher position in the American racial hierarchy closer to Whites, including East Asian groups

like Chinese, Japanese, and Koreans, are more likely to prevent White loss in racially diverse neighborhoods. This may help to maintain stable diverse neighborhoods.

Finally, Chapter 5 provides a conclusion to my dissertation. I highlight the findings from the three empirical chapters and discuss the broader implications of my analysis for our understanding of the experiences of Asians in the U.S. and immigrant incorporation processes. I then offer a few avenues for future research.

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CHAPTER 2: THE EVOLUTION OF ASIAN ETHNIC NEIGHBORHOODS IN TRADITIONAL AND EMERGING IMMIGRANT DESTINATIONS FROM 1980 TO 2010

1. Introduction

Ethnic neighborhoods have been extensively studied in traditional immigrant destinations as important sites for immigrants and ethnoracial minorities to access social, economic, and political resources that ultimately shape immigrant incorporation trajectories (Mazumdar et al. 2000; Portes and Zhou 1993; Zhou 1995). In these traditional gateways that have a relatively long history of receiving immigrants, ethnic neighborhoods are more established, such as New York City's Chinatown and Little Saigon in Orange County, CA, and have been documented to provide cultural support, social capital, ethnic and kin ties, employment opportunities, and spaces for political mobilization (Matsumoto 2018; Wong 2019; Zhou 1995). The social relationships and cultural support in these spaces provide opportunities for identity maintenance, incorporation into the host country, and upward socioeconomic mobility, especially for second generation immigrants (Lee and Zhou 2015; Mazumdar et al. 2000; Waters et al. 2010).

However, since ethnic neighborhoods for Asians have long been studied in traditional immigrant destinations (Logan, Zhang, and Alba 2002; Walton 2015, 2017), there is a relative dearth of research on Asian ethnic neighborhood patterns in smaller and newer destinations that have more recently seen a growth in the Asian population, such as cities in Nevada, Georgia, and Texas (Frey 2011). While New York and California continue to be places where a large share of Asians in the U.S. reside, the growing presence of Asians in newer destinations with little history of receiving immigrants and where the social, political, and historical contexts are different raises questions of how Asian neighborhoods are developing in these places and whether they are

different from those in traditional destinations. Indeed, there are some indications from studies primarily focused on the experiences of Latinos in new destinations that the social, economic, and political dynamics are different in these locations, which in turn shapes different residential patterns (Flippen and Farrell-Bryan 2021; Jones 2019).

Accordingly, this paper examines the evolution and trajectory of Chinese and Vietnamese ethnic neighborhoods in different immigrant destinations from 1980 to 2010. I paint a picture of how ethnic neighborhoods have grown and changed spatially, and how their demographic and socioeconomic contexts have changed over time, as well as how these trends vary across immigrant destinations. I find persistent differences in neighborhood contexts between Chinese and Vietnamese clusters, highlighting the disparities and diversity within the Asian population. I also find the characteristics of both Chinese and Vietnamese ethnic neighborhoods in newer destinations are different from those in traditional destinations. Ethnic neighborhoods in emerging destinations are generally places of both opportunity and constraint, while those in established destinations are generally places of prosperity. Notably, the disparities across immigrant destinations along some characteristics are increasing over time. The insights gleaned from these exploratory findings provide an opportunity to understand the variation in the processes of incorporation for different Asian groups across different metropolitan contexts, as well as clues about the different types of economic and social processes that may be spurred by the emergence and change of Asian enclaves in new destinations compared to traditional places.

2. Background

2.1. The development of Asian ethnic neighborhoods

Since 1980, Asians have experienced increased residential isolation. This means the average Asian has become increasingly exposed to more Asians in their neighborhood over time (Iceland 2009; Krysan and Crowder 2017). In 1980, the isolation index for Asians was 23%, meaning the average Asian lived in a neighborhood that was 23% Asian (Iceland 2009). By 2000, the isolation index rose to 30.6% (Iceland 2009). This trend is not surprising given that the isolation index, a measure of residential segregation (Massey and Denton 1988), is sensitive to the relative group size. Thus, since Asians are the fastest growing racial/ethnic group in the U.S., the Asian isolation index level has increased over the past several decades, as expected, and is likely to continue to increase (Iceland 2009).

In general, three theoretical frameworks have been used to provide insights into this trend of increasing Asian residential isolation and provide clues about the changing nature of ethnic neighborhoods over time. The first theory is the spatial assimilation perspective, which posits that immigrant groups, especially recently arrived immigrants, live with co-ethnics in order to access resources and support (Alba and Logan 1993; Massey and Denton 1985). As these groups obtain higher educational attainment, income, and English language proficiency, they are likely to move out of these neighborhoods and into neighborhoods with higher socioeconomic levels and where the dominant White majority group lives. From this perspective, ethnic neighborhoods are seen primarily as transitory and temporary places of residence (Logan et al. 2002). The past few decades of studies have generally found evidence that these processes are occurring for Asians. In general, studies have found that more educated and higher income Asians have lower residential segregation levels with Whites compared to their less educated and poorer counterparts (Iceland and Scopilliti 2008).

However, the emergence of relatively affluent neighborhoods with high concentrations of Asian co-ethnics in the suburbs suggests the spatial assimilation framework may not be the only relevant model to help explain the residential trends of Asians (Wen, Lauderdale, and Kandula 2009). Indeed, as the spatial assimilation perspective was primarily developed based on the experiences of early 20th century European immigrants, scholars have suggested the need to reevaluate the appropriateness of spatial assimilation given the different social, economic, and political context in the U.S., as well as characteristics and mode of arrival of the post-1965 immigration wave (Wen et al. 2009). In fact, this rising trend of suburbanization and affluent ethnic neighborhoods, especially among Asian populations, emphasizes the role of preferences, choice, and in-group affinity in maintaining residential isolation (Charles 2006; Logan et al. 2002). Referred to as resurgent ethnicity by some scholars (Brown and Chung 2006; Walton 2015, 2017; Wen et al. 2009), this perspective suggests that minority groups are likely to live with or close to co-ethnics perhaps as a way to maintain access to co-ethnic resources, institutions, and networks, even if they have high socioeconomic status and are native-born (Logan et al. 2002; Matsumoto 2018; Wen et al. 2009). The resurgent ethnicity perspective suggests that residing in ethnic neighborhoods with co-ethnics is a more permanent phenomenon and thus complicates the spatial assimilation assumption that such neighborhoods are temporary. The trend of living with co-ethnics in suburban neighborhoods, which are labelled "ethnoburbs" (Li 1998), has been especially prominent for high socioeconomic Asian groups, including Chinese, Asian Indians, and Koreans, and has been primarily studied in California (Lacy 2016; Li 1998; Tam 2019; Wen et al. 2009). A study also found that later generations of Chinese, Filipinos, Japanese and Koreans, specifically 1.25- and 1.5-generations who have gained English language proficiency and socioeconomic status, are more likely to live with co-ethnics than their

first-generation counterparts, suggesting the influence of preference and in-group affinity (Li and Zhang 2021).

The third theory that has been used to explain continued residential segregation is place stratification, which argues that minority groups are not able to move into neighborhoods with the dominant White majority due to barriers and discrimination (Alba and Logan 1993). Specifically, discriminatory and prejudice behavior from real estate agents, landlords, appraisers, and neighbors prevent minority groups from entering and/or remaining in certain neighborhoods (Ross and Turner 2005; Yinger 1995). There is some evidence that Asians have experienced discrimination from real estate agents when finding homes, including racial steering (Turner et al. 2013). Moreover, neighborhoods that have large and increasing populations of immigrants are more likely to experience native out-mobility (Crowder, Hall, and Tolnay 2011), which suggests Asians may similarly experience instances of out-mobility since the majority are foreign-born.

Importantly, these prior studies that have investigated the residential experiences of Asians have recognized the variation within the broad Asian population and examined the residential patterns for distinct Asian ethnic groups (Hall 2013; Iceland, Weinberg, and Hughes 2014; Logan et al. 2002; Walton 2015, 2017; Wen et al. 2009). Disaggregating the Asian population is important because each group has different immigration histories, modes of arrival, and socioeconomic characteristics (Kim and White 2010; Lee and Kye 2016). Moreover, each Asian group has been racialized differently in the context of the American racial stratification system (Lee and Kye 2016; Zhou and Bankston 2020). These variations across Asian groups mean they have different experiences and circumstances that in turn result in different residential patterns, as demonstrated by prior studies (Walton 2015, 2017; Wen et al. 2009). For example, Walton (2017) found that Chinese ethnic neighborhoods in California experienced a bifurcated

pattern where some experienced increased Chinese concentration from 2000 to 2010 in high-resource neighborhoods and some experienced declining concentration. Filipino and Korean ethnic neighborhoods in California experienced increasing co-ethnic concentration and geographic boundary expansion particularly in high-income neighborhoods. In contrast, Vietnamese ethnic neighborhoods were found to have increased Vietnamese concentration in primarily established counties and low-income places (Walton 2017).

However, while the existing literature has provided foundational knowledge about Asian residential patterns, these studies have examined such patterns either nationwide (Logan and Zhang 2013; Wen et al. 2009) or in a few large metropolitan areas that serve as traditional destinations, namely New York, Los Angeles, and San Francisco (Logan et al. 2002; Walton 2017). As a result, the trends of residential patterns for Asian groups outside of these oft-studied traditional destinations – including newer immigrant destinations, smaller metropolitan areas, or places that were formerly destinations for immigrants – have received less attention. Since Asians have increasingly settled in newer destinations over the past few decades (Singer 2004; Waters and Jiménez 2005), this demographic shift raises important questions of how Asian ethnic neighborhoods are developing in these relatively new and unfamiliar territories, and whether they follow a similar trajectory to those in traditional destinations or present new outcomes and dynamics. Understanding the trends of ethnic neighborhoods outside of traditional destinations allows us to not only reassess theoretical frameworks, but also glean information about varying trajectories of incorporation in different contexts, the different opportunities and constraints shaping individual life chances in these new destinations, and the broader dynamics of social stratification and racial/ethnic inequality.

2.2. New immigrant destinations

The trend of residential patterns for Asian groups are likely to vary in new destinations compared to more traditional destinations as theoretical perspectives argue that metropolitan areas have varied demographic, social, political, and economic contexts, as well as different histories of receiving immigrants, which can in turn shape residential patterns (Massey 2008). For example, the housing availability model suggests that the racial and ethnic composition of the metropolitan area, as well as the local housing stock, can shape mobility patterns and subsequently residential dynamics (Crowder, Pais, and South 2012). Moreover, there is likely varied receptivity among the local population in traditional versus new destinations to large and growing immigrant groups. Since traditional destinations have generally received immigrants for a longer period of time, there are likely well-established organizations, institutions, and policies that support immigrants and refugees, such as job training programs or English language proficiency courses (Massey 2008; Tran and Lara-García 2020). The local population in these destinations are also likely to be more accustomed to interacting with immigrants and ethnoracial minorities (Massey 2008). This context in traditional destinations suggests there may be larger, more established, stable, and unique ethnic neighborhoods.

In comparison, in newer destinations, the relatively shorter history of receiving immigrants likely translates into fewer services and resources tailored to the needs of immigrants (Massey 2008). There is also likely a more hostile and unwelcoming environment with local anti-immigrant policies and where local populations are likely to be less accustomed to interacting with immigrants (Flippen and Farrell-Bryan 2021; Massey 2008). This unwelcoming and hostile environment in new territories could lead to different ethnoracial groups residing in

close proximity in order to pool resources and institutions for support and/or as a response to potential or perceived discrimination (Hall and Crowder 2014).

The existing literature provide initial clues that different social processes and residential patterns are emerging in these new places compared to traditional destinations, specifically for Latinos (Flippen and Farrell-Bryan 2021; Jones 2019; Lee 2021). Studies have found that the sentiment toward growing Latino immigrant populations in new destinations are generally negative. Both Black and White locals view arriving Latino immigrants as economic competition in the labor and housing market or as a tax burden to local communities (Fennelly 2008; Marrow 2009; Weng 2019). Jones (2019) also found that Mexicans in North Carolina, a newer destination, experienced intragenerational reverse incorporation, whereby changes in the context of reception, including local policies and sentiment among the local population toward incoming immigrants, resulted in restricted access to employment, housing, and education, as well as increased intergroup conflicts.

While studies have primarily focused on the experiences of Latino immigrants in new destinations, there is a handful of research suggesting that Asians also face difficult contexts in these newer areas. Indeed, one qualitative study examining the settlement of Asians in the South found that participants felt mistreated and marginalized from locals, and also experienced anti-immigrant discrimination in day-to-day experiences (Weng 2019). Flippen and Kim (2015) also find that homeownership for Asians is lower in non-traditional destinations than traditional places, pointing to the lack of access to housing information and support from co-ethnic communities in new destinations (Flippen and Kim 2015).

These varying contexts in new versus traditional destinations have important implications for shaping residential patterns. However, there are mixed results from current studies about

whether residential segregation is higher in new destinations or in traditional destinations. On the one hand, a few studies have found that segregation is higher for Asians and Latinos in traditional destinations compared to newer destinations (Fischer and Tienda 2006; Park and Iceland 2011). On the other hand, other studies have found that residential segregation is higher for Latinos and some Asian groups in newer destinations than established gateways (Frey 2018; Hall 2013; Lichter et al. 2010), and that Asian-White segregation has increased more in new places than established destinations from 1990 to 2010 (Frey 2018). Hall and Crowder (2014) also found that the likelihood of White out-mobility from neighborhoods with growing immigrant populations is higher in newer destinations (Hall and Crowder 2014). Altogether, these studies suggest that minoritized groups in new destinations are likely to face different experiences, outcomes, and reactions from local populations compared to their counterparts in traditional destinations, which in turn could result in varied trajectories of neighborhood patterns. However, little research has been conducted on the emergence and evolution of Asian ethnic neighborhoods in these different destinations.

Accordingly, this study provides a dynamic view of how various characteristics of Asian ethnic neighborhoods have evolved from 1980 to 2010 and how the trajectory of these characteristics varies across different immigrant destination types. I focus on changes in the number and size of ethnic neighborhoods; their spatial location, specifically focusing on suburbanization and the degree of spatially overlapping Asian clusters; and their social and economic characteristics, including the ethnoracial composition, education level of residents, and income. Investigating how these characteristics of ethnic neighborhoods for different Asian groups have evolved over time and across immigrant gateway types provides insights into the variation in the (in)stability of co-ethnic neighborhoods, resources, and institutions, as well as the

different pathways of incorporation for Asian groups across metropolitan contexts. Two research questions guide the descriptive analysis in this paper: (1) how have Asian neighborhoods and their demographic and socioeconomic characteristics changed from 1980 to 2010; and (2) are the trends different in newer and smaller destinations compared to more traditional destinations?

I examine the trends of Chinese and Vietnamese ethnic neighborhoods to keep the analysis parsimonious while still exemplifying the heterogeneity of the Asian population and illustrating the distinctions in residential trends across dissimilar Asian ethnic groups. Indeed, a handful of prior studies find significantly different residential patterns across distinct Asian ethnic groups (Hall 2013; Iceland et al. 2014; Logan et al. 2002; Walton 2015, 2017; Wen et al. 2009). I focus on Chinese and Vietnamese, in particular, because they have different contexts of arrival, socioeconomic characteristics, and racialization processes in the U.S. As one of the first Asian groups to arrive in the U.S. in the late 19th century, Chinese are currently the largest Asian group and composed of varying generations of immigrants, as well as both low-skilled and high-skilled immigrants (Xie and Goyette 2005). More recently, highly skilled and educated Chinese immigrants have arrived in large numbers with visas from the H-1B program that was implemented in 1990 to provide work visas for immigrants working in STEM fields (Xie and Goyette 2005).

In comparison, Vietnamese generally arrived in the U.S. as refugees starting in the late 20th century and have relatively lower socioeconomic status than the other Asian ethnic groups (Xie and Goyette 2005). Upon arrival in the U.S., Vietnamese were resettled by the U.S. government in generally low-income neighborhoods with other ethnoracial minorities and refugees (Bankston and Zhou 1997). Vietnamese have been described as part of the "collective Black," which means they are situated among the lower rungs of the American racial

stratification system along with Blacks, Cambodians, and dark-skinned Latinos (Bonilla-Silva 2004). This stands in contrast to Chinese being categorized as "honorary Whites" given their socioeconomic status and mode of arrival (Bonilla-Silva 2004). These distinctions between Chinese and Vietnamese emphasize the co-occurring processes of racialization and incorporation (Lee and Kye 2016). That is, Asians' varying non-White ethnoracial status and identity continue to play important roles in their incorporation processes and, in turn, their residential trajectories.

3. Data and methods

3.1. Data

I extract tract-level population counts for Chinese and Vietnamese, who reported a single race, from the U.S. decennial census data for the years 1980, 1990, 2000, and 2010. I study the period of neighborhood change between 1980 and 2010 for two reasons. First, this 30-year period captures important moments of Asian immigration to the U.S. that could influence residential patterns, including the early decades of the mass migration from Asia after the 1965 Immigration and Nationality Act and the implementation of the 1990 H-1B visa program that led to an influx of immigrants from Asian countries, notably India and China, with high skills and high levels of educational attainment. Second, from a data perspective, 1980 is the first decennial census that provided six different categories of Asian national origin, including Vietnamese. Prior to 1980, respondents could only select Chinese, Japanese, Filipino, or Korean.

To account for the continuously changing geographic boundaries of census tracts across decennial censuses due to changes in population growth and decline, I use the Longitudinal Tract Database (LTDB) to create tract-level estimates of the Asian group population size in 1980, 1990, and 2000 according to the 2010 tract boundaries. I also use the LTDB's publicly available

1980, 1990, 2000, and 2010 tract-level demographic and socioeconomic data that were already standardized to 2010 tract boundaries. An important limitation of using this data and standardizing tract boundaries is the error that is introduced into estimates, especially population counts, for tracts that experience complex boundary changes from one decade to another, such as splitting tracts or reconfiguring tracts (Logan, Stults, and Xu 2016; Logan, Xu, and Stults 2014). Since other longitudinal data sources, such as the Neighborhood Change Database, would not be able to address this issue either, I opt to use the LTDB because they provide tract-level crosswalks to harmonize across decennial census years, allowing me to standardize variables that are not already included in the LTDB's publicly available data. Specifically, since the LTDB's publicly available data use the "Asian alone or in combination with one or more races" category (and I am not interested in studying the multi-race Asian population in this study), I use these crosswalks to harmonize counts for the Chinese and Vietnamese "Asian alone" population. Moreover, LTDB provides "differential privacy" (DP) estimates for three variables in 2000 – median household income, percent non-Latino White, and percentage of residents with a Bachelor's degree or more – that are standardized to 2010 tract boundaries (Logan et al. 2021). The DP estimates, which use methods to inject random noise into true census tract characteristics that can then be publicly disclosed, are shown to be more accurate than the LTDB estimates based on interpolation (Logan et al. 2021). I thus use the DP estimates for the aforementioned three variables.

3.2. Ethnic neighborhood definition

In this paper, I focus on the geographic clustering of Chinese and Vietnamese. Compared to the dissimilarity index – which is more commonly used in residential segregation studies and

measures the extent to which members of an ethnoracial group are spread across neighborhoods of a city relative to another group – clustering accounts for the composition of residents in neighboring tracts and provides a local-level perspective of residential experiences (Massey and Denton 1988). Clustering indicates opportunities for an ethnic group to develop social institutions and resources, including religious services, community newspapers, and interpersonal networks, which in turn promote the context for an ethnic neighborhood (Alba and Nee 1997; Breton 1964; Massey and Denton 1988). In this study, I do not differentiate between the clusters of native-born and foreign-born Asian groups. Disaggregating by generation status is a fruitful endeavor in future work, which I discuss further in the Conclusion section.

Following previous studies (Lee 2021; Li and Zhang 2021; Logan et al. 2002; Walton 2015, 2017), I define a cluster as a group of neighboring census tracts that contain a high concentration of an Asian ethnic group relative to the local metropolitan area. To identify the clusters, two steps are taken. For each Asian ethnic group, I first identify the census tracts in a metropolitan area where the group's share of the total population in the census tract is higher than the group's share in the metropolitan area. Next, I identify which, if any, of the adjacent tracts also contain a higher share of the Asian group relative to the metropolitan area. For this second step, I use the Local Moran's I (LM-I) measure of spatial autocorrelation (Anselin 1995). It identifies a focal census tract and any contiguous neighboring tracts that have a positive and significant ($p<0.05$) value, where a positive value indicates that the focal and neighboring tracts have similar attributes, which in this case is a relatively high concentration of an Asian ethnic group. Neighboring tracts are identified using a spatial weights matrix with a first-order queen's definition of contiguous neighbors, which are tracts that share boundaries and vertices. An important component of being a cluster is there needs to be a *group* of neighboring census tracts;

if a census tract has a relatively high concentration of an Asian group but none of the neighboring tracts have relatively high concentrations of that group, it is not counted as a cluster. I separately identify clusters for Chinese and Vietnamese. Measured this way, individual census tracts can fall into more than one Asian group-defined cluster, indicating an overlapping of clusters for different Asian subgroups. In this study, clusters are the unit of analysis. I use the terms ethnic neighborhoods and clusters interchangeably.

With this approach, the clusters are statistically identified concentrations specific to local metropolitan contexts. Examining clusters within the metropolitan area in which they are situated is important because metropolitan areas have different demographic, historical, and ecological characteristics, as well as varying Asian populations, which in turn can affect residential stratification processes and dynamics (Pais, South, and Crowder 2012). As a result, the spatial clusters that I identify do not necessarily signify equivalent ethnically circumscribed spaces in terms of the cultural, social, or economic context. In other words, a Chinese cluster in Los Angeles, for example, is likely to be socially, culturally, and economically different than a Chinese cluster in, say, Columbus, OH. Nevertheless, by identifying metropolitan-specific clusters, I am able to capture the extent to which the residential patterns of Asian ethnic groups are consistent with the local ethnoracial demographic characteristics of the metropolitan area.[2]

[2] I conduct supplementary analysis using a global threshold, which uses the average percent Chinese and percent Vietnamese across all 57 metropolitan areas. Compared to using a local threshold of percent Chinese and percent Vietnamese in the individual metropolitan area, using the global threshold leads to more and larger ethnic neighborhoods in metropolitan areas that have larger Asian populations, as well as fewer and smaller ethnic neighborhoods in places with smaller Asian populations. This means that there may be some ethnic neighborhoods in larger metros, such as New York, that may not feel like Chinese/Vietnamese ethnic neighborhoods but would be included. Likewise, there may be some places in smaller metros, like Columbus, OH, that have identifiable features of a Chinese/Vietnamese ethnic neighborhood but are missed. As such, using the local threshold allows me to identify ethnic neighborhoods based on the local metropolitan area in which the neighborhood is situated. In this way, I argue that it is relative to the surrounding local context that ethnic neighborhoods are recognized as highly concentrated spaces with institutions and resources for co-ethnics to leverage.

3.3. Ethnic neighborhood characteristics

To address the research questions of this paper, I examine the change in the number, size, suburbanization, and spatial location of ethnic neighborhoods, as well as trends in the demographic and socioeconomic characteristics, from 1980 to 2010. The size of ethnic neighborhoods is measured as the number of census tracts that make up a cluster. The suburbanization of ethnic neighborhoods is measured as the percent of clusters that are suburban as defined in 2010. If more than half of the neighboring census tracts in a cluster is located outside of a principal city based on the 2010 U.S. Census Bureau delineation, then the cluster is categorized as suburban. Finally, to capture the theoretical framework that posits the overlapping of neighborhoods for ethnoracial and immigrant groups, especially in newer and unfamiliar territories, in order to pool resources together for support or as a response to potential discrimination (Hall and Crowder 2014), I include a measure for the degree of geographic overlapping of Asian clusters. Specifically, it is measured as the percent of tracts that are part of more than one Asian group-defined cluster. For this measure, I broaden the scope to include Asian Indian and Filipino clusters in order to assess the degree of overlapping clusters for the four largest Asian ethnic groups. In this way, I examine the percent of tracts in Chinese clusters that are also part of Vietnamese, Asian Indian, and Filipino clusters. Likewise, for Vietnamese clusters, I examine the percent of tracts in Vietnamese clusters that are also part of Chinese, Asian Indian, and Filipino clusters.

The demographic and socioeconomic characteristics of neighborhoods include the racial/ethnic composition, nativity profile, and socioeconomic status of all (including non-Asian) residents.[3] The racial/ethnic composition variables include percent of the population in a cluster

[3] These demographic and socioeconomic characteristics pertain to the total population in the specific group cluster and are not limited to Asian subgroups (for example, I am examining the education level of all residents in a Chinese

that is non-Latino White, non-Latino Black, Latino, Chinese, and Vietnamese. Nativity is assessed as percent of the population in the cluster who is foreign-born and percent who immigrated within the past 10 years of the census survey. Finally, the socioeconomic variables include the percentage of the population 25 years and over with at least a Bachelor's degree and the median household income in the cluster. These different neighborhood characteristics provide an opportunity to paint a dynamic picture of the evolution of Asian ethnic neighborhoods in different immigrant destinations.

3.4. Immigrant destination typology

I use Singer's (2015) immigrant gateway typology to define the different immigrant destinations. Using 2014 American Community Survey data, Singer (2015) identified 57 metropolitan areas as among the largest in population size in 2014 and together comprised 80 percent of immigrants at the time. Each of these metropolitan areas are categorized as one of the following seven different types of immigrant destinations (Singer 2015): (i) Former, which are metropolitan areas that had a larger immigrant share than the national average from 1900 to 1930; (ii) Major-Continuous, places with a larger immigrant share than average since 1900; (iii) Minor-Continuous, places with a larger immigrant share than average from 1900 to 1950 and in 2014; (iv) Post WW2, places with a larger immigrant share than average since 1950; (v) Re-Emerging, places with a larger immigrant share than average from 1900 to 1930, then faster immigrant growth rate than average from 1980 onwards; (vi) Major-Emerging, places with a larger immigrant share than

cluster, not the education level of Chinese residents in a Chinese cluster). This allows for an assessment of the overall neighborhood environment, as well as the associated resources and opportunities, where disproportionately high concentrations of an Asian group reside. Moreover, even though these clusters are defined as "ethnic" and contain high concentrations of an Asian ethnic group relative to the metropolitan area, Asians generally constitute only a minority of residents (Walton 2015). This means that the characteristics of the total population is more appropriate for capturing the general context of the ethnic neighborhood in which an Asian group resides.

average since 1990 and faster immigrant growth than average during at least one decade between 1970 and 2000; and (vii) Minor-Emerging, places with a faster immigrant growth than average in either the 1990s or 2000-2014 period.[4] Using this immigrant destination typology (Singer 2004, 2015) provides an opportunity to understand the role of historical contexts and immigration policies, and provides an opportunity to move beyond coarse definitions of new and traditional destinations.

Table 1 shows the population size for Chinese and Vietnamese in 2010 and the percentage change in population from 1980 to 2010 for each of the 57 metropolitan areas and their immigrant destination category. Chinese and Vietnamese populations have grown in all 57 metropolitan areas over the thirty years, except for Chinese in Hawaii, which has experienced a 3.8% decline from 1980 to 2010. The overall increase in population size for both Asian groups across the metropolitan areas demonstrates the rapid growth of the Asian population in the U.S.

[Table 1 around here]

Table 1 also illustrates the population change from 1980 to 2010 across immigrant destinations. Major-Emerging and Minor-Emerging destinations have witnessed the greatest population growth over the thirty years for both Chinese and Vietnamese. The majority of metropolitan areas categorized as Major-Emerging destinations and almost half of the metropolitan areas categorized as Minor-Emerging experienced a >1000% increase in the Chinese and Vietnamese population from 1980 to 2010. Notably, Vietnamese in Greensboro-High Point, NC, which is categorized as a Minor-Emerging destination, and Vietnamese in

[4] See Singer (2004, 2015) for a detailed explanation of how these immigrant destination categories were created, including the national average and growth rate of the foreign-born population for each decade.

Atlanta-Sandy Springs-Marietta, GA, a Major-Emerging destination, experienced substantial population growth over the thirty years (4200% and 3100% increase, respectively). In larger and more traditional destinations, including Major-Continuous, Minor-Continuous, Post WW2, and Re-Emerging, Asian populations were moderately large in 2010 but have experienced less population growth since 1980 compared to newer destinations. Specifically, fewer than half of metropolitan areas in each of these immigrant destination categories have experienced a >1000% population increase over the three decades. Though Vietnamese in McAllen-Edinburg-Mission, TX, a Minor-Continuous destination, experienced a 7900% increase in population size from 1980 to 2010. Meanwhile, Former destinations have relatively fewer Asians and experienced little population growth compared to all the other destinations, which is expected given the way this destination category is defined.

4. Results

I first present two maps (Figures 1 and 2) to help provide a general illustration of the clusters identified. Although this paper is focused on Chinese and Vietnamese clusters, I include Asian Indian and Filipino clusters in these two maps to help visually illustrate the trend of spatially overlapping neighborhoods of different Asian groups over time and between two types of immigrant destinations. These maps show the spatial evolution of Chinese, Vietnamese, Asian Indian, and Filipino clusters in Los Angeles-Long Beach-Santa Ana, CA metropolitan area, which is categorized as a Post WW2 destination and is often considered a traditional destination, and in Columbus, OH, which is categorized as a Minor-Emerging destination. These two metropolitan areas are used to exemplify how residential patterns may vary in a traditional and newer destination. Both maps include individual Chinese, Vietnamese, Filipino, and Asian

Indian ethnic neighborhoods, as well as census tracts that are part of more than one Asian ethnic neighborhood (Chinese, Vietnamese, Filipino, or Asian Indian cluster).

[Figures 1 and 2 around here]

There are two main takeaways from the maps, illuminating the importance of examining neighborhood patterns over time and in different immigrant destinations. First, in both metropolitan areas, ethnic neighborhoods for all four Asian ethnic groups have become larger over time in terms of the number of neighboring tracts that make up a given cluster. The gradual expansion of Asian ethnic neighborhoods is consistent with previous literature (Walton 2017) and suggests there are potentially more opportunities over time to develop co-ethnic resources and institutions. Second, while Asian clusters have grown in both metropolitan areas, the location of Asian clusters relative to each other differs between the two cities. In Los Angeles, ethnic neighborhoods for different Asian ethnic groups are situated in distinct geographic locations generally away from clusters of other Asian ethnic groups, as shown in Figure 1. That is, there are relatively few census tracts that belong to two or more Asian ethnic neighborhoods. Moreover, clusters for distinct Asian groups in Los Angeles have remained spatially separated over the thirty years. In comparison, in Columbus, clusters for the four Asian groups are generally situated in adjacent or overlapping areas, as shown in Figure 2. This pattern has become more evident over time, which suggests the gradual development of multi-Asian clusters where different Asian ethnic groups may reside together and perhaps combine resources in a relatively new and unfamiliar place (Hall 2013; Hall and Crowder 2014). Overall, these two maps provide a visual illustration of two types of spatial trends of ethnic neighborhoods for

different Asian ethnic groups and in different immigrant destinations. Moreover, these maps demonstrate the importance of disaggregating the Asian population. I now turn to the main set of results, first examining how ethnic neighborhood characteristics have changed over time and then exploring how such trends vary across immigrant destinations.

4.1. Ethnic neighborhood characteristics, 1980-2010

4.1.1. Number, size, and spatial location

Table 2 shows how the characteristics of the average Chinese and Vietnamese ethnic neighborhood across the 57 metropolitan areas have changed from 1980 to 2010. Over the three-decade period, the average number of Chinese clusters has remained the same (around 3) and the average number of Vietnamese clusters has declined by approximately 1. While, on average, the number of clusters has generally remained the same or decreased slightly, the size of clusters, as measured by the number of neighboring census tracts that are part of the cluster, has increased. Vietnamese clusters have seen more growth, increasing by on average 7 tracts from 1980 to 2010 compared to 4 tracts for Chinese clusters. Since tracts are based on population size, this does not necessarily mean that clusters have become larger in geographic space. Rather, these clusters have grown in population, which means there may be more opportunities to develop ethnic institutions and resources for co-ethnics.

[Table 2 around here]

Both Chinese and Vietnamese clusters have become more suburban over time, on average. By 2010, close to 4 in 10 Chinese and Vietnamese clusters were located in suburban

areas, up from 25 percent in 1980. This trend is consistent with prior studies showing increased suburbanization of Asian neighborhoods (Wen et al. 2009). Examining the rate of overlapping Asian clusters, Vietnamese clusters have become slightly more likely over time to overlap with other Asian clusters, while Chinese clusters have become modestly less likely. Yet, the average Vietnamese cluster has maintained relatively low rates of geographic overlapping with other Asian clusters (on average, less than 50% of tracts overlap with another Asian cluster over the three-decade period), while the average Chinese cluster has retained relatively high rates (more than 50% over the thirty years). This suggests that the potential for the development and maintenance of panethnic Asian clusters with shared and overlapping resources between distinct Asian groups may be slightly more likely for Chinese clusters than Vietnamese clusters.

4.1.2. Racial/ethnic composition

Table 2 shows that, on average, Chinese and Vietnamese clusters have become more ethnoracially diverse over time. Specifically, both Asian group clusters have experienced a decline in the non-Latino (NL) White share and an increase in the Asian, NL Black, and Latino share, which is generally consistent with prior research (Iceland et al. 2014). However, the pace of these trends differs across the two Asian groups with the average Vietnamese ethnic neighborhood becoming more racially/ethnically diverse over thirty years compared to the average Chinese cluster. In 1980, the NL White share in both Chinese and Vietnamese clusters was on average 75%. However, by 2010, the average Vietnamese cluster was majority non-White (the NL White share dropped to 47%), while the average Chinese cluster was still majority-White (58%). The decline in NL White presence in Vietnamese clusters was accompanied by a relatively large increase in the presence of NL Black residents from 8.8% in

1980 to 14% in 2010 and a doubling of the Latino share from 12% to 23% over the same period. In marked contrast, in the average Chinese cluster, the NL Black share in 1980 (7.5%) was about the same as the share in 2010 (7.8%), and Latino presence has increased only 3 percentage points on average over the same period. The relatively static presence of NL Black in Chinese clusters over thirty years is especially intriguing as it was lower in 2010 (7.8%) than the NL Black share in the average Vietnamese cluster in 1980 (8.8%). This suggests that by 2010 Chinese clusters were not even as ethnoracially diverse as Vietnamese clusters were in 1980, thirty years prior.

Consistent with prior research indicating increased residential isolation among Asians (Iceland 2009; Krysan and Crowder 2017), Table 2 shows that intragroup contact, measured as the ethnic group share in their own group-defined cluster, has increased substantially for both Chinese and Vietnamese clusters from 1980 to 2010. The percent Chinese in the average Chinese cluster more than doubled from 3.1% to 7.3% over the thirty years, while the percent Vietnamese in the average Vietnamese cluster increased more than threefold from 0.9% to 2.8% over the same period.

For comparison, Table 2 also includes the racial/ethnic composition of the average census tract that is not part of an Asian group-defined cluster. This includes tracts that are not part of a Chinese, Vietnamese, Asian Indian, Filipino, Japanese, or Korean cluster. On average, these tracts have also become more diverse over the 30 years with a modest increase in the NL Black share and a substantial growth in the Latino share. The Chinese and Vietnamese shares have remained relatively small (<0.7% in both 1980 and 2010) in these tracts that are not part of any Asian ethnic neighborhood, which help to highlight the relatively high concentration and over-representation of Chinese and Vietnamese in their respective clusters.

4.1.3. Nativity and socioeconomic context

The foreign-born and recent immigrant shares have increased for both Chinese and Vietnamese clusters, as shown in Table 2. From 1980 to 2010, the percent foreign-born in both Asian group clusters has on average doubled from approximately 12% to 23%. The percent immigrated in the past 10 years has also increased (around 2-3 percentage points) over thirty years for both group clusters. These trends in the nativity profile of residents are not surprising given that immigration has played a significant role in the growth of the U.S. Asian population. Moreover, the percent foreign-born and the percent recent immigrants in the average Chinese and Vietnamese cluster are higher than the level in the average non-Asian tract, which suggests the distinctive environment of these ethnic neighborhoods.

Finally, Table 2 shows that both Chinese and Vietnamese clusters have become more socioeconomically advantageous places of residence over the thirty years. This is not surprising as there has been a societal wide increase in educational attainment and median household income. However, by examining neighborhoods of distinct Asian ethnic groups, Table 2 shows that the difference in the level of income and educational attainment of residents between Chinese and Vietnamese clusters has increased over the thirty years, highlighting the stark inequality and diversity within the Asian population. In 1980, the median income in the average Chinese neighborhoods was around $20,100, while it was approximately $17,200 in the average Vietnamese neighborhood, yielding a difference of about $2,900. By 2010, however, this inequality increased more than fivefold. That is, the median household income in 2010 was around $77,600 in the average Chinese neighborhood and $61,800 in the average Vietnamese cluster, which means in 2010 the average Chinese neighborhood was wealthier by $15,800 than the average Vietnamese neighborhood. Another way to understand this growing inequality is to

consider the growth rate of income in these neighborhoods. The income in the average Chinese neighborhood rose around $57,500 from 1980 to 2010, which is about 1.3 times the $44,600 increase in income in the average Vietnamese neighborhood over the same period.

A similar trend of inequality is found for the educational attainment level between the average Chinese and Vietnamese ethnic neighborhood. In 1980, the percentage of residents with at least a Bachelor's degree in the average Chinese cluster was 29%, while it was 19% in the average Vietnamese neighborhood (a difference of 10 percentage points). However, by 2010, this difference increased twofold; the educated share of residents in the average Chinese cluster was 52% compared to 31% in the average Vietnamese neighborhood (producing a difference of 21 percentage points). Even more striking is the fact that the share of residents who are highly educated in the average Vietnamese neighborhood in 2010 (31%) was only just slightly above the level in the average Chinese cluster in 1980 (29%), which suggests the context in Vietnamese clusters are approximately 30 years behind that in Chinese clusters in terms of the educational attainment of residents. Moreover, Table 2 shows that the average Vietnamese ethnic neighborhood has a similar socioeconomic context to the average non-Asian neighborhood.

I now turn to an examination of how these trends in clusters vary across immigrant destinations, investigating whether clusters in new destinations follow a similar trajectory as those in more traditional destinations. Identifying differences across immigrant destination categories provides information about varying processes and trajectories of incorporation across metropolitan areas.

4.2. Ethnic neighborhood characteristics across immigrant destination types, 1980-2010

4.2.1. Number and size

Figure 3 presents the average number and size of Chinese and Vietnamese clusters from 1980 to 2010 by immigrant destination category, illustrating varying trends between more traditional and emerging immigrant destinations. For both clusters, there have consistently been on average more clusters in Major-Continuous and Post WW2 destinations over the three decades relative to other destinations, as shown in Figure 3a. Though there has been a dramatic drop in the number of Vietnamese clusters in both Major-Continuous and Post WW2 destinations from 1980 to 2010. At the same time, Figure 3b indicates that the size of the two Asian group-defined clusters in these two more traditional destinations has on average increased over time and generally remained above average over the three decades. These trends in the number and size of Asian ethnic neighborhoods are not surprising since Asian groups in traditional destinations have generally had a longer time to develop and establish ethnic neighborhoods compared to those in newer and smaller destinations that have only more recently received immigrants.

[Figure 3 around here]

Nevertheless, Figure 3 illuminates three emerging trends of Chinese and Vietnamese ethnic neighborhoods in destinations outside of these more traditional destinations, especially in Re-Emerging and Major-Emerging destinations. First, in Re-Emerging destinations, the average number of Chinese clusters has increased by 2 over the thirty years and by 2010 was at the same level as the number of Chinese clusters in Post WW2 destinations, as shown in Figure 3a. Second, the average Chinese cluster in Major-Emerging destinations has been larger in size than in both Major-Continuous and Post WW2 destinations since 1990, as illustrated in Figure 3b. In fact, by 2010, there were approximately 4 more census tracts in Chinese clusters in Major-

Emerging places than those in traditional destinations, indicating the substantial expansion of Chinese clusters in emerging gateways. Third, the average Vietnamese cluster in Major-Emerging and Re-Emerging gateways has grown in size over the three-decade period at a slightly faster pace than those in Major-Continuous and Post WW2 gateways, as shown in Figure 3b. By 2010, Vietnamese clusters in these two emerging destinations were about commensurate to the size of Vietnamese clusters in the two more traditional destinations. These trends suggest the growth and rising prominence of Asian neighborhoods in places outside of traditional destinations, which may reflect the growing Asian population in these places. Meanwhile, the average number and size of both Chinese and Vietnamese clusters in Former, Minor-Continuous, and Minor-Emerging destinations have remained consistently below average and lower than all the other destination types over the thirty years.

4.2.2. Spatial location

As Asian clusters have become larger in size over time, particularly in emerging destinations, to what extent has such growth resulted in clusters overlapping in geographic space? Theoretical frameworks posit the overlapping of neighborhoods for ethnoracial and immigrant groups, especially in newer and unfamiliar territories, in order to pool resources together for support or as a response to potential discrimination (Hall and Crowder 2014). Indeed, the maps of Los Angeles and Columbus presented earlier provide clues that these spatial patterns are occurring in new destinations compared to more traditional gateways.

Figure 4 sheds light on these spatial overlapping patterns across immigrant destinations, showing a complex set of findings. Chinese clusters in Major-Continuous destinations have experienced a substantial decline in the rate of overlapping clusters, falling 16 percentage points

from 58% in 1980 to 42% in 2010. This means that these clusters have become more likely over time to be located in unique geographic areas away from other Asian clusters. By contrast, Chinese clusters in immigrant destinations outside of Major-Continuous areas have seen relatively high and increasing rates of overlapping over the thirty years. For example, the average Chinese cluster in Minor-Continuous destinations has become more likely to overlap with other Asian clusters, increasing 12 percentage points from 53% in 1980 to 65% in 2010. Moreover, the rate of overlapping for Chinese clusters in Former destinations has remained on average higher than all other destinations over the thirty years (>70% since 1990). These trends in non-Major-Continuous destinations suggest that in relatively newer and more unfamiliar territories there may be more chances for Chinese to share spaces and pool resources with other Asian groups.

[Figure 4 around here]

In comparison to the pattern for Chinese clusters, the rate of overlapping for the average Vietnamese cluster in Major-Continuous destinations has remained consistently higher than in destinations outside of these traditional places, as shown in Figure 4. This suggests that there may be more opportunities for Vietnamese to develop panethnic Asian neighborhoods in this traditional destination category than in newer destinations. This finding perhaps points to the relatively later arrival of Vietnamese in the U.S. and then settling in areas already established by other Asian groups that arrived earlier. In comparison to this trend in Major-Continuous destinations, the level of overlapping with other Asian clusters in destination types outside of Major-Continuous destinations has remained generally low and somewhat steady over the three decades for Vietnamese clusters, except for those in Major-Emerging and Former destinations

that have seen an increase in overlapping clusters over time (14 and 7 percentage points, respectively).

[Figure 5 around here]

Nuanced findings about the trend of suburbanization and how it varies across immigrant destinations emerge, as shown in Figure 5. In general, Chinese and Vietnamese clusters in all immigrant destination types have experienced increased suburbanization, except for Vietnamese clusters in Former destinations and Chinese clusters in Minor-Emerging destinations. However, there are important differences across immigrant destination types. For Chinese clusters, suburbanization levels have been consistently low in Major-Continuous destinations over the three decades compared to other immigrant destination categories, suggesting a high level of urban Chinese ethnic neighborhoods in these established places. In comparison, the percentage of Chinese clusters located in suburban areas in Major-Emerging and Former destinations have on average been relatively high (above 50% for Chinese clusters in Former destinations over the three decades). For Vietnamese clusters, suburbanization levels have been relatively high in both more traditional destinations and emerging destinations over the thirty years. However, the rate of change of suburbanization for Vietnamese clusters in Major-Emerging and Re-Emerging has been higher than that in Major-Continuous and Post WW2 destinations. By 2010, there were more suburban Vietnamese clusters in Major-Emerging and Re-Emerging places than the two more traditional destinations. These patterns indicate a high level of suburbanization for both Asian clusters in emerging destinations.

Notably, Figures 4 and 5 show that, over the thirty years, Chinese and Vietnamese clusters in Major-Emerging destinations have established trends distinct from those in other destination types. That is, clusters in this destination type have become increasingly likely to overlap with other Asian clusters and are rapidly suburbanizing. In fact, by 2010 in Major-Emerging destinations, most tracts for both Asian group clusters were part of more than one Asian ethnic neighborhood (66% and 58% for the average Chinese and Vietnamese cluster, respectively), and at least half of Chinese and Vietnamese clusters were suburban. These trends are unique to this destination type and thus provide further evidence of the varying spatial patterns in new destinations compared to traditional destinations.

4.2.3. Racial/ethnic composition

Figure 6 shows substantial differences in the evolution of the racial/ethnic profile of Asian ethnic neighborhoods across different immigrant destination types. I will specifically focus on how the trends vary across Major-Continuous, Post WW2, and Major-Emerging destinations. First, the increased diversity in both Chinese and Vietnamese clusters in Major-Continuous has been associated with on average (i) a substantial decline in the NL White share to less than half by 2010; (ii) a substantial growth in the Asian share; and (iii) a decline or modest increase in the NL Black and/or Latino share. For example, for the average Chinese cluster in Major-Continuous destinations, the Asian share (both percent own ethnic group and percent other Asian group) doubled from 17% in 1980 to 33% in 2010, while the NL Black and Latino share decreased from 10% to 6% and 14% to 9% over the same period, respectively. Likewise, the Asian share in the average Vietnamese cluster in Major-Continuous destinations increased threefold from around

9% to 24% over the three decades, while the NL Black share decreased from 11% to 9% and the Latino share increased modestly from 15% to 21% over the same period.

[Figure 6 around here]

Second, in comparison to clusters in Major-Continuous destinations, ethnic neighborhoods in Post WW2 destinations have experienced increased racial diversity. While in Major-Continuous destinations the substantial decline in NL White share for both Chinese and Vietnamese clusters was tied to more Asian presence and less NL Black and Latino presence, in Post WW2 destinations it was associated with a substantial increase in the Asian, NL Black, *and* Latino shares over the thirty years. By 2010, the share of all three of these ethnoracial groups in both Chinese and Vietnamese clusters in Post WW2 destinations was higher than the share in the average metropolitan area.

Third, in contrast to these two more traditional destinations, both Chinese and Vietnamese clusters in Major-Emerging destinations have witnessed a considerably large growing presence of NL Black and Latino populations. While the Asian share has increased modestly in this destination type, the increased ethnoracial diversity has been primarily driven by the NL Black and Latino shares. On average, in Major-Emerging places, both the percent NL Black and the percent Latino have increased two to three times from 1980 to 2010 in Chinese clusters, while they have increased more than threefold over the same period in Vietnamese clusters. Specifically, the NL Black share in the average Vietnamese cluster in Major-Emerging destinations has increased fivefold from 6% in 1980 to 30% in 2010 and the Latino share has increased more than threefold from 8% to 27% over the same period. The varying trajectories of

the racial/ethnic composition in Asian ethnic neighborhoods in newer destinations compared to traditional places, and even between the two more traditional destinations, suggest there are likely different social dynamics between and within ethnoracial groups across metropolitan contexts, which has important implications for racial relations, group boundary processes, and broader life course chances.

4.2.4. Nativity and socioeconomic context

Figure 7a shows that Chinese and Vietnamese clusters in Major-Continuous and Post WW2 destinations have consistently higher foreign-born shares than other destinations. This may not be surprising given that these destinations have a longer history of receiving immigrants and thus would be expected to have more immigrants than newer destinations. However, in newer destinations, the change in percent foreign-born from 1980 to 2010 was approximately at the same rate or more than the rate of change in traditional destinations, indicating the substantial growth of immigrants in these emerging areas. For example, the foreign-born presence in the average Chinese cluster in both Re-Emerging and Major-Emerging destinations increased approximately 12 percentage points over three decades, while it grew only 3 percentage points in Major-Continuous places over the same period. Similarly, in the average Vietnamese ethnic neighborhood in Major-Emerging destinations, the percent foreign-born has witnessed a substantial increase over the thirty years from 6% in 1980 to 24% in 2010, a change of about 19 percentage points. By comparison, Vietnamese clusters in both Major-Continuous and Post WW2 destinations increased approximately 12 percentage points over the same time.

[Figure 7 around here]

While the foreign-born share has increased in Asian clusters and across all destinations, the duration of residence of these immigrants adds a layer of nuance, as shown in Figure 7b. Asian clusters in smaller and less established destinations, including Major-Emerging, Minor-Emerging, Re-Emerging, and Minor-Continuous places, have seen a generally steady increase in the presence of recent immigrants from 1980 to 2010. In comparison, in Chinese and Vietnamese clusters in more traditional destinations, namely Major-Continuous and Post WW2 destinations, there has been on average a decline in the share of recently arrived immigrants in clusters from 2000 to 2010. As such, although the foreign-born share has increased in Asian clusters across all destinations, those in newer and smaller destinations are increasingly home to relatively more recent immigrants, whereas those in traditional destinations are becoming places of residence for relatively more established immigrants.

[Figure 8 around here]

Finally, I examine whether the rising socioeconomic levels in Asian clusters vary across immigrant destinations. Figure 8 shows an emerging trend of divergence in the education level of residents and median household income across immigrant destination types. In 1980, the education level of residents in both Chinese and Vietnamese clusters were somewhat comparable across the immigrant destination types; there was only a difference of about 5-7 percentage points across the immigrant destinations. However, by 2010, there appears to be a larger gap in educational attainment across the immigrant gateways with Asian group clusters in both Minor-Emerging and Major-Continuous destinations experiencing a larger increase in the level of

highly educated residents over time than other destinations, as shown in Figure 8a. From 1980 to 2010, the average Chinese cluster in these two destination types experienced around a 30-percentage point increase in the college educated share from an average of 26% to 56%. This was the highest increase in percentage points for Chinse clusters out of all the destination types and was about two times the 16-percentage point increase in Minor-Continuous destinations over the same period (from 30% to 46%), which witnessed the smallest change. Likewise, the average Vietnamese cluster in Minor-Emerging and Major-Continuous destinations experienced the highest increase in highly educated residents from 1980 to 2010 (17 and 15 percentage points, respectively), which was more than 2 times the 7-percentage point increase in highly educated residents in Major-Emerging destinations over the same period, which witnessed the slowest growth.

Increasing disparities across immigrant destination types also emerge for the median household income in both Chinese and Vietnamese clusters, as presented in Figure 8b. Again, in 1980, the level of income in Asian group clusters was fairly equal across immigrant destinations. However, by 2010, the median household income for both Asian group clusters in Post WW2 destinations has on average increased at a faster rate than in other destinations and has been generally higher than all other destination types over the thirty years. Chinese and Vietnamese clusters in Former destinations, in comparison, have experienced the slowest increase in income over the thirty years. To put this more concretely, the median household income in the average Vietnamese cluster in Post WW2 destinations has increased by approximately $54,000 from 1980 to 2010, which is 1.5 times the $36,000 increase in the average Vietnamese cluster in Major-Emerging destinations and Former destinations over the same period. Similarly, the income in the average Chinese cluster in Post WW2 destinations has increased $66,000 over the

three decades, which is 1.5 times the $43,000 increase in Former destinations. Overall, these trends point to a meaningful divergence in the socioeconomic context of Asian group clusters across metropolitan contexts, suggesting that clusters in less traditional areas are not flourishing to the same degree as those in traditional places.

5. Discussion and conclusion

As Asians are the fastest growing ethnoracial group in the United States and are increasingly moving to metropolitan areas outside traditional gateways (Frey 2011), more work is needed to study their varying residential contexts, especially in emerging and smaller destinations. Doing so would further our understanding of how the opportunities and constraints that distinct Asian groups face are different in relatively new and unfamiliar areas compared to more traditional places that have a longer history of receiving immigrants. This paper strives to take the first step towards such investigations by illuminating how the contexts for Chinese and Vietnamese ethnic neighborhoods have changed from 1980 to 2010, and how those trends vary across different types of immigrant gateways.

Overall, over thirty years, this study finds that Asian ethnic neighborhoods have experienced substantial change but still appear to be important places of residence for Asian groups. They have become larger in size, more highly concentrated with co-ethnics, and more suburban. They continue to be places of residence for immigrants, including recent arrivals. Moreover, their overall socioeconomic characteristics have improved. These trends are generally in line with other research that has found expanding Asian neighborhoods (Walton 2017) and increasing levels of residential segregation, as measured by the isolation index, for the Asian population (Iceland 2009; Krysan and Crowder 2017). The increasing level of intragroup contact

is not surprising given the rapid and continued growth of the Asian population, especially through immigration (Iceland 2009). These findings suggest that in general Chinese and Vietnamese ethnic neighborhoods are increasingly becoming an important part of the American residential landscape and continue to be important sites of resources and institutions for co-ethnics.

Yet, the results also highlight the sustained stratification within the Asian population and further underscore the necessity to destabilize and dismantle the dominant notion that Asians are a homogenous group. This paper shows that there are drastic distinctions in the ethnoracial composition and socioeconomic contexts between Chinese and Vietnamese clusters, which are generally consistent with prior cross-sectional research (Kim and White 2010; Lee 2021; Li and Zhang 2021; Walton 2015). Chinese clusters are places with relatively high levels of socioeconomic status, while Vietnamese clusters are more racially diverse and have lower socioeconomic status. These disparities may reflect differences in the mode of arrival and levels of socioeconomic status between the two groups; since the late 20th century, Chinese have generally arrived in the U.S. with occupational visas based on skills and education level, whereas Vietnamese generally arrived as refugees with few means and were resettled by the U.S. government. Importantly, this study finds that these group differences in neighborhood contexts appear to be persisting over time with little indication of convergence, highlighting a need to continue to disaggregate the Asian population in studies to understand the varying opportunities, experiences, and outcomes of distinct Asian groups.

This exploratory analysis also illuminates an emerging trend where Asian group clusters in newer and relatively less familiar destinations appear to be places of both opportunity and constraint, while clusters in more traditional places appear to be flourishing places of residence

with well-established services and resources for co-ethnics to leverage. Opportunities appear to be developing in these emerging gateways along three dimensions. First, Asian group clusters in emerging and less established destinations are increasingly becoming home to relatively more recent immigrants compared to those in more traditional destinations, perhaps creating an environment of new economic possibilities. Recently arrived immigrants may move directly to these new destinations perhaps to access certain labor markets that have developed in these places. For example, the concentration of healthcare, education, and technology-related sectors in these non-traditional areas in recent decades have drawn skilled immigrants, especially those on H-1B visas, of which Chinese and Asian Indian immigrants constitute a significant share (Flippen and Farrell-Bryan 2021).

Second, clusters in newer destinations have also become more racially diverse; the NL Black and Latino shares have increased more in Asian ethnic neighborhoods located in newer destinations than more traditional places. This racial context may provide more opportunities for inter-group contact and the development of inter-group networks, which has important implications for race relations, group identity formation, and the color line in the U.S. more broadly. Related to this point about inter-group contact is the third way clusters in emerging destinations appear to be developing as places of opportunity: Asian group clusters in newer destinations are increasingly occupying similar geographic areas as clusters of other Asian groups, while clusters in more traditional destinations are maintaining unique spatial locations. Different Asian ethnic groups in newer destinations may thus consolidate their capital and knowledge, allowing them to collaborate and navigate a new city collectively.

At the same time, however, a context of potential constraint, conflict, and difficulty may be appearing in Asian ethnic neighborhoods in these newer, less traditional destinations. As

emerging destinations generally have a shorter history of receiving immigrants, they are generally more unfamiliar environments for arriving immigrant and minority groups. As such, the increased spatial overlapping of Asian group clusters in these places may instead signal the need for different ethnic groups to merge resources in response to potential hostility, antagonism, and discomfort from local populations (Hall 2013; Hall and Crowder 2014). Additionally, the higher level of racial diversity may instead be associated with inter-group tension and conflict due to competition for labor or resources. Moreover, although the level of socioeconomic attainment is improving in Asian clusters in newer destinations, it is advancing at a relatively slower rate than those in more traditional destinations. This suggests that clusters in emerging destinations are making only adequate progress socioeconomically, perhaps due to obstacles and constraints from anti-immigrant policies or inter-group conflict, while clusters in traditional destinations are thriving as places of residence.

Accordingly, this study provides the groundwork of understanding how the social and economic context in Asian ethnic neighborhoods in newer destinations is drastically different from those in traditional destinations. Importantly, these differences across immigrant destinations appear to be enduring over time and, along some facets, diverging dramatically. Clusters in traditional destinations may thus continue to thrive and prosper, while clusters in emerging destinations are left behind. With the continued rapid growth of the Asian population, especially in emerging destinations, these ethnic neighborhoods are likely to continue to grow and diverge in their characteristics, which may, in turn, prompt a bifurcated residential landscape for Asians between newer and more traditional areas. Although this study makes important steps to shed initial light on these important variations, more work, especially qualitative studies, is needed to understand the residential experiences, opportunities, and constraints for Asian ethnic

groups in these less established and emerging destinations. This has substantial implications for understanding broader dynamics of stratification across metropolitan areas, as well as varying life course trajectories for Asian groups in different contexts.

There are also other avenues for future research to explore. While this study focuses on the residential patterns of two distinct Asian ethnic groups, other axes of the Asian population are important to consider in future work. For example, future studies should examine the residential patterns of other Asian ethnic groups, including Filipinos, Asian Indians, Japanese, Koreans, and Cambodians, who have other distinguished characteristics and modes of arrival. These other Asian groups, in particular Filipinos and Asian Indians, have also experienced their own distinct racialization processes in American society (Lee and Ramakrishnan 2020; Ocampo 2016), which could further shape different neighborhood patterns. Thus, the findings in this paper, which investigate the residential patterns of only Chinese and Vietnamese, are likely a conservative illustration of disparities in neighborhood contexts between Asian ethnic groups. Investigating the residential patterns of other Asian ethnic groups would likely magnify the differences in residential dynamics and would provide another lens through which to understand broader stratification patterns in the Asian population (Lee and Kye 2016).

In addition to different ethnic national origins, the U.S. Asian population is varied in the modes of arrival, immigration waves, and generation statuses. More research is needed to understand the extent to which and how different contexts of arrival may shape varied residential patterns. For example, how does the arrival as highly skilled immigrants influence residential trajectories compared to arriving as refugees? Even more so, more attention should be paid to teasing out how different waves of immigration, including refugee migration, from the same country of origin may influence where groups live and the neighborhood conditions that they

experience (FitzGerald and Arar 2018). For example, do refugees from Vietnam who directly fled from violence experience similar residential conditions and trajectories as those who arrived from Vietnam as part of family reunification? Relatedly, how do first, second, third and beyond generations of Asians differently experience neighborhood conditions? Overall, given the dearth of research on these diverse sub-groups within the U.S. Asian population, it is still an open empirical question of whether and how their residential experiences vary. Understanding these nuanced distinctions would have important implications for further understanding the different residential patterns and incorporation processes within the heterogeneous Asian population.

Future research should also pay attention to the residential patterns of Asian groups with different legal statuses. Indeed, 1 in 7 Asian immigrants is unauthorized and the Asian unauthorized population in the U.S. is increasing at a faster rate than their Mexican and Central American counterparts (Lee and Ramakrishnan 2021; Ramakrishnan and Shah 2017). There is thus an increasing need to examine and understand the residential contexts, experiences, outlooks, and mechanisms for this vulnerable population, and how these may vary across immigrant destinations that have different social and political contexts, including places identified as sanctuary cities. Such efforts would provide an opportunity to refine existing theoretical frameworks and to understand the implications of the fear of deportation or other discriminatory experiences for Asian residential patterns and broader incorporation processes.

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Table 1. Chinese and Vietnamese population in 2010 and population change from 1980 to 2010, by metropolitan area and immigrant destination type

Metropolitan area (MSA) and immigrant destination type	Total population in MSA, 2010	Chinese		Vietnamese	
		Percent of total, 2010	Percent change, 1980-2010	Percent of total, 2010	Percent change, 1980-2010
Former					
Detroit-Warren-Livonia, MI	4,296,250	0.5	211.7	0.1	435.5
St. Louis, MO-IL	2,812,896	0.5	380.3	0.3	635.2
Pittsburgh, PA	2,356,285	0.5	340.9	0.1	181.5
Cleveland-Elyria-Mentor, OH	2,077,240	0.5	244.5	0.1	189.9
Providence-New Bedford-Fall River, RI-MA	1,600,852	0.5	291.2	0.1	501.1
Milwaukee-Waukesha-West Allis, WI	1,555,908	0.4	214.3	0.1	213.4
Buffalo-Niagara Falls, NY	1,135,509	0.5	264.0	0.2	561.7
Major-Continuous					
New York-Northern New Jersey-Long Island, NY-NJ-PA	18,897,109	3.3	296.0	0.1	326.8
Chicago-Joliet-Naperville, IL-IN-WI	9,461,105	0.9	245.6	0.2	305.7
Boston-Cambridge-Quincy, MA-NH	4,552,402	2.3	361.6	0.7	1,292.7
San Francisco-Oakland-Fremont, CA	4,335,391	9.5	189.7	1.3	394.3
Minor-Continuous					
San Antonio-New Braunfels, TX	2,142,508	0.3	240.5	0.2	298.6
Hartford-West Hartford-East Hartford, CT	1,212,381	0.6	486.7	0.4	525.0
Rochester, NY	1,054,323	0.6	308.8	0.3	315.2
Tucson, AZ	980,263	0.6	215.8	0.4	662.5
Honolulu, HI	953,207	5.3	-3.8	0.9	169.9

Fresno, CA	930,450	0.6	80.5	0.3	427.8
Bridgeport-Stamford-Norwalk, CT	916,829	1.0	420.3	0.2	272.6
New Haven-Milford, CT	862,477	0.9	519.1	0.2	473.6
Bakersfield-Delano, CA	839,631	0.3	87.9	0.2	316.5
Oxnard-Thousand Oaks-Ventura, CA	823,318	1.0	312.1	0.5	410.2
El Paso, TX	800,647	0.1	99.3	0.1	194.9
Worcester, MA	798,552	0.8	890.1	0.9	1,292.3
McAllen-Edinburg-Mission, TX	774,769	0.1	1,056.9	0.1	7,880.0
Stockton, CA	685,306	1.1	86.6	1.1	659.9
Modesto, CA	514,453	0.5	154.4	0.3	345.0
Post WW2					
Los Angeles-Long Beach-Santa Ana, CA	12,828,837	3.2	285.4	2.1	464.7
Dallas-Fort Worth-Arlington, TX	6,371,773	0.7	725.5	1.1	1,202.4
Houston-Sugar Land-Baytown, TX	5,946,800	1.1	387.9	1.7	609.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,582,170	1.5	362.2	1.1	444.7
Miami-Fort Lauderdale-Pompano Beach, FL	5,564,635	0.5	965.1	0.2	1,895.8
Riverside-San Bernardino-Ontario, CA	4,224,851	0.8	837.4	0.6	1,145.7
San Diego-Carlsbad-San Marcos, CA	3,095,313	1.5	478.7	1.4	504.9
Re-Emerging					
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5,965,343	1.1	524.3	0.5	591.3
Seattle-Tacoma-Bellevue, WA	3,439,809	2.2	386.6	1.6	759.1
Minneapolis-St. Paul-Bloomington, MN-WI	3,279,833	0.6	420.1	0.6	399.5
Tampa-St. Petersburg-Clearwater, FL	2,783,243	0.3	617.5	0.5	902.9
Baltimore-Towson, MD	2,710,489	0.8	410.8	0.2	577.5
Denver-Aurora-Broomfield, CO	2,543,482	0.6	494.6	0.7	496.6

Portland-Vancouver-Hillsboro, OR-WA	2,226,009	1.1	339.2	1.2	483.3
Sacramento-Arden-Arcade-Roseville, CA	2,149,127	2.4	233.5	1.3	906.7
San Jose-Sunnyvale-Santa Clara, CA	1,836,911	7.4	496.5	6.8	972.6
Major-Emerging					
Atlanta-Sandy Springs-Marietta, GA	5,268,860	0.7	1,170.5	0.7	3,075.8
Phoenix-Mesa-Glendale, AZ	4,192,887	0.5	434.3	0.5	1,498.7
Orlando-Kissimmee-Sanford, FL	2,134,411	0.5	1,147.9	0.6	945.9
Las Vegas-Paradise, NV	1,951,269	1.2	1,263.2	0.4	1,306.8
Charlotte-Gastonia-Rock Hill, NC-SC	1,758,038	0.4	998	0.6	1,586.8
Austin-Round Rock-San Marcos, TX	1,716,289	0.9	1,039.4	0.8	1,296.3
Minor-Emerging					
Columbus, OH	1,836,536	0.6	460.3	0.2	413.7
Indianapolis-Carmel, IN	1,756,241	0.4	670.1	0.2	392.9
Nashville-Davidson-Murfreesboro-Franklin, TN	1,589,934	0.3	1,070.6	0.2	1,289.5
Raleigh-Cary, NC	1,130,490	0.8	1,193.0	0.5	1,368.4
Salt Lake City, UT	1,124,197	0.6	316.6	0.6	447.8
Greensboro-High Point, NC	723,801	0.3	734.8	0.8	4,204.3
Cape Coral-Fort Myers, FL	618,754	0.2	1,167.7	0.2	1,290.8
Lakeland-Winter Haven, FL	602,095	0.2	544.3	0.2	293.0
Durham-Chapel Hill, NC	504,357	1.3	1,150.5	0.2	587.3

Table 2. Characteristics of the average Chinese cluster, Vietnamese cluster, and non-Asian cluster across 57 metropolitan areas, 1980 and 2010

Characteristic	Year	Chinese cluster	Vietnamese cluster	Non-Asian cluster
Number, size, and spatial location				
Number of clusters	1980	3.3	4.6	-
	2010	3.2	3.5	-
Size of clusters (# of tracts)	1980	12.9	7.6	-
	2010	16.5	14.4	-
Percent suburban	1980	26.9	25.2	-
	2010	35.5	38.1	-
Percent overlapping Asian clusters	1980	61.6	45.3	-
	2010	60.5	48.6	-
Racial/ethnic composition				
Percent NL White	1980	75.8	73.3	73.8
	2010	57.5	46.5	55.8
Percent NL Black	1980	7.5	8.8	14.7
	2010	7.8	14.1	15.2
Percent Latino	1980	8.9	11.9	9.5
	2010	12.4	23.0	22.9
Percent Chinese	1980	3.1		0.3
	2010	7.3		0.6
Percent Vietnamese	1980		0.9	0.1
	2010		2.8	0.3
Nativity and socioeconomic characteristic				
Percent foreign-born	1980	13.0	12.8	8.5
	2010	23.0	23.1	16.2
Percent immigrated in past 10 years	1980	6.2	6.7	3.1
	2010	9.2	8.8	5.6
Percent with at least a BA degree	1980	29.1	18.9	16.9
	2010	51.9	30.9	29.0
Median household income	1980	20,068.2	17,189.7	18,904.0
	2010	77,590.6	61,819.3	62,528.2

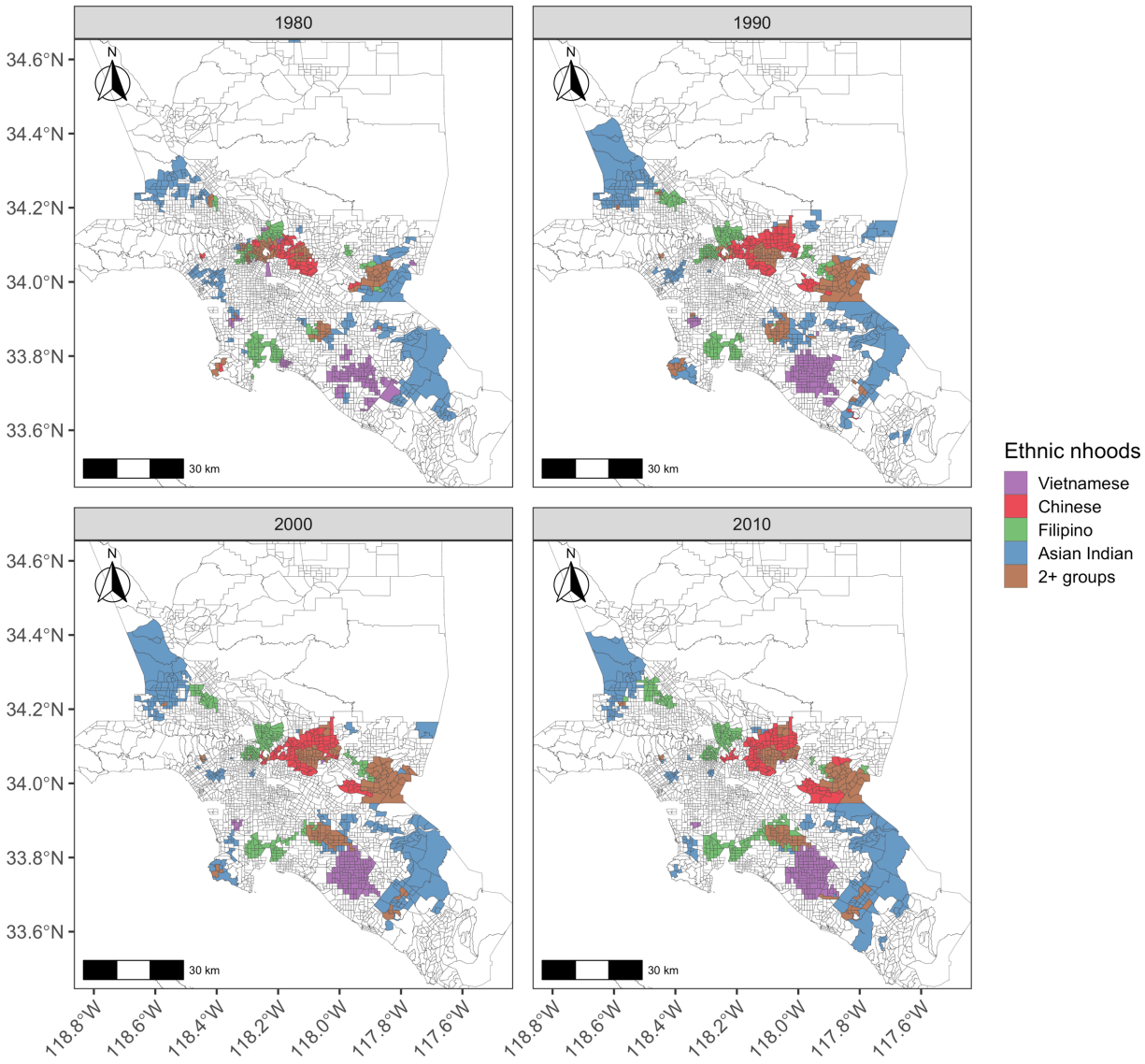


Figure 1. Asian ethnic neighborhoods in Los Angeles-Long Beach-Santa Ana, CA metropolitan area, 1980-2010

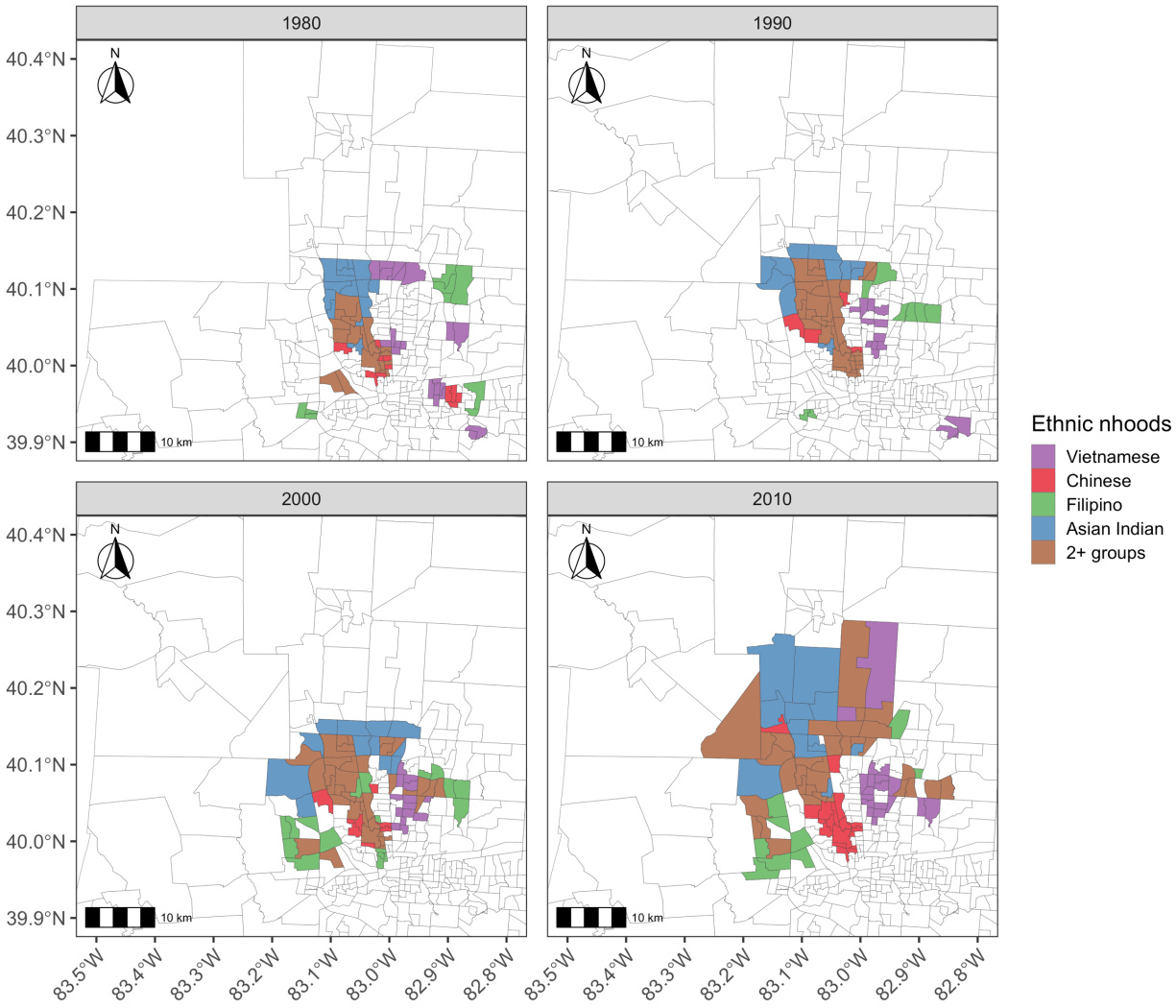
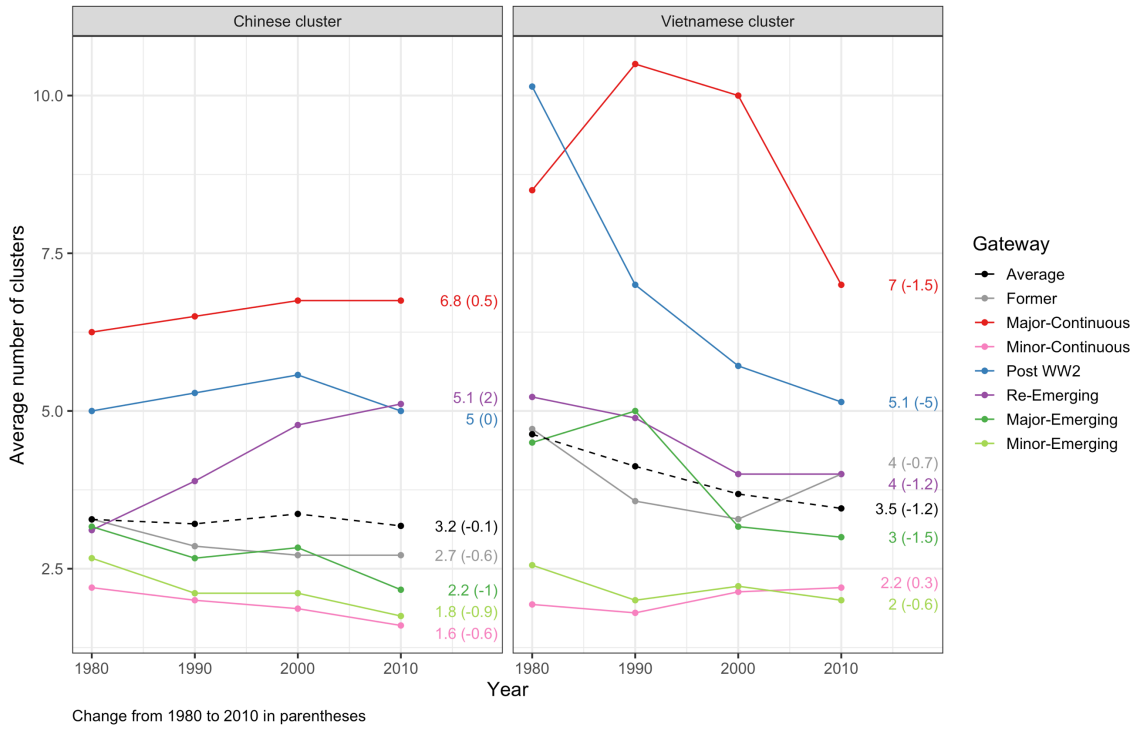


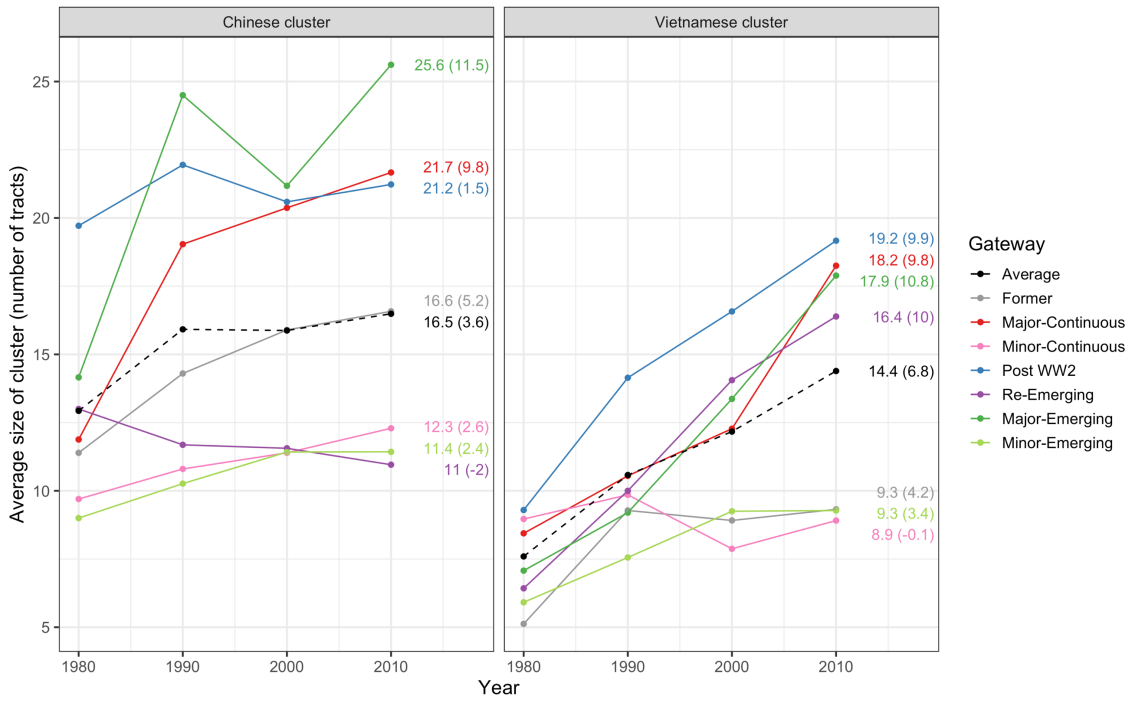
Figure 2. Asian ethnic neighborhoods in Columbus, OH, 1980-2010

a.



Change from 1980 to 2010 in parentheses

b.



Change from 1980 to 2010 in parentheses

Figure 3. Average number (a) and size (b) of Chinese and Vietnamese clusters, by immigrant gateway type, 1980-2010

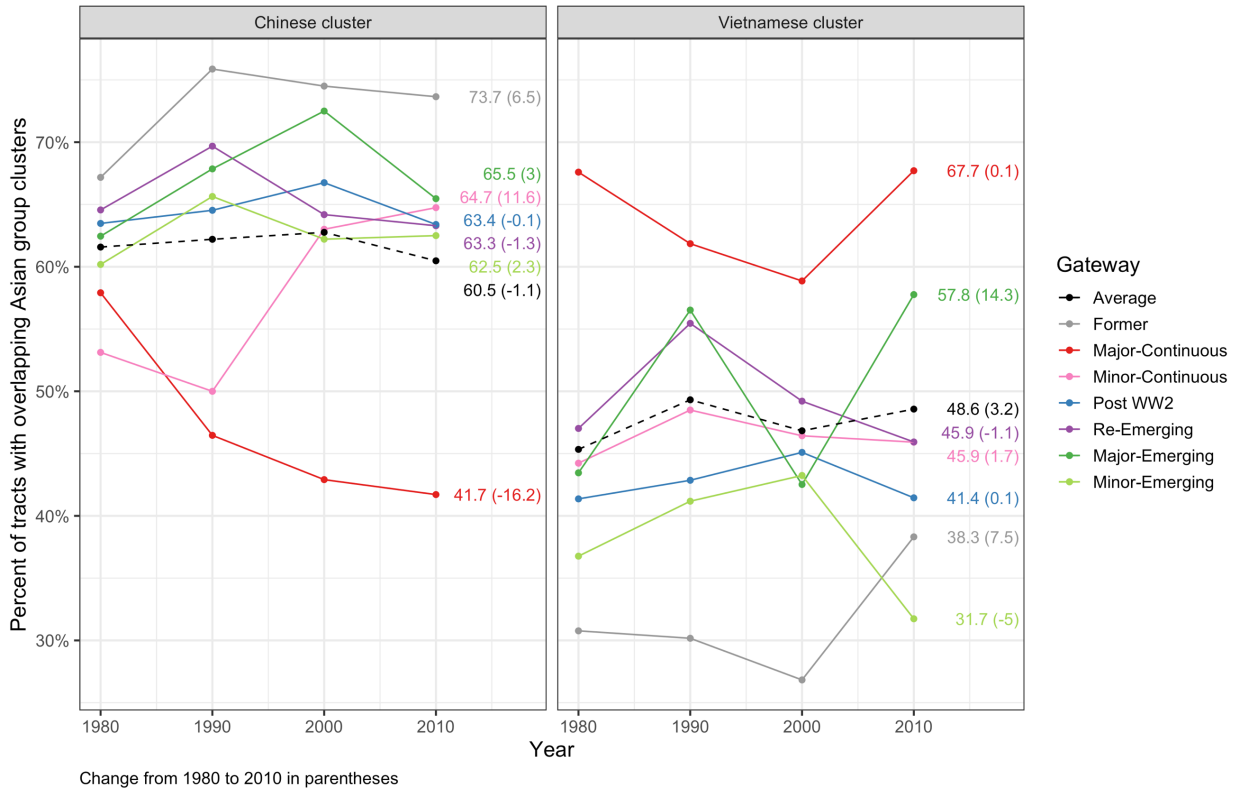


Figure 4. Percent of tracts with overlapping Asian group clusters, Chinese and Vietnamese clusters, by immigrant gateway type, 1980-2010

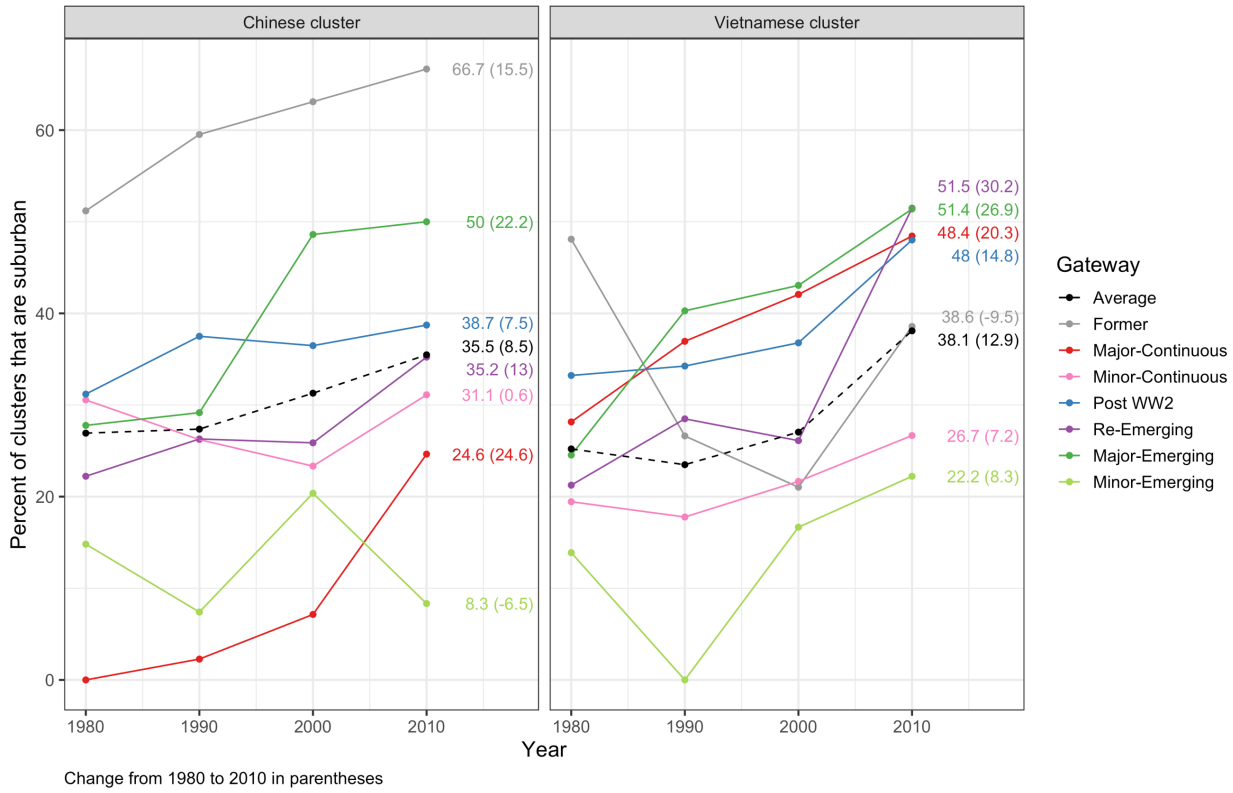
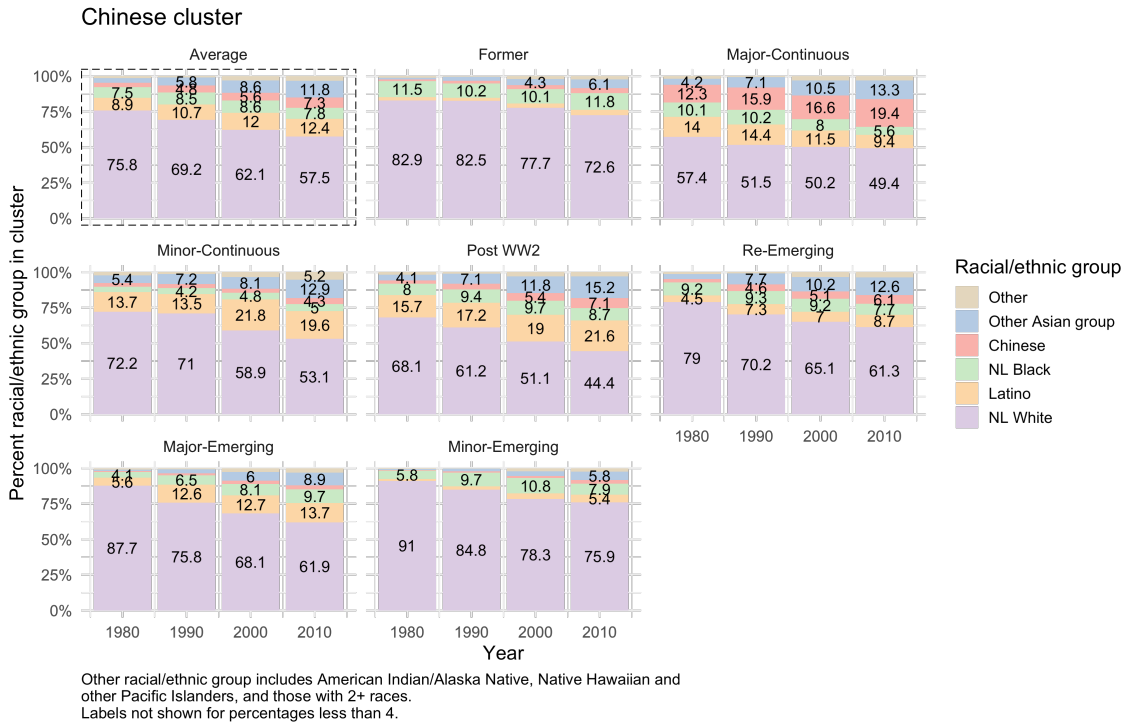


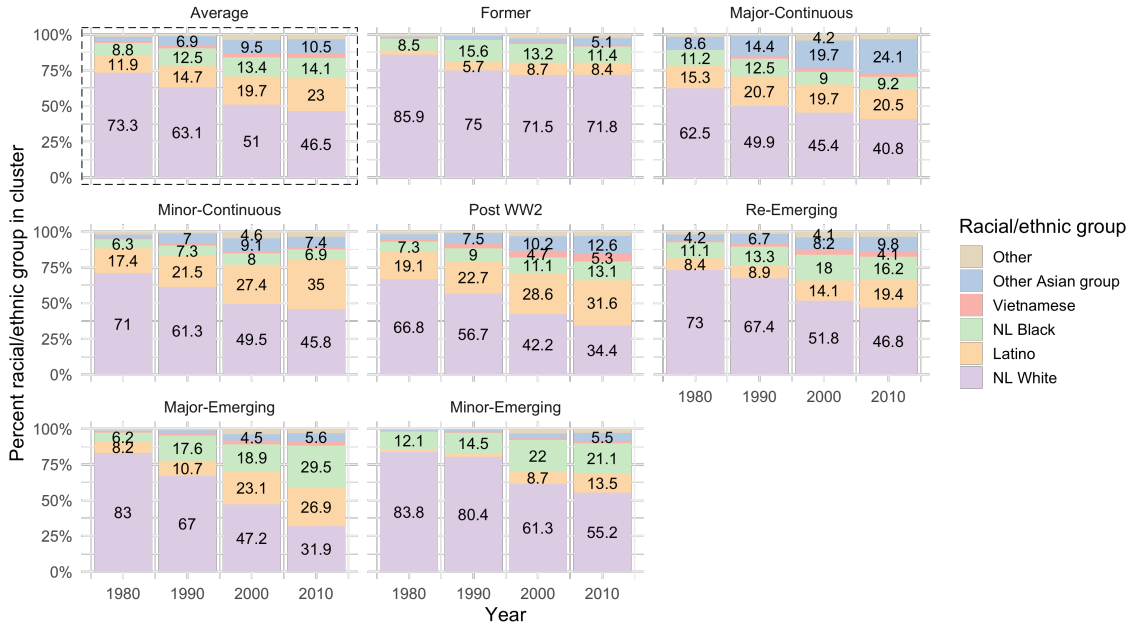
Figure 5. Percent of clusters that are suburban, Chinese and Vietnamese clusters, by immigrant gateway type, 1980-2010

a.



Other racial/ethnic group includes American Indian/Alaska Native, Native Hawaiian and other Pacific Islanders, and those with 2+ races.
Labels not shown for percentages less than 4.

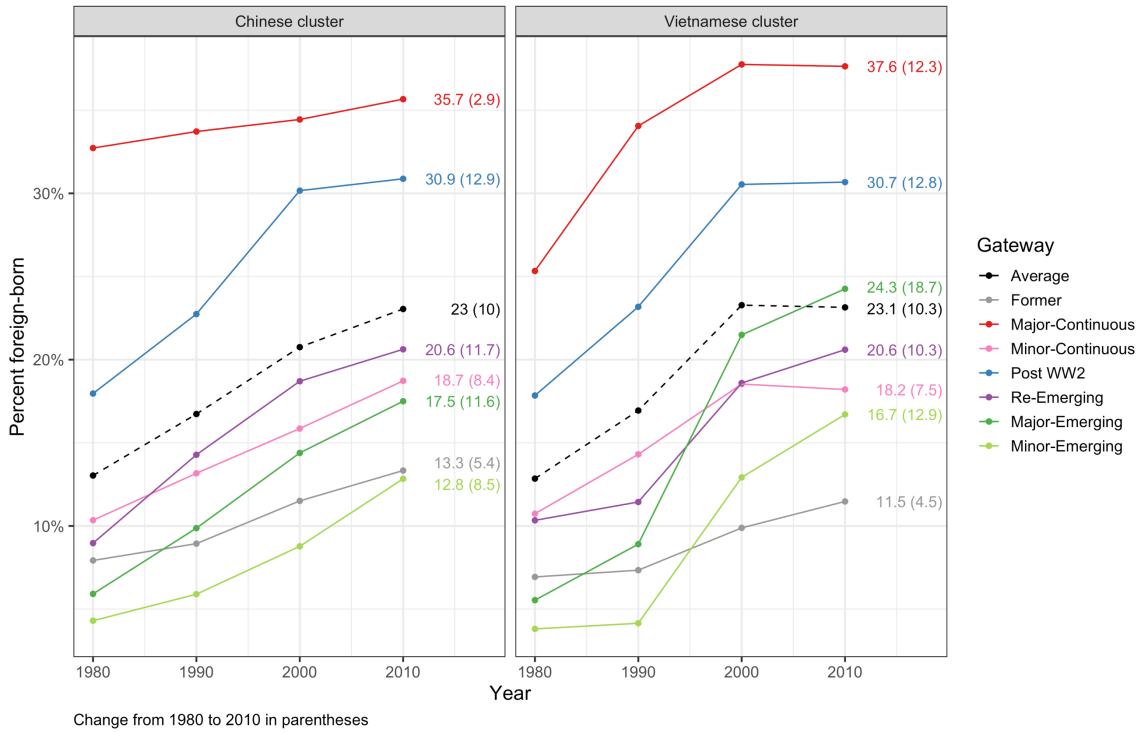
b.



Other racial/ethnic group includes American Indian/Alaska Native, Native Hawaiian and other Pacific Islanders, and those with 2+ races.
Labels not shown for percentages less than 4.

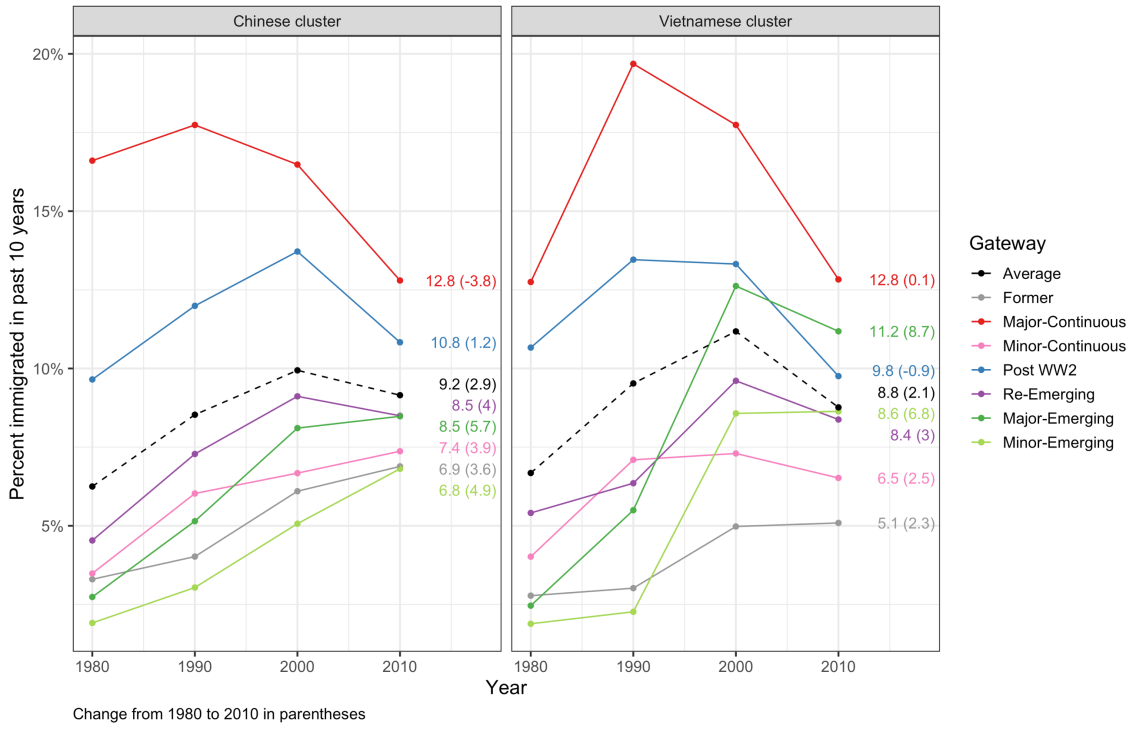
Figure 6. Racial/ethnic composition in Chinese (a) and Vietnamese (b) clusters, by immigrant gateway type, 1980-2010

a.



Change from 1980 to 2010 in parentheses

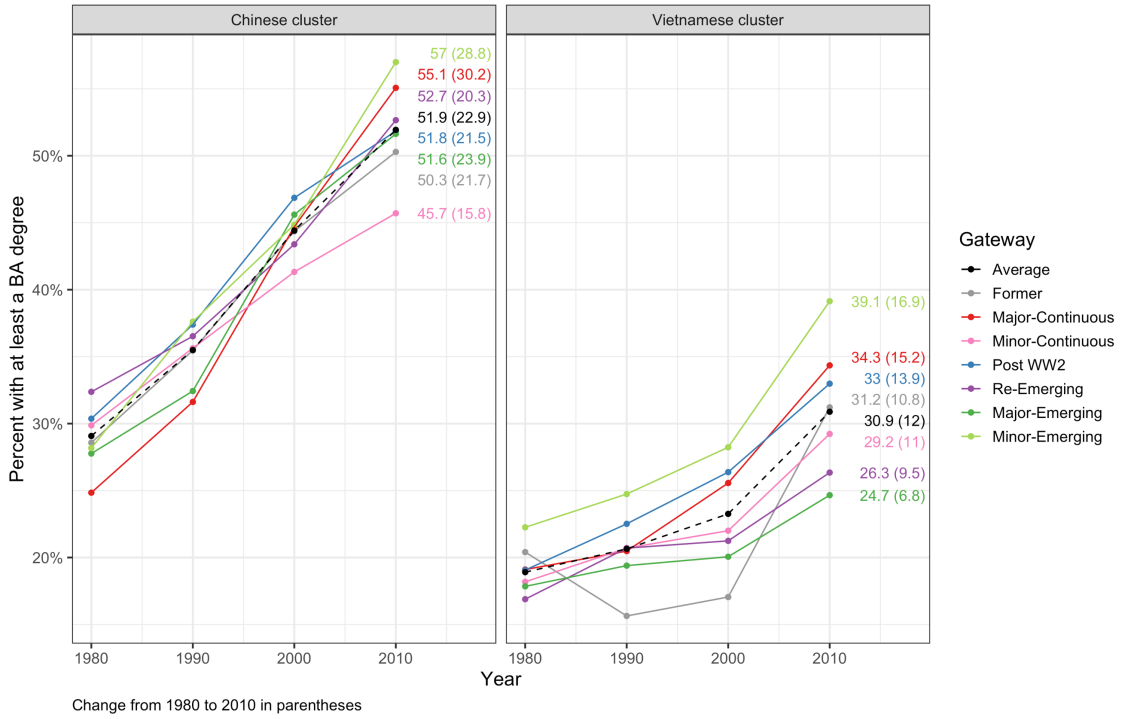
b.



Change from 1980 to 2010 in parentheses

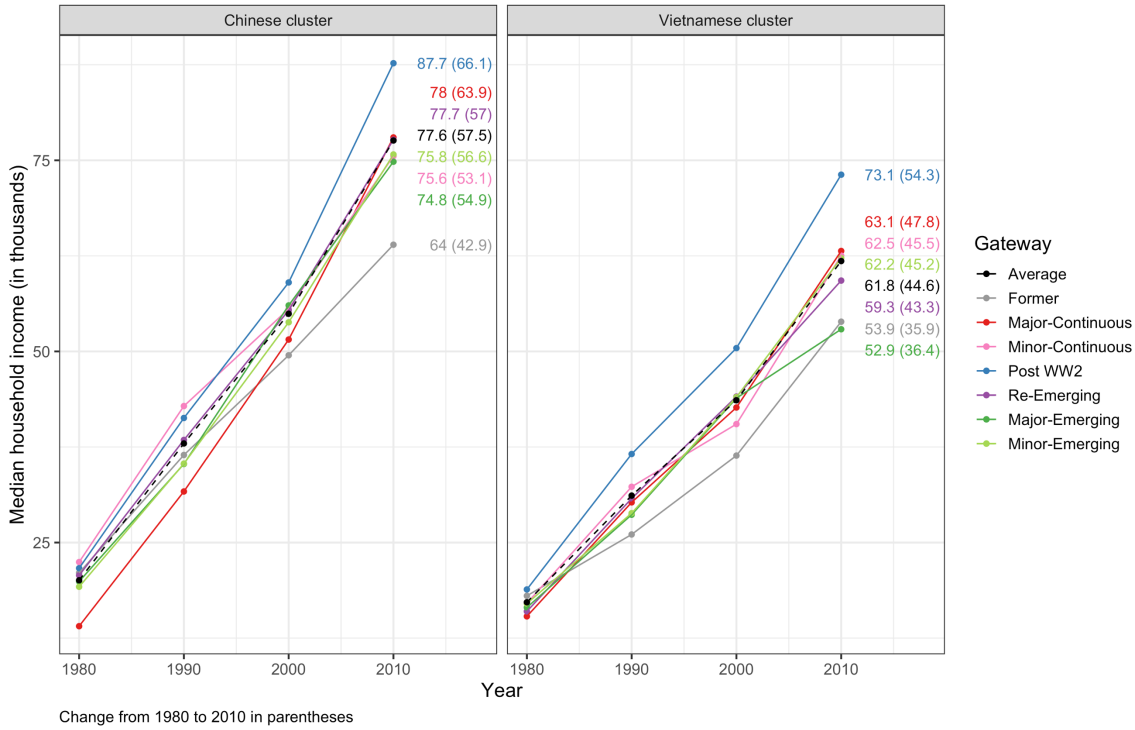
Figure 7. Percent foreign-born (a) and percent recently immigrated (b) in Chinese and Vietnamese clusters, by immigrant gateway type, 1980-2010

a.



Change from 1980 to 2010 in parentheses

b.



Change from 1980 to 2010 in parentheses

Figure 8. Percent of residents with at least a Bachelor's degree (a) and median household income (b) in Chinese and Vietnamese clusters, by immigrant gateway type, 1980-2010

CHAPTER 3: HOW DO ASIAN ETHNIC NEIGHBORHOODS IN NEW AND TRADITIONAL IMMIGRANT DESTINATIONS DEVELOP?

1. Introduction

Since the late 20th century, immigrants have started to settle in new destinations – metropolitan areas that are outside of established destinations and that have little history of receiving immigrants (Frey 2018; Singer 2015). In particular, there has been tremendous growth of Asians in these new destinations compared to traditional gateways. For example, from 2000 to 2010, the Asian population in Atlanta, GA, and Raleigh, NC, grew by 86 percent and 130 percent, respectively (Frey 2018). In comparison, the growth of the Asian population over the same period in more established destinations, such as New York and Los Angeles, has been less than 43 percent (Frey 2018). This shift has ignited a body of scholarly literature focused on how residential segregation patterns of immigrants, including Asians and Latinos, in these new and emerging destinations differ from those in traditional destinations (Hall 2013; Lichter et al. 2010; Park and Iceland 2011). Understanding differences in residential patterns across different metropolitan contexts is important for understanding trajectories of immigrant incorporation, racial and ethnic inequality, and general patterns of social stratification.

Existing studies have generally produced mixed results: some suggest that residential segregation between Latinos/Asians and Whites is higher in newer destinations than traditional cities (Hall 2013; Lichter et al. 2010), while others find that segregation for these groups is higher in traditional destinations than newer places (Park and Iceland 2011). While these studies provide a wealth of knowledge about residential segregation for Asians and Latinos in new versus traditional destinations, they are limited by two factors. First, the studies have examined

segregation using the most common measure, the dissimilarity index, which captures metropolitan-wide levels of segregation. In doing so, there is a dearth of knowledge on how local-level residential patterns, specifically ethnic neighborhoods where members cluster and reside together, differ across immigrant destination contexts. For immigrants, ethnic neighborhoods have long been important sites of incorporation because they provide a space to develop ethnic economies, social networks, resources for upward mobility, and opportunities for political mobilization (Lee and Zhou 2015; Mazumdar et al. 2000; Portes and Zhou 1993; Wong 2019; Zhou 1995). By using metropolitan-level residential segregation measures, prior work has thus missed the opportunity to understand how the on-the-ground neighborhood experiences and the central tenets of theoretical arguments may vary in new immigrant destination environments relative to traditional gateways.

Second, existing studies have generally used panethnic categories, such as Asians and Latinos, to examine variation in residential segregation patterns across destinations. This convention of using broad ethnoracial categories overlooks variations in settlement patterns across distinct ethnic groups that have different social, economic, and historical characteristics. Indeed, a handful of research that has been conducted in oft-studied established destinations, such as New York, Los Angeles, and San Francisco, found that the neighborhood patterns are different for Chinese, Koreans, Filipinos, Asian Indians, and Vietnamese (Logan, Zhang, and Alba 2002; Walton 2015, 2017; Wen, Lauderdale, and Kandula 2009). As such, by using aggregated categories of ethnoracial groups, prior studies have masked potential variations in residential patterns of distinct ethnic groups across immigrant destinations.

This study thus contributes to the existing literature by addressing these two important gaps. I examine how the development of ethnic neighborhoods for four of the largest Asian

ethnic groups – Chinese, Asian Indians, Filipinos, and Vietnamese – vary across immigrant destinations. Specifically, I address two research questions: (1) what social and economic neighborhood characteristics are associated with the development of Asian ethnic neighborhoods, and (2) how do these associations vary across immigrant gateways? Examining and comparing ethnic neighborhood dynamics of Asian ethnic groups across immigrant destination types contributes to the existing literature by shedding light on whether local-level residential patterns in emerging destinations are developing in a similar way to those in traditional destinations or whether they are establishing a separate path. I find that the neighborhood dynamics of different Asian ethnic groups *do* vary across immigrant destinations but in complex ways, thereby adding a layer of nuance to our understanding of how residential experiences and immigrant incorporation processes for Asian groups may differ in new destinations compared to more traditional gateways. Implications for reassessing theoretical frameworks are discussed, including the need to refine theoretical perspectives and consider theoretical frameworks as co-existing and co-occurring processes.

2. Background

2.1. Spatial assimilation

In the existing literature, two theoretical frameworks have been primarily used to help explain the different residential segregation patterns across immigrant destinations: spatial assimilation and place stratification. Originally developed based on the experiences of early 20th century European immigrants, spatial assimilation posits that immigrants live in immigrant enclaves with co-ethnics when they first arrive because they have few socioeconomic resources and poor English language skills (Alba and Logan 1993). However, once their socioeconomic standing

advances and their English language proficiency improves, they are likely to move out of these enclaves into neighborhoods with more socioeconomic resources and generally where the dominant White majority live (Alba and Logan 1993; Massey and Denton 1985). This transition, however, takes time and may occur after a generation. Studies have found that this theoretical framework is helpful for explaining the residential patterns of Asians (Walton 2015; Wen et al. 2009). For example, segregation levels from Whites, as measured using the dissimilarity index, are lower for native-born Asians and those with higher income levels (Iceland and Scopilliti 2008).

Previous research indicates that spatial assimilation is more relevant for explaining residential patterns in established immigrant destinations than new destinations (Hall 2013; Park and Iceland 2011). Since traditional immigrant destinations, such as New York or San Francisco, have a relatively longer history of receiving immigrants, there are likely more well-established services for immigrant integration, including well-known neighborhoods for co-ethnics to leverage resources, as well as government institutions or civic organizations that offer bilingual services to facilitate integration and economic mobility (Massey 2008). Moreover, the native population in established destinations are generally accustomed to interacting with immigrants (Massey 2008). These factors in established destinations offer a pathway toward assimilation as described in the spatial assimilation framework. Indeed, Park and Iceland (2011) found that the effect of nativity and income on segregation is stronger in traditional gateways than new destinations, suggesting that processes related to spatial assimilation is more salient in traditional destinations. However, these results were only found for Latinos and not for Asians (Park and Iceland 2011).

2.2. Place stratification

In comparison to spatial assimilation, the place stratification perspective postulates that some ethnoracial groups are not able to access neighborhoods as economically comparable Whites, who are the dominant majority, due to prejudice and discrimination (Alba and Logan 1993). In this regard, socioeconomic status does not matter as much as ethnoracial status in shaping residential segregation. Studies have suggested that prejudice and discrimination may come from key gatekeepers in the housing market, including real estate agents, appraisers, and landlords (Ross and Turner 2005; Yinger 1995). Prejudice and discrimination may also emerge from the negative reaction among the local White population to minoritized groups in neighborhoods, such as the "flight" of native Whites out of neighborhoods with high and growing concentrations of immigrant populations (Crowder, Hall, and Tolnay 2011). Although the place stratification framework has usually been used to explain segregation patterns of Blacks and Latinos (Massey and Denton 1993), there is some evidence that Asians also experience discrimination when searching for housing. For example, Turner et al. (2013) found that Asian renters/homebuyers learn about and are shown fewer housing units than their equally qualified White counterparts. Asian renters/homebuyers are also more likely to face discrimination and be denied an in-person appointment than Whites (Turner et al. 2013).

Scholars suggest that place stratification is more suitable for explaining residential patterns in new destinations than established gateways (Hall 2013; Lichter et al. 2010; Park and Iceland 2011). New destinations have a generally shorter history of immigration, which means there are generally fewer neighborhoods with resources and support for co-ethnics, fewer institutions that serve the needs of immigrant communities, and limited familiarity among the local population to out-group members (Massey 2008). These circumstances suggest there may

be more hostility and negative sentiments towards immigrants in emerging destinations, leading to more experiences of prejudice and discrimination that, in turn, shape residential patterns. Indeed, previous research has documented reports of unwelcoming environments, marginalization, and mistreatment toward immigrants and refugees in non-traditional destinations (Fennelly 2008; Gorman and Culcasi 2021; Leitner 2012; Weng 2019).

2.3. Preferences and networks

Prior research has primarily focused on how differences in segregation patterns across immigrant destinations can be explained by either spatial assimilation or place stratification. However, there are two other theoretical perspectives that have received relatively less attention in this body of literature but may also provide insights into the varied residential processes occurring across metropolitan contexts. First, preferences, choice, and in-group affinity have generally been cited as another important explanation for the maintenance of segregation patterns (Logan et al. 2002; Wen et al. 2009). This perspective, which has been labelled as "resurgent ethnicity" by some scholars (Brown and Chung 2006; Wen et al. 2009), has been primarily described as immigrants living in ethnically isolated and concentrated neighborhoods, not because of socioeconomic resource constraints, but rather because of the desire to live with co-ethnics. Even immigrants who have the cultural and socioeconomic means to move into neighborhoods with the dominant White majority choose and prefer to live with co-ethnics, which is counter to the spatial assimilation framework.

While scholars have largely cited in-group affinity as the primary factor underlying this preferences perspective, there may be other processes at play. For example, some immigrants, specifically those with economic means, may have first settled in a relatively affluent

neighborhood with co-ethnics and may continue to live in such places not because of in-group affinity, but because there are few, if any, alternative areas that have better or comparable housing options, schools, or other social amenities. In this regard, the maintenance of segregation may reflect the lack of opportunities to translate income into housing or neighborhood attainment. Another possible explanation underlying this framework may be a shift in preferences towards living in multi-ethnic and diverse neighborhoods. That is, living in or moving to neighborhoods where the dominant White majority live may not be a desirable choice for some groups. Rather, some groups may prefer to live in multi-ethnic areas with co-ethnics and other ethnoracial groups. Ultimately, under the preferences framework, there are a number of possible explanations for the maintenance of segregation, especially among relatively affluent groups.

Regardless of the mechanisms driving preferences, some studies have found evidence of these processes occurring among Asians. Logan et al. (2002) found evidence that, in New York, Filipino homeowners, those with higher income, and those working outside the ethnic sector are more likely to reside in ethnic neighborhoods with co-ethnics, suggesting that preferences is a fitting model for Filipinos. Moreover, the growth of Asian suburbs primarily documented in California, which have also been called "ethnoburbs" (Li 1998), has been cited as an example of the resurgent ethnicity at play for Asian residential patterns (Wen et al. 2009). In these ethnoburbs, affluent Asian groups, including Chinese and Koreans, live in relatively concentrated neighborhoods with co-ethnics in order to access ethnic resources, services, and institutions (Wen et al. 2009).

While these studies provide evidence suggesting that the preferences framework is relevant for understanding residential patterns for Asians, especially in established gateways like

New York and California, less is known about whether such processes are also occurring in new destinations. Prior studies have focused on how place stratification is more fitting for residential experiences in new destinations because of the lack of institutional arrangements for immigrants and the lack of familiarity among natives toward immigrants. However, preferences could also help to explain segregation in emerging destinations. For example, several metropolitan areas that are generally categorized as new and emerging destinations, including Atlanta, GA, Austin, TX, and Durham, NC (Singer 2015), have become hubs for technology and research industries, thereby attracting a large number of high-skilled foreign workers with H-1B visas (Pew Research Center 2018). Since these immigrants with H-1B visas have relatively high income and education levels, segregation in new destinations could reflect a preference and desire to live with co-ethnics, as posited by the resurgent ethnicity framework, or perhaps the lack of alternative neighborhood options for these relatively affluent groups or even perhaps a preference to live in multi-ethnic areas with co-ethnics and other ethnoracial groups. Understanding the extent to which and how the underlying processes of preferences are playing out in new destinations is important for helping to refine theoretical perspectives, especially for immigrant groups that have arrived with relatively high socioeconomic status.

The second theoretical framework that could also help to shed light on varied residential patterns across immigrant destinations is the social structural sorting perspective (SSSP) (Krysan and Crowder 2017). This perspective argues that residential segregation is shaped not only by economics, discrimination, and preferences, but also by racially circumscribed social processes, such as social networks and daily routine activities, that influence the housing search process and, in turn, segregation patterns. Ethnically circumscribed networks may limit the housing search process to certain neighborhoods. Moreover, daily routine activities, such as going to

work or going grocery shopping, may occur in similar types of neighborhoods, thereby limiting knowledge and information about neighborhoods. For example, Chinese seeking housing may rely on information from other Chinese co-ethnics who may only be familiar with certain neighborhoods, perhaps ones that they have frequented, such as neighborhoods similar or close to Chinatowns. These social processes can perpetuate segregation by keeping Chinese within or near highly concentrated Chinese neighborhoods.

These processes posited by SSSP may be occurring in both traditional and new destinations. In traditional destinations, there are likely well-established ethnically circumscribed sources of information, especially businesses and services in immigrant enclaves. Likewise, in emerging destinations, immigrants may be likely to connect with other co-ethnics to obtain advice and guidance about housing and employment in relatively new and unfamiliar territories. Understanding the extent to which processes underlying SSSP are occurring in traditional and/or new destinations further provides an opportunity to refine and reexamine theoretical perspectives for understanding segregation in different immigrant destination contexts.

2.4. Segregation in new versus traditional immigrant destinations

Existing studies examining residential segregation in new versus traditional destinations have yielded mixed findings. Some studies have found that segregation from Whites is higher for immigrant groups in traditional destinations than in newer destinations (Fischer and Tienda 2006; Park and Iceland 2011). For example, Park and Iceland (2011) found that Latino and Asian segregation from Whites, as measured using the dissimilarity index, is higher in established destinations than new destinations. However, they also found that segregation differences across

gateways were larger in 1990 than in 2000, which suggests that residential patterns in new and traditional destinations may be converging and becoming more similar over time.

By contrast, other studies have come to the opposite conclusion: residential segregation from Whites is generally higher for Latinos and Asians in new destinations than in traditional destinations (Hall 2013; Lichter et al. 2010). Nevertheless, Hall (2013) found variations depending on the specific immigrant group. Specifically, Hall (2013) disaggregated the Latino and Asian panethnic grouping and found that segregation in 2000 from native Whites, as measured using the dissimilarity index, is higher in new destinations than traditional destinations for 7 of the 10 ethnic groups that they analyzed, including Mexicans, Koreans, and Vietnamese. However, Chinese segregation from Whites is significantly lower in new destinations than established destinations (Hall 2013). While Hall (2013) examined distinct ethnic groups, they used a metropolitan-wide measure of segregation rather than a neighborhood-level measure as I do in this study.

2.5. Ethnic neighborhoods and Asian ethnic groups

The existing literature provides important knowledge about residential segregation in different immigrant destinations. However, their primary use of the dissimilarity index as a measurement of segregation and their use of panethnic racial groupings are critical gaps that need to be addressed. As such, this study extends upon the current literature by examining ethnic neighborhood dynamics for four of the largest Asian ethnic groups, thereby providing a more complete picture of segregation patterns across different metropolitan contexts. Below I discuss the two main contributions of this study – examining ethnic neighborhoods and focusing on distinct Asian ethnic groups – in turn.

Although the dissimilarity index is the most commonly used measure of segregation, it provides only one dimension of residential segregation and is considered aspatial in nature (Brown and Chung 2006; Massey and Denton 1988). The dissimilarity index is a metropolitan-level measure of segregation as it considers the extent to which an ethnoracial group is spread across neighborhoods of a metropolitan area relative to another group (Massey and Denton 1988). However, as some scholars have noted (Brown and Chung 2006; White 1986), the dissimilarity index suffers from the checkerboard problem because it does not consider the spatial arrangement of neighborhoods.

In this study, I thus consider a local- and spatial-level perspective of segregation: clustering (Massey and Denton 1988). Compared to the dissimilarity index, clustering considers the composition of residents in neighboring census tracts and can capture opportunities for an ethnic group to develop institutions and resources that promote the environment of an ethnic neighborhood, such as religious services and co-ethnic networks (Alba and Nee 1997; Breton 1964; Massey and Denton 1988). Thus, using clustering illuminates how residential patterns at the local-level may vary across immigrant destination contexts, which has implications for understanding immigrant incorporation trajectories.

This study also contributes to the literature by focusing on the neighborhood patterns of four distinct Asian ethnic groups – Chinese, Asian Indians, Filipinos, and Vietnamese, which are the four largest Asian ethnic groups and together represent more than 70 percent of the Asian population in the U.S. today. The general use of the panethnic Asian grouping in prior research masks potential variations in residential patterns for distinct ethnic groups. Disaggregating the heterogenous Asian population is thus an important task in order to capture the important

differences in contexts of arrival, social and economic characteristics, and racialization processes across the groups, and how these differences matter for residential patterns.

As one of the first Asian ethnic groups to arrive in the U.S. in the late 19th century, Chinese are the largest Asian group and comprise a mix of both low- and high-skilled immigrants (Xie and Goyette 2005). Since 1990 when the H-1B program was implemented, highly skilled and educated Chinese and Asian Indians have generally arrived in large numbers with H-1B visas, allowing them to work in STEM industries.

Filipinos have also generally arrived with high levels of education, often finding work in the healthcare field (Xie and Goyette 2005). However, given the shared Spanish colonization history with Latinos, Filipinos have reported feeling more connected with Latinos than with other Asians (Ocampo 2014, 2016). The commonalities between Filipinos and Latinos in religion practices, surnames, and language (between Spanish and Tagalog) have helped to blur the boundaries between the two groups. This racialization and group boundary process suggests that their residential experiences may be more closely aligned with those of Latinos than with other Asian groups.

Vietnamese, in contrast, have generally arrived as refugees starting in the late 20th century and have relatively lower socioeconomic status compared to the other Asian ethnic groups (Xie and Goyette 2005). These circumstances for Vietnamese have shaped their racialization experiences and their categorization in the American racial stratification system as part of the "collective Black" (Bonilla-Silva 2004). Altogether, these distinctions between Asian ethnic groups suggest that the residential patterns and the underlying mechanisms shaping such patterns are likely to vary across groups.

The focus of this study is how the dynamics of clustering vary across different immigrant destinations. Specifically, I examine to what extent social and economic characteristics – focusing on common assimilation-related variables, including English language proficiency, income, and education level of residents – are associated with the degree of Asian ethnic groups clustering together with co-ethnics. I also examine whether these associations vary across immigrant destinations. In doing so, this study provides an opportunity to understand local-level residential dynamics for distinct Asian ethnic groups and whether the development of such neighborhood patterns in new destinations are significantly different from those in established destinations.

Following previous research (Hall 2013; Park and Iceland 2011), I expect that processes related to spatial assimilation will be more likely to occur in traditional immigrant destinations that have a longer history of receiving and incorporating immigrants, while processes related to place stratification will be more likely in newer and emerging destinations where there is likely more hostility and an unwelcoming atmosphere among the local population toward immigrants. I also expect processes connected to preferences and the SSSP will be evident across all destination types. The analysis in this study does not formally test these theoretical frameworks. Rather, this study explores how neighborhood dynamics vary across immigrant destinations, which provides hints and insights about the possible theoretical mechanisms informing the patterns.

3. Data and methods

3.1. Data

I use census tract-level data from the 1980, 1990, 2000, and 2010 U.S. decennial census, as well as the 2008-2012 American Community Survey, to identify and understand the development of ethnic neighborhoods of the four largest Asian ethnic groups – Chinese, Asian Indians, Filipinos, and Vietnamese – who reported a single race in the census. In this study, I do not differentiate between the ethnic neighborhoods of native-born and foreign-born Asian groups. Disaggregating by generation status is a fruitful endeavor in future work, which I discuss further in the Conclusion section.

Since the geographic boundaries of census tracts can change from one decennial census to another (e.g., split, merge, or undergo complex boundary changes due to population growth or decline), I use the Longitudinal Tract Database (LTDB) to standardize the 1980, 1990, and 2000 census tract-level estimates of variables to 2010 tract boundaries. An important limitation of standardizing tract boundaries is the error that is introduced into estimates of population counts especially for census tracts that undergo complex boundary changes, such as splitting or being reconfigured (Logan, Stults, and Xu 2016; Logan, Xu, and Stults 2014). Since other longitudinal data sources, such as the Neighborhood Change Database, that standardize variables also suffer from this limitation I decide to use LTDB over other data sources for two reasons. First, the LTDB provide tract-level crosswalks to harmonize variables across years, which is helpful for standardizing variables that are not included in the publicly available files, such as population counts of distinct Asian ethnic groups for the Asian group alone population[5]. Second, LTDB recently released several variables from the 2000 census that were standardized to 2010 tract boundaries using differential privacy (DP) methods (Logan et al. 2021). These DP estimates add

[5] The LTDB provides standardized population counts for distinct Asian ethnic groups but uses the "Asian alone or in combination with one or more races" category. It is beyond the scope of this paper to understand the residential patterns of multi-racial Asians. I thus use the LTDB crosswalk to standardize population counts for the "Asian alone" category.

noise to the true census tract estimates, which can then be publicly disclosed. Analysis comparing the DP estimates with the LTDB estimates, which are determined based on interpolation, indicate that the former approach is generally more accurate (Logan et al. 2021). For this paper, I thus use the 2000 DP estimates for median household income and percentage of residents in the tract that have a college degree, which have been made publicly available by LTDB.

3.2. Immigrant destination typology

Prior research has generally focused on the dichotomous categories of traditional and new immigrant destinations to understand differences in residential segregation patterns. However, studies have used inconsistent criteria to define traditional and new destinations. For example, Hall (2013) defined established destinations as metropolitan areas where an immigrant group was overrepresented in 1970 or 1980 and defined new destinations as those where an immigrant group was overrepresented in 1990 or 2000 and experienced a fast growth rate in the 1980s or 1990s. In comparison, Park and Iceland (2011) adopted an immigrant gateway typology (Singer 2004) – though they collapsed the six categories into three – to define established gateways as metropolitan areas with a larger than average foreign-born population throughout the 20th century or starting after World War 2, and new destinations as those with a large foreign-born population starting in 1980. These varying and somewhat conflicting definitions may explain the mixed findings in the literature, thereby prompting recent calls to move beyond this simple dichotomy and to better capture the local contexts of reception (Flippen and Farrell-Bryan 2021).

In this study, I thus use the 7-category immigrant destination typology developed by Audrey Singer (2015). This typology accounts for the temporal contexts of metropolitan areas as

places of immigrant settlement. The seven immigrant destination categories are: (i) Former, which are metropolitan areas that had a foreign-born share greater than the national average from 1900 to 1930; (ii) Major-Continuous, places that had a foreign-born share greater than the national average since 1900 and throughout the 20th century; (iii) Minor-Continuous, places where the immigrant share was greater than average from 1900 to 1950 and in 2014; (iv) Post WW2, places with a foreign-born share greater than average from 1950 onwards; (v) Re-Emerging, places with a larger immigrant share than average from 1900 to 1930 and then experienced a faster immigrant growth rate than the national average from 1980 onwards; (vi) Major-Emerging, places with an immigrant share larger than average since 1990 and with a faster immigrant growth rate than average in at least one decade between 1970 and 2000; and (vii) Minor-Emerging, places where the immigrant growth rate was faster than average in either the 1990s or 2000-2014 period (Singer 2015). A total of 57 metropolitan areas, listed in Table 1, are identified in the immigrant destination typology. Each metropolitan area is categorized as one of the seven different destination types. Together, the 57 metropolitan areas include approximately 80% of the nation's immigrants, and are among the largest metropolitan areas in the U.S.

Using this immigrant destination typology (Singer 2015) provides an opportunity to move beyond the simple dichotomy of traditional and new destinations. Rather than setting arbitrary thresholds as previous studies have done, the typology captures different periods, historical contexts, and immigration policies that marked different waves of immigration, especially from Asia, such as the period of Asian exclusion from 1882 to 1952[6], the enactment of the 1965 Immigration and Nationality Act that ignited a large wave of immigrants from Asia,

[6] Chinese immigration was banned starting in 1882, while immigration from the rest of Asia was banned starting in 1924.

and the implementation of the 1990 H-1B visa program that prompted a wave of highly skilled immigrants from a number of Asian countries. Using the typology thus provides an opportunity to capture more nuances about how the historical context of metropolitan areas as immigrant destinations may influence residential patterns. For example, Major Continuous destinations – which include the oft-studied large immigrant hubs of New York, Chicago, Boston, and San Francisco – are places that received immigrants throughout the 20th century, which means these places are composed of earlier waves of immigrants that arrived in the early 20th century with few means and faced overt acts of discrimination and violence during the period of Asian exclusion, as well as later waves of immigrants that arrived toward the end of the 20th century with relatively more resources. In comparison, while some Post WW2 destinations are today considered traditional destinations, such as Los Angeles, their history of immigration settlement started after 1950 and is not as extensive as Major-Continuous destinations. As such, the legacies from the period of Asian exclusion in the first half of the 20th century may not be as pervasive in communities in Post WW2 destinations compared to those in Major-Continuous destinations. Accordingly, these distinctions in historical contexts between destination types may, in turn, shape different residential dynamics and patterns.

[Table 1 around here]

3.3. Defining ethnic neighborhoods

To answer my research questions, I examine the spatial clustering of Chinese, Asian Indians, Filipinos, and Vietnamese. Following previous studies (Lee 2021; Li and Zhang 2021; Logan et al. 2002; Walton 2015, 2017), I define a cluster as a group of neighboring census tracts that

contain a high concentration of an Asian ethnic group relative to the local metropolitan area. To identify the clusters, two steps are taken. For each Asian ethnic group, I first identify the census tracts in a metropolitan area where the group's share of the total population in the census tract is higher than the group's share in the metropolitan area. Next, I identify which, if any, of the adjacent tracts also contain a higher share of the Asian group relative to the metropolitan area. For this second step, I use the Local Moran's I (LM-I) measure of spatial autocorrelation (Anselin 1995). It identifies a focal census tract and any contiguous neighboring tracts that have a positive and significant ($p<0.05$) value, where a positive value indicates that the focal and neighboring tracts have similar attributes, which in this case is a relatively high concentration of an Asian ethnic group. Neighboring tracts are identified using a spatial weights matrix with a first-order queen's definition of contiguous neighbors, which are tracts that share boundaries and vertices. An important component of being a cluster is there needs to be a *group* of neighboring census tracts; if a census tract has a relatively high concentration of an Asian group but none of the neighboring tracts have relatively high concentrations of that group, it is not counted as a cluster. I identify clusters for each of the four Asian ethnic groups separately. In this study, clusters are the unit of analysis, and I use the terms ethnic neighborhoods and clusters interchangeably.

The clusters I identify are statistically identified spaces that are specific to metropolitan contexts. Identifying and examining spatial clusters within the metropolitan area in which they are situated is important because metropolitan areas have different demographic, historical, and ecological characteristics, as well as varying Asian population sizes, which can, in turn, shape residential stratification processes and dynamics (Pais, South, and Crowder 2012). The spatial clusters that I identify thus do not necessarily signify comparable culturally, socially,

economically, or ethnically circumscribed spaces. In other words, a Chinese cluster in Los Angeles, for example, is likely to be socially, culturally, and economically different from a Chinese cluster in, say, Columbus, OH. Nevertheless, by identifying metropolitan-specific clusters, I am able to capture the extent to which the residential patterns of Asian ethnic groups are consistent with the local ethnoracial demographic and social characteristics of the metropolitan area.[7]

3.4. Outcome variable

The outcome variable is the level of intragroup contact in a cluster, measured as the percentage of the total population in an Asian group-defined cluster that is the Asian ethnic group. Since I examine ethnic neighborhoods of four different Asian ethnic groups, there are four outcome variables, one for each Asian ethnic group: the percentage of residents in a Chinese cluster who are Chinese, the percentage of residents in an Asian Indian cluster who are Asian Indian, the percentage of residents in a Filipino cluster who are Filipino, and the percentage of residents in a Vietnamese cluster who are Vietnamese.

3.5. Focal independent variables

[7] I conduct supplementary analysis using a global threshold, which uses the average percentage Asian ethnic group across all 57 metropolitan areas. Compared to a local threshold, whereby the cluster is identified relative to the individual metropolitan area, the global threshold leads to more and larger ethnic neighborhoods in metropolitan areas that have larger Asian populations, as well as fewer and smaller ethnic neighborhoods in places with smaller Asian populations. This means that there may be some ethnic neighborhoods in larger metros, such as New York, that may not feel like, say, a Chinese ethnic neighborhood but would be included. Likewise, there may be some places in smaller metros, like Columbus, OH, that have identifiable features of a Chinese ethnic neighborhood but are missed. As such, using the local threshold allows me to identify ethnic neighborhoods based on the local metropolitan context in which the neighborhood is situated. In this way, I argue that it is relative to the surrounding local environment that ethnic neighborhoods are recognized as highly concentrated spaces with institutions and resources for co-ethnics to leverage.

There are three focal independent variables, each reflecting processes highlighted in the theoretical frameworks. The first independent variable is the degree of English language proficiency, measured as the percentage of the total population in the cluster aged 5 years and over who speak English not well or not at all. Limited English language proficiency has been identified as one of the most important predictors of residential attainment for immigrants (Hall 2013; Logan et al. 2002). It is an indicator of cultural assimilation and can also capture the nativity level of residents. It may also signal processes related to discrimination and prejudice, such as language discrimination, which can shape residential patterns. According to the spatial assimilation theory, poor English language proficiency is positively associated with more intragroup contact in a cluster. Given the high correlation between nativity and English language proficiency (based on the correlation coefficient), I do not include both in my analysis to avoid the issue of multicollinearity. I test the robustness of the results with sensitivity analysis in which this variable is replaced with the percentage of residents who are foreign-born and the percentage of residents who immigrated in the past 10 years. The results with nativity and recent immigration variables are substantively and significantly consistent with the findings using English language proficiency.

The second focal independent variable is the level of educational attainment, measured as the percentage of the total population in the cluster aged 25 years and over with at least a four-year college degree. As an indicator of socioeconomic status, the spatial assimilation perspective posits that clusters with more highly educated residents will have less intragroup contact. The preferences framework, on the other hand, expects a positive relationship between the level of education of residents and the degree of co-ethnic contact, suggesting the role of preference and choice.

The third focal independent variable is the median household income (in $1,000s) in the cluster. As it is also an indicator of socioeconomic status, the spatial assimilation perspective presumes a negative relationship with intragroup contact, while the preferences framework posits a positive relationship.

3.6. Covariates

A number of cluster- and metropolitan-level variables are included as they could influence the degree of intragroup contact in clusters and/or the focal independent variables and, in turn, confound the associations between them. At the cluster-level, I control for the degree of homeownership because it is considered an indicator of socioeconomic achievement (Logan et al. 2002). It is measured as the percentage of housing units that are owner-occupied. Suburbanization of the cluster is measured as the percentage of tracts in the cluster that is not part of a principal city as defined in 2010. Total population in the cluster and in the metropolitan area (both in logged form to reduce skewness) are controlled for because they may influence the degree of co-ethnic contact. In addition to total population, I control for population growth in the metropolitan area, measured as the decadal change in population size (in 1,000s) in the metropolitan area. I include a measure of the local housing stock in the metropolitan area, calculated as the percentage of housing units built more than 30 years ago, as it may influence residential mobility and, in turn, broader residential patterns (Crowder, Pais, and South 2012). Percentage of employed persons 16 years and over working in manufacturing in the metropolitan area is also included as a covariate to account for the industries and employment sectors in the city. I also include a control for year, measured as a binary variable with 1 for clusters that were identified in 2010 and 0 for clusters that were identified in 1980, 1990 or 2000.

3.7. Analytic strategy

I use ordinary least squares (OLS) regression models for this analysis to predict the percentage of the total population in a cluster that belongs to a certain Asian ethnic group. To understand what assimilation-related social and economic neighborhood characteristics are associated with the degree of clustering, I first estimate a model with the three focal independent variables – English language proficiency, education, and income. I then estimate a second model with the immigrant destination type – a categorical variable with Major-Continuous destination as the reference category – as well as cluster- and metropolitan-level control variables. Finally, to examine how the dynamics associated with clustering may vary across immigrant destinations, I estimate an additional three models with interaction terms between each of the three focal independent variables and the immigrant destination variable.

To facilitate the interpretation of whether the associations vary across immigrant destination type, I present tables of the regression results along with figures of the predicted probability of the degree of intragroup contact in clusters for the four Asian ethnic groups by each of the three focal variables and immigrant destination type. The graphs help to provide a clearer illustration of how the three focal variables are associated with the level of intragroup contact, and how these relationships vary across immigrant destination. The focal variables are graphed from their minimum to maximum values. The predicted probabilities are calculated from the fully specified models with all the covariates held at their means and include 95 percent confidence intervals.

In this analysis, the regression models are pooled across all years from 1980 to 2010. Supplementary analysis with interaction terms between the three key independent variables and

the year dummy variable are conducted to understand the extent to which the relationship between the assimilation-related variables and the degree of clustering is different in 2010 compared to earlier years. To account for heteroskedasticity in the residuals of the models, I use heteroskedasticity-consistent robust standard errors.[8] Multicollinearity in the regression models were not identified as a major issue, based on variance inflation factor scores (VIF<6), which measure the inflation in the variances of the parameter estimates due to high correlation between predictors.

4. Results

I start by examining the characteristics of Chinese, Asian Indian, Filipino, and Vietnamese clusters. The descriptive statistics, which are averaged across 1980, 1990, 2000, and 2010, are summarized in Table 2. They provide an initial indication of how characteristics of clusters may vary by Asian ethnic group. Table 2 shows that Chinese ethnic neighborhoods, on average, have a generally higher level of intragroup contact as more than 5 percent of all residents are Chinese, while 2.8 and 2.7 percent of all residents in Asian Indian and Filipino clusters are Asian Indian and Filipino, respectively, and approximately 2 percent of residents in the average Vietnamese cluster are Vietnamese.

[Table 2 around here]

[8] I also ran regression models with clustered standard errors in metropolitan areas to account for dependence/correlation of ethnic neighborhoods within metropolitan areas. The results are statistically the same as using heteroskedasticity-consistent robust standard errors.

Chinese, Asian Indian, and Filipino ethnic neighborhoods are generally more socioeconomically advantaged, while Vietnamese ethnic neighborhoods are the least. Whereas on average 4 in 10 residents in Chinese clusters have at least a Bachelor's degree, 37 percent in Asian Indian clusters and 29 percent in Filipino clusters have a college degree, and only 23 percent in Vietnamese clusters are highly educated. While Chinese, Asian Indian, and Filipino clusters have a median household income of approximately $47,000-$43,000 on average, the median household income in Vietnamese clusters is $37,000. Altogether, these differences in the neighborhood socioeconomic status across Asian clusters suggest potential differences in the mechanisms that are associated with the development of ethnic neighborhoods. Differences in the level of English language proficiency across the four Asian group clusters are small: on average, approximately 5-7 percent of all residents in each of the four Asian group-defined clusters have low English language proficiency.

Other differences in the characteristics of the clusters emerge. Homeownership is slightly higher in Filipino clusters (60%), on average, compared to the other three Asian group-defined clusters (53-55%). Chinese and Asian Indian clusters have on average a larger total population size (58,000 and 54,000, respectively) compared to Filipino and Vietnamese clusters (46,000 and 44,000, respectively). Asian Indian and Filipino clusters are slightly more suburban (approximately 50% of tracts in these clusters are located in suburban areas) compared to Chinese and Vietnamese clusters (around one-third of tracts are suburban).

Moreover, there are some differences in the metropolitan-level characteristics in which these clusters are generally situated. On average, Chinese clusters are situated in metropolitan areas that are moderately smaller in population size and have experienced less population growth, compared to the other three clusters. There are no differences across the Asian clusters

in the housing structure in the metropolitan area and the percentage of employees working in manufacturing. The distribution of clusters across the seven immigrant destination types is also similar across the four Asian groups. Asian group clusters are generally more concentrated in Post WW2 destinations. For example, around 20% of the 740 Chinese clusters identified are located in Post WW2 destinations. Similarly, 23%, 19%, and 22% of Asian Indian, Filipino, and Vietnamese clusters, respectively, are in Post WW2 immigrant destinations. In comparison, for all four Asian group clusters, there is a smaller share in Major- and Minor-Emerging destinations. For example, less than 10% of each of the four Asian group clusters are located in metropolitan areas categorized as Minor-Emerging gateways.

Overall, these initial descriptive results indicate that the contexts in clusters vary depending on the Asian ethnic group. Chinese and Asian Indian ethnic neighborhoods are generally more advantaged, while Vietnamese clusters are the least advantaged of all the four Asian group-defined clusters. These important distinctions highlight the importance of disaggregating broad panethnic racial groupings in order to reveal critical differences in residential dynamics across distinct ethnic groups.

However, it is unclear from these descriptive statistics the extent to which these neighborhood characteristics are associated with clustering, and whether such associations may vary across immigrant destinations. I thus turn to multivariate results from the OLS regression models predicting the level of co-ethnic contact in clusters as a function of assimilation-related social and economic neighborhood characteristics. The regression models also include interaction effects between the assimilation-related neighborhood characteristics and immigrant destination type to understand whether there are variations across immigrant destinations. I discuss the results for each Asian group-defined cluster in turn, starting with Chinese clusters.

4.1. Chinese clusters

Table 3 presents the results from OLS regression models predicting the percent Chinese in Chinese clusters as a function of cluster- and metropolitan-level variables. Model 1 in Table 3 shows that, without control variables, both poor English language proficiency and college education are positively and significantly associated with a higher Chinese share in Chinese clusters. That is, as the percentage of all residents in a Chinese cluster that have poor English language proficiency increases by 1 percentage point, the Chinese share is expected to increase by 0.87 percentage points. Similarly, a 1 percentage point increase in the share of all residents who have at least a Bachelor's degree is associated with a 0.09 percentage point increase in the Chinese share.

However, with the inclusion of cluster- and metropolitan-level covariates, Model 2 indicates that the relationship between English language ability and Chinese co-ethnic contact remains robust, while education is no longer significantly associated with Chinese clustering. The continued meaningful significance of the association between poor English language proficiency and Chinese co-ethnic contact, even after controlling for socioeconomic and demographic cluster- and metropolitan-level covariates, suggests the important role of poor English language ability for the development of Chinese clusters. This reflects processes in the spatial assimilation framework, which posits that immigrants with poor English language proficiency are generally likely to live with other co-ethnics in order to access services and resources in their native language. Moreover, other processes connected to discrimination, preferences, and social networks may also be reflected. For example, fear of anticipated discrimination due to poor English language ability may influence the degree of clustering.

To examine the extent to which these associations in Chinese clusters – such as the association between poor English language ability and Chinese share – vary across different immigrant gateways, Models 3, 4, and 5 in Table 3 add interaction terms to the fully-specified model. Model 3 includes an interaction effect between poor English language ability and immigrant destination type. Model 4 includes an interaction effect between percent college educated and immigrant destination type. Model 5 includes an interaction effect between median household income and immigrant destination type. The results from these three models indicate that there are variations across destinations: the positive association between poor English language ability and Chinese intragroup contact in Chinese clusters is significantly weaker in Minor-Continuous, Post WW2, Re-Emerging, Major-Emerging, and Minor-Emerging destinations than in Major-Continuous destinations; the positive relationship between education and Chinese intragroup contact is significantly stronger in Post WW2 destinations than Major-Continuous places; and the association between income and Chinese intragroup contact is significantly less strong in Former destinations than Major-Continuous gateways.

[Table 3 around here]

[Figure 1 around here]

To illustrate these relationships more clearly, Figure 1 presents the predicted Chinese share in Chinese clusters by percent of residents who speak English not well, percent college educated, and household income in Chinese clusters across different immigrant destination types. Confirming the interaction coefficients exhibited in Table 3, the positive association between

poor English language proficiency and Chinese share is significantly stronger in Major-Continuous destinations than the other destination types. Specifically, an increase from 0 percent to 40 percent of residents who speak English not well is associated with a 41-percentage point increase in the predicted Chinese share in Chinese clusters in Major-Continuous destinations, compared to only a 7-percentage point increase in Major-Emerging destinations, which is the destination type where the association is the weakest. This suggests that for Chinese clusters certain processes related to spatial assimilation, namely poor English language proficiency, may be more apparent in more traditional destinations than non-traditional and emerging destinations. The salience of spatial assimilation in more established destinations is generally consistent with prior research (Park and Iceland 2011).

Figure 1 also shows that the positive association between college educated share and Chinese share in Chinese clusters is stronger in Post WW2 destinations compared to Major-Continuous areas where the relationship is significantly and markedly modest. This may suggest that processes under the preferences framework, including in-group affinity or lack of alternative neighborhood options for highly educated groups, may be more pertinent for Chinese clusters in Post WW2 destinations than those in Major-Continuous places. Finally, the association between household income and Chinese share is negative in Former destinations, whereas it is positive in Major-Continuous destinations. The negative relationship in Former destinations reflects spatial assimilation processes, whereby living in ethnically concentrated clusters is negatively associated with economic mobility. These graphs ultimately help to illustrate that the association between assimilation-related variables and the level of Chinese co-ethnic contact *does* vary across different immigrant destination types, which suggests that there are different social processes and mechanisms shaping these neighborhood dynamics across destination contexts.

4.2. Asian Indian clusters

Turning to Asian Indian clusters, Table 4 displays results from models predicting the Asian Indian share in Asian Indian clusters as a function of cluster- and metropolitan-level characteristics. In Model 1 with no covariates, there is a significant and positive association between the Asian Indian share in Asian Indian clusters and each of the three focal assimilation-related variables – the share of all residents in Asian Indian clusters who have poor English language proficiency, the percent of all residents who are college educated, and income. After controlling for cluster and metropolitan characteristics, the positive relationship between poor English proficiency and Asian Indian share in Asian Indian ethnic neighborhoods remains robust. The positive association between household income and Asian Indian share also remains robust in Model 2. However, like in Chinese clusters, education is no longer a significant predictor of Asian Indian co-ethnic contact after the inclusion of cluster- and metropolitan-level covariates. These results suggest that both poor English language ability and income are significantly associated with the development of ethnically concentrated Asian Indian clusters. There may be different complementary social processes that are occurring, such as spatial assimilation, preferences, discrimination, and social networks. For example, Asian Indian clusters may emerge when residents with poor English language skills need access to resources in their native language, as suggested by spatial assimilation. However, processes related to preferences and social networks may also play a role given the positive association between income and the Asian Indian share.

[Table 4 around here]

To examine whether these associations vary across immigrant destination type, I turn to the interaction effects in Models 3-5 in Table 4. The interaction terms indicate that there are indeed significant variations across immigrant destinations. To better illustrate these interaction terms, Figure 2 presents the predicted Asian Indian share in Asian Indian clusters by the three focal assimilation-related variables and immigrant destination type. These predicted probabilities are based on Models 3-5 in Table 4. The association between poor English language ability and Asian Indian share in Asian Indian clusters is significantly weaker in Post WW2, Major-Emerging, and Minor-Emerging destinations compared to Major-Continuous destinations. In fact, Figure 2 shows that there is a positive association between the share of residents who have poor English ability and the predicted Asian Indian share in Major-Continuous destinations, whereas the association is negative in the other three destination types.

In marked contrast, the relationship between poor English proficiency and Asian Indian intragroup contact is significantly stronger in Re-Emerging destinations than Major-Continuous areas. Figure 2 reveals that, in Re-Emerging destinations, an increase from 0 percent to 33 percent of residents who speak English not well in Asian Indian clusters is associated with an 11-percentage point increase in the predicted Asian Indian share, compared to a 4-percentage point increase in Major-Continuous destinations. This suggests that processes related to spatial assimilation may be more pertinent for Asian Indian clusters in Re-Emerging destinations than traditional destinations; Asian Indian clusters may be more likely to develop in these Re-Emerging places as a response to residents with poor English skills who may need resources in their native language. The stronger association in Re-Emerging destinations may also reflect mechanisms related to discrimination in these less traditional territories. That is, clustering may

emerge due to fears or experiences of discrimination and prejudice, especially language discrimination.

[Figure 2 around here]

Figure 2 also shows that the positive association between education and Asian Indian clustering, as well as the positive relationship between income and Asian Indian clustering, is stronger in Major-Continuous destinations than other destination types. These variations suggest that the preferences perspective may be more pertinent for Asian Indian clusters in Major-Continuous destinations than other destinations.

4.3. Filipino clusters

The results from OLS regression models predicting the Filipino share in Filipino clusters are displayed in Table 5. As shown in Model 1 with no control variables, the share of residents with poor English language capability and the median household income are both positively and significantly associated with the percent Filipino in Filipino clusters. In comparison, the share of residents with at least a Bachelor's degree has a significant, negative association with the Filipino share, as indicated in Model 1. These three relationships remain robust after controlling for cluster- and metropolitan-level covariates, as presented in Model 2. These results suggest that several complementary processes could explain the development of ethnically concentrated Filipino clusters, including spatial assimilation, preferences, and social networks. For example, Filipino clusters may develop when residents with low education levels or residents with poor English language skills need access to resources in their native language, as suggested by spatial

assimilation. Alternatively, the positive association between income and the development of Filipino clusters may reflect preferences or the role of social networks and the transfer of information and knowledge about housing opportunities, as posited by SSSP.

[Table 5 around here]

[Figure 3 around here]

To examine whether these relationships vary across immigrant destination types, Models 3-5 in Table 5 include interaction effects. Overall, the results suggest that there are indeed significant variations across immigrant destinations. To better illustrate the interaction terms from the models, Figure 3 shows the predicted probability of Filipino share in Filipino clusters by poor English ability, education, and income across the different immigrant destination types. The positive relationship between poor English language ability and Filipino intragroup contact is significantly stronger in Major-Continuous destinations than other destination types, including Former, Major-Emerging, and Minor-Emerging gateways. This suggests that for Filipino clusters processes related to spatial assimilation, discrimination or social networks may be stronger in more traditional destinations than newer destinations. The relationship between income and Filipino co-ethnic contact is also significantly stronger in Major-Continuous destinations than other gateways, which may reflect the pertinence of preferences in these more established destinations relative to emerging destinations. However, the negative relationship between the share of residents with at least a Bachelor's degree and the Filipino share in Filipino clusters is weaker in Major-Continuous destinations compared to Minor-Continuous gateways, which

suggests certain aspects of the spatial assimilation framework may be operating more slowly in traditional places. These results indicate that there are likely various social processes shaping the development of Filipino clusters across immigrant destination types.

4.4. Vietnamese clusters

Similar results as Filipino clusters emerge for Vietnamese clusters, as shown in Table 6. There is a significant, positive association between poor English language capability and Vietnamese share in Vietnamese clusters. The association between median household income and Vietnamese share is also significant and positive. In comparison, the relationship between college educated share and the percent Vietnamese is negative. These relationships remain robust after the inclusion of cluster and metropolitan characteristics, as indicated in Model 2. Like Filipino clusters, these results suggest various social processes may be reflected in the development of highly concentrated Vietnamese ethnic neighborhoods.

[Table 6 around here]

[Figure 4 around here]

The interaction terms in Models 3-5 in Table 6 indicate that the associations between the three key focal independent variables and the Vietnamese share in Vietnamese clusters also vary across immigrant destination types. Again, to better illustrate these interaction effects, Figure 4 presents the predicted percent Vietnamese by poor English proficiency, education, income, and immigrant destination type. The positive association between poor English ability and

Vietnamese share is significantly weaker in Major-Continuous destinations than other destination types, including Re-Emerging, Post WW2, Major-Emerging, and Minor-Emerging. Specifically, Figure 4 shows that an increase in the percentage of residents in Vietnamese clusters who speak English not well from 0 percent to 46 percent is associated with a 16-percentage point increase in the predicted percent Vietnamese in Re-Emerging destinations, compared to only a 1-percentage point increase in Major-Continuous destinations. This suggests that processes connected to spatial assimilation or discrimination may be stronger for Vietnamese clusters in less traditional and emerging destinations compared to more established areas.

Figure 4 also indicates modest differences across destination types for education and income. Specifically, the negative relationship between education and Vietnamese intragroup contact is only slightly stronger in Minor-Emerging than Major-Continuous destinations, while the positive relationship between income and Vietnamese share is moderately stronger in Major-Continuous places than other destination types.

4.5. Supplementary analysis

Supplementary analysis was conducted to understand whether the relationships between ethnic clustering and the three focal independent variables – poor English ability, education, and income – were different in 2010 compared to earlier years. Appendix Tables 1-4 present the fully specified regression models for each of the four Asian group-defined clusters with the inclusion of interaction terms between each of the three focal independent variables and year. The association between poor English ability and Chinese share in Chinese clusters is stronger in 2010 than earlier years, as shown in Model 1 in Appendix Table 1. However, the association

between education and Chinese share, as well as the relationship between income and Chinese share, do not vary over time, as indicated in Models 2 and 3 in Appendix Table 1.

A similar pattern emerges in Asian Indian clusters. Poor English ability has a stronger association with Asian Indian intragroup contact in 2010 than earlier years, but there is no variation in the associations between both education and income and Asian Indian share over time, as presented in Appendix Table 2. For Filipino clusters, Appendix Table 3 indicates that the associations between the three key independent variables and Filipino intragroup contact do not vary over time.

Finally, in Vietnamese clusters, the associations appear to vary over time, as shown in Appendix Table 4. Like Chinese and Asian Indian clusters, poor English ability matters more for Vietnamese co-ethnic contact in 2010 than prior years. Education also matters more in 2010 than earlier years. However, income is a weaker predictor of Vietnamese co-ethnic contact in 2010 compared to earlier years.

This supplementary analysis illuminates how the association between the assimilation-related variables and the development of Asian ethnic neighborhoods varies over time. Specifically, poor English language ability appears to be more pertinent for the level of intragroup contact in Chinese, Asian Indian, and Vietnamese clusters in 2010 than earlier years. This may reflect several processes, including the continued importance of spatial assimilation, the increasing pertinence of (anticipated) discrimination based on language or nativity, and/or the growing significance of social networks in shaping residential patterns and the development of Asian clusters.

5. Discussion and conclusion

With the emergence of new immigrant destinations, there has been a growing body of literature investigating whether the residential patterns in new destinations are different from those in traditional gateways. While these prior studies have garnered extensive knowledge, this study contributes to the existing literature in two important ways. First, I examine ethnic neighborhoods, thereby shedding light on how local- and spatial-level residential dynamics differ across immigrant destinations. Since Asian ethnic neighborhoods are important sites for immigrant incorporation, this study provides an opportunity to understand how ethnic resources and services in ethnic neighborhoods may develop. This has important implications for understanding broader immigrant incorporation processes. Second, I disaggregate the panethnic Asian category to reveal variations across distinct Asian ethnic groups that have different social, economic, and historical circumstances that could shape residential patterns. Overall, this study illuminates that the development of ethnic neighborhoods – specifically, the social and economic characteristics associated with the clustering of co-ethnics together in a space – varies across different Asian ethnic groups, and that the dynamics associated with the development of Asian ethnic neighborhoods is stronger in certain immigrant destination types than others. These findings have important implications for refining theoretical frameworks, including the need to consider theoretical perspectives as co-occurring processes.

I first turn to a discussion of the set of results that explore which characteristics are associated with clustering for the four Asian ethnic groups. This study finds that both poor English language proficiency and income have a significant positive association with clustering. The association between English language skills and clustering is consistent with previous research (Hall 2013; Logan et al. 2002) and holds true for all four Asian group-defined clusters after controlling for social and demographic cluster- and metropolitan-level characteristics. Only

3 of the 4 Asian group clusters show a significant positive effect of income on clustering. In contrast, education is negatively associated with the level of co-ethnic contact, though it is significant for only Filipino and Vietnamese clusters.

These results suggest several processes may inform the development of Asian group-defined clusters. The positive association of poor English proficiency with clustering and the negative association of education jointly reflect processes of spatial assimilation. That is, according to spatial assimilation, immigrants with low educational attainment and low English language proficiency are likely to band together in ethnic neighborhoods in order to access services and resources, but as they gain socioeconomic status and familiarity with English they are likely to leave these neighborhoods. However, since education is only a significant predictor for Filipino and Vietnamese clusters, these spatial assimilation processes may be more fitting for the experiences of these two clusters than Chinese and Asian Indian clusters. At the same time, the positive association between income and clustering indicate that processes related to preferences may also play a role. Specifically, although residents in these clusters may have the financial means to move to neighborhoods with the dominant White majority, they may prefer to reside in ethnic neighborhoods with fellow co-ethnics or may have few alternatives to translate their affluence into neighborhood attainment.

While these more traditional perspectives may be relevant, other theoretical frameworks could also inform these general patterns. For example, in addition to the spatial assimilation and preferences frameworks, processes related to social networks and discrimination could also explain the positive associations between clustering and poor English language skills, and between clustering and income. For example, groups with low English language proficiency may share information and resources about housing in their native language within ethnically

circumscribed social networks, which may in turn lead to co-ethnics residing in the same or adjacent neighborhoods, as indicated by SSSP. The fear of anticipated discrimination or directly experiencing prejudice, such as language discrimination or anti-immigrant hostility, may also reinforce co-ethnics to congregate together. This may even affect those who have the financial means to reside in neighborhoods where the dominant White majority live.

Moreover, the supplementary analysis indicates that poor English language ability matters more for the development of Asian ethnic neighborhoods in 2010 than in earlier years, which suggests certain processes may have become more important over time. For example, given the rise of anti-immigrant and nativist sentiments toward Asians, including rising hate crimes, in the early 21st century (Lippard 2011), experiences of prejudice or the anticipation of experiencing language and anti-immigrant discrimination may have become more important factors influencing the degree of clustering of Asian groups. It is important now more than ever to understand these processes since Asians are the fastest growing ethnoracial group – growing 81% from 10.5 million in 2000 to 18.9 million in 2019 (Pew Research Center 2021) – and are growing primarily from immigration. Such investigations would help to shed light on how the broader anti-immigrant context may be shaping the clustering of co-ethnics together in neighborhoods and broader social stratification patterns.

I now turn to a discussion of the set of results that illuminate variations in the development of clusters across immigrant destination types. The results indicate that certain neighborhood dynamics are stronger in Major-Continuous destinations, such as New York. Specifically, both poor English language proficiency and income have a stronger association with clustering in Major-Continuous destinations than other destination types. However, the effect of English language skills only holds true for Chinese and Filipino clusters after

controlling for social and demographic characteristics. This suggests processes related to spatial assimilation and preferences may be more salient for these two Asian group-defined clusters in places that have a longer history of receiving immigrants and have more established immigrant communities and institutions. These findings are somewhat consistent with prior research that find spatial assimilation is more salient in traditional destinations (Park and Iceland 2011).

In comparison, the results suggest that other processes are occurring in less traditional and emerging destinations. For Asian Indian and Vietnamese clusters, the positive association between poor English language skills and clustering is significantly stronger in non-traditional destinations, namely Re-Emerging places, compared to Major-Continuous gateways. This indicates that processes related to spatial assimilation, discrimination, and social networks described earlier may be particularly salient for the development of clusters for Asian Indians and Vietnamese in less traditional destinations. For example, the clustering of group members with poor English language skills in these emerging destinations may be due to a need to access resources in their native language or may be a response to (perceived) anti-immigrant or language discrimination. Further investigating these social processes are important avenues for future research in order to better understand the neighborhood dynamics and mechanisms in these new destinations where there are fewer well-established organizations for immigrant groups, less familiarity with immigrants among natives, and, in turn, perhaps more hostile and unwelcoming environments for immigrants. It is especially important to understand these patterns and processes for Asian ethnic groups who may be more vulnerable to the potential hostile environments in emerging destinations, such as Vietnamese who are generally poorer and have been described as being placed among the lower rungs of the American racial stratification system as part of the "collective Black" (Bonilla-Silva 2004).

This study also finds that the association between education and clustering is stronger in non-traditional gateways, such as Post WW2 and Minor-Emerging destinations, compared to Major-Continuous destinations. This difference was found for only 3 of the 4 Asian group-defined clusters and the direction of the relationship varies depending on the Asian cluster. For Filipino and Vietnamese clusters, education has a stronger negative association with clustering in less traditional destinations than Major-Continuous areas, which suggests spatial assimilation may be more salient for these groups in these newer places. In comparison, for Chinese clusters, education has a stronger positive association with clustering in Post WW2 destinations than Major-Continuous destinations. This suggests preferences – including in-group affinity, the desire to live in diverse neighborhoods, or the lack of alternative comparable neighborhood options – may be more fitting in Post WW2 destinations, such as Dallas, TX, Miami, FL, and San Diego, CA. Indeed, highly educated immigrants with H-1B visas, of which Chinese represent a substantial share, may prefer to live with co-ethnics or may have few neighborhood options to choose from in these emerging metropolitan areas that have many employment opportunities in STEM-related fields (Pew Research Center 2018).

Overall, unlike previous research that examines whether metropolitan-level residential segregation is higher or lower in new versus traditional destinations, this study contributes to the existing literature by revealing the nuanced and complex ways that local-level neighborhood dynamics vary for different Asian groups and across immigrant destination contexts. The social and economic characteristics associated with the clustering of co-ethnics differ depending on the Asian ethnic group and matter more in some immigrant destination types than others. Ethnic neighborhoods in less traditional and newer destinations are thus developing in different ways than those in traditional destinations. For example, poor English language proficiency is more

strongly associated with Chinese and Filipino clustering in traditional destinations, while it is more pertinent in non-traditional destinations for Asian Indian and Vietnamese clusters. These results ultimately highlight the value of examining on-the-ground, local-level neighborhood dynamics to understand residential experiences in different immigrant destinations, as well as the importance of disaggregating the Asian grouping to uncover differences in neighborhood dynamics across distinct Asian ethnic groups.

While this study offers several hints and insights about the varied social processes shaping the development of clusters in traditional destinations compared to less traditional gateways, it does not formally test the theoretical mechanisms explaining the residential patterns. The use of aggregated census data to examine these neighborhood dynamics limits the extent to which I can effectively determine how or why clustering is occurring. Nevertheless, this study contributes to the existing segregation literature, which generally focuses on the role of spatial assimilation and place stratification frameworks in new versus traditional destinations, by suggesting how processes related to preferences and social networks may also shape the development of Asian group clusters in different destination contexts. These theoretical frameworks should be considered not as competing perspectives but as complementary and possibly co-existing explanations for understanding the residential patterns of Asian neighborhoods. More research, including qualitative studies, is needed to better parse out the various mechanisms and examine the extent to which they are co-occurring. Such investigations would provide the opportunity to refine theoretical insights about residential processes and how they may vary across different contexts and for different Asian groups.

The exploratory analysis in this study should also be considered in light of a few limitations. As I only focus on the four largest Asian ethnic groups, future research should

investigate the residential dynamics of the other Asian ethnic groups, including Cambodians, Koreans, Japanese, and Hmong, to name a few, that also have distinct socioeconomic characteristics and contexts of arrival. These different group characteristics likely shape different residential patterns, further illuminating variations across distinct ethnic groups and helping to refine potential theoretical mechanisms shaping neighborhood attainment.

Moreover, as I do not differentiate between the spatial patterns of foreign- and native-born Asian groups in this study, future research would benefit from further disaggregating Asian ethnic groups by generation status. As there has been a number of waves of Asian immigration to the U.S. for more than 150 years, there is a mix of first, second, third and beyond generations of Asians and their contexts of arrival, characteristics, and experiences are likely to vary. While the immigrant destination types used in this study provide some indication about the different generations and immigration waves, they are a rough proxy for disaggregating by immigrant generation. We thus know relatively little about the extent to which and how the neighborhood patterns and the social mechanisms informing the development of ethnic neighborhoods may differ across different generations of Asian groups, as well as different cohorts of Asian groups. For example, how do the neighborhood processes of first-generation Chinese groups who arrived before 1965 differ from those of first-generation Chinese groups who arrived after 1965, and how do they vary from those of second-generation and third-generation Chinese groups? Deeper investigations of these different subpopulations would help to further clarify the theoretical social processes influencing neighborhood decisions and how they may hold for different subgroups.

Other important avenues for future research include examining residential patterns along other axes of stratification for the Asian population, such as legal status and mixed-race ancestry.

For example, prior research has suggested the critical role that legal status plays in shaping residential segregation patterns for Latinos and Mexicans, especially in new destinations that are perceived to be more unwelcoming environments because of anti-immigrant sentiments among locals or anti-immigrant local policies and enforcement (Asad and Rosen 2018; Hall and Stringfield 2014). Since relatively less is known about how legal status affects residential patterns for Asians, this raises a number of important questions for future studies to investigate, including: are undocumented Asians more or less likely to cluster together than legal Asian immigrants; what are the mechanisms that shape the clustering of undocumented Asians together in a neighborhood; are particular Asian ethnic groups that are undocumented more or less likely to cluster, such as undocumented Vietnamese versus undocumented Asian Indians; and are these patterns and processes more evident and stronger in newer destinations? This is a particularly important area for future research since one in seven Asian immigrants is undocumented and the undocumented Asian population is growing at a faster rate than the undocumented Mexican and Central American populations (Lee and Ramakrishnan 2021; Ramakrishnan and Shah 2017). Examining these dynamics would have important implications for further understanding broader residential segregation processes, refining theoretical mechanisms of neighborhood attainment, as well as examining varying immigrant incorporation trajectories.

Moreover, additional research is needed to understand these local-level residential patterns for mixed race Asian households. Asians in the U.S. have among the highest levels of interracial marriage rates. In fact, since 1960, Asian intermarriage rates in the U.S., especially with Whites, has increased twentyfold (Lee and Zhou 2015). Despite this growing population, relatively little research has focused on the residential patterns of multiracial Asians, especially regarding ethnic neighborhoods. We thus do not know if and how the neighborhood patterns

observed in this study for single-race Asian ethnic groups may differ from those for multiracial Asians. More specifically, do multiracial Asians tend to cluster in neighborhoods where members of their Asian ethnic group are highly concentrated and overrepresented; are the social dynamics associated with the clustering of multiracial Asians similar or different from those of single-race Asians; and how do these patterns for multiracial Asians vary depending on the metropolitan area where the broader ethnoracial composition and local contexts vary? Addressing these questions would help to expand our knowledge of local-level residential patterns and have important implications for refining theoretical insights. For example, it would help to unpack and scrutinize the link between marital/social assimilation and spatial assimilation, specifically whether intermarriage, especially with Whites, increases the likelihood of movement away from Asian ethnic neighborhoods with high concentrations of co-ethnics and instead toward neighborhoods with more members of the dominant White majority group.

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Table 1. Asian ethnic group share of total population by metropolitan area and immigrant destination type, 2010

Metropolitan area (MSA) and immigrant destination type	Total population in MSA, 2010	Chinese	Asian Indian	Filipino	Vietnamese
		Percent of total, 2010	Percent of total, 2010	Percent of total, 2010	Percent of total, 2010
Former					
Detroit-Warren-Livonia, MI	4,296,250	0.5	1.3	0.4	0.1
St. Louis, MO-IL	2,812,896	0.5	0.6	0.2	0.3
Pittsburgh, PA	2,356,285	0.5	0.6	0.1	0.1
Cleveland-Elyria-Mentor, OH	2,077,240	0.5	0.7	0.2	0.1
Providence-New Bedford-Fall River, RI-MA	1,600,852	0.5	0.4	0.2	0.1
Milwaukee-Waukesha-West Allis, WI	1,555,908	0.4	0.8	0.2	0.1
Buffalo-Niagara Falls, NY	1,135,509	0.5	0.7	0.1	0.2
Major-Continuous					
New York-Northern New Jersey-Long Island, NY-NJ-PA	18,897,109	3.3	2.8	1.0	0.1
Chicago-Joliet-Naperville, IL-IN-WI	9,461,105	0.9	1.8	1.2	0.2
Boston-Cambridge-Quincy, MA-NH	4,552,402	2.3	1.4	0.2	0.7
San Francisco-Oakland-Fremont, CA	4,335,391	9.5	2.8	5.5	1.3
Minor-Continuous					
San Antonio-New Braunfels, TX	2,142,508	0.3	0.5	0.5	0.2
Hartford-West Hartford-East Hartford, CT	1,212,381	0.6	1.5	0.2	0.4
Rochester, NY	1,054,323	0.6	0.6	0.1	0.3
Tucson, AZ	980,263	0.6	0.3	0.4	0.4
Honolulu, HI	953,207	5.3	0.2	14.9	0.9
Fresno, CA	930,450	0.6	1.7	1.0	0.3
Bridgeport-Stamford-Norwalk, CT	916,829	1.0	1.7	0.4	0.2

New Haven-Milford, CT	862,477	0.9	1.0	0.3	0.2
Bakersfield-Delano, CA	839,631	0.3	1.0	1.9	0.2
Oxnard-Thousand Oaks-Ventura, CA	823,318	1.0	1.1	2.4	0.5
El Paso, TX	800,647	0.1	0.1	0.2	0.1
Worcester, MA	798,552	0.8	1.3	0.1	0.9
McAllen-Edinburg-Mission, TX	774,769	0.1	0.2	0.5	0.1
Stockton, CA	685,306	1.1	1.9	5.2	1.1
Modesto, CA	514,453	0.5	1.5	1.1	0.3
Post WW2					
Los Angeles-Long Beach-Santa Ana, CA	12,828,837	3.2	0.9	3.1	2.1
Dallas-Fort Worth-Arlington, TX	6,371,773	0.7	1.6	0.4	1.1
Houston-Sugar Land-Baytown, TX	5,946,800	1.1	1.5	0.7	1.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,582,170	1.5	2.3	1.1	1.1
Miami-Fort Lauderdale-Pompano Beach, FL	5,564,635	0.5	0.7	0.3	0.2
Riverside-San Bernardino-Ontario, CA	4,224,851	0.8	0.6	2.2	0.6
San Diego-Carlsbad-San Marcos, CA	3,095,313	1.5	0.8	4.7	1.4
Re-Emerging					
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5,965,343	1.1	1.5	0.4	0.5
Seattle-Tacoma-Bellevue, WA	3,439,809	2.2	1.5	2.0	1.6
Minneapolis-St. Paul-Bloomington, MN-WI	3,279,833	0.6	0.9	0.2	0.6
Tampa-St. Petersburg-Clearwater, FL	2,783,243	0.3	0.8	0.5	0.5
Baltimore-Towson, MD	2,710,489	0.8	1.2	0.6	0.2
Denver-Aurora-Broomfield, CO	2,543,482	0.6	0.5	0.3	0.7
Portland-Vancouver-Hillsboro, OR-WA	2,226,009	1.1	0.7	0.6	1.2

Sacramento-Arden-Arcade-Roseville, CA	2,149,127	2.4	1.7	2.5	1.3
San Jose-Sunnyvale-Santa Clara, CA	1,836,911	7.4	6.4	4.8	6.8
Major-Emerging					
Atlanta-Sandy Springs-Marietta, GA	5,268,860	0.7	1.5	0.2	0.7
Phoenix-Mesa-Glendale, AZ	4,192,887	0.5	0.7	0.6	0.5
Orlando-Kissimmee-Sanford, FL	2,134,411	0.5	1.2	0.7	0.6
Las Vegas-Paradise, NV	1,951,269	1.2	0.4	4.4	0.4
Charlotte-Gastonia-Rock Hill, NC-SC	1,758,038	0.4	1.1	0.2	0.6
Austin-Round Rock-San Marcos, TX	1,716,289	0.9	1.4	0.3	0.8
Minor-Emerging					
Columbus, OH	1,836,536	0.6	1.1	0.2	0.2
Indianapolis-Carmel, IN	1,756,241	0.4	0.7	0.2	0.2
Nashville-Davidson-Murfreesboro-Franklin, TN	1,589,934	0.3	0.5	0.2	0.2
Raleigh-Cary, NC	1,130,490	0.8	1.8	0.3	0.5
Salt Lake City, UT	1,124,197	0.6	0.4	0.2	0.6
Greensboro-High Point, NC	723,801	0.3	0.5	0.1	0.8
Cape Coral-Fort Myers, FL	618,754	0.2	0.3	0.3	0.2
Lakeland-Winter Haven, FL	602,095	0.2	0.6	0.3	0.2
Durham-Chapel Hill, NC	504,357	1.3	1.0	0.3	0.2

Table 2. Descriptive statistics for Asian group-defined clusters

Variable	Chinese cluster	Asian Indian cluster	Filipino cluster	Vietnamese cluster
Percent ethnic group, cluster	5.18	2.8	2.74	1.94
Percent speak English not well, cluster	5.36	4.58	4.82	7.24
Percent college educated, cluster	40.14	37.23	29.13	22.97
Household income (1000s), cluster	47.37	45.76	43.33	36.68
Percent owner-occupied units, cluster	54.22	54.93	60.18	52.85
Total population, cluster	58234.95	53857.34	45931.88	44365.92
Percent of tracts in suburbs, cluster	33.15	48.35	48.85	35.86
Total population, metro	3663600.1	4334563.08	4048159.73	4271406
Population change (1000s), 10 years, metro	353.11	384.14	374.5	400.52
Percent structures >30 years old, metro	43.39	43.81	43.56	42.76
Percent manufacturing employees, metro	14.67	15.18	14.7	15.07
Former dest.	0.11	0.13	0.14	0.12
Major-Continuous dest.	0.14	0.15	0.15	0.16
Minor-Continuous dest.	0.16	0.13	0.12	0.13
Post WW2 dest.	0.2	0.23	0.19	0.22
Re-Emerging dest.	0.21	0.19	0.18	0.18
Major-Emerging dest.	0.09	0.1	0.12	0.1
Minor-Emerging dest.	0.1	0.07	0.1	0.09
N	740	974	1040	904

Table 3. OLS regression results indicating the association between cluster and metropolitan characteristics with Chinese share in Chinese clusters

	Percent Chinese in cluster				
	(1)	(2)	(3)	(4)	(5)
Percent speak English not well, cluster	0.87***	0.60***	1.02***	0.63***	0.62***
Percent college educated, cluster	0.09***	0.03	0.05**	0.02	0.04
Household income (1000s), cluster	0.003	0.02	0.02	0.01	0.05
Percent owner-occupied units, cluster		−0.02	−0.02	−0.01	−0.02
Total population, cluster (ln)		0.72***	0.53*	0.78***	0.77***
Percent of tracts in suburbs, cluster		0.001	0.003	0.004	0.002
Total population, metro (ln)		−2.05***	−2.05***	−2.32***	−1.81***
Population change (1000s), 10 years, metro		0.001	0.001	0.001	0.001
Percent structures >30 years old, metro		0.08***	0.08***	0.08***	0.08***
Percent manufacturing employees, metro		0.03	0.03	0.02	0.02
Former dest.		−9.78***	−5.14***	−7.88***	−6.21***
Minor-Continuous dest.		−10.66***	−5.06**	−12.27***	−8.43***
Post WW2 dest.		−7.41***	−0.27	−12.63***	−6.17**
Re-Emerging dest.		−7.18***	−2.52	−8.85***	−6.04***
Major-Emerging dest.		−8.58***	−2.24	−9.70***	−6.44**
Minor-Emerging dest.		−9.88***	−4.51**	−9.94***	−7.44***
Year, 2010		−1.02	−0.83	−0.80	−1.08
Speak English not well*Former			−0.26		
Speak English not well*Minor-Continuous			−0.54**		
Speak English not well*Post WW2			−0.74***		
Speak English not well*Re-Emerging			−0.34*		
Speak English not well*Major-Emerging			−0.85***		
Speak English not well*Minor-Emerging			−0.67***		
College educated*Former				−0.06	
College educated*Minor-Continuous				0.03	
College educated*Post WW2				0.12**	
College educated*Re-Emerging				0.04	
College educated*Major-Emerging				0.02	
College educated*Minor-Emerging				−0.01	
Income*Former					−0.08*
Income*Minor-Continuous					−0.04
Income*Post WW2					−0.02
Income*Re-Emerging					−0.02
Income*Major-Emerging					−0.04
Income*Minor-Emerging					−0.04
Constant	−3.22***	26.93***	22.85**	30.98***	21.48**
AIC	4558.3	4370.6	4267.3	4356	4372.4
N	740	740	740	740	740

*p < .05; **p < .01; ***p < .001

Table 4. OLS regression results indicating the association between cluster and metropolitan characteristics with Asian Indian share in Asian Indian clusters

	Percent Asian Indian in cluster				
	(1)	(2)	(3)	(4)	(5)
Percent speak English not well, cluster	0.24***	0.07**	0.11**	0.07**	0.08***
Percent college educated, cluster	0.03***	−0.002	0.001	0.02	−0.001
Household income (1000s), cluster	0.05***	0.04***	0.04***	0.04***	0.08***
Percent owner-occupied units, cluster		−0.02***	−0.02***	−0.02***	−0.02***
Total population, cluster (ln)		−0.02	−0.04	−0.0002	0.02
Percent of tracts in suburbs, cluster		−0.002	−0.0003	−0.001	−0.002
Total population, metro (ln)		0.37*	0.44*	0.47*	0.65***
Population change (1000s), 10 years, metro		0.001***	0.001***	0.001***	0.0005*
Percent structures >30 years old, metro		0.02**	0.02**	0.02***	0.02**
Percent manufacturing employees, metro		−0.005	−0.005	−0.01	−0.01
Former dest.		−1.75***	−1.60***	0.53	1.84**
Minor-Continuous dest.		−1.51**	−1.18*	0.69	1.57*
Post WW2 dest.		−2.83***	−1.92***	−1.78**	0.21
Re-Emerging dest.		−1.43***	−1.91***	−0.82	0.13
Major-Emerging dest.		−1.71***	−0.98*	−1.87**	1.60*
Minor-Emerging dest.		−1.85***	−1.01*	−0.67	1.50
Year, 2010		1.96***	1.82***	1.90***	1.82***
Speak English not well*Former			0.07		
Speak English not well*Minor-Continuous			−0.01		
Speak English not well*Post WW2			−0.15***		
Speak English not well*Re-Emerging			0.23*		
Speak English not well*Major-Emerging			−0.14*		
Speak English not well*Minor-Emerging			−0.17***		
College educated*Former				−0.06**	
College educated*Minor-Continuous				−0.06**	
College educated*Post WW2				−0.03	
College educated*Re-Emerging				−0.01	
College educated*Major-Emerging				0.01	
College educated*Minor-Emerging				−0.03	
Income*Former					−0.07***
Income*Minor-Continuous					−0.06***
Income*Post WW2					−0.06***
Income*Re-Emerging					−0.03
Income*Major-Emerging					−0.06***
Income*Minor-Emerging					−0.06**
Constant	−1.71***	−3.55	−4.79	−5.90*	−9.95***
AIC	4477.1	4096.3	4046.6	4076.6	4010.3
N	974	974	974	974	974

*p < .05; **p < .01; ***p < .001

Table 5. OLS regression results indicating the association between cluster and metropolitan characteristics with Filipino share in Filipino clusters

	Percent Filipino in cluster				
	(1)	(2)	(3)	(4)	(5)
Percent speak English not well, cluster	0.32***	0.23***	0.20*	0.15**	0.24***
Percent college educated, cluster	−0.09***	−0.10***	−0.10***	−0.08***	−0.10***
Household income (1000s), cluster	0.05***	0.11***	0.11***	0.11***	0.16***
Percent owner-occupied units, cluster		−0.05***	−0.06***	−0.06***	−0.06***
Total population, cluster (ln)		0.69***	0.71***	0.74***	0.70***
Percent of tracts in suburbs, cluster		0.01*	0.01*	0.01*	0.01*
Total population, metro (ln)		−1.19**	−0.95*	−1.14**	−1.07**
Population change (1000s), 10 years, metro		−0.001**	−0.001**	−0.001**	−0.002***
Percent structures >30 years old, metro		−0.04*	−0.04	−0.01	−0.05*
Percent manufacturing employees, metro		−0.04	−0.03	−0.01	−0.04
Former dest.		−3.34***	−2.59**	−3.93**	−0.33
Minor-Continuous dest.		−1.81	−2.69	7.04*	0.55
Post WW2 dest.		−2.10**	−1.58	0.37	0.39
Re-Emerging dest.		−3.19***	−3.51***	−2.75*	−1.43
Major-Emerging dest.		−5.16***	−3.89***	−4.20**	−2.90*
Minor-Emerging dest.		−5.23***	−3.96***	−4.87***	−2.36
Year, 2010		−1.49**	−1.47**	−1.47**	−1.59**
Speak English not well*Former			−0.26**		
Speak English not well*Minor-Continuous			0.23		
Speak English not well*Post WW2			−0.04		
Speak English not well*Re-Emerging			0.18		
Speak English not well*Major-Emerging			−0.23**		
Speak English not well*Minor-Emerging			−0.30***		
College educated*Former				0.004	
College educated*Minor-Continuous				−0.33***	
College educated*Post WW2				−0.05	
College educated*Re-Emerging				0.01	
College educated*Major-Emerging				0.01	
College educated*Minor-Emerging				0.01	
Income*Former					−0.07***
Income*Minor-Continuous					−0.05
Income*Post WW2					−0.05*
Income*Re-Emerging					−0.04
Income*Major-Emerging					−0.05*
Income*Minor-Emerging					−0.06**
Constant	1.37***	19.31***	15.37**	15.59**	15.90**
AIC	6359.5	6233.8	6216.7	6166.5	6236.6
N	1,040	1,040	1,040	1,040	1,040

*p < .05; **p < .01; ***p < .001

Table 6. OLS regression results indicating the association between cluster and metropolitan characteristics with Vietnamese share in Vietnamese clusters

	Percent Vietnamese in cluster				
	(1)	(2)	(3)	(4)	(5)
Percent speak English not well, cluster	0.15***	0.15***	0.03	0.15***	0.14***
Percent college educated, cluster	−0.02***	−0.02***	−0.02***	−0.003	−0.02**
Household income (1000s), cluster	0.04***	0.04***	0.04***	0.05***	0.04***
Percent owner-occupied units, cluster		−0.003	−0.002	−0.004	−0.002
Total population, cluster (ln)		0.34***	0.34***	0.35***	0.31***
Percent of tracts in suburbs, cluster		−0.01***	−0.01***	−0.01***	−0.01***
Total population, metro (ln)		−0.68***	−0.79***	−0.67***	−0.59***
Population change (1000s), 10 years, metro		−0.0003	−0.0002	−0.0003	−0.0003
Percent structures >30 years old, metro		0.03***	0.04***	0.03***	0.03***
Percent manufacturing employees, metro		0.07***	0.06***	0.07***	0.07***
Former dest.		−0.73*	−1.65***	−0.47	−0.06
Minor-Continuous dest.		−0.56	−2.01***	−0.27	0.32
Post WW2 dest.		2.82***	0.98	3.45***	2.76***
Re-Emerging dest.		1.91***	−0.90	2.49***	0.95
Major-Emerging dest.		1.63***	−0.17	2.26***	1.71**
Minor-Emerging dest.		−0.02	−1.68**	0.80	0.80
Year, 2010		−0.55*	−0.64*	−0.61*	−0.47
Speak English not well*Former			−0.08*		
Speak English not well*Minor-Continuous			0.08		
Speak English not well*Post WW2			0.15**		
Speak English not well*Re-Emerging			0.33***		
Speak English not well*Major-Emerging			0.15***		
Speak English not well*Minor-Emerging			0.10**		
College educated*Former				−0.01	
College educated*Minor-Continuous				−0.01	
College educated*Post WW2				−0.02	
College educated*Re-Emerging				−0.02	
College educated*Major-Emerging				−0.03	
College educated*Minor-Emerging				−0.03**	
Income*Former					−0.02*
Income*Minor-Continuous					−0.02*
Income*Post WW2					0.002
Income*Re-Emerging					0.03
Income*Major-Emerging					−0.001
Income*Minor-Emerging					−0.02**
Constant	0.12	3.36	6.91**	2.78	2.45
AIC	4020	3777.3	3688	3785.7	3762.9
N	904	904	904	904	904

*p < .05; **p < .01; ***p < .001

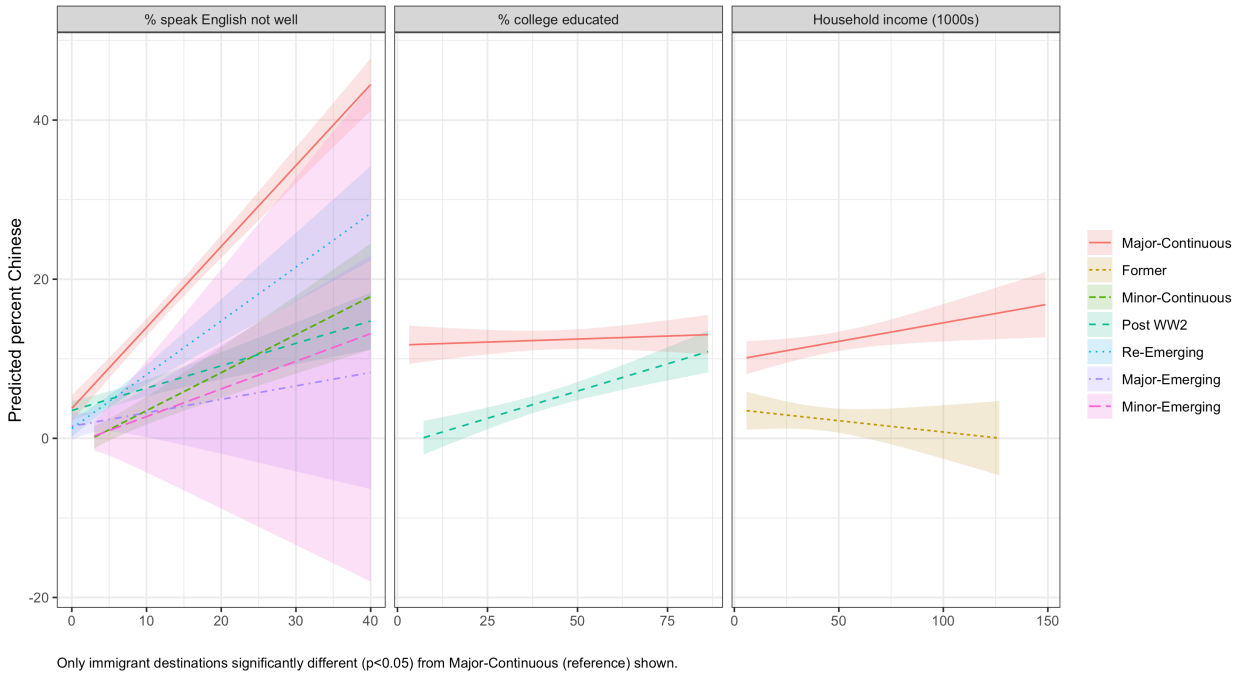

Figure 1. Predicted probability of percent Chinese in Chinese clusters by assimilation-related variables

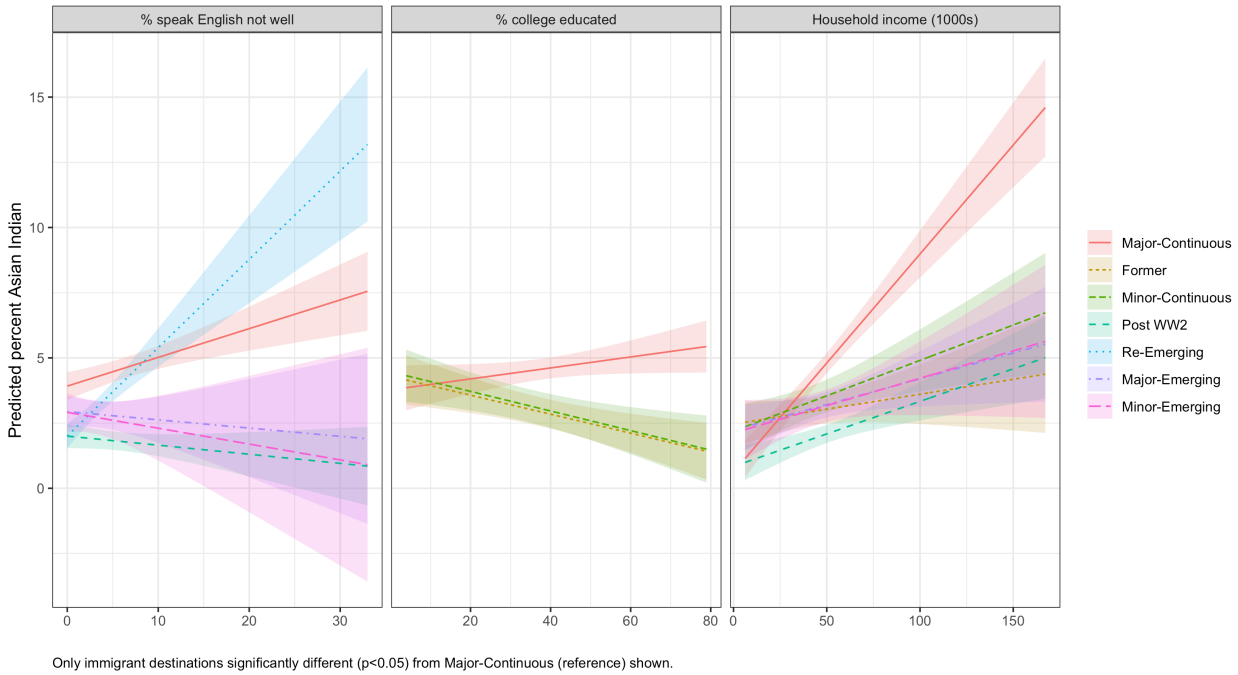

Figure 2. Predicted probability of percent Asian Indian in Asian Indian clusters by assimilation-related variables

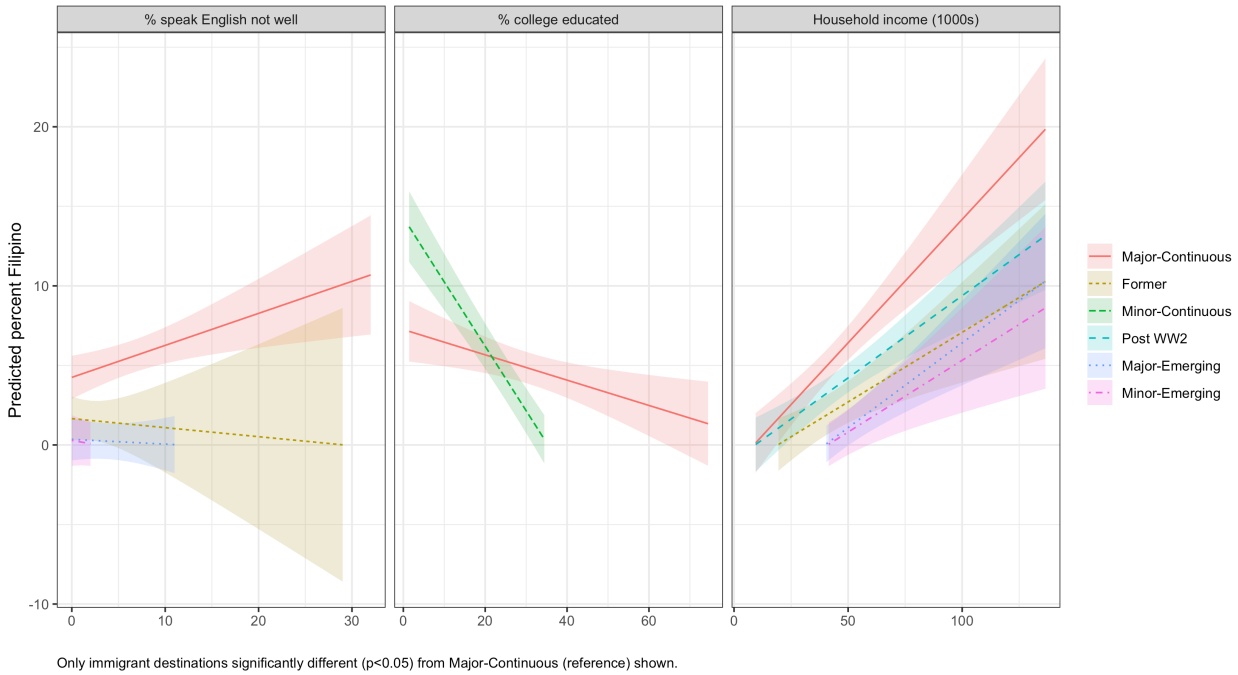

Figure 3. Predicted probability of percent Filipino in Filipino clusters by assimilation-related variables

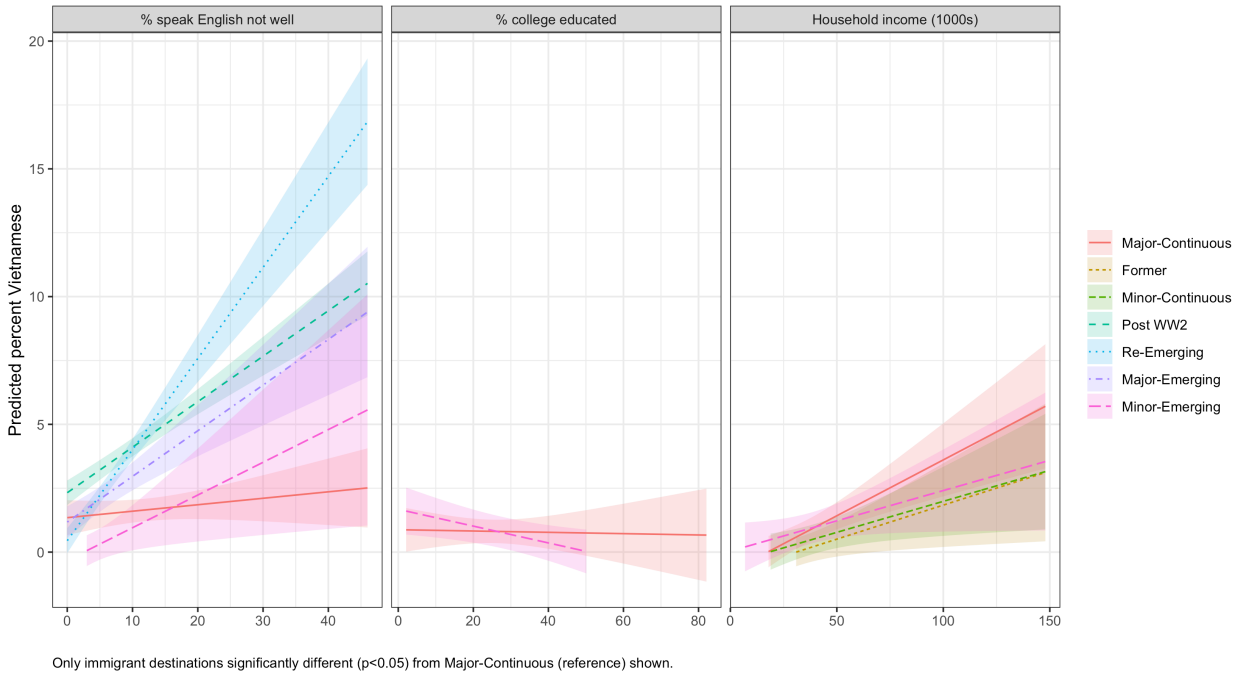

Figure 4. Predicted probability of percent Vietnamese in Vietnamese clusters by assimilation-related variables

Appendix

Appendix Table 1. OLS regression results predicting the Chinese share in Chinese clusters with year interactions.

	Percent Chinese in cluster		
	(1)	(2)	(3)
Percent speak English not well, cluster	0.53***	0.60***	0.60***
Percent college educated, cluster	0.03	0.03	0.03
Household income (1000s), cluster	0.03*	0.02	0.03
Percent owner-occupied units, cluster	−0.03*	−0.02	−0.02
Total population, cluster (ln)	0.67***	0.71***	0.71***
Percent of tracts in suburbs, cluster	0.001	0.001	0.001
Total population, metro (ln)	−2.00***	−2.05***	−2.07***
Population change (1000s), 10 years, metro	0.001	0.001	0.001
Percent structures >30 years old, metro	0.07**	0.08***	0.07***
Percent manufacturing employees, metro	0.03	0.03	0.03
Former dest.	−9.68***	−9.83***	−9.94***
Minor-Continuous dest.	−10.67***	−10.73***	−10.84***
Post WW2 dest.	−7.80***	−7.48***	−7.52***
Re-Emerging dest.	−7.30***	−7.24***	−7.32***
Major-Emerging dest.	−8.90***	−8.66***	−8.78***
Minor-Emerging dest.	−10.05***	−9.95***	−10.08***
Year, 2010	−2.75***	−0.27	0.20
Speak English not well*Year, 2010	0.26*		
College educated*Year, 2010		−0.02	
Income*Year, 2010			−0.02
Constant	27.59***	27.00***	27.34***
AIC	4355.7	4372.3	4371.3
N	740	740	740

*p < .05; **p < .01; ***p < .001

Appendix Table 2. OLS regression results predicting the Asian Indian share in Asian Indian clusters with year interactions.

	Percent Asian Indian in cluster		
	(1)	(2)	(3)
Percent speak English not well, cluster	0.02	0.07**	0.07**
Percent college educated, cluster	−0.01	−0.004	−0.001
Household income (1000s), cluster	0.05***	0.04***	0.04***
Percent owner-occupied units, cluster	−0.02***	−0.02***	−0.02***
Total population, cluster (ln)	−0.02	−0.02	−0.02
Percent of tracts in suburbs, cluster	−0.001	−0.001	−0.002
Total population, metro (ln)	0.38*	0.37*	0.38*
Population change (1000s), 10 years, metro	0.001***	0.001***	0.001***
Percent structures >30 years old, metro	0.02**	0.02***	0.03***
Percent manufacturing employees, metro	−0.01	−0.01	−0.01
Former dest.	−1.69***	−1.74***	−1.68***
Minor-Continuous dest.	−1.47**	−1.49**	−1.42**
Post WW2 dest.	−2.92***	−2.82***	−2.79***
Re-Emerging dest.	−1.45***	−1.42***	−1.37***
Major-Emerging dest.	−1.83***	−1.69***	−1.60***
Minor-Emerging dest.	−1.79***	−1.82***	−1.74***
Year, 2010	0.75*	1.42	1.18
Speak English not well*Year, 2010	0.19***		
College educated*Year, 2010		0.01	
Income*Year, 2010			0.01
Constant	−3.20	−3.50	−3.73
AIC	4061.9	4097.2	4095.8
N	974	974	974

*p < .05; **p < .01; ***p < .001

Appendix Table 3. OLS regression results predicting the Filipino share in Filipino clusters with year interactions.

	Percent Filipino in cluster		
	(1)	(2)	(3)
Percent speak English not well, cluster	0.20***	0.23***	0.23***
Percent college educated, cluster	−0.10***	−0.09***	−0.10***
Household income (1000s), cluster	0.11***	0.11***	0.11***
Percent owner-occupied units, cluster	−0.06***	−0.06***	−0.06***
Total population, cluster (ln)	0.69***	0.68***	0.69***
Percent of tracts in suburbs, cluster	0.01*	0.01*	0.01*
Total population, metro (ln)	−1.17**	−1.18**	−1.18**
Population change (1000s), 10 years, metro	−0.001**	−0.001**	−0.001**
Percent structures >30 years old, metro	−0.05*	−0.05*	−0.05*
Percent manufacturing employees, metro	−0.04	−0.03	−0.03
Former dest.	−3.20***	−3.36***	−3.39***
Minor-Continuous dest.	−1.72	−1.88	−1.85
Post WW2 dest.	−2.26**	−2.22**	−2.15**
Re-Emerging dest.	−3.20***	−3.26***	−3.24***
Major-Emerging dest.	−5.24***	−5.32***	−5.25***
Minor-Emerging dest.	−5.21***	−5.31***	−5.29***
Year, 2010	−2.49***	0.26	−0.75
Speak English not well*Year, 2010	0.15		
College educated*Year, 2010		−0.05	
Income*Year, 2010			−0.01
Constant	19.34***	19.22***	19.32***
AIC	6231	6232.1	6235.5
N	1,040	1,040	1,040

*p < .05; **p < .01; ***p < .001

Appendix Table 4. OLS regression results predicting the Vietnamese share in Vietnamese clusters with year interactions.

	Percent Vietnamese in cluster		
	(1)	(2)	(3)
Percent speak English not well, cluster	0.12***	0.15***	0.14***
Percent college educated, cluster	−0.02***	−0.01	−0.02***
Household income (1000s), cluster	0.05***	0.05***	0.06***
Percent owner-occupied units, cluster	−0.01	−0.01	−0.01
Total population, cluster (ln)	0.32***	0.33***	0.33***
Percent of tracts in suburbs, cluster	−0.01***	−0.01***	−0.01***
Total population, metro (ln)	−0.65***	−0.66***	−0.68***
Population change (1000s), 10 years, metro	−0.0003	−0.0003	−0.0004
Percent structures >30 years old, metro	0.03***	0.03***	0.03***
Percent manufacturing employees, metro	0.07***	0.08***	0.08***
Former dest.	−0.55	−0.71*	−0.85**
Minor-Continuous dest.	−0.43	−0.63	−0.70
Post WW2 dest.	2.80***	2.72***	2.72***
Re-Emerging dest.	1.95***	1.84***	1.80***
Major-Emerging dest.	1.56***	1.48***	1.41**
Minor-Emerging dest.	0.03	−0.07	−0.20
Year, 2010	−1.77***	0.75	1.31
Speak English not well*Year, 2010	0.12*		
College educated*Year, 2010		−0.05**	
Income*Year, 2010			−0.03**
Constant	3.39	3.22	3.39
AIC	3754.2	3765.8	3764
N	904	904	904

*p < .05; **p < .01; ***p < .001

CHAPTER 4: THE ROLE OF ASIAN ETHNIC GROUPS IN THE EMERGENCE OF RACIALLY DIVERSE NEIGHBORHOODS THROUGH BUFFERING

1. Introduction

In recent decades, there has been a documented rise in the number of racially diverse neighborhoods (Ellen, Horn, and O'Regan 2012; Friedman 2008; Logan and Zhang 2010; Zhang and Logan 2016). Along with the growth of diverse neighborhoods, studies have also found a decline in all-white neighborhoods (Denton and Massey 1991; Holloway, Wright, and Ellis 2012; Logan and Zhang 2010). Scholars have generally attributed these trends of increasing neighborhood diversity and residential integration to Asians and Latinos acting as social or spatial "buffers" between Whites and Blacks, alleviating the ethnoracial tension and thereby providing an opportunity for racially diverse neighborhoods to emerge (Farley and Frey 1994; Frey and Farley 1996; Santiago 1989).

However, since these studies have primarily considered the role of the panethnic Asian and Latino groupings, a lack of attention has been paid to whether all distinct ethnic groups within these broad panethnic groupings are likely to shape processes of buffering and, in turn, influence the development of diverse neighborhoods. Indeed, Sin and Krysan (2015) have noted "which ethnic/racial group is integrating with whom necessitates greater specificity" (p. 473). As ethnic groups have different social, economic, and historical characteristics, as well as different racialization experiences and different positions along the American racial stratification system (Bonilla-Silva 2004), they may be perceived and treated differently by other ethnoracial groups. These distinctions could, in turn, lead to different residential patterns and varied levels of

residential integration. There is thus a critical need to more explicitly spell out which groups are living with whom to provide a more nuanced and clearer understanding of residential integration.

Accordingly, this paper is the first to consider and examine for which distinct Asian ethnic groups racially diverse neighborhoods are more likely to emerge and remain stable. Understanding whether diverse neighborhoods are more likely to emerge when certain Asian ethnic groups are more present in a neighborhood will help to reevaluate and refine the underlying social mechanisms embedded in buffering. Although the buffering hypothesis considers both Asians and Latinos as buffers, I focus only on Asian ethnic groups to first ascertain whether certain distinct ethnic groups within a broad panethnic category are critical to the processes of emerging and stable diverse neighborhoods. Indeed, in this study, I find that some Asian ethnic groups matter more than other Asian ethnic groups for the development of racially diverse neighborhoods. This investigation is critical now more than ever as Asians are the fastest growing ethnoracial group in the United States, growing 81 percent from 10.5 million in 2000 to 18.9 million in 2019 (Pew Research Center 2021). In comparison, Latinos, the second fastest growing racial/ethnic group in the U.S., grew 70 percent in the same period. This means that the residential patterns of Asians have important and considerable implications for the future of residential integration and segregation across metropolitan areas in the United States.

2. Background

2.1. Emergence of racially diverse neighborhoods

In response to the increasing diversity of the American population over the past few decades, there has been a burgeoning body of literature investigating neighborhood racial change (Crowder, Pais, and South 2012; Logan and Zhang 2010; Sin and Krysan 2015; Zhang and

Logan 2016). Studies have revealed a rising number of racially integrated and diverse neighborhoods over time, generally where White, Black, Latino, and Asian residents reside together (Friedman 2008; Krysan and Crowder 2017; Logan and Zhang 2010; Zhang and Logan 2016). For example, examining neighborhood pathways in diverse metropolitan areas from 1980 to 2000, Logan and Zhang (2010) identified an increase in diverse neighborhoods, which they described as "global neighborhoods" where Whites, Blacks, Latinos, and Asians are all meaningfully present. Zhang and Logan (2016) expanded upon this analysis to include other metropolitan areas, including those that are not diverse, and found a similar trend of a rising number of diverse global neighborhoods in all metropolitan types.

Some scholars suggest that these racially integrated neighborhoods arise due to Asians and Latinos acting as either a spatial or social "buffer" between Blacks and Whites (Farley and Frey 1994; Frey and Farley 1996; Logan and Zhang 2010). That is, Asians and Latinos first enter predominantly White neighborhoods, followed by Blacks. As buffers, Asians and Latinos theoretically alleviate tensions between Whites and Blacks because they are perceived to be more tolerable neighbors than Blacks for White residents. Asians and Latinos thus provide a protection from White flight, reducing the likelihood that Whites leave racially diverse neighborhoods and diminishing the rate at which diverse neighborhoods transition into majority-Black or all-minority places. Buffering may occur spatially, whereby Asians and Latinos may live in spaces or areas directly between Whites and Blacks, providing a physical barrier. Buffering may also occur socially, whereby the presence of Asians and Latinos "reduce the salience of Black neighbors to Whites" (Logan and Zhang 2010:1072), which renders Blacks less visible.

Alternatively, Asians and Latinos may alleviate White-Black tension because they are perceived to be more acceptable neighbors than Whites for Black residents. Wright and Ellis (2021) propose this flipped perspective of the social aspect of buffering by centering the history and contemporary experiences of anti-Black racial violence and White hostility. Blacks may feel uncomfortable living in a neighborhood with Whites alone because of trauma and memories from decades of anti-Black violence or fears about White hostility or discrimination. Asians and Latinos may thus act as a social buffer by reducing racial traumas and perceived (or real) White antagonism, thereby encouraging Blacks to enter and live more safely and more comfortably among Whites in neighborhoods (Wright and Ellis 2021).

In general, these studies contend that the level of ethnoracial tolerance or preference influences the movement of groups in and out of neighborhoods. However, there is a debate about whether race or class characteristics drive these preferences (Charles 2003; Krysan et al. 2009). On the one hand, factors related to race, per se – including racial prejudice, racial stereotypes, or racial discrimination – may influence the movement of groups (Krysan et al. 2009). For example, because of the long history of anti-Black violence at the hands of Whites – including structural and direct violence, such as redlining, disinvestment, and assault etc. – Blacks may perceive that Asians and Latinos may be less discriminatory or hostile than Whites. As such, race may be a motivating factor influencing Blacks to move into diverse neighborhoods where Asians and Latinos are present as buffers. Another race-based explanation takes a more "neutral" approach, highlighting the simple desire to live in diverse spaces where there is a mix of ethnoracial groups (Wright and Ellis 2021).

On the other hand, some scholars contend that socioeconomic factors may in fact drive preferences and neighborhood racial change. Stereotypes about groups or the physical space that

group members occupy may be centered around perceptions of class. In this regard, race is simply a proxy for social class. For example, perceptions and stereotypes about Black neighborhoods being associated with poverty, rising crime rates, structural deterioration, and declining property values (Bonam, Bergsieker, and Eberhardt 2016; Bonam, Yantis, and Taylor 2020; Krysan 2002; Krysan et al. 2009) may be reduced with the presence of Asians and Latinos as buffers in the neighborhood. Instead, perceptions about, say, Asians or Asian spaces – as being associated with traits such as non-violence and wealth (Bonam et al. 2016; Xu and Lee 2013) – may lessen the salience of the relatively negative perceptions about Blacks or Black spaces for Whites. These somewhat more class-based perceptions of the group and the spaces they occupy thus may explain the buffering role of Asians and Latinos in protecting against White loss from diverse neighborhoods.

It is important to note that these economic and racial forces are very subtle processes that are largely entangled and often conflated in both reality and the perceptions of people who decide where to live. Differentiating and disentangling the two has proven to be a difficult and complex task (Charles 2003; Krysan et al. 2009). In fact, studies have generally found that *both* race and class likely matter for influencing residential preferences and neighborhood racial change (Krysan et al. 2009). It is beyond the scope of this paper to test the extent to which these mechanisms are at play in buffering. Rather, I mention and discuss these mechanisms to provide a broader context about the processes of buffering.

Regardless of the mechanisms driving the movement of groups in and out of diverse neighborhoods, implicit in the buffering hypothesis, though not necessarily explicitly described in the existing literature, is the significance of the American racial stratification system with Whites at the top, Blacks at the bottom, and Asians and Latinos in the middle (Krysan, Carter,

and van Londen 2017). That is, Asians and Latinos likely play a buffering role because these two groups are situated between Whites and Blacks along the American racial hierarchy. Studies investigating racial residential preferences have indeed shown that this racial hierarchy – whether it is based on perceptions of racial characteristics or class factors or both – plays a role in influencing which groups are viewed as preferred neighbors. For example, Whites' ideal neighborhood is more likely to include Asians than Blacks (Charles 2006; Krysan et al. 2017). Likewise, Blacks, Asians, and Latinos are generally more interested in residing with Whites than other ethnoracial groups (Charles 2006). Though, for Blacks, there is a limit to how many Whites are considered desirable in neighborhoods due to perceived or real experiences of discrimination, discomfort, and hostility (Krysan et al. 2017). In general, however, little attention in the existing literature has been paid to the role of the racial stratification system in the buffering process and the development of diverse neighborhoods.

2.2. The role of distinct Asian ethnic groups

While studies have established a foundational understanding of the emergence and (in)stability of diverse neighborhoods through buffering, they have only considered the presence of the panethnic Asian and Latino groups. The use of the broad panethnic groupings assumes that all distinct ethnic groups within the monolithic categories act as a social or physical buffer and are equally perceived to be tolerable neighbors. This practice also ignores the diversity of dissimilar ethnic groups that have varied social, economic, and historical characteristics, as well as racialization experiences, that could, in turn, lead to different residential patterns and levels of residential integration in the context of buffering.

Disaggregating to distinct ethnic groups is important for understanding the development of diverse neighborhoods since the buffering process is predicated on populations with different levels of racial and ethnic tolerance moving in and out of neighborhoods. As such, the specific ethnoracial groups that make up a racially diverse neighborhood play a critical role in shaping the entry and departure of groups. Some distinct ethnic groups within the monolithic Asian and Latino categories may be considered more acceptable neighbors, thereby influencing the emergence of stable racially diverse neighborhoods. At the same time, other ethnic groups may be perceived as intolerable neighbors, which, in turn, reduces the likelihood of the emergence of diverse neighborhoods. What determines whether some distinct ethnic groups are considered more acceptable neighbors than others may be a reflection of their social position in the racial stratification system, which is indirectly implied in the buffering framework. That is, groups higher up the racial hierarchy may be deemed more acceptable neighbors – based on perceptions of race or social class factors or both – while those occupying a lower position may be perceived as less tolerable neighbors – again, as a response to perceptions around race or class characteristics or both.

Focusing specifically on Asian ethnic groups, several scholars suggest that some groups occupy higher positions along the racial stratification system than others. Bonilla-Silva (2004), in particular, has promoted the notion of a tri-racial stratification system in the U.S. where certain East and South Asian groups, including Chinese, Japanese, Korean, Asian Indians, and Filipinos, are categorized as "honorary Whites," while disadvantaged Southeast Asian groups, notably Vietnamese and Cambodians, are part of the "collective Black" along with dark-skinned Latinos and Blacks. Socioeconomic status and interracial marriage patterns are identified as key indicators that may distinguish these two categories; those with high socioeconomic means and

high interracial marriage rates, especially with Whites, are more likely to be categorized as honorary Whites (Bonilla-Silva 2004).

There is some evidence supporting the principles of the tri-racial system. For example, Frank et al. (2010) found that darker-skinned Latinos are more likely to experience discrimination in the workplace than lighter-skinned Latinos. These findings suggest the development of a racial hierarchical system bifurcating Latino subgroups, whereby the racial boundary for darker-skinned Latinos is solidifying while the boundary for lighter-skinned Latinos is becoming closer to or blurring with Whites (Frank, Akresh, and Lu 2010). Moreover, some studies have shown that Asian ethnic groups experience different outcomes. For example, in 2010, Vietnamese had residential segregation levels similar to Blacks, as measured along the dissimilarity index, while Chinese and Asian Indians had levels on par with Latinos (Logan and Zhang 2013). These differences highlight the salience of ethnic distinctions for Asian groups that somewhat mirror a broader racial hierarchical system. Overall, although these studies do not formally test the existence of a tri-racial system, they provide signals and clues that racialization is an important facet of the Asian experience (Chou and Feagin 2015; Lee 2015; Lee and Kye 2016). Bonilla-Silva (2004) thus provides a helpful framework for understanding how different Asian groups may be racialized in American society. That is, Asian ethnic groups situated higher up the racial hierarchy closer to Whites may be viewed as more tolerable neighbors to Whites compared to those that occupy a relatively lower position closer to Blacks and Latinos.

Nevertheless, there is also evidence that certain Asian ethnic groups with generally high socioeconomic status and high academic achievement, notably Chinese and Asian Indians, may *not* be considered desirable neighbors to Whites. In Cupertino, CA, a high-skilled immigrant destination with a large population of Asians and Whites, Jiminez and Horowitz (2013) found

that the high academic attainment of Asian groups alter the meaning of ethnoracial categories, recasting Whiteness as "lesser-than status" (Jiménez and Horowitz 2013:856) compared to Asianness. This transformation in the racial hierarchy, based on academic achievement, may lead to these Asian ethnic groups being less desirable neighbors because of the perceived or real competitive nature that is produced. Indeed, one respondent in Jiminez and Horowitz's (2013) study notes: "I would say it's a great community; it's a great place to raise kids… but it's very competitive. So if that's a worry for you, if you don't think your children can handle a very multicultural, multiracial, multiethnic community, maybe it's not the place for you" (p. 857). As such, while certain Asian ethnic groups may be more likely to occupy a higher status than other Asian ethnic groups, it may not necessarily translate to positive out-group desirability as neighbors.

Furthermore, Gans (2012) expands upon Bonilla-Silva's (2004) tri-racial system to demarcate Asian Indians and Filipinos as different from East Asian groups. Specifically, East Asians, especially those in middle or upper-middle class status, such as Chinese and Koreans, are likely to experience Whitening, whereby they are "accepted by non-immigrant America" (Gans 2012:269). However, Gans (2012) notes that Asian Indians and Filipinos, as well as Malays and Indonesians, are often darker in skin tone and may be less socioeconomically advantaged (with the general exception of Asian Indians), which may delay the process of Whitening. Of course, the significance of skin tone in shaping social positions of Asian ethnic groups has changed over time and at different points in history, and may be perceived as important in some contexts and not others. For example, while Japanese may be considered part of the "honorary White" in the 21st century, the 1922 U.S. Supreme Court case Ozawa v. United States determined that light-

skinned Japanese immigrants were not considered White and thus were not eligible for naturalization.

Other scholars have further highlighted the unique position and status of Filipinos and Asian Indians compared to other Asian ethnic groups (Kibria 1998; Lee and Ramakrishnan 2020; Ocampo 2014, 2016). For example, Ocampo (2016) found that Filipinos report feeling more connected with Latinos than with other Asian groups given the shared Spanish colonization history resulting in similar religious beliefs, shared naming practices, and language commonalities between Tagalog and Spanish. Moreover, Lee and Ramakrishnan (2020) found that Whites, Blacks, and Latinos generally exclude Filipinos, Asian Indians, and Pakistanis from the Asian racial category. They also found that all Asian ethnic groups, as well as non-Asian ethnoracial groups, categorize East Asian groups, namely Chinese, Japanese, and Korean, as part of the Asian grouping. However, differences emerge in the racial assignment of South Asians (Indians and Pakistanis) – East Asians and Southeast Asians, including Vietnamese, Cambodians, Filipinos, and Hmongs, are less likely to categorize South Asians as Asian, but Indians and Pakistanis generally racially assign themselves as Asian. Together, these studies suggest that Filipinos and Asian Indians may face unique racialization experiences and out-group attitudes, which may solidify their group boundaries as distinct from other Asian groups. These experiences may in turn affect their residential patterns and differentially shape their role in the emergence of racially diverse neighborhoods.

Overall, these different social positions of Asian ethnic groups along the American racial stratification system suggest that Whites and Blacks may find some Asian ethnic groups more acceptable as neighbors than other Asian ethnic groups. If a racial hierarchy of out-group neighbors is indeed an important feature influencing the emergence of diverse neighborhoods

through buffering, as it is tacitly inferred in the literature, then groups that occupy a higher position along the racial stratification system – namely Chinese, Japanese, and Koreans – may be viewed as more acceptable neighbors to Whites. Their social positions – based on racial or class characteristics or both – may, in turn, reduce the likelihood of White flight and allow for diverse neighborhoods to emerge and remain stable. Yet, these higher status Asian groups may also spur an academically competitive environment that may be undesirable for groups, especially Whites (Jiménez and Horowitz 2013). In comparison, other Asian ethnic groups – including Vietnamese who have been described as part of the "collective Black" by Bonilla-Silva (2004), as well as Filipinos and Asian Indians, who have different racialization experiences and are generally perceived to be outside the Asian group boundary – may be viewed as more acceptable neighbors to Blacks but less desirable to Whites. Their social positions may, in turn, simultaneously encourage Black entry and hamper their role as a protection against White loss.

2.3. Instability of racially diverse neighborhoods

Despite the growth of studies finding increasingly diverse neighborhoods, scholars have also found evidence of instable diverse neighborhoods and, in turn, continued racial residential segregation (Holloway et al. 2012; Krysan and Crowder 2017; Parisi, Lichter, and Taquino 2015; Pinto-Coelho and Zuberi 2015; Wright et al. 2020). While buffering theoretically provides a protection from White flight, a number of studies have documented the continued salience of White loss in racially diverse neighborhoods (Logan and Zhang 2010; Parisi et al. 2015). That is, in neighborhoods and surrounding areas with large and increasing concentrations of Blacks, Asians, and Latinos, as well as immigrants, Whites are likely to leave (Crowder, Hall, and Tolnay 2011; Crowder and South 2008; Logan and Zhang 2010). The persistence of White flight

suggests that multiethnic neighborhoods with the presence of Whites, Blacks, Latinos, and Asians are not durable, especially over at least two decades, and are more of an ephemeral, one-point-in-time phenomenon (Friedman 2008).

In addition to White flight, there is evidence of gradual racial succession where Whites avoid neighborhoods with high concentrations of ethnoracial minorities, while ethnoracial minorities fill vacancies left by either Whites leaving neighborhoods or Whites aging and passing away (Bader and Warkentien 2016). These patterns ultimately lead to a neighborhood that gradually changes to one with mostly minorities and few Whites. In this regard, both processes of White flight and gradual racial succession result in the continuation of racial residential stratification and the durability of racially isolated neighborhoods over time. Overall, such evidence has led scholars to highlight how segregation and diversity are intertwined and simultaneously occurring (Ellis et al. 2018; Logan and Zhang 2010; Pinto-Coelho and Zuberi 2015; Reibel and Regelson 2011).

In this paper, I contribute to the literature by disaggregating the broad panethnic Asian grouping to consider whether the presence of certain distinct Asian ethnic groups strengthens or weakens the process of buffering that leads to stable residential integration – specifically, the entry of Black residents and the prevention of White loss in neighborhoods. This analysis deepens and expands the buffering thesis by shedding light on the social processes of racial group dynamics and racial hierarchies that are implicit in the buffering framework.

3. Data and methods

3.1. Data

I use tract-level U.S. decennial census data for the years 1980, 1990, 2000, and 2010. To account for the continuously changing demographic boundaries of census tracts across censuses due to population growth and decline, I use the Longitudinal Tract Database (LTDB) (Logan, Xu, and Stults 2014) to standardize tract-level estimates of population counts and other social and economic variables in 1980, 1990, and 2000 to the 2010 tract boundaries.

The LTDB has two advantages over other longitudinal data sources, such as the Neighborhood Change Database, that similarly standardize census variables to 2010 tract boundaries. First, the LTBD provides tract-level crosswalks to harmonize variables that are not included in the publicly available data. These crosswalks are helpful for this analysis because although the LTDB provides tract-level counts of the six largest Asian ethnic groups, they are based on the "Asian alone or in combination with one or more races" census category for 2000 and 2010. Since it is beyond the scope of this paper to investigate the role of multi-racial Asians in the process of buffering, I use the LTDB crosswalks to standardize the tract-level counts of the six largest Asian ethnic groups for the "Asian alone" population. Second, the LTDB released 2000 estimates of several sociodemographic variables using differential privacy (DP) methods, including percent non-Latino White, percent of residents who are college educated, and percentage of owner-occupied housing units. These DP estimates have been shown to be more accurate than the LTDB estimates that are based on interpolation methods (Logan et al. 2021). I thus use the DP estimates for the aforementioned three variables for the year 2000.

Although the LTDB provides the ability to conduct longitudinal analysis and make comparisons in neighborhoods across decennial census years, an important limitation of standardizing tract boundaries is the error that is introduced in the population estimates, especially for tracts that experience complex boundary changes (Logan, Stults, and Xu 2016;

Logan et al. 2014). Despite this important limitation, these datasets that standardize tract boundaries are the best methods available to conduct longitudinal analysis using census data.

3.2. Metropolitan areas in study

Since I am interested in understanding the role of Asian ethnic groups in the emergence of racially diverse neighborhoods, I focus on metropolitan areas that have a sizable presence of Asians, as well as Blacks and Latinos, in the population. Following a similar strategy as Logan and Zhang (2010), I identify 24 Metropolitan Statistical Areas (MSAs) where the Asian share in the metropolitan area is at or above the national Asian share and where either the Black or Latino metropolitan area share is at or above 50% of their respective national share for each year from 1980 to 2010. These 24 metropolitan areas, listed in Table 1, thus have a meaningful presence of Asians and at least one of Blacks and Latinos, which is important for understanding the buffering process. I vary the threshold across the years to account for changes in the population size over time. In other words, in 1980, all 24 MSAs in my study had an Asian share above the national Asian share of 1.4% and, in 2010, the metropolitan areas had an Asian share above 4.7%, which was the 2010 national Asian share.

[Table 1 around here]

The 24 MSAs in this study include relatively diverse cities. Following the general national trend, the Asian and Latino shares in these metropolitan areas have increased from 1980 to 2010, while the White share has declined over the same period, as shown in Table 1. The Black share in these metropolitan areas has increased, decreased, or remained steady over the 30-

year period. Most of the MSAs (18 out of 24) are located in the U.S. census-defined West region, mostly in California. Since I focus on only these 24 relatively diverse metropolitan areas, these findings cannot be generalized to other metropolitan areas with smaller Asian populations or less racial diversity. Nevertheless, I consider this analysis as simply a starting point for future studies to then extend.

3.3. Defining diverse neighborhoods

In the existing literature, scholars have generally operationalized diverse neighborhoods in three different ways (Abascal, Xu, and Baldassarri 2021; Sin and Krysan 2015; Wright et al. 2021). First, some previous studies have used fixed, absolute thresholds – either numerical or group-percentage thresholds – to define diverse neighborhoods (Alba et al. 1995; Crowder et al. 2012; Ellen 1998; Fasenfest, Booza, and Metzger 2004; Friedman 2008; Walton and Hardebeck 2016). For example, Friedman (2008) defined a diverse neighborhood as a census tract where at least 40% of the population is White, at least 10% is Black, and at least 10% is other race. Other scholars have adopted these same thresholds to define a multiethnic neighborhood (Crowder et al. 2012; Ellen 1998; Fasenfest et al. 2004).

The second way that scholars have defined diverse neighborhoods is through a comparison approach, specifically using a reference, such as a metropolitan area or the country, to measure relative neighborhood diversity (Logan and Zhang 2010; Maly 2000). For example, Logan and Zhang (2010) defined a racially diverse neighborhood where Whites, Blacks, Latinos, and Asians each represent 25% of the group's share in the overall population of the 24 metropolitan areas in their study. They also changed the reference point for each decennial census year in their study period to account for changing population shares over time.

Finally, a few other scholars have used a numerical index to measure diversity, such as an entropy score (Farrell and Lee 2018; Holloway et al. 2012) or the Herfindahl concentration index (Graif 2018). The entropy score, for example, measures the relative presence of ethnoracial groups in a spatialized unit – at minimum, it measures when only one group is present; at maximum, it measures when all groups are present in the population in equal shares.

While each of these approaches have their advantages and their disadvantages, I use the comparative approach (which I describe in detail below) for this analysis because the disadvantages of the other two approaches outweigh the advantages. Using a pre-determined, fixed criterion to define neighborhoods is not appropriate for my analysis for the following reasons. Studies that have used the fixed, absolute group-percentage threshold have generally focused on the presence of Whites, Blacks, and other races, which combine Asians and Latinos (Crowder et al. 2012; Ellen 1998; Fasenfest et al. 2004; Friedman 2008). As such, there is some precedent for defining a meaningful presence of Whites and Blacks in diverse neighborhoods. However, since this study is focused on Asian ethnic groups and Asians, and their role in buffering, it is difficult to ascertain an appropriate threshold for Asians given the lack of precedent. Another reason using a fixed threshold is not suitable for my study is that it is difficult to attain a numerical threshold for smaller groups, like Asians who are the focus of this analysis, than larger groups.

The entropy score, as a numerical index of measuring diversity, is also not suitable for my analysis. As Logan and Zhang (2010) argue, the entropy score at its maximum identifies a diverse neighborhood where all ethnoracial groups are present in equal shares. With four ethnoracial groups, the most diverse neighborhood would be composed of 25% of each group, which would be “an unreachable standard” (Logan and Zhang 2010:10) given the different sizes

of the four groups. Moreover, the entropy score and other numerical indices of measuring diversity have generally been used to identify highly diverse neighborhoods (Catney, Wright, and Ellis 2021). These studies are thus more focused on identifying diversity regardless of the ethnoracial groups that are present. Given that I would like to understand buffering (that is the entry and departure of certain ethnoracial groups in a neighborhood) and the social dynamics associated with this process, I am interested in examining *which* ethnoracial groups are present in the neighborhood rather than simply capturing high diversity in general.

Accordingly, similar to Logan and Zhang's (2010) and Zhang and Logan's (2016) method, I use the comparative approach to define diverse neighborhoods and other neighborhood types because it is the most suitable method for the goals of my analysis. I first identify 16 neighborhood types which represent all the possible combinations of a meaningful presence of the four major ethnoracial groups – Whites, Blacks, Latinos, and Asians – in the neighborhood. That is, there could be neighborhoods that are predominantly White, predominantly Black, predominantly Latino, or predominantly Asian. There could also be neighborhoods with any combination of the two groups (e.g., White and Black, Asian and Black, etc.) or of the three groups (e.g., White, Black, and Asian; Latino, Black, and Asian, etc.). The most diverse neighborhood includes all four ethnoracial groups. I also include tracts where none of the four major ethnoracial groups are present, which I call "other."

To measure whether an ethnoracial group is meaningfully present in a neighborhood, I use a relative percentage criterion as the threshold. If an ethnoracial group's share of the total population in the census tract is at least 50% of the group's share in the local metropolitan area, they are considered meaningfully present. This relative criterion changes for each decennial census year to account for the rapid growth of the Asian and Latino populations. Here are two

examples to help interpret this definition. To be identified as the most diverse neighborhood where all four ethnoracial groups are meaningfully present in 2010 in the New York MSA, a census tract had White, Black, Latino, and Asian shares of at least 24%, 8%, 11%, and 5%, respectively (which are half of their respective New York MSA shares in 2010). Likewise, to be identified as a predominantly Asian neighborhood in 2010 in the New York MSA, a census tract had an Asian share of at least 5%, while the White, Black, and Latino shares in the tract did not exceed 24%, 8%, and 11%, respectively. For simplicity, I use abbreviations to identify which groups are present in each neighborhood for the remainder of this paper. For example, "WBLA" represents a diverse neighborhood where all four ethnoracial groups are present and "A" represents a predominantly Asian neighborhood.[9] I examine census tracts that are present across all four decennial census years in the 24 metropolitan areas in my study, which results in 16,108 census tracts.

With this approach, I identify neighborhood types that are based on the ethnoracial composition of the *local* metropolitan area. This is different from other scholars' approaches. For example, Logan and Zhang (2010) use the average racial composition of all the metropolitan areas in their sample as the reference. I argue that it is important to use the local metropolitan area as the reference to identify these neighborhood types because metropolitan areas have different demographic, social, economic, and historical characteristics, as well as varying Asian population sizes, which can, in turn, shape different residential patterns and processes (Pais, South, and Crowder 2012). As the neighborhoods I identify in this analysis are tied to a

[9] I conducted sensitivity checks using other criteria, including 15%, 25%, and 75% (e.g., I identify a predominantly White neighborhood where the White share of the total population in the tract has to be at least 15% of the group's share in the local metropolitan area). The criteria thresholds below 50% generally result in more WBLA neighborhoods and fewer of the other neighborhood types where 3 or fewer of the groups are present (e.g., a BLA neighborhood). In comparison, the criteria thresholds above 50% generally lead to fewer WBLA neighborhoods and more of the other neighborhood types where 3 or fewer of the groups are present. The 50% threshold thus provides a middle-ground approach of identifying neighborhood types.

particular frame of reference, this means a diverse neighborhood in, say, New York, which is relatively diverse with a substantial share of Blacks, Latinos, and Asians, will differ from a diverse neighborhood in, for example, San Jose, which has a substantial share of Asians but relatively fewer Blacks. Some scholars argue that using a local reference hinders inter-metropolitan comparative analysis (Wright et al. 2021). However, since I am not conducting inter-metropolitan comparisons, I argue that this is less of a concern for this study. Overall, by using a local reference approach, I am able to capture the extent to which neighborhood types, including diverse neighborhoods, are consistent with the local demographic, social, and economic characteristics of the metropolitan area.

To help illustrate what the neighborhood types look like compositionally, Table 2 presents the racial composition of the average census tract across the 24 metropolitan areas for each of the 16 neighborhood types in each decennial census year. In 1980, the most diverse tracts, WBLA neighborhoods, were 62% White, 13% Black, 7% Asian, and 15% Latino, on average. By 2010, these shares had changed to 42% White, 12% Black, 14% Asian, and 27% Latino, illustrating the growing presence of Asians and Latinos in these diverse neighborhoods. At the opposite end, the least diverse tracts are neighborhoods where only one ethnoracial group is meaningfully present as the majority. All-White neighborhoods were majority White each year ranging from 94% White in 1980 to 87% in 2010, on average. The Black share in all-Black neighborhoods ranged from 92% in 1980 to 89% in 2010. Likewise, in all-Asian neighborhoods, the Asian share remained at 76% in both 1980 and 2010. Table 2 thus helps to elucidate what each neighborhood type entails, which is contextually helpful for understanding the main regression results.

[Table 2 around here]

Before discussing the variables and analytic strategy, I would like to note a limitation of my measurement choice for defining diverse neighborhoods. Although I argue that using a relative percentage criterion is the most suitable approach given the goals of my analysis, there are several different ways of measuring diverse neighborhoods, as I describe above. It is likely that if I choose a different method to define diverse neighborhoods, such as using a numerical entropy score, the results would be different. Indeed, Bader and Warkentien (2016) note that defining diverse neighborhoods using a relative percentage criterion, like Logan and Zhang (2010) have done and this study is doing, likely overestimates the level of racial integration. Because this method relies on whether an ethnoracial group that was not previously present in a neighborhood becomes meaningfully present or, alternatively, whether an ethnoracial group that was present is no longer present, it likely misses gradual change in the racial composition of neighborhoods over time. That is, they suggest that this approach "conflate[s] sustained, durable integration and gradual racial succession" (Bader and Warkentien 2016:136). As such, in this study, I may be overestimating racial integration and overlooking trajectories of neighborhood racial change that are substantively distinct. Nevertheless, as this study is the first to consider how different Asian ethnic groups shape the emergence of racially diverse neighborhoods through buffering, it is the starting point for future studies to then expand upon. It would thus be prudent for future studies to understand the extent to which and how the results may vary when using different definitions of diverse neighborhoods. Doing so would help to paint a more complete picture of racial diversity in American cities.

3.4. Outcome variables

To capture the emergence of diverse neighborhoods through buffering and the stability of such diverse neighborhoods, I focus on two outcome variables. The first outcome variable captures Black entry into a neighborhood, measured as the change in the Black share in the tract from time T1 to time T2. The second outcome variable measures net White loss from a neighborhood, defined as the change in the White share in the tract from time T1 to time T2.

3.5. Independent variables

The focal independent variable is the neighborhood type at time T1, which varies depending on the outcome variable. For the change in percent Black outcome variable, I focus on W and WLA/WA neighborhood types in time T1, measured as a dummy variable where 1 indicates tracts that were defined as WLA or WA at time T1 and 0 indicates tracts that were defined as W at time T1. In this way, I am assessing whether Black entry is more or less likely to occur in White neighborhoods that have a meaningful presence of buffering groups – Asians and Latinos – compared to only White neighborhoods with no buffering groups, as posited by the buffering framework. I include WA as a neighborhood with a buffering group given my focus on the Asian population in this paper.[10] That is, a relatively meaningful presence of Asians in a tract (even without a perceptible presence of Latinos, the other buffer group) may provide a social and/or spatial buffer for White and Black co-residence.

For the change in percent White outcome variable, I focus on WBLA, WLA/WA, and WB neighborhood types in time T1. These neighborhood types are measured as a categorical variable with WB as the reference category. In this way, I am examining whether the presence of

[10] I ran models with WLA and WA neighborhood types separately, and the results are statistically and substantively similar to the regression models that combine WLA and WA neighborhood types.

buffering groups reduce the likelihood of White loss, as posited by the buffering theory, especially when there is also a meaningful presence of Blacks in the neighborhood.

I also investigate the extent to which the relationship between neighborhood type and change in the percent White/Black varies depending on the relative presence of an Asian ethnic group in the neighborhood. I include measures for the six largest Asian ethnic groups – Chinese, Asian Indians, Filipinos, Vietnamese, Koreans, and Japanese. These are calculated relative to the share of the Asian population in the tract. In this way, I am capturing the relative presence of, say, Chinese in the Asian population in the neighborhood.

I control for a number of covariates that other studies have identified as potentially confounding factors for the outcome and focal independent variables (Logan and Zhang 2010). The neighborhood-level covariates are from the neighborhood at time T1. I include indicators of the ethnoracial composition of the neighborhood, including percentage non-Latino Black, percentage Latino, and percentage non-Latino Asian. The percentage of residents in the neighborhood that are foreign-born is included to control for the effect of immigration. Indicators of socioeconomic status are controlled for, including median household income and percentage owner-occupied housing units.[11] Family composition, measured as the share of families with children that are female headed, and age composition, measured as the share of residents who are aged 60 and above, are included as indicators of resource scarcity and aging in place for long-term residents. Residential turnover, measured as the percentage of housing units where the

[11] Traditionally, scholars have attempted to distinguish between socioeconomic and race factors in determining neighborhood racial change and the movement of groups. Following previous studies, I have attempted to do this in these models by controlling for socioeconomic indicators. However, since race and class are, to a great extent, interlinked in the perceptions of groups who are making decisions about where to live (Krysan et al. 2009), it is difficult to truly and effectively disentangle the effects of race and class in understanding neighborhood attainment processes. Ultimately, in this analysis, I do not have the capacity to identify and differentiate the mechanisms underlying the buffering process and the development of diverse neighborhoods. I merely control for these variables in order to better address the main goal of my analysis: to understand the role of Asian ethnic groups in the process of buffering.

household heads moved into the unit less than 10 years ago, may be a predictor of vacancies or weak community ties. Population change in the neighborhood from time T1 to time T2 is included as it may indicate the attractiveness of a community.

Following Logan and Zhang (2010), I also include characteristics of neighboring tracts, measured as adjacency to three specific neighborhood types. Previous scholarship has suggested the importance of neighboring or extralocal tract's attributes, especially for neighborhood out-migration (Crowder and South 2008) and perceptions of out-group threat (Hall and Krysan 2017). As such, I include dummy variables that indicate whether or not the focal tract is adjacent to a WBLA tract, a WLA tract, or a BLA tract. The neighboring tracts are identified using a spatial weights matrix with a first-order queen's definition of adjacency, which are tracts that share both boundaries and vertices.

At the metropolitan-level, I include several demographic variables. Population change at the metropolitan-level from time T1 to time T2 is included. I also control for the change in the ethnoracial composition at the metropolitan-level from time T1 to time T2, including the change in the percentage non-Latino Black, the change in the percentage Latino, and the change in the percentage non-Latino Asian.

3.6. Analytic strategy

For this analysis, I run Ordinary Least Squares (OLS) regressions for the two outcome variables, change in percentage Black in the neighborhood from time T1 to time T2 and change in percentage White in the neighborhood from time T1 to time T2. To account for heteroskedasticity in the residuals of the models, which were determined using the studentized Breusch-Pagan test, I use heteroskedasticity-consistent robust standard errors. Multicollinearity

in the models does not appear to be a significant issue, as the variance inflation factor values for the predictor variables were below 3.5.

For each outcome variable, I first run an OLS regression model with only the neighborhood type in time T1 to assess the extent of buffering for Black entry and White loss. I then include the neighborhood-, spatial-, and metropolitan-level covariates into the model. Finally, to examine whether the relative presence of distinct Asian ethnic groups in the Asian population in the neighborhood strengthens or weakens the process of buffering, I include interaction terms between the neighborhood type and the percent Asian ethnic group. I run models with interaction terms for each of the six Asian ethnic groups separately. To help interpret the results of the interaction effects, I present tables and graphs of the predicted change in the percent Black and the percent White for each of the distinct Asian groups. The graphs help to more clearly illustrate whether processes of buffering are occurring and the extent to which the presence of certain Asian ethnic groups may moderate such processes.

For the main set of analysis, I focus on 1980 as time T1 and 2010 as time T2. I conduct supplementary analysis with 1990 as time T1 and 2000 as time T1, while 2010 remains as time T2. The supplementary analysis provides an opportunity to understand the extent to which the processes and relationships remain consistent over time or are more/less dramatic depending on the decade change.

4. Results

I first highlight descriptive statistics of the neighborhood types. Table 3 presents the number of census tracts in each of the 16 neighborhood types by decennial census year. These results

provide contextual information about the general trend of diverse and non-diverse neighborhoods from 1980 to 2010.

[Table 3 around here]

Table 3 shows that the number of diverse neighborhoods (defined as WBLA) across the 24 metropolitan areas has increased over time. In 1980, 1,732 tracts were categorized as containing a meaningful presence of all four ethnoracial groups. By 2010, the number of tracts defined as WBLA increased to 2,145. This rise in racially diverse neighborhoods where all major ethnoracial groups are present is consistent with existing studies that also find increasingly diverse neighborhoods over time (Friedman 2008; Logan and Zhang 2010; Zhang and Logan 2016).

Neighborhoods that have a combination of any of the three ethnoracial groups have either grown or declined over time. Neighborhoods where Latinos or Asians are present with both Whites and Blacks (WBL and WBA) have increased approximately 79% and 73%, respectively, over the three decades. The number of all-minority neighborhoods (BLA) have also grown over time, increasing 151% from 431 tracts in 1980 to 1,081 tracts in 2010. These findings also signal increasing racial diversity in American neighborhoods. However, WLA neighborhoods have declined slightly over the same period.

Table 3 also shows that the number of majority White neighborhoods have experienced a 44% decrease, from 3,019 tracts in 1980 to 1,677 tracts in 2010. This is consistent with previous research indicating the decline of all-White neighborhoods (Denton and Massey 1991; Holloway et al. 2012; Logan and Zhang 2010). Majority Black neighborhoods have also dropped over the

three decades from 831 to 792 tracts. In comparison, majority Latino and majority Asian neighborhoods have increased 152% and 442%, respectively. The growth of these Latino and Asian neighborhoods may reflect the substantial proliferation of these two populations over the past few decades or the dispersal of these populations across space.

[Table 4 around here]

To further understand the neighborhood types and where they are located, Table 4 shows the distribution of 6 neighborhood types across the 24 metropolitan areas in 1980 and 2010. I focus on only 6 of the neighborhood categories because they are important stages of the buffering process and are included as focal independent variables. Overall, diverse neighborhoods are mostly located in the largest and relatively more diverse MSAs in this study. This was the case in both 1980 and 2010. In 1980, 44% of the tracts categorized as WBLA were located in the 5 largest MSAs in this study: New York, Los Angeles, Chicago, Houston, and Washington D.C. By 2010, of the 2,145 census tracts that are identified as WBLA, approximately half (47%) were still located in these 5 MSAs. Similar patterns emerge for the other neighborhood types, as shown in Table 4. Around half of WLA tracts in 2010 (49%) and half of WA tracts (53%) are situated in the New York and Los Angeles MSAs. Moreover, 54% of neighborhoods that contain a meaningful presence of all three minority ethnoracial groups (BLA) are located in the four largest MSAs: New York, Los Angeles, Chicago, Houston. These descriptive statistics illustrate the general location of diverse neighborhoods across the metropolitan areas in my study. Given that the diverse neighborhoods are more concentrated in the larger and relatively more diverse cities, I conduct supplementary analysis to examine the

extent to which the results from the regression models are more pronounced in these particular cities.

Overall, these descriptive statistics support our existing knowledge that diverse neighborhoods have grown during the past few decades. They also indicate that diverse neighborhoods are generally found in larger and relatively diverse cities where there is a meaningful presence of a number of ethnoracial groups. I now turn to the regression results to understand the extent to which Asian ethnic groups play a role in the emergence and stability of these racially diverse neighborhoods, specifically influencing the entry of Black residents and reducing White loss.

4.1. Black entry

I first discuss the results from the regression models predicting the change in percent Black in the tract from 1980 to 2010, as shown in Table 5. Model 1 in Table 5 presents the bivariate relationship between the 1980 neighborhood type and the change in Black share over the three decades without covariates. There is a positive relationship between being a WLA/WA neighborhood in 1980 (versus a W neighborhood in 1980) and a change in Black share in the neighborhood from 1980 to 2010, though this association is not statistically significant. However, with the inclusion of neighborhood-, spatial-, and metropolitan-level covariates, the positive association becomes statistically significant, as shown in Model 2.[12] The significant

[12] In Model 2, since the independent variables are not standardized to a comparable scale, it is difficult to assess the relative effect sizes of the independent variables on the change in Black share. As it stands now, the coefficient for the variable "Adjacent to WBLA tract" appears to have a much larger effect than the other tract- and metropolitan-level independent variables. As such, I ran additional regression models with standardized independent variables measured as z-scores (these models are not shown but are available upon request). The standardized regression coefficients indicate that the racial composition of the neighborhood in 1980, specifically percent Black and percent Latino, has the greatest effect on change in Black share from 1980-2010 compared to the other independent variables.

coefficient of 1.044 in Model 2 for whether the neighborhood is WLA/WA vs. W indicates that the change in Black share from 1980 to 2010 is 1.044 percentage points more in neighborhoods that start as WLA/WA in 1980 compared to W neighborhoods. These results provide support for the buffering hypothesis. That is, the meaningful presence of Latinos and Asians with Whites in a neighborhood increases the likelihood that Blacks move in compared to neighborhoods that are majority White and that have a low presence of Latinos and Asians. In other words, these results suggest that Latinos and Asians act as a buffer for the co-residence of Whites and Blacks, providing the opportunity for racially diverse neighborhoods to develop.

[Table 5 around here]

To examine whether this buffering process is moderated by the presence of certain Asian ethnic groups, I turn to Models 3 to 8 in Table 5, which include interaction terms between the 1980 neighborhood type and the percent Asian ethnic group in the neighborhood in 1980 for each of the six Asian ethnic groups. The results with these interaction terms suggest that buffering is stronger when certain Asian ethnic groups are more concentrated in the Asian population in the 1980 neighborhood. Specifically, the presence of Asian Indians, Filipinos, Koreans, and Japanese significantly moderates the positive association between being a WLA/WA neighborhood and the change in percent Black, as indicated by the significant interaction terms in Models 3-8 in Table 5. However, the direction of the moderating effect varies by Asian group.

To illustrate the interaction effects more clearly, especially whether the presence of certain Asian ethnic groups either strengthens or weakens the association, Figure 1 graphs the

predicted change in Black share by neighborhood type (W and WLA/WA) and Asian ethnic group, which is presented as the share of the Asian population in the neighborhood that the Asian ethnic group represents (10th, 50th and 90th percentile shares). The corresponding values for each of these percentiles are presented in Appendix Table 1. For example, the 10th percentile for percent Asian Indian is 0.3% (i.e., 0.3% of the Asian population are Asian Indian), while the 90th percentile is 38.4%. Using these percentile rankings helps to illustrate how the predicted change in Black entry varies when a distinct Asian ethnic group changes from being less to more concentrated among the Asian population in the neighborhood. To calculate the predicted probabilities that are shown in Figure 1, all the other covariates are held at their means.

[Figure 1 around here]

Overall, Figure 1 confirms the associations exhibited in Table 5. There is evidence of buffering since the predicted change in Black share is generally greater in neighborhoods that start as WLA/WA in 1980 compared to neighborhoods that are majority-White in 1980. Moreover, as expected, this association is significantly more dramatic for Asian Indians, Filipinos, Koreans, and Japanese, but the direction of the effect varies by Asian group. I discuss the results for each of these four Asian groups in turn, starting with Asian Indians.

For Asian Indians, the process of buffering is meaningfully stronger in neighborhoods that are categorized as WLA/WA in 1980 compared to majority-White neighborhoods. In the WLA/WA neighborhoods, as the share of the Asian population that is Asian Indian increases, the likelihood of Black entry over the three decades also increases. When Asian Indians represent a smaller share (the 10th percentile) of the Asian population in WLA/WA neighborhoods, the

predicted change in Black share from 1980 to 2010 is approximately 3.3 percentage points. However, when Asian Indians represent a larger share (the 90th percentile) of the Asian population, the predicted change in Black share is approximately 5.4 percentage points. In comparison, in neighborhoods that are defined as majority White in 1980, the predicted change in percent Black does not vary by the level of Asian Indian concentration. These results suggest that the larger presence of Asian Indians strengthens the process of buffering in WLA/WA neighborhoods.

Filipinos exhibit the same patterns as Asian Indians, as shown in Figure 1. As the Filipino share in WLA/WA neighborhoods increases, there is a significant increase in the entry of Black residents. Moreover, similar to Asian Indians, the predicted change in Black share in W neighborhoods does not vary by the level of Filipino concentration. These patterns for Asian Indians and Filipinos suggest that they are likely viewed as more acceptable and perhaps less threatening neighbors to Blacks, which may diminish the salience of anti-Black violence and White hostility. These two groups thus appear to play an important role in the development of racially diverse neighborhoods by encouraging the entry of Black residents. This may reflect their different racialization and out-group experiences as unique and distinct from East Asian ethnic groups that have generally been categorized as honorary White (Bonilla-Silva 2004; Gans 2012; Lee and Ramakrishnan 2020).

In marked contrast to Asian Indians and Filipinos, Figure 1 shows that Koreans and Japanese do not play a role in buffering. In fact, they have the opposite effect of Asian Indians and Filipinos. As the Korean share increases, the predicted change in Black share decreases, particularly in W neighborhoods. Similarly, in both W and WLA/WA neighborhoods, as the Japanese share increases, the likelihood of Black entry declines. These patterns suggest that

buffering is less likely to happen when Koreans or Japanese are more present in the neighborhood. Their racialization experiences as part of the "honorary White" category may reduce their attractiveness as neighbors to Blacks. Alternatively, perceived economic competition may deter Blacks from these neighborhoods. Specifically, the development of ethnic neighborhoods and the concentration of ethnic businesses and services for these two Asian groups may be stronger, thereby hindering the entrance of other ethnoracial groups due to reduced space or increased competition for resources.

Overall, these results suggest that the process of buffering in the development of racially diverse neighborhoods – that is, the entry of Black residents – is dependent on the specific Asian ethnic group that is present in the neighborhood. Buffering is significantly stronger when Asian Indians or Filipinos are more concentrated in the Asian population in the neighborhood, while buffering is significantly weaker and less likely to occur when Koreans or Japanese are more present.

4.2. White loss

I now turn to the second outcome variable, change in White share in the neighborhood from 1980 to 2010, to examine whether certain Asian ethnic groups are more likely to play a buffering role in reducing the likelihood of White loss from racially diverse neighborhoods. The results from regression models predicting change in White share from 1980 to 2010 are summarized in Table 6. Without covariates, Model 1 in Table 6 shows that being a WLA/WA or WBLA neighborhood in 1980 (versus a WB neighborhood) is negatively and significantly associated with the change in percent White from 1980 to 2010. In other words, although in all three neighborhood types there is net White loss over the three decades (as indicated by the negative

constant value), there is *more* White loss in neighborhoods that were categorized as WLA/WA and WBLA than those that were WB. This negative association remains statistically significant with the inclusion of covariates, as shown in Model 2 in Table 6.[13] This finding is not consistent with the tenets of the buffering framework, which posits that the presence of Latinos and Asians in diverse neighborhoods reduce the likelihood of White flight or net White loss because these buffer groups curb the salience of Black neighbors. Instead, these results suggest that in diverse neighborhoods where Latinos and Asians are present there is *more* White loss compared to neighborhoods with a meaningful presence of only Whites and Blacks. A potential explanation of this unexpected finding is considered in the Discussion section.

[Table 6 around here]

To examine whether the likelihood of White loss is moderated by the presence of certain Asian ethnic groups, I turn to Models 3 to 8 in Table 6, which include interaction terms between neighborhood type and percent Asian ethnic group for each of the six Asian groups. Overall, these models demonstrate that White loss is stronger when certain Asian ethnic groups are more likely to be present in the neighborhood. Specifically, Chinese, Asian Indians, Koreans, and Japanese significantly moderate the negative association between being a WLA/WA, WBLA vs. WB neighborhood and the change in White share, though the directions of the effects vary across the groups. Again, to more clearly illustrate these interaction effects, Figure 2 graphs the

[13] Similar to the change in Black share outcome, I ran additional regression models with standardized independent variables measured as z-scores (these models are also not shown but are available upon request) in order to assess the relative effect size of the independent variables. The standardized regression coefficients indicate that the median household income in the neighborhood in 1980 has the greatest effect on change in White share from 1980-2010 compared to the other independent variables.

predicted change in percent White from 1980 to 2010 by neighborhood type (WB, WLA/WA, and WBLA) and Asian ethnic group, with all other covariates held at their means. As with Figure 1, the share of Asian ethnic groups relative to the Asian population in the neighborhood is presented at their 10th, 50th, and 90th percentiles in Figure 2. The percentage values associated with each percentile ranking for the six Asian ethnic groups are presented in Appendix Table 2.

[Figure 2 around here]

Overall, Figure 2 confirms the relationships presented in Table 6: net White loss is occurring in all three neighborhood types, but it is occurring more in diverse neighborhoods with the presence of Latinos and Asians (WLA/WA and WBLA) than in WB neighborhoods. Nevertheless, as expected given the significant interaction terms in Models 3-8 in Table 6, this association is significantly more dramatic for Chinese, Asian Indians, Koreans, and Japanese, but in different directions. I discuss the results for each of these four Asian groups in turn, starting with Chinese.

The presence of Chinese appears to have a buffering effect that protects against White loss from diverse neighborhoods. As Figure 2 shows, in neighborhoods that were categorized as WLA/WA and WBLA in 1980, as the share of the Asian population that is Chinese increases, the change in White share from 1980 to 2010 significantly decreases. Since the change in White share is negative (meaning the White share declines over time), a significant decrease in this change means that there is *less* net White loss or a reduction in the likelihood of White loss. To illustrate this pattern more concretely, in the average WBLA neighborhood in 1980, when the Chinese share is at the 10th percentile (i.e., they represent a small share of the Asian population

in the neighborhood), the White share declines by 35.9 percentage points in the neighborhood from 1980 to 2010. However, when the percent Chinese is at the 90th percentile (i.e., there is a larger presence of them in the Asian population in the neighborhood), the White share declines by 28.3 percentage points over this period. In comparison, in WB neighborhoods, as the Chinese share increases, the change in White share increases over time, which means the likelihood of White loss increases. In general, these results indicate that, in diverse neighborhoods, net White loss is reduced when there is a larger presence of Chinese. This is thus consistent with the buffering hypothesis, whereby Chinese play a buffering role in protecting against White loss from diverse neighborhoods.

Japanese experience a similar moderating effect as Chinese. In all three neighborhood types (WB, WLA/WA, and WBLA), as the share of the Asian population that is Japanese in 1980 increases, the predicted change in White share over the subsequent three decades decreases, which means the likelihood of White loss declines. This moderating effect is only significant for WLA/WA versus WB neighborhoods. Like Chinese, these results suggest that Japanese play a buffering role in preventing and hindering White loss from diverse neighborhoods. Altogether, these findings suggest that Chinese and Japanese may be viewed as acceptable and tolerable neighbors by Whites, which means they likely play a social or spatial buffer in diminishing the salience of Black neighbors and, in turn, may help to reduce the likelihood that Whites leave diverse neighborhoods.

Asian Indians and Koreans, in comparison, experience a different moderating effect on White loss. In all three neighborhood types in 1980, as the share of the Asian population that is Asian Indian increases, the predicted change in White share significantly increases, as shown in Figure 2. This means that the likelihood of net White loss over the three decades rises. For

example, in 1980 WBLA neighborhoods, when the Asian Indian share is small (at the 10th percentile), the predicted change in White share from 1980 to 2010 is -31.9%, which then falls further to -35.6% when the Asian Indian share is larger (at the 90th percentile). This means there is more White loss when there is a larger presence of Asian Indians. Likewise, for Koreans, as their share increases in WLA/WA and WBLA neighborhoods, the predicted change in White share becomes more negative. For both Asian Indians and Koreans, this moderating interaction effect is only significant for WBLA versus WB neighborhoods. These results suggest that Asian Indians and Koreans may not play a role in hampering White flight and thus may not act as a buffer between Whites and Blacks in diverse neighborhoods. Given the academic attainment level of Asian Indians and Koreans, the presence of these two groups may signal a competitive academic environment that Whites may find undesirable, prompting more net White loss in these neighborhoods where there are large concentrations of these two groups.

Overall, these findings suggest that the process of buffering in maintaining stable diverse neighborhoods by protecting against White loss is dependent on the specific Asian ethnic group that is present in the neighborhood. Buffering to impede White loss is significantly stronger when Chinese and Japanese are more concentrated in the Asian population, whereas it is significantly weaker and less likely to occur when Asian Indians and Koreans are more present.

4.3. Supplementary analyses

4.3.1. Different starting years

Since the main set of results uses 1980 as the starting point, I conducted supplementary analysis to explore whether the relationships remain substantively similar with 1990 and 2000 as the starting years. The results for both outcomes – change in Black share and change in White share

– from 1990 to 2010 and from 2000 to 2010 are presented in Appendix Tables 3-6. Moreover, Appendix Figures 1-4 graph the predicted probabilities of the two outcome variables and illustrate the interaction effects between the neighborhood type and Asian ethnic group with 1990 and 2000 as the starting years.

The supplementary analysis using 1990 and 2000 yield generally similar results as the main set of results with 1980 as the starting year. As with the 1980 results for change in Black share, a higher concentration of Filipinos in neighborhoods categorized as WLA/WA in 1990 and 2000 is significantly associated with more Black entry, as shown in Appendix Figures 1 and 2. Appendix Tables 3 and 4 indicate that the interaction term between neighborhood type and Filipino share is significant. This suggests that Filipinos may continue to play a buffering role in the entry of Black residents and the development of diverse neighborhoods from 1990 to 2010 and from 2000 to 2010. Japanese and Koreans also continue to have no moderating effect on the entry of Black residents when 2000 is the starting year: in WLA/WA neighborhoods in 2000, the change in Black share from 2000 to 2010 significantly declines as the Japanese and Korean shares increase, as shown in Appendix Figure 2. Appendix Table 4 shows that the interaction terms for these two Asian groups are statistically significant. Moreover, with the change in White share outcome variable, Chinese continue to play a buffering role in protecting against White loss from 2000 to 2010. That is, like the 1980 results, in all three neighborhood types in 2000, as the Chinese share increases, the change in White share from 2000 to 2010 decreases, meaning the likelihood of White loss over the decade declines, as shown in Appendix Figure 4.

Nevertheless, a couple of new results emerge for the change in White share outcome variable with 1990 and 2000 as the starting years. Notably, the moderating effect of Filipinos and Vietnamese on White loss becomes statistically significant, as presented in Appendix Tables 5

and 6. As illustrated in Appendix Figures 3 and 4, in WB and WBLA neighborhood types in both 1990 and 2000, as the Filipino share increases, the change in White share becomes further negative. This means the likelihood of White loss from 1990-2010 and 2000-2010 rises when there are more Filipinos in the neighborhood. This suggests that starting in 1990 Filipinos may have been less likely to act as a buffer or protection against White loss in diverse neighborhoods.

In comparison, the supplementary results suggest that Vietnamese help to protect against White loss in WB neighborhoods in 1990. That is, in neighborhoods that are categorized as WB in 1990, as the Vietnamese share in the Asian population changes from the 10^{th} to 90^{th} percentile, the change in White share significantly decreases from -21.1% in 1990 to -15.9% in 2010, as shown in Appendix Figure 3. However, it is important to keep in mind that the Asian population in WB neighborhoods is relatively and meaningfully small. In WLA/WA and WBLA neighborhoods in 1990, the likelihood of White loss from 1990 to 2010 remains steady regardless of the level of Vietnamese share.

Overall, the findings with 1990 and 2000 as the starting point are similar to those with 1980 as the starting point. Specifically, certain Asian ethnic groups, namely Filipinos, continue to act as a buffer for the entry of Black residents, while other Asian groups, namely Koreans and Japanese, remain less likely to do so. Moreover, certain Asian groups, specifically Chinese, continue to act as a buffer for the protection of White loss from diverse neighborhoods.

4.3.2. Larger and more diverse cities

Since the descriptive results indicate that certain neighborhood types – specifically the more diverse ones, including WBLA and WLA – are concentrated in the 5 largest MSAs in this study, I conducted additional analysis to explore whether the moderating effect between the

neighborhood type and Asian ethnic group presence is more apparent in larger and relatively more diverse metropolitan areas versus smaller MSAs in my sample. To do so, I added 3-way interaction terms between the neighborhood type in 1980, the Asian ethnic group share in the neighborhood in 1980, and a dummy variable where 1 represents the 4 largest MSAs (the New York, Los Angeles, Chicago, and Houston MSAs) and 0 represents the other 20 MSAs. If the 3-way interaction term is statistically significant in the regression models, it would suggest that the interaction effect between neighborhood type and Asian ethnic group presence is different across larger and smaller cities.

For the change in Black share outcome, the results are generally similar across larger and smaller MSAs and are overall substantively similar to the main regression results, though with a couple exceptions. While the 3-way interaction terms are statistically significant for four of the Asian ethnic groups (Asian Indians, Filipinos, Vietnamese, and Koreans), plotting the predicted probabilities suggests that there are few substantive differences between larger and smaller MSAs and that the findings are overall substantively similar to the main set of results.[14] To help illustrate the 3-way interaction terms, Appendix Figure 5 shows the predicted change in Black share by the neighborhood type, Asian ethnic group presence, and large versus small cities. This figure shows that, in both larger and smaller MSAs, the change in Black share is generally greater in WLA/WA neighborhoods than in W neighborhoods, albeit the difference between WLA/WA and W neighborhoods is slightly more pronounced in smaller cities. This is consistent with the main findings and provides general support that buffering – that is, the entry of Black

[14] Results from the regression models showing the 3-way interaction terms are not shown, but are available upon request. Similar results emerge when the interaction term includes a dummy variable where 1 represents the 3 largest MSAs (the New York, Los Angeles, and Chicago MSAs) and 0 represents the other 21 MSAs.

residents in neighborhoods that already have a meaningful presence of Asians and Latinos with Whites – is occurring across all the MSAs in my sample, regardless of the size of the city.

Moreover, the direction of the moderating effect of Asian Indians in WLA/WA neighborhoods is similar across both larger and smaller cities.[15] That is, in both sets of MSAs, the larger presence of Asian Indians in the neighborhood strengthens Black entry in WLA/WA neighborhoods, which is consistent with the main regression results. It is only in W neighborhoods where the effect of Asian Indian presence varies between larger and smaller cities, which may be an artifact of the relatively limited presence of Asian Indians in W neighborhoods in less populated cities.

Nevertheless, Appendix Figure 5 also shows there is some variation in the findings between larger and smaller cities. Specifically, the direction of the effect of Filipino and Korean presence in WLA/WA neighborhoods are different across larger and smaller cities. Here, the results for the larger cities are consistent with the main regression results, while those for the smaller cities are in the opposite direction. This suggests that the main regression results for Filipinos and Koreans are more evident in the four largest cities. That is, the larger presence of Filipinos in neighborhoods strengthens the process of buffering and Black entry but specifically in these larger cities. Likewise, buffering is less likely to occur when Koreans are more concentrated in the neighborhood, specifically in larger cities. These findings raise important questions for future research to investigate what it is about larger versus smaller cities that shape the role of Asian ethnic groups, specifically Filipinos and Koreans, in the process of buffering and entry of Black residents.

[15] I do not discuss the results for Vietnamese here (even though the 3-way interaction term is statistically significant) because in the main set of results the interaction term between neighborhood type and Vietnamese share for the change in Black share outcome is not significant and thus not examined.

Overall, this analysis with the inclusion of 3-way interaction terms are generally similar to the main regression results for the change in Black share outcome. The results suggest that, for the most part, there is little substantive difference in the findings between the four largest MSAs in the study and the rest of the relatively smaller MSAs. Though, the findings for Filipinos and Koreans are more salient in the larger MSAs. For the change in White share outcome, the 3-way interaction terms are statistically significant for Chinese and Japanese. However, plotting the predicted probabilities shows that the moderating effects for these two Asian groups are substantively similar and in the same direction across the larger and smaller MSAs. I thus do not show or discuss these findings.

5. Discussion

This study is among the first to examine whether some Asian ethnic groups play a stronger role than other Asian groups in the emergence of stable diverse neighborhoods through buffering. I find evidence that is partially consistent with past work highlighting the role of Asians as buffers, but my results also illuminate how certain distinct Asian groups matter more than others in this process.

Before discussing the core contribution of this study, I discuss how the findings are partially consistent with the buffering framework and existing studies. This study finds that White neighborhoods where buffer groups, namely Latinos and Asians, are meaningfully present are more likely than predominantly White neighborhoods to have Black entry. This provides evidence that buffering may be one avenue through which racially diverse neighborhoods emerge, which supports the buffering hypothesis and is consistent with previous work (Logan and Zhang 2010). Moreover, the results show that net White loss – which can signal White flight

or gradual racial succession through White avoidance – is occurring in diverse neighborhoods, which is also consistent with the existing literature highlighting the instability of racially diverse neighborhoods over time, as well as the interlocking and co-occurring processes of segregation and diversity (Holloway et al. 2012; Krysan and Crowder 2017; Parisi et al. 2015; Pinto-Coelho and Zuberi 2015; Wright et al. 2020).

However, contrary to the buffering hypothesis, I find that diverse neighborhoods that contain a meaningful presence of Latinos and Asians (i.e., WBLA tracts) are more likely than WB neighborhoods with no buffer groups to experience net White loss. This finding thus challenges the buffering hypothesis that posits buffering groups help to protect against White flight in diverse neighborhoods. It is beyond the scope of the data and this analysis to investigate why this may be occurring in neighborhoods. Nevertheless, a potential explanation of this unexpected finding is the neighborhood typology that is used in this study. Since the neighborhood types are based on thresholds (i.e., a tract is only identified as WBLA if all four ethnoracial groups are above a certain level), perhaps it is only at slightly lower levels of Asian and/or Latino presence where these groups help to hamper White flight. In other words, the presence of Asians and/or Latinos may indeed prevent net White loss but perhaps at percentages that are below the thresholds used to define WBLA neighborhoods in this study. More research is thus needed to further investigate this dynamic by employing other definitions of diverse neighborhoods. Such work would have important implications for refining the buffering theoretical framework, namely whether buffering indeed plays a role in maintaining stable diverse neighborhoods by preventing White loss.

Turning to the novel contribution of my study, by disaggregating the panethnic Asian grouping, I find that some distinct Asian ethnic groups matter more for certain aspects of the

buffering process, while other Asian groups are more important for other dimensions of buffering. Specifically, consistent with my expectations, Filipinos and Asian Indians play an important buffering role in encouraging Black entry and the emergence of diverse neighborhoods, while East Asian groups, namely Chinese, Koreans, and Japanese, act as buffers for preventing White loss and for the maintenance of stable diverse neighborhoods. I discuss each of these findings in turn.

This study finds evidence that Asian Indians and Filipinos play an important role in the development of racially integrated neighborhoods through buffering, specifically by increasing the likelihood that Black residents move into neighborhoods where Whites are also present. These two Asian ethnic groups may thus be perceived by Blacks as more acceptable neighbors. For example, since Filipinos have been shown to have a shared connection with Latinos (Ocampo 2014, 2016) and Asian Indians have been categorized as non-Asian by out-group members (Lee and Ramakrishnan 2020), Blacks may perceive these two groups as occupying a position along the racial hierarchy that is closer to other ethnoracial minorities and further away from Whites. This may blur the group boundaries between Blacks, Filipinos, and Asian Indians, and thus increase the desirability and attractiveness of these two Asian groups as neighbors. Moreover, under the buffering framework espoused by Wright and Ellis (2021), this perception that Asian Indians and Filipinos are lower down the racial hierarchy and closer to Blacks may reduce the perceived or real experiences of potential anti-Black hostility and, in turn, make Blacks feel less threatened and more comfortable living in neighborhoods with Whites.

The results also show that the presence of Asian Indians in diverse neighborhoods increases the likelihood of net White loss, thereby curtailing the stability of diverse neighborhoods. This may be a reflection of Whites' perceptions of Asian Indians as non-Asian

(Lee and Ramakrishnan 2020), which may color Asian Indians' relative status as tolerable neighbors. Alternatively, the relatively high academic attainment of Asian Indians may prompt the emergence of an academically competitive environment that may detract Whites from moving into the neighborhood or may drive White exodus (Jiménez and Horowitz 2013). Although I provide some potential explanations for these patterns, more research is needed to parse out the role of Asian Indians and Filipinos in encouraging Black entry while simultaneously increasing White loss.

In comparison to Asian Indians and Filipinos, the results suggest that Chinese, Koreans, and Japanese matter less for the development of racially diverse neighborhoods (i.e., the entry of Black residents). The relative social position of these East Asian groups as part of honorary Whites may signal to Blacks that they are less desirable neighbors, perhaps due to race or class-based factors. For example, there may be a perception that these groups may be less likely to reduce anti-Black antagonism since they are perceived to be closer to Whites along the racial hierarchy. Alternatively, there may be less Black entry in neighborhoods with higher concentrations of Koreans and Japanese because of a stronger ethnic enclave environment. That is, the clustering of group resources, businesses, and institutions in neighborhoods where these Asian groups are highly present may mean there is less space for other ethnoracial groups to enter or perhaps more competition for material resources, thereby discouraging Blacks from entering such neighborhoods. Indeed, previous studies have found inter-group conflict between Korean and Black entrepreneurs and customers in Los Angeles and Washington D.C., especially in the late 20th century, that may have resulted in continued inter-group tension (Cheng and Espiritu 1989; Weitzer 1997).

While these East Asian groups may be viewed as less acceptable neighbors to Blacks, the findings suggest that they, in particular Chinese and Japanese, are perceived to be more tolerable neighbors to Whites since they appear to play a buffering role in preventing White loss from diverse neighborhoods. Whites may perceive these Asian groups to be acceptable neighbors given their relative social position in the racial hierarchy and their higher socioeconomic status. This, in turn, may be associated with more Whites entering than departing a neighborhood that has a relatively high presence of these Asian groups. In addition, the findings indicate that there is more White loss in diverse neighborhoods with higher concentrations of Koreans, which may reflect avoidance of neighborhoods where there could be academic competition.

6. Conclusion

In the past few decades, there has been a rise in the number of racially diverse neighborhoods (Friedman 2008; Krysan and Crowder 2017; Logan and Zhang 2010). Some scholars attribute this trend to the buffering process, whereby Latinos and Asians act as social and/or spatial buffers between Whites and Blacks, allowing the possibility for all ethnoracial groups to co-reside in a diverse neighborhood. The development of stable diverse neighborhoods through the presence of Latinos and Asians as buffer groups can occur in two ways – by reducing the salience of Black neighbors to Whites, which allows for co-residence of groups and a protection against White flight, or by reducing the (perceived) level of White hostility and violence experienced by Blacks, which encourages Black entry (Wright and Ellis 2021). These are not mutually exclusive processes and may in fact be occurring concurrently.

However, the primary focus on panethnic categories of Latinos and Asians in the existing literature has resulted in a missed opportunity to examine and understand whether all distinct

ethnic groups or only certain ethnic groups in these broad categories act as social or spatial buffers. Asian ethnic groups, in particular, have different social and economic characteristics, as well as varied racialization experiences (Lee and Kye 2016), which may result in different inter-group relations and out-group attitudes. These distinctions, in turn, can lead to different residential patterns and prospects of residential integration. Indeed, as this study shows, distinct Asian ethnic groups play different roles in the process of buffering and the development of diverse neighborhoods; some Asian groups matter more for the entry of Black residents, while other Asian groups matter more for preventing White loss in diverse neighborhoods.

By focusing on distinct Asian ethnic groups and illuminating group differences, this study contributes to our understanding of the buffering framework in two important ways, thereby helping to refine and expand the dynamics underlying buffering. First, this study illuminates the significance of accounting for the relative social positions of groups along the racial hierarchy, which is often only implicitly suggested in the buffering thesis. These social positions may be based on perceptions of racial stereotypes, class characteristics, and/or social factors. Second, this study sheds light on how these group dynamics impact the entry of groups and the departure of groups in different ways. Specifically, this study reveals that groups that occupy a relatively higher position in the American racial hierarchy closer to Whites, including East Asian groups, have a greater opportunity of preventing White loss from diverse neighborhoods, while groups that are positioned relatively lower in the racial hierarchy closer to other ethnoracial minorities, including Filipinos, may be more likely to boost Black entry into neighborhoods with Whites.

Nevertheless, more research, including qualitative studies, are important avenues for future scholarship to elucidate and better understand *why* and *how* the presence of certain groups

are more conducive to the entry of Black residents or the protection against White loss. As Asians are the fastest growing ethnoracial group in the U.S. and continue to remain highly diverse, the trend of neighborhood racial change may continue to evolve, shaping broader social patterns and trajectories of residential integration and residential segregation.

While this study makes important strides in refining the buffering framework, there are other critical avenues for future research. First, future studies should disaggregate the Latino population and examine whether some distinct Latino groups matter more for buffering than other Latino groups. Given that Latino groups have varied social and economic characteristics and racialization experiences (Brown, Jones, and Becker 2018; Frey 2018; Golash-Boza 2006), they likely play different roles in the process of buffering just like distinct Asian ethnic groups do, as discovered in this study. Investigating Latino group differences may further support the importance of racial hierarchies in the development of diverse neighborhoods through buffering, thereby providing further nuance and insights to the social group dynamics underlying the buffering framework.

Second, future research should examine the role of nativity status in heightening or muting how "honorary White" Asian groups and Asian groups situated lower in the stratification system shape buffering processes. For example, does the presence of foreign-born Chinese in a neighborhood strengthen or weaken White loss, or do native-born Filipinos intensify or moderate Black entry? On the one hand, nativity status may amplify subgroup differences in the buffering process. On the other hand, the persistence of the "forever foreigner" stereotype suggests that nativity status may not matter (Schachter 2021). This would reflect the "racial triangulation" of Asians, which emphasizes two dimensions in understanding the social position and experiences of Asians in the U.S. (Kim 1999; Xu and Lee 2013). That is, moving beyond a one-dimensional

racial hierarchy provides an opportunity to understand how Asians may be perceived as occupying a position between Whites and Blacks along one dimension called "relative valorization," which is based on cultural and/or racial attributes (Kim 1999, 2016). At the same time, their perceived foreignness may put them in a social position lower than both Whites and Blacks on a second dimension called "civic ostracism" (Kim 1999, 2016). According to this perspective, both foreign- and native-born Asian groups (even 3rd + generation) may face similar experiences due to the triangulated position of Asians relative to Whites and Blacks. Indeed, Schachter (2021) found that Whites, Blacks, and Latinos do not alter their stereotypes of Asians based on nativity status. Thus, investigating how perceived nativity status may conflict with the ethnoracial position of Asians would provide an opportunity to better understand the mechanisms underlying buffering and the trajectory of residential integration, as well as shed further light on ethnoracial group boundaries in the United States.

Third, future research should interrogate and challenge the normality and centrality of Whiteness in studies about diverse neighborhoods and residential integration. Racially integrated neighborhoods are generally defined as a mix of different ethnoracial groups living together, but the combination of groups always includes Whites (Logan and Zhang 2010). Even neighborhoods with only Whites, Asians, and Latinos have been defined as integrated (Krysan and Crowder 2017; Lobo, Flores, and Salvo 2019). Yet, neighborhoods that are home to a mix of Blacks, Latinos, and Asians are generally not defined as integrated or diverse but instead are categorized as simply all-minority neighborhoods (Lobo et al. 2019; Logan and Zhang 2010). There is thus an opportunity for scholars to approach investigations of neighborhood racial change, and the associated processes of racial residential integration and segregation, with a critical lens that challenges the assumption and normality of Whiteness as the default reference

category (Howell 2019). For example, racially integrated neighborhoods should not solely be defined as a mix of ethnoracial groups, including Whites, residing together. Rather, a neighborhood that has a mix of non-White ethnoracial groups, including a combination of Blacks, Latino groups, and Asian ethnic groups, should also be considered a diverse and racially integrated neighborhood. These efforts to move away from the normality of Whiteness will help to illuminate broader patterns of residential integration that are unfolding in an increasingly diverse American society.

Finally, since this study focuses on diverse metropolitan areas, especially places that have a meaningful presence of Asians and that are predominantly located in the West, future research should expand and include other metropolitan areas, including less diverse places or newer immigrant destinations in the East or South of the country that have a shorter history of receiving Asian populations. In diverse metropolitan areas that have a relatively high concentration of the Asian population, out-group members may be able to better distinguish between distinct Asian ethnic groups, such as Chinese versus Filipinos. Thus, the group differences observed in this study may be more apparent and may matter more in diverse metropolitan areas. In comparison, in less diverse metropolitan areas or newer immigrant destinations, the local population may have less familiarity with Asian populations and may be less likely to differentiate between dissimilar Asian ethnic groups. In this context, differentiating between distinct Asian groups may not matter as much as there may be fewer group differences in the process of buffering. Indeed, the supplementary analysis in this study, which indicates that the moderating effect of Filipinos and Koreans on the change in Black share is more apparent in larger cities, provides clues that different processes are occurring across metropolitan areas with varying demographic, social, and economic profiles.

In addition to examining buffering processes in less diverse metropolitan areas, a fruitful endeavor for future research is to study the dynamics of diverse neighborhoods across different national contexts. For example, future studies could examine the role of distinct Asian ethnic groups in the emergence of diverse neighborhoods in New York City versus London, or New York City versus Toronto, which are cities that have generally similar racial compositions and relatively similar histories of Asian immigration. Comparing and contrasting across similarly diverse cities in different national settings may help to elucidate underlying processes and the relative importance of varying mechanisms for the development of diverse neighborhoods (Fong 1996). Accordingly, investigating the extent to which and how these processes vary across metropolitan areas and cross-nationally has important implications for further understanding the different social mechanisms of buffering and the broader residential integration and segregation patterns across the U.S. metropolitan landscape.

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Table 1. Total population and ethnoracial composition in the 24 metropolitan areas in study, 1980 and 2010. Metropolitan areas are presented in descending order according to 2010 total population size

Metropolitan area	Year	Total population	% NL White	% NL Black	% NL Asian	% Latino
New York-Northern New Jersey-Long Island, NY-NJ-PA	1980	16,363,540	68.8	16.1	2.2	12.2
	2010	18,897,109	48.9	16.1	9.8	22.9
Los Angeles-Long Beach-Santa Ana, CA	1980	9,410,212	58.1	10.1	5.3	25.0
	2010	12,828,837	31.6	6.7	14.5	44.4
Chicago-Joliet-Naperville, IL-IN-WI	1980	8,052,932	70.5	19.2	1.8	7.9
	2010	9,461,105	55.0	17.1	5.6	20.7
Houston-Sugar Land-Baytown, TX	1980	3,148,991	65.4	18.0	1.7	14.3
	2010	5,946,800	39.7	16.8	6.5	35.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	1980	3,397,935	67.9	25.9	2.4	2.8
	2010	5,582,170	48.6	25.2	9.2	13.8
San Francisco-Oakland-Fremont, CA	1980	3,250,630	66.1	11.9	9.7	10.8
	2010	4,335,391	42.4	8.1	22.9	21.7
San Diego-Carlsbad-San Marcos, CA	1980	1,861,846	73.8	5.5	4.3	14.8
	2010	3,095,313	48.5	4.7	10.6	32.0
Sacramento--Arden-Arcade--Roseville, CA	1980	1,099,814	79.1	5.5	4.1	9.6
	2010	2,149,127	55.7	7.0	11.7	20.2
Las Vegas-Paradise, NV	1980	463,087	79.5	9.9	1.8	7.6
	2010	1,951,269	48.0	10.0	8.5	29.1
San Jose-Sunnyvale-Santa Clara, CA	1980	1,320,076	70.1	3.2	7.3	18.0
	2010	1,836,911	35.3	2.3	30.9	27.8
Fresno, CA	1980	514,621	61.6	4.8	2.8	29.3
	2010	930,450	32.7	4.8	9.3	50.3
Oxnard-Thousand Oaks-Ventura, CA	1980	529,174	72.4	2.0	2.8	21.4
	2010	823,318	48.7	1.6	6.6	40.3

Stockton, CA	1980	347,342	68.3	5.3	5.6	19.2
	2010	685,306	35.9	7.1	13.8	38.9
Modesto, CA	1980	265,900	80.2	1.1	1.5	15.0
	2010	514,453	46.7	2.5	4.8	41.9
Reno-Sparks, NV	1980	195,126	89.4	1.8	1.8	4.8
	2010	425,417	66.2	2.1	5.0	22.1
Salinas, CA	1980	290,444	59.7	6.3	6.2	25.9
	2010	415,057	32.9	2.7	5.7	55.4
Vallejo-Fairfield, CA	1980	235,203	69.5	11.6	6.5	10.5
	2010	413,344	40.8	14.2	14.3	24.0
Ann Arbor, MI	1980	264,748	84.8	10.6	2.1	1.5
	2010	344,791	72.1	12.5	7.8	4.0
Merced, CA	1980	134,560	66.1	4.9	2.0	25.3
	2010	255,793	31.9	3.4	7.1	54.9
Champaign-Urbana, IL	1980	200,238	89.1	7.3	1.7	1.3
	2010	231,891	74.3	10.6	7.7	4.8
Hilo, HI	1980	92,053	31.3	0.3	43.0	8.9
	2010	185,079	31.2	0.5	21.4	11.6
Yuba City, CA	1980	101,979	79.8	2.7	4.7	10.3
	2010	166,892	54.0	2.3	10.9	27.1
Kahului-Wailuku, HI	1980	70,847	31.6	0.2	43.4	7.4
	2010	154,834	31.8	0.5	28.0	10.1
Kapaa, HI	1980	39,082	25.9	0.2	52.9	8.4
	2010	67,091	30.7	0.4	30.3	9.4

Table 2. Average racial composition of the 16 neighborhood types for each decennial census year, 1980-2010

Neighborhood type	Year	% NL White *Mean (SD)*	% NL Black *Mean (SD)*	% NL Asian *Mean (SD)*	% Latino *Mean (SD)*
WBLA	1980	62.3 (14.8)	13.1 (10.9)	7.3 (7.9)	14.8 (10.4)
	1990	55.4 (14.8)	12.8 (9.7)	10.7 (8.9)	19.5 (11.8)
	2000	47.5 (14.3)	12.1 (8.9)	11.8 (8.8)	23.6 (13.1)
	2010	42.0 (13.5)	12.0 (8.8)	13.8 (9.1)	27.4 (13.2)
WLA	1980	74.5 (15.4)	2.7 (2.4)	5.5 (5.8)	15.6 (13.1)
	1990	67.4 (16.9)	3.3 (2.6)	9.5 (7.5)	19.1 (14.2)
	2000	57.0 (17.5)	3.3 (2.6)	12.7 (9.3)	23.4 (15.2)
	2010	53.2 (16.7)	3.6 (2.6)	14.9 (10.2)	25.3 (15.0)
WBA	1980	72.4 (13.6)	15.2 (13.0)	5.2 (4.9)	5.6 (3.4)
	1990	66.3 (15.0)	15.1 (14.1)	10.4 (9.6)	7.3 (3.8)
	2000	59.6 (15.7)	12.3 (12.6)	14.9 (12.9)	9.4 (4.3)
	2010	55.0 (15.9)	10.7 (11.1)	18.7 (14.3)	11.6 (4.4)
WBL	1980	60.0 (16.0)	18.9 (14.0)	1.4 (3.0)	17.8 (13.5)
	1990	60.4 (16.4)	15.3 (12.7)	2.6 (2.9)	20.3 (14.2)
	2000	50.4 (15.8)	15.3 (11.8)	3.1 (2.4)	27.5 (15.8)
	2010	46.6 (15.7)	14.8 (11.8)	3.7 (2.8)	31.1 (16.0)
BLA	1980	19.1 (9.5)	34.8 (23.6)	9.6 (10.5)	34.0 (19.8)
	1990	16.8 (8.7)	26.8 (20.5)	16.7 (13.6)	37.7 (19.2)
	2000	13.8 (7.4)	21.8 (17.1)	18.4 (14.3)	40.8 (19.2)
	2010	11.5 (6.4)	19.7 (16.7)	20.6 (15.2)	43.7 (19.6)
WA	1980	89.8 (6.4)	1.5 (1.6)	3.8 (4.3)	4.1 (2.7)
	1990	84.2 (9.3)	1.9 (1.8)	8.1 (7.5)	5.4 (3.3)
	2000	76.3 (12.9)	2.1 (1.8)	12.5 (11.1)	6.6 (3.7)
	2010	70.0 (15.1)	2.2 (1.7)	16.9 (13.8)	8.2 (4.1)
LA	1980	19.0 (8.5)	2.0 (1.8)	12.0 (13.8)	64.6 (16.6)
	1990	14.9 (7.5)	2.3 (1.8)	20.5 (16.7)	61.2 (19.6)
	2000	12.1 (6.8)	2.2 (1.9)	24.1 (18.9)	57.9 (22.1)
	2010	10.4 (6.2)	2.1 (2.0)	28.6 (20.6)	56.5 (22.2)
BA	1980	12.6 (10.0)	75.3 (16.0)	6.9 (12.0)	3.9 (2.9)
	1990	14.5 (9.5)	64.2 (23.3)	14.9 (19.2)	4.6 (3.3)
	2000	13.5 (7.5)	54.8 (27.9)	21.6 (24.5)	6.6 (4.0)
	2010	11.2 (5.7)	41.9 (31.5)	34.7 (29.4)	8.7 (4.3)
WB	1980	70.7 (16.6)	24.9 (16.8)	0.6 (0.7)	3.0 (2.4)
	1990	69.0 (16.0)	22.3 (17.5)	2.0 (2.2)	5.8 (4.1)
	2000	65.3 (16.6)	22.1 (18.2)	2.5 (2.4)	7.0 (4.4)

	2010	61.2 (17.1)	23.3 (19.3)	3.5 (2.5)	8.6 (4.6)
WL	1980	78.2 (15.9)	1.8 (2.3)	1.2 (1.1)	17.6 (15.6)
	1990	73.1 (16.8)	2.0 (2.0)	2.1 (1.7)	21.9 (16.7)
	2000	64.1 (18.3)	2.3 (2.1)	2.4 (1.9)	28.2 (18.5)
	2010	61.4 (18.3)	2.5 (2.0)	2.9 (2.2)	30.5 (18.5)
BL	1980	10.0 (9.5)	55.3 (24.8)	0.5 (0.6)	32.9 (22.9)
	1990	7.9 (8.4)	49.0 (24.9)	1.0 (1.3)	41.3 (24.4)
	2000	6.7 (6.9)	41.8 (24.1)	1.4 (1.6)	47.5 (23.8)
	2010	6.6 (6.3)	37.9 (24.2)	1.8 (2.0)	51.6 (23.9)
A	1980	18.4 (9.8)	1.3 (1.5)	75.8 (11.0)	2.6 (1.4)
	1990	11.8 (9.4)	1.4 (1.0)	80.6 (8.3)	6.0 (5.7)
	2000	11.8 (7.4)	1.7 (1.3)	77.3 (7.9)	7.0 (5.2)
	2010	11.6 (5.7)	1.5 (1.3)	75.7 (6.6)	9.0 (5.5)
W	1980	94.1 (3.8)	1.2 (1.9)	0.8 (0.8)	3.2 (2.4)
	1990	92.2 (4.6)	1.5 (2.0)	1.7 (1.4)	4.2 (2.9)
	2000	89.2 (5.4)	1.6 (2.0)	2.2 (1.7)	5.3 (3.3)
	2010	86.6 (6.0)	1.6 (1.8)	2.8 (2.1)	6.9 (3.7)
B	1980	4.8 (6.8)	91.8 (8.0)	0.3 (0.5)	2.4 (2.3)
	1990	3.8 (5.7)	92.2 (7.4)	0.5 (0.8)	3.1 (3.0)
	2000	3.6 (5.4)	90.1 (7.8)	0.6 (0.8)	3.6 (3.1)
	2010	3.3 (4.5)	88.8 (8.0)	0.8 (1.0)	5.0 (3.6)
L	1980	16.8 (9.5)	1.4 (1.8)	0.9 (0.7)	79.9 (10.1)
	1990	10.8 (7.7)	1.6 (1.9)	1.3 (1.2)	85.6 (8.6)
	2000	9.0 (6.8)	1.7 (1.9)	1.5 (1.5)	86.5 (9.0)
	2010	7.8 (6.2)	1.9 (1.9)	1.7 (1.7)	87.8 (7.8)
Other	1980	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	1990	0.0 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	2000	0.0 (0.2)	0.0 (0.0)	0.4 (2.6)	0.1 (0.6)
	2010	0.4 (2.7)	0.0 (0.1)	0.0 (0.0)	0.2 (1.0)

Note: The neighborhood types indicate a meaningful presence of at least one of the four major ethnoracial groups: Whites, Blacks, Latinos, and Asians. For example, WBLA are neighborhoods where all four groups are meaningfully present; while A are neighborhoods where only Asians are meaningfully present.

Table 3. Number of census tracts in the 16 neighborhood types by decennial census year, 1980-2010

Neighborhood type	1980	1990	2000	2010
WBLA	1732	1961	2043	2145
WLA	2882	2359	1957	1957
BLA	431	704	951	1081
WBL	557	744	745	996
WBA	365	535	616	633
WA	2803	2680	2684	2386
BL	901	1123	1340	1583
WL	1669	1337	1061	1155
LA	232	358	514	524
WB	279	313	348	274
BA	69	56	88	88
W	3019	2657	2221	1677
B	831	830	899	792
L	281	398	577	708
A	12	13	27	65
Other	45	40	37	44
Total	16108	16108	16108	16108

Table 4. Distribution of select neighborhood types across the 24 metropolitan areas, 1980 and 2010. Metropolitan areas are presented in descending order according to 2010 total population size

Metropolitan area	Year	WBLA	WLA	BLA	WA	WB	W
New York-Northern New Jersey-Long Island, NY-NJ-PA	1980	13.8%	17.0%	35.5%	37.6%	31.5%	38.8%
	2010	11.7%	32.1%	25.2%	32.7%	18.6%	43.5%
Los Angeles-Long Beach-Santa Ana, CA	1980	9.5%	20.7%	22.3%	20.6%	9.0%	15.9%
	2010	12.8%	16.5%	16.9%	19.9%	23.4%	11.7%
Chicago-Joliet-Naperville, IL-IN-WI	1980	3.1%	10.2%	3.2%	19.4%	12.9%	16.8%
	2010	5.3%	16.5%	2.2%	18.4%	13.9%	13.5%
Houston-Sugar Land-Baytown, TX	1980	7.1%	7.6%	2.8%	6.8%	12.2%	5.4%
	2010	6.8%	3.8%	9.7%	5.6%	5.1%	3.8%
Washington-Arlington-Alexandria, DC-VA-MD-WV	1980	10.2%	17.8%	3.7%	0.8%	25.4%	5.4%
	2010	10.7%	15.4%	6.2%	6.0%	23.0%	6.9%
San Francisco-Oakland-Fremont, CA	1980	7.4%	6.3%	12.3%	3.3%	1.1%	4.2%
	2010	6.8%	5.6%	9.4%	7.0%	6.6%	5.9%
San Diego-Carlsbad-San Marcos, CA	1980	8.7%	3.3%	6.0%	2.1%	1.1%	4.1%
	2010	4.9%	1.6%	7.2%	2.8%	4.7%	5.2%
Sacramento--Arden-Arcade--Roseville, CA	1980	7.6%	2.1%	2.6%	0.6%	0.0%	3.8%
	2010	5.5%	2.6%	5.4%	1.1%	0.0%	4.2%
Las Vegas-Paradise, NV	1980	3.5%	6.7%	0.0%	1.6%	2.9%	1.7%
	2010	9.7%	1.1%	1.8%	2.0%	2.2%	1.3%
San Jose-Sunnyvale-Santa Clara, CA	1980	9.0%	0.8%	5.6%	2.3%	1.1%	0.9%
	2010	4.8%	0.2%	5.7%	2.1%	0.7%	0.8%
Fresno, CA	1980	1.4%	1.6%	1.2%	1.7%	0.4%	0.4%
	2010	2.9%	0.8%	2.3%	0.8%	0.0%	0.4%
Oxnard-Thousand Oaks-Ventura, CA	1980	2.4%	0.5%	0.7%	1.6%	1.4%	0.7%
	2010	2.2%	0.2%	1.9%	0.2%	0.4%	0.7%

Stockton, CA	1980	2.2%	0.6%	2.6%	0.4%	0.0%	0.3%
	2010	2.2%	0.4%	2.2%	0.0%	0.0%	0.2%
Modesto, CA	1980	1.4%	0.6%	0.2%	0.1%	0.0%	0.3%
	2010	2.1%	0.4%	0.7%	0.0%	0.4%	0.3%
Reno-Sparks, NV	1980	2.8%	1.1%	0.0%	0.2%	0.0%	0.2%
	2010	2.7%	0.1%	0.4%	0.5%	0.0%	0.6%
Salinas, CA	1980	0.2%	0.8%	0.2%	0.5%	0.4%	0.4%
	2010	1.0%	0.3%	0.6%	0.5%	0.0%	0.2%
Vallejo-Fairfield, CA	1980	2.9%	0.2%	0.2%	0.0%	0.0%	0.2%
	2010	2.1%	0.3%	0.8%	0.1%	0.0%	0.1%
Ann Arbor, MI	1980	2.2%	0.7%	0.0%	0.1%	0.4%	0.4%
	2010	1.2%	1.1%	0.0%	0.1%	0.7%	0.4%
Merced, CA	1980	0.6%	0.3%	0.0%	0.1%	0.0%	0.0%
	2010	0.9%	0.4%	0.4%	0.0%	0.0%	0.1%
Champaign-Urbana, IL	1980	0.9%	0.2%	0.0%	0.0%	0.4%	0.2%
	2010	0.7%	0.3%	0.2%	0.1%	0.4%	0.4%
Hilo, HI	1980	1.0%	0.3%	0.0%	0.0%	0.0%	0.0%
	2010	1.0%	0.3%	0.4%	0.0%	0.0%	0.0%
Yuba City, CA	1980	0.7%	0.5%	0.0%	0.0%	0.0%	0.1%
	2010	0.8%	0.2%	0.0%	0.0%	0.0%	0.1%
Kahului-Wailuku, HI	1980	0.9%	0.1%	0.9%	0.0%	0.0%	0.0%
	2010	0.7%	0.1%	0.5%	0.0%	0.0%	0.0%
Kapaa, HI	1980	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%
	2010	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Total census tracts in neighborhood type	1980	1732	2882	431	2803	279	3019
	2010	2145	1957	1081	2386	274	1677

Table 5. Results from OLS regression predicting change in percent Black from 1980-2010

	Dependent variable:							
	Change in % Black, 1980-2010							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WLA/WA nhood, 1980	0.375	1.044***	1.694***	0.090	0.300	1.105***	0.521	1.497**
	(0.223)	(0.301)	(0.492)	(0.412)	(0.404)	(0.332)	(0.421)	(0.462)
% NL Black, 1980		0.651***	0.663***	0.628***	0.644***	0.659***	0.669***	0.597***
		(0.079)	(0.079)	(0.078)	(0.079)	(0.079)	(0.079)	(0.079)
% Latino, 1980		−0.114***	−0.113***	−0.114***	−0.130***	−0.113***	−0.118***	−0.106***
		(0.013)	(0.013)	(0.013)	(0.014)	(0.013)	(0.014)	(0.013)
% NL Asian, 1980		−0.182***	−0.183***	−0.150***	−0.178***	−0.181***	−0.189***	−0.127***
		(0.024)	(0.025)	(0.025)	(0.024)	(0.024)	(0.026)	(0.024)
% foreign-born, 1980		0.020	0.015	0.016	0.019	0.014	0.023	−0.014
		(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.019)	(0.018)
% owner-occupied units, 1980		0.018***	0.019***	0.019***	0.014**	0.018***	0.020***	0.011*
		(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)
% female-headed families, 1980		−0.010	−0.013	−0.001	−0.004	−0.005	−0.012	−0.007
		(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
% 60 and older, 1980		−0.049***	−0.049***	−0.045***	−0.047***	−0.050***	−0.054***	−0.031**
		(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
% HH in nhood 10 years or less, 1980		−0.032***	−0.032***	−0.034***	−0.033***	−0.031***	−0.034***	−0.031***
		(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Median HH income, 1980		−0.0001***	−0.0001***	−0.0001***	−0.0001***	−0.0001***	−0.0001***	−0.0001***
		(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
Population change, 1980-2010		0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***
		(0.00005)	(0.00005)	(0.00005)	(0.00005)	(0.00005)	(0.00005)	(0.00005)
Adjacent to WBLA tract, 1980		2.072***	2.061***	2.181***	2.017***	2.100***	2.029***	2.130***
		(0.334)	(0.334)	(0.334)	(0.335)	(0.335)	(0.334)	(0.332)
Adjacent to WLA tract, 1980		0.362	0.348	0.405	0.365	0.426	0.370	0.324
		(0.265)	(0.262)	(0.265)	(0.265)	(0.265)	(0.264)	(0.264)
Adjacent to BLA tract, 1980		0.654	0.679	0.657	0.449	0.599	0.618	0.712
		(0.917)	(0.916)	(0.919)	(0.895)	(0.917)	(0.916)	(0.918)
Population change, 1980-2010, metro		0.00000***	0.00000***	0.00000***	0.00000***	0.00000***	0.00000***	0.00000***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
% NL Black change, 1980-2010, metro		−0.132	−0.163*	−0.143	−0.071	−0.131	−0.160*	−0.123
		(0.078)	(0.078)	(0.078)	(0.075)	(0.078)	(0.079)	(0.077)
% Latino change, 1980-2010, metro		−0.023	−0.021	0.019	−0.013	−0.015	−0.036	0.046*
		(0.021)	(0.021)	(0.023)	(0.020)	(0.021)	(0.021)	(0.022)
% NL Asian change, 1980-2010, metro		−0.289***	−0.299***	−0.245***	−0.273***	−0.290***	−0.304***	−0.227***
		(0.027)	(0.028)	(0.027)	(0.026)	(0.027)	(0.028)	(0.025)
% Chinese, 1980			0.027*					
			(0.014)					
WLA/WA nhood * % Chinese			−0.024					
			(0.017)					
% Asian Indian, 1980				0.007				
				(0.016)				
WLA/WA nhood * % Asian Indian				0.049**				
				(0.018)				
% Filipino, 1980					−0.006			
					(0.011)			
WLA/WA nhood * % Filipino					0.041**			
					(0.015)			
% Vietnamese, 1980						−0.017		
						(0.017)		
WLA/WA nhood * % Vietnamese						−0.010		
						(0.019)		
% Korean, 1980							−0.054***	
							(0.011)	
WLA/WA nhood * % Korean							0.038*	
							(0.018)	
% Japanese, 1980								−0.036**
								(0.011)
WLA/WA nhood * % Japanese								−0.039**
								(0.013)
Constant	3.662***	8.080***	7.554***	7.261***	7.891***	7.997***	9.146***	7.695***
	(0.184)	(0.986)	(0.993)	(1.057)	(1.074)	(0.998)	(1.051)	(0.977)
AIC	61985.7	61453.7	61446.1	61416.8	61437.3	61451.6	61430.6	61371.6
Observations	8,434	8,434	8,434	8,434	8,434	8,434	8,434	8,434

Note: *p<0.05; **p<0.01; ***p<0.001

Table 6. Results from OLS regression predicting change in percent White from 1980-2010

	Dependent variable:							
	Change in % White, 1980-2010							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WLA/WA nhood, 1980	−8.975***	−7.033***	−11.781***	−9.262***	−7.076**	−6.509***	−4.842*	−1.900
	(1.424)	(1.840)	(2.508)	(2.213)	(2.426)	(1.938)	(2.304)	(2.373)
WBLA nhood, 1980	−10.476***	−10.522***	−17.215***	−13.319***	−9.660***	−10.322***	−7.655***	−6.099**
	(1.479)	(1.773)	(2.520)	(2.237)	(2.407)	(1.916)	(2.275)	(2.279)
% NL Black, 1980		0.211***	0.215***	0.242***	0.222***	0.209***	0.204***	0.275***
		(0.044)	(0.045)	(0.046)	(0.045)	(0.044)	(0.045)	(0.046)
% Latino, 1980		0.338***	0.371***	0.332***	0.369***	0.341***	0.310***	0.302***
		(0.030)	(0.031)	(0.031)	(0.031)	(0.030)	(0.031)	(0.031)
% NL Asian, 1980		0.157***	0.149***	0.078	0.166***	0.162***	0.113**	0.004
		(0.040)	(0.040)	(0.042)	(0.040)	(0.040)	(0.041)	(0.042)
% foreign-born, 1980		0.060	0.039	0.085*	0.061	0.038	0.087*	0.175***
		(0.037)	(0.038)	(0.037)	(0.038)	(0.038)	(0.038)	(0.039)
% owner-occupied units, 1980		−0.108***	−0.105***	−0.110***	−0.097***	−0.108***	−0.109***	−0.085***
		(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
% female-headed families, 1980		−0.061	−0.063	−0.082	−0.079	−0.039	−0.035	−0.035
		(0.064)	(0.064)	(0.064)	(0.064)	(0.064)	(0.064)	(0.063)
% 60 and older, 1980		0.236***	0.215***	0.212***	0.227***	0.231***	0.221***	0.180***
		(0.038)	(0.038)	(0.037)	(0.038)	(0.038)	(0.038)	(0.038)
% HH in nhood 10 years or less, 1980		0.136***	0.144***	0.137***	0.138***	0.144***	0.141***	0.142***
		(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Median HH income, 1980		0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***
		(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)
Population change, 1980-2010		−0.002***	−0.002***	−0.002***	−0.002***	−0.002***	−0.002***	−0.002***
		(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Adjacent to WBLA tract, 1980		−4.545***	−4.396***	−4.764***	−4.440***	−4.409***	−4.576***	−4.580***
		(0.587)	(0.586)	(0.583)	(0.589)	(0.587)	(0.588)	(0.575)
Adjacent to WLA tract, 1980		−6.350***	−6.355***	−6.397***	−6.507***	−6.138***	−6.104***	−6.237***
		(0.463)	(0.462)	(0.461)	(0.465)	(0.466)	(0.466)	(0.459)
Adjacent to BLA tract, 1980		1.969*	1.741	2.062*	2.100*	1.871	1.768	2.079*
		(0.970)	(0.953)	(0.957)	(0.961)	(0.972)	(0.969)	(0.955)
Population change, 1980-2010, metro		−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
% NL Black change, 1980-2010, metro		−0.312	−0.470**	−0.265	−0.433*	−0.311	−0.386*	−0.308
		(0.175)	(0.174)	(0.174)	(0.174)	(0.175)	(0.175)	(0.172)
% Latino change, 1980-2010, metro		−0.496***	−0.489***	−0.595***	−0.506***	−0.464***	−0.512***	−0.650***
		(0.056)	(0.056)	(0.058)	(0.056)	(0.056)	(0.057)	(0.058)
% NL Asian change, 1980-2010, metro		−0.722***	−0.791***	−0.802***	−0.740***	−0.713***	−0.745***	−0.764***
		(0.046)	(0.047)	(0.047)	(0.046)	(0.046)	(0.046)	(0.047)
% Chinese, 1980			−0.135					
			(0.076)					
WLA/WA nhood * % Chinese			0.203**					
			(0.077)					
WBLA nhood * % Chinese			0.305***					
			(0.082)					
% Asian Indian, 1980				−0.295**				
				(0.094)				
WLA/WA nhood * % Asian Indian				0.178				
				(0.096)				
WBLA nhood * % Asian Indian				0.196*				
				(0.099)				
% Filipino, 1980					−0.063			
					(0.079)			
WLA/WA nhood * % Filipino					0.006			
					(0.081)			
WBLA nhood * % Filipino					−0.016			
					(0.082)			
% Vietnamese, 1980						−0.033		
						(0.118)		
WLA/WA nhood * % Vietnamese						−0.075		
						(0.121)		
WBLA nhood * % Vietnamese						−0.021		
						(0.123)		
% Korean, 1980							0.101	
							(0.116)	
WLA/WA nhood * % Korean							−0.195	
							(0.118)	
WBLA nhood * % Korean							−0.258*	
							(0.126)	
% Japanese, 1980								0.291***
								(0.042)
WLA/WA nhood * % Japanese								−0.108*
								(0.045)
WBLA nhood * % Japanese								−0.065
								(0.054)
Constant	−21.274***	−23.130***	−19.962***	−16.826***	−21.356***	−24.138***	−24.795***	−30.531***
	(1.398)	(2.842)	(3.272)	(3.071)	(3.182)	(2.882)	(3.175)	(3.284)
AIC	65843.9	64530.2	64472	64452.1	64507.2	64513.3	64507.6	64338.2
Observations	7,458	7,458	7,458	7,458	7,458	7,458	7,458	7,458

Note: *p<0.05; **p<0.01; ***p<0.001

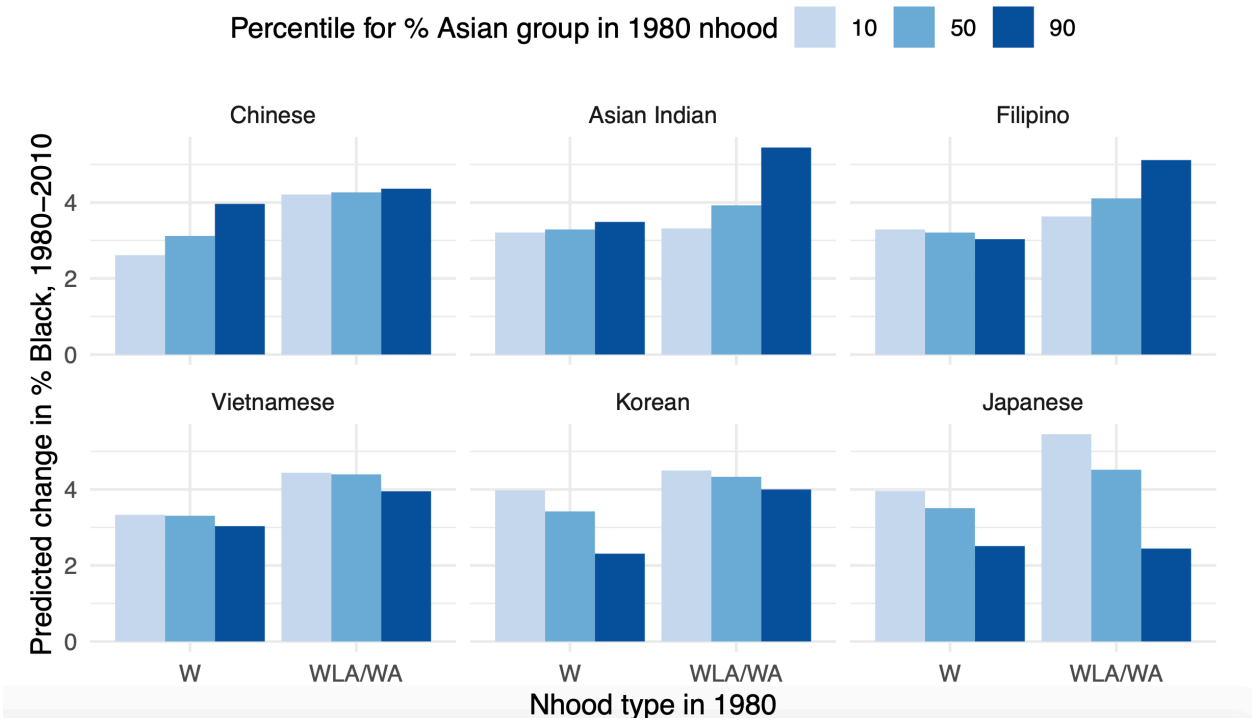


Figure 1. Predicted change in percent Black from 1980-2010 by neighborhood type in 1980 and percent Asian ethnic group in the 1980 neighborhood

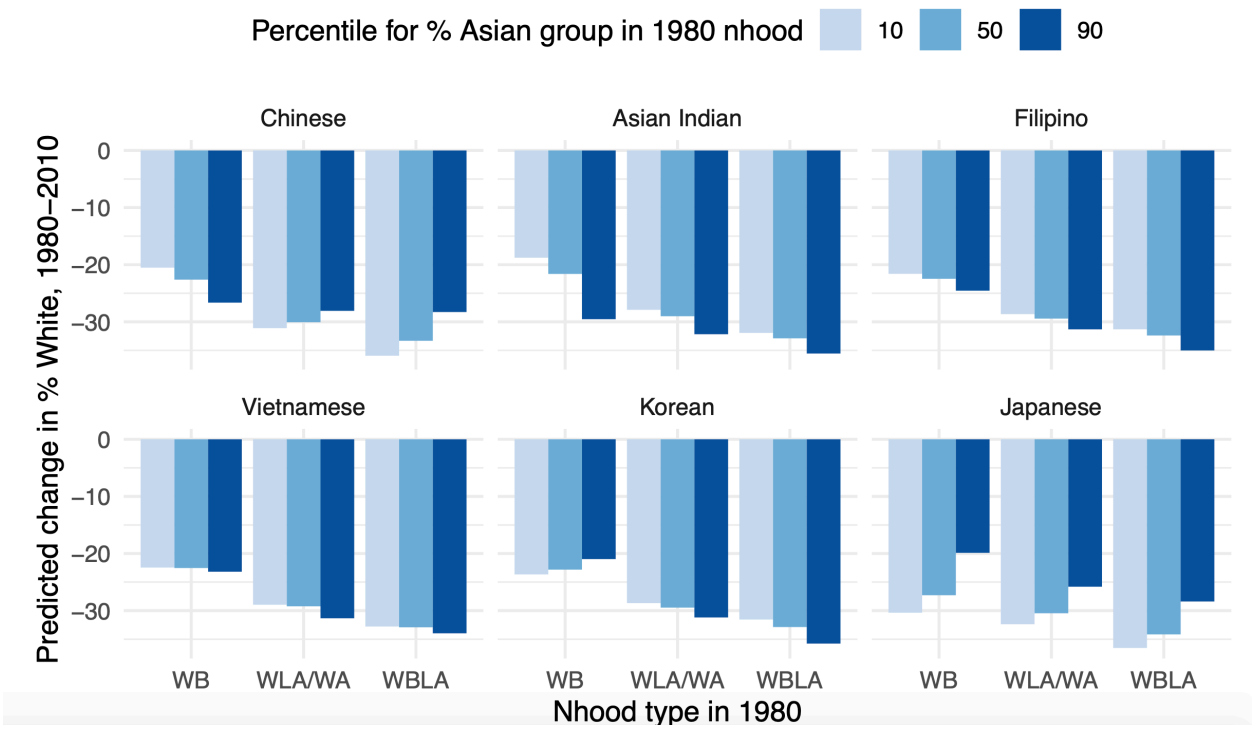


Figure 2. Predicted change in percent White from 1980-2010 by neighborhood type in 1980 and percent Asian ethnic group in the 1980 neighborhood

Appendix

Appendix Table 1. The 10th, 50th, and 90th percentiles of percent Asian ethnic group in W and WLA/WA neighborhoods in 1980

Percentile	% Chinese	% Asian Indian	% Filipino	% Vietnamese	% Korean	% Japanese
10th	4.2	0.3	1.0	0.0	0.0	0.0
50th	23.0	11.2	14.7	1.5	10.3	12.5
90th	54.3	38.4	43.6	18.0	30.7	40.1

Appendix Table 2. The 10th, 50th, and 90th percentiles of percent Asian ethnic group in WB, WLA/WA, and WBLA neighborhoods in 1980

Percentile	% Chinese	% Asian Indian	% Filipino	% Vietnamese	% Korean	% Japanese
10th	5.9	0.8	3.1	0.0	0.9	1.1
50th	21.4	10.4	16.8	2.5	9.3	11.6
90th	51.1	37.3	49.8	22.0	27.6	37.2

Appendix Table 3. Results from OLS regression predicting change in percent Black from 1990-2010

	Dependent variable:							
	Change in % Black, 1990-2010							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WLA/WA nhood, 1990	−0.108	0.725**	1.011**	0.469	0.286	0.717**	0.785*	0.899*
	(0.161)	(0.243)	(0.386)	(0.330)	(0.357)	(0.271)	(0.317)	(0.375)
% NL Black, 1990		0.377***	0.401***	0.364***	0.375***	0.388***	0.377***	0.352***
		(0.062)	(0.061)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)
% Latino, 1990		−0.057***	−0.052***	−0.055***	−0.064***	−0.051***	−0.060***	−0.049***
		(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
% NL Asian, 1990		−0.075***	−0.088***	−0.066***	−0.066***	−0.069***	−0.076***	−0.064***
		(0.012)	(0.013)	(0.013)	(0.012)	(0.012)	(0.012)	(0.013)
% foreign-born, 1990		−0.015	−0.013	−0.017	−0.017	−0.019	−0.012	−0.032**
		(0.012)	(0.011)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
% owner-occupied units, 1990		0.020***	0.024***	0.018***	0.016**	0.021***	0.020***	0.009
		(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
% female-headed families, 1990		−0.006	−0.003	−0.004	−0.003	−0.0004	−0.004	−0.014
		(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)
% 60 and older, 1990		0.013	0.009	0.017*	0.013	0.010	0.012	0.026***
		(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
% HH in nhood 10 years or less, 1990		−0.023***	−0.020***	−0.022***	−0.025***	−0.020***	−0.022***	−0.022***
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Median HH income, 1990		−0.0001***	−0.0001***	−0.0001***	−0.0001***	−0.0001***	−0.0001***	−0.00004***
		(0.00000)	(0.00001)	(0.00000)	(0.00001)	(0.00000)	(0.00000)	(0.00000)
Population change, 1990-2010		0.0002***	0.0002***	0.0002***	0.0002***	0.0002***	0.0002***	0.0002***
		(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)
Adjacent to WBLA tract, 1990		1.252***	1.243***	1.265***	1.217***	1.260***	1.240***	1.272***
		(0.285)	(0.281)	(0.284)	(0.285)	(0.284)	(0.285)	(0.282)
Adjacent to WLA tract, 1990		0.264	0.253	0.283	0.247	0.307	0.282	0.135
		(0.229)	(0.227)	(0.229)	(0.228)	(0.229)	(0.230)	(0.228)
Adjacent to BLA tract, 1990		0.970	0.934	0.952	0.897	0.863	0.942	0.905
		(0.618)	(0.611)	(0.621)	(0.621)	(0.615)	(0.620)	(0.616)
Population change, 1990-2010, metro		0.00000***	0.00000***	0.00000***	0.00000***	0.00000***	0.00000***	0.00000***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
% NL Black change, 1990-2010, metro		0.082	0.070	0.074	0.139*	0.069	0.091	0.069
		(0.057)	(0.058)	(0.057)	(0.057)	(0.058)	(0.058)	(0.058)
% Latino change, 1990-2010, metro		0.044*	0.046*	0.065**	0.047*	0.061**	0.041	0.075***
		(0.022)	(0.022)	(0.024)	(0.022)	(0.021)	(0.023)	(0.022)
% NL Asian change, 1990-2010, metro		−0.0003	−0.051	0.022	0.007	0.009	−0.007	−0.008
		(0.023)	(0.026)	(0.023)	(0.023)	(0.023)	(0.023)	(0.024)
% Chinese, 1990			0.030*					
			(0.015)					
WLA/WA nhood * % Chinese			−0.013					
			(0.018)					
% Asian Indian, 1990				0.013				
				(0.011)				
WLA/WA nhood * % Asian Indian				0.009				
				(0.012)				
% Filipino, 1990					−0.001			
					(0.009)			
WLA/WA nhood * % Filipino					0.024*			
					(0.011)			
% Vietnamese, 1990						−0.028		
						(0.017)		
WLA/WA nhood * % Vietnamese						−0.004		
						(0.017)		
% Korean, 1990							−0.007	
							(0.014)	
WLA/WA nhood * % Korean							−0.006	
							(0.016)	
% Japanese, 1990								−0.039***
								(0.010)
WLA/WA nhood * % Japanese								−0.022
								(0.013)
Constant	2.245***	2.406**	1.643*	2.038*	2.520**	1.958*	2.479**	3.256***
	(0.132)	(0.817)	(0.816)	(0.852)	(0.853)	(0.824)	(0.846)	(0.856)
AIC	50796.6	50285.7	50266.5	50277.6	50278.7	50274.3	50286.8	50228.1
Observations	7,662	7,662	7,662	7,662	7,662	7,662	7,662	7,662
Note:								*p<0.05; **p<0.01; ***p<0.001

Appendix Table 4. Results from OLS regression predicting change in percent Black from 2000-2010

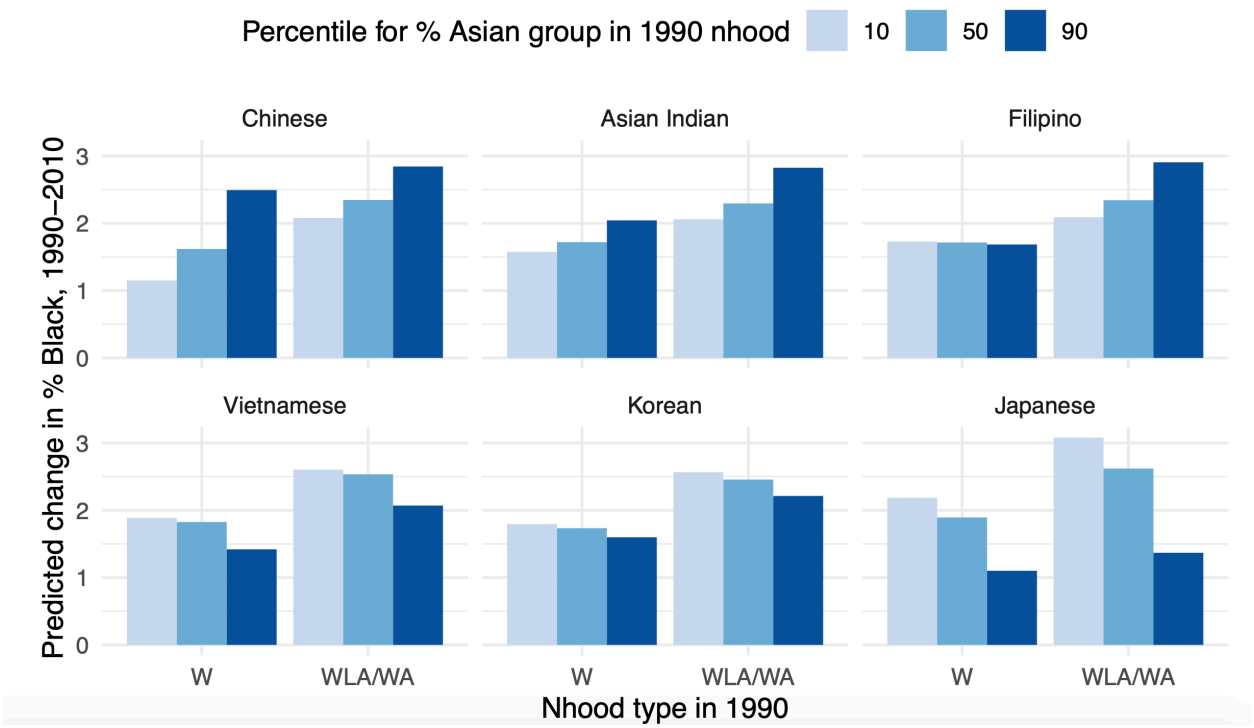
	Dependent variable:							
	Change in % Black, 2000-2010							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WLA/WA nhood, 2000	−0.184**	0.117	0.214	−0.072	−0.041	0.106	0.299**	0.178
	(0.056)	(0.067)	(0.112)	(0.111)	(0.097)	(0.077)	(0.097)	(0.096)
% NL Black, 2000		0.062*	0.052*	0.046	0.062*	0.062*	0.061*	0.057*
		(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
% Latino, 2000		−0.024***	−0.027***	−0.021***	−0.027***	−0.022***	−0.025***	−0.021***
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
% NL Asian, 2000		−0.011***	−0.008**	−0.005	−0.008**	−0.010***	−0.011***	−0.009**
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
% foreign-born, 2000		−0.002	−0.001	−0.004	−0.002	−0.003	−0.002	−0.008*
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
% owner-occupied units, 2000		0.003	0.002	0.002	0.001	0.003	0.003	−0.0003
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
% female-headed families, 2000		0.071***	0.073***	0.077***	0.069***	0.071***	0.072***	0.068***
		(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
% 60 and older, 2000		0.012**	0.012***	0.015***	0.012**	0.011**	0.012***	0.016***
		(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
% HH in nhood 10 years or less, 2000		−0.008**	−0.010***	−0.007**	−0.009***	−0.008**	−0.008**	−0.007**
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Median HH income, 2000		−0.00001***	−0.00001***	−0.00001***	−0.00001***	−0.00001***	−0.00001***	−0.00001***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Population change, 2000-2010		0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***
		(0.00004)	(0.00005)	(0.00005)	(0.00004)	(0.00004)	(0.00004)	(0.00004)
Adjacent to WBLA tract, 2000		0.419***	0.408***	0.435***	0.391***	0.417***	0.415***	0.416***
		(0.078)	(0.078)	(0.078)	(0.078)	(0.078)	(0.078)	(0.078)
Adjacent to WLA tract, 2000		−0.021	−0.035	−0.018	−0.037	−0.017	−0.013	−0.055
		(0.055)	(0.054)	(0.054)	(0.054)	(0.055)	(0.054)	(0.054)
Adjacent to BLA tract, 2000		−0.297*	−0.252	−0.301*	−0.295*	−0.310*	−0.313*	−0.301*
		(0.132)	(0.131)	(0.129)	(0.132)	(0.133)	(0.132)	(0.131)
Population change, 2000-2010, metro		0.00000***	0.00000***	0.00000***	0.00000***	0.00000***	0.00000***	0.00000***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
% NL Black change, 2000-2010, metro		−0.098	−0.105	−0.057	−0.085	−0.099	−0.094	0.001
		(0.066)	(0.066)	(0.066)	(0.067)	(0.066)	(0.066)	(0.067)
% Latino change, 2000-2010, metro		0.163***	0.171***	0.166***	0.160***	0.164***	0.158***	0.156***
		(0.023)	(0.023)	(0.024)	(0.023)	(0.023)	(0.024)	(0.023)
% NL Asian change, 2000-2010, metro		0.004	0.045	0.024	−0.003	0.002	−0.004	−0.021
		(0.025)	(0.026)	(0.024)	(0.025)	(0.025)	(0.026)	(0.025)
% Chinese, 2000			−0.005					
			(0.003)					
WLA/WA nhood * % Chinese			−0.004					
			(0.003)					
% Asian Indian, 2000				0.009				
				(0.005)				
WLA/WA nhood * % Asian Indian				0.006				
				(0.005)				
% Filipino, 2000					0.001			
					(0.004)			
WLA/WA nhood * % Filipino					0.009*			
					(0.004)			
% Vietnamese, 2000						−0.006		
						(0.006)		
WLA/WA nhood * % Vietnamese						0.001		
						(0.007)		
% Korean, 2000							0.007	
							(0.006)	
WLA/WA nhood * % Korean							−0.014*	
							(0.006)	
% Japanese, 2000								−0.015***
								(0.004)
WLA/WA nhood * % Japanese								−0.008*
								(0.004)
Constant	0.847***	−0.213	−0.070	−0.463	−0.092	−0.248	−0.329	0.302
	(0.049)	(0.355)	(0.374)	(0.358)	(0.360)	(0.360)	(0.368)	(0.364)
AIC	28507.3	27660.8	27638	27591.3	27639.7	27660.7	27651.8	27604.7
Observations	6,745	6,745	6,745	6,745	6,745	6,745	6,745	6,745
Note:								*p<0.05; **p<0.01; ***p<0.001

Appendix Table 5. Results from OLS regression predicting change in percent White from 1990-2010

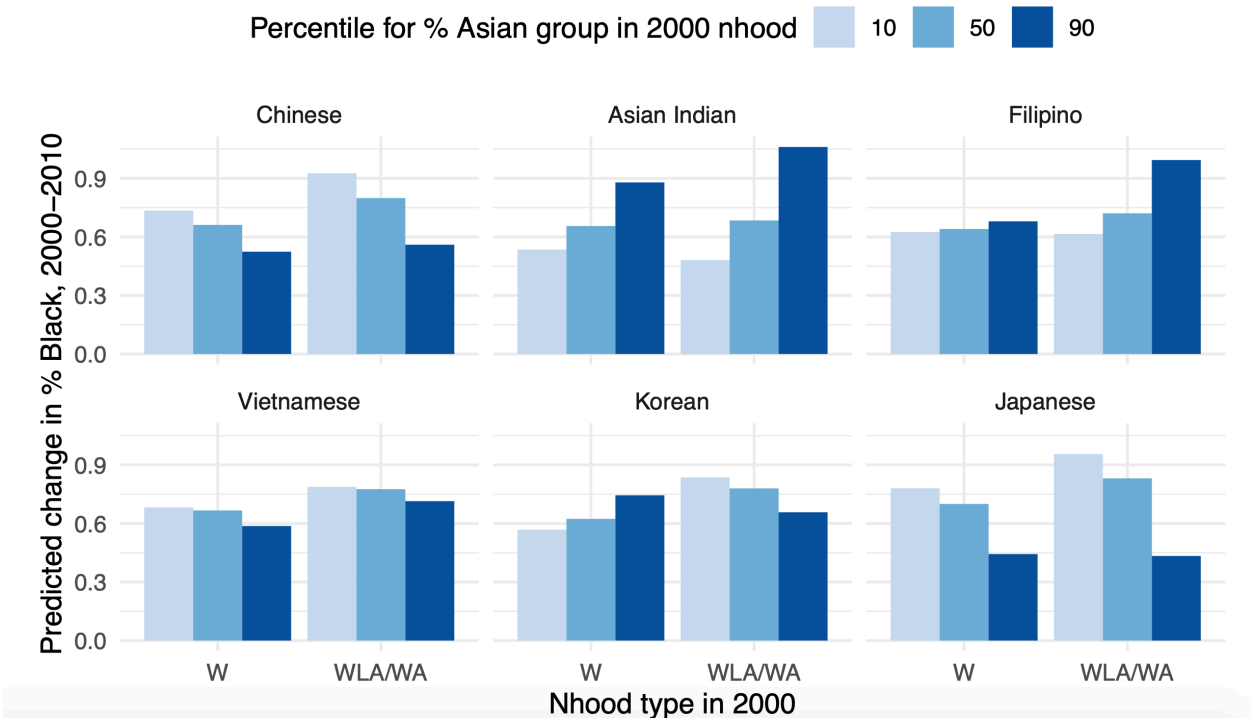
	Dependent variable:							
	Change in % White, 1990-2010							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WLA/WA nhood, 1990	−2.360*	−0.876	0.951	−0.457	−6.641**	1.066	−0.898	0.139
	(1.152)	(1.260)	(2.185)	(1.607)	(2.098)	(1.392)	(2.084)	(1.874)
WBLA nhood, 1990	−5.651***	−4.014**	−6.000**	−2.622	−8.109***	−2.694	−3.005	−3.083
	(1.184)	(1.260)	(2.198)	(1.646)	(2.134)	(1.428)	(2.066)	(1.831)
% NL Black, 1990		0.146***	0.140***	0.172***	0.141***	0.149***	0.147***	0.173***
		(0.033)	(0.033)	(0.034)	(0.032)	(0.033)	(0.034)	(0.034)
% Latino, 1990		0.116***	0.132***	0.099***	0.131***	0.129***	0.101***	0.083***
		(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.024)
% NL Asian, 1990		−0.113***	−0.138***	−0.157***	−0.109***	−0.100***	−0.130***	−0.164***
		(0.029)	(0.030)	(0.030)	(0.029)	(0.029)	(0.029)	(0.030)
% foreign-born, 1990		0.114***	0.125***	0.133***	0.108***	0.107***	0.132***	0.185***
		(0.030)	(0.030)	(0.030)	(0.030)	(0.030)	(0.031)	(0.030)
% owner-occupied units, 1990		−0.187***	−0.180***	−0.181***	−0.184***	−0.185***	−0.191***	−0.151***
		(0.012)	(0.012)	(0.012)	(0.013)	(0.012)	(0.012)	(0.012)
% female-headed families, 1990		−0.184**	−0.166**	−0.193***	−0.215***	−0.177**	−0.188***	−0.161**
		(0.057)	(0.056)	(0.056)	(0.057)	(0.057)	(0.057)	(0.055)
% 60 and older, 1990		0.039	0.022	0.014	0.043	0.027	0.036	−0.023
		(0.035)	(0.034)	(0.034)	(0.034)	(0.035)	(0.035)	(0.035)
% HH in nhood 10 years or less, 1990		0.007	0.009	0.003	0.014	0.013	0.012	0.009
		(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Median HH income, 1990		0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***
		(0.00001)	(0.00001)	(0.00001)	(0.00002)	(0.00001)	(0.00001)	(0.00001)
Population change, 1990-2010		−0.002***	−0.002***	−0.002***	−0.002***	−0.002***	−0.002***	−0.002***
		(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Adjacent to WBLA tract, 1990		−3.103***	−3.027***	−3.174***	−3.107***	−3.084***	−3.063***	−3.177***
		(0.454)	(0.451)	(0.450)	(0.452)	(0.453)	(0.453)	(0.445)
Adjacent to WLA tract, 1990		−4.231***	−4.486***	−4.183***	−4.341***	−4.100***	−4.040***	−4.019***
		(0.349)	(0.350)	(0.348)	(0.351)	(0.351)	(0.355)	(0.348)
Adjacent to BLA tract, 1990		1.518*	1.523*	1.523*	1.583*	1.427*	1.190	1.799**
		(0.641)	(0.633)	(0.637)	(0.639)	(0.642)	(0.655)	(0.633)
Population change, 1990-2010, metro		−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
% NL Black change, 1990-2010, metro		−0.254	−0.122	−0.207	−0.293	−0.269	−0.239	−0.137
		(0.171)	(0.169)	(0.171)	(0.172)	(0.172)	(0.172)	(0.170)
% Latino change, 1990-2010, metro		−0.509***	−0.489***	−0.560***	−0.522***	−0.492***	−0.519***	−0.502***
		(0.055)	(0.055)	(0.056)	(0.054)	(0.054)	(0.055)	(0.058)
% NL Asian change, 1990-2010, metro		−1.035***	−1.157***	−1.066***	−1.059***	−1.029***	−1.039***	−0.857***
		(0.056)	(0.058)	(0.056)	(0.056)	(0.058)	(0.056)	(0.061)
% Chinese, 1990			0.128					
			(0.090)					
WLA/WA nhood * % Chinese			−0.113					
			(0.090)					
WBLA nhood * % Chinese			0.084					
			(0.093)					
% Asian Indian, 1990				−0.098				
				(0.070)				
WLA/WA nhood * % Asian Indian				0.027				
				(0.071)				
WBLA nhood * % Asian Indian				−0.048				
				(0.073)				
% Filipino, 1990					−0.225**			
					(0.073)			
WLA/WA nhood * % Filipino					0.221**			
					(0.074)			
WBLA nhood * % Filipino					0.163*			
					(0.074)			
% Vietnamese, 1990						0.246**		
						(0.079)		
WLA/WA nhood * % Vietnamese						−0.325***		
						(0.080)		
WBLA nhood * % Vietnamese						−0.254**		
						(0.083)		
% Korean, 1990							−0.042	
							(0.168)	
WLA/WA nhood * % Korean							−0.003	
							(0.168)	
WBLA nhood * % Korean							−0.105	
							(0.172)	
% Japanese, 1990								0.211**
								(0.077)
WLA/WA nhood * % Japanese								−0.006
								(0.078)
WBLA nhood * % Japanese								0.035
								(0.082)
Constant	−18.238***	−6.906**	−8.638**	−5.340*	−1.023	−9.315***	−6.911*	−12.059***
	(1.133)	(2.516)	(3.044)	(2.654)	(3.068)	(2.602)	(2.978)	(2.863)
AIC	60458.2	59028.3	58946.3	58975.7	58988.4	59001.6	59009.9	58858.7
Observations	7,288	7,288	7,288	7,288	7,288	7,288	7,288	7,288
Note:								*p<0.05; **p<0.01; ***p<0.001

Appendix Table 6. Results from OLS regression predicting change in percent White from 2000-2010

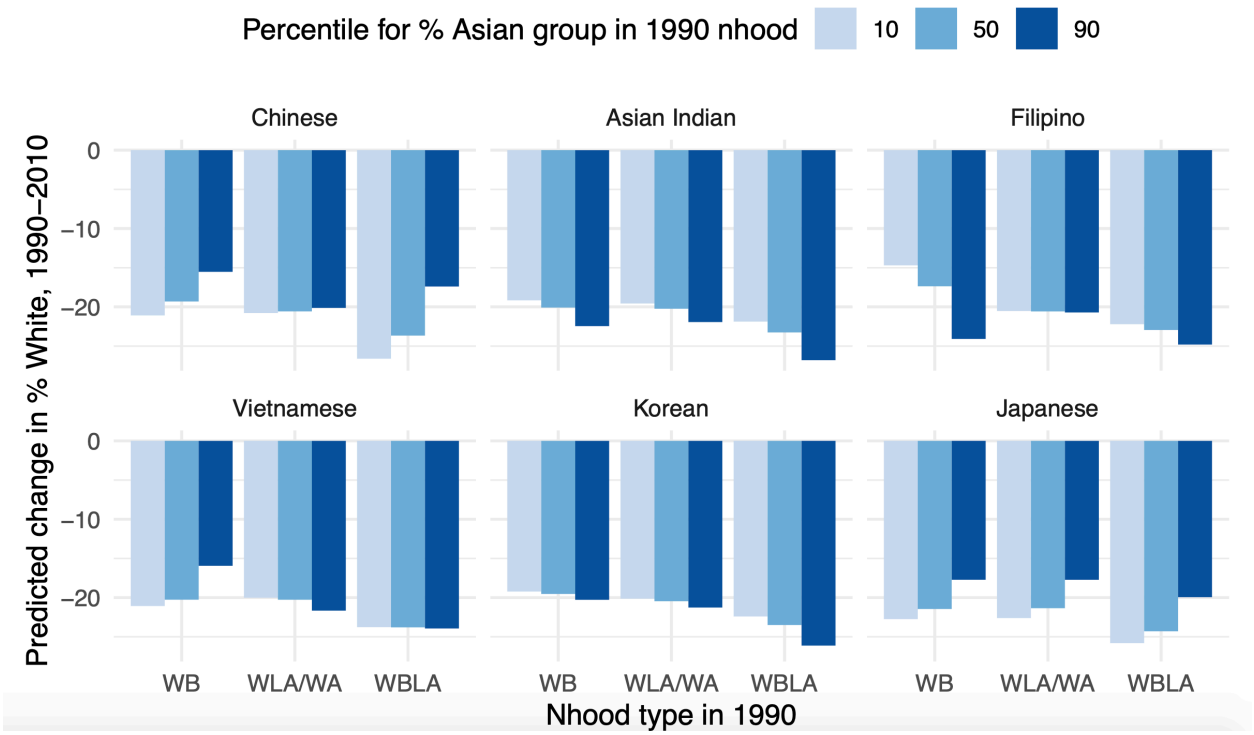
	Dependent variable:							
	Change in % White, 2000-2010							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WLA/WA nhood, 2000	0.737	−0.901	1.696	0.823	−4.881***	−0.421	−1.200	0.029
	(0.697)	(0.717)	(1.254)	(1.096)	(1.292)	(0.873)	(1.257)	(1.131)
WBLA nhood, 2000	−0.908	−1.519*	−0.547	0.488	−4.179**	−1.317	−1.849	−0.869
	(0.722)	(0.735)	(1.277)	(1.122)	(1.356)	(0.920)	(1.251)	(1.130)
% NL Black, 2000		0.021	0.019	0.031	0.023	0.022	0.020	0.032
		(0.024)	(0.024)	(0.025)	(0.024)	(0.024)	(0.024)	(0.024)
% Latino, 2000		0.033*	0.043**	0.019	0.040**	0.039**	0.032*	0.017
		(0.013)	(0.013)	(0.013)	(0.013)	(0.014)	(0.013)	(0.013)
% NL Asian, 2000		−0.110***	−0.122***	−0.134***	−0.106***	−0.104***	−0.110***	−0.129***
		(0.016)	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
% foreign-born, 2000		0.093***	0.098***	0.105***	0.089***	0.090***	0.093***	0.130***
		(0.020)	(0.020)	(0.021)	(0.021)	(0.020)	(0.020)	(0.021)
% owner-occupied units, 2000		−0.094***	−0.087***	−0.093***	−0.090***	−0.093***	−0.094***	−0.075***
		(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
% female-headed families, 2000		−0.078*	−0.067	−0.092*	−0.091*	−0.079*	−0.077*	−0.052
		(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
% 60 and older, 2000		0.040*	0.035	0.018	0.043*	0.038	0.040*	−0.003
		(0.020)	(0.020)	(0.020)	(0.019)	(0.020)	(0.020)	(0.020)
% HH in nhood 10 years or less, 2000		0.041***	0.046***	0.038***	0.045***	0.042***	0.041***	0.037***
		(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Median HH income, 2000		0.0001***	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***
		(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
Population change, 2000-2010		−0.001***	−0.001***	−0.001***	−0.001***	−0.001***	−0.001***	−0.001***
		(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Adjacent to WBLA tract, 2000		−0.816**	−0.848***	−0.807**	−0.872***	−0.824**	−0.819**	−0.826**
		(0.258)	(0.256)	(0.254)	(0.259)	(0.257)	(0.257)	(0.255)
Adjacent to WLA tract, 2000		−0.625**	−0.770***	−0.569**	−0.704***	−0.599**	−0.625**	−0.506*
		(0.205)	(0.205)	(0.204)	(0.206)	(0.206)	(0.207)	(0.205)
Adjacent to BLA tract, 2000		1.848***	1.866***	1.778***	1.888***	1.800***	1.849***	1.768***
		(0.353)	(0.348)	(0.349)	(0.354)	(0.356)	(0.355)	(0.350)
Population change, 2000-2010, metro		−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***	−0.00000***
		(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
% NL Black change, 2000-2010, metro		0.212	0.296	−0.024	0.285	0.236	0.208	−0.454
		(0.238)	(0.236)	(0.236)	(0.235)	(0.238)	(0.237)	(0.244)
% Latino change, 2000-2010, metro		−0.989***	−0.949***	−0.960***	−0.984***	−0.997***	−0.991***	−0.750***
		(0.076)	(0.077)	(0.076)	(0.076)	(0.076)	(0.078)	(0.082)
% NL Asian change, 2000-2010, metro		−1.545***	−1.752***	−1.559***	−1.592***	−1.558***	−1.547***	−1.210***
		(0.098)	(0.100)	(0.098)	(0.100)	(0.100)	(0.099)	(0.109)
% Chinese, 2000			0.169***					
			(0.047)					
WLA/WA nhood * % Chinese			−0.153**					
			(0.047)					
WBLA nhood * % Chinese			−0.050					
			(0.049)					
% Asian Indian, 2000				0.021				
				(0.052)				
WLA/WA nhood * % Asian Indian				−0.073				
				(0.052)				
WBLA nhood * % Asian Indian				−0.088				
				(0.052)				
% Filipino, 2000					−0.153***			
					(0.041)			
WLA/WA nhood * % Filipino					0.157***			
					(0.042)			
WBLA nhood * % Filipino					0.108**			
					(0.042)			
% Vietnamese, 2000						0.060		
						(0.081)		
WLA/WA nhood * % Vietnamese						−0.085		
						(0.082)		
WBLA nhood * % Vietnamese						−0.054		
						(0.083)		
% Korean, 2000							−0.030	
							(0.087)	
WLA/WA nhood * % Korean							0.027	
							(0.087)	
WBLA nhood * % Korean							0.032	
							(0.091)	
% Japanese, 2000								0.153**
								(0.057)
WLA/WA nhood * % Japanese								−0.021
								(0.058)
WBLA nhood * % Japanese								0.023
								(0.062)
Constant	−8.832***	−0.960	−4.230*	−1.318	2.894	−1.439	−0.635	−5.894**
	(0.686)	(1.596)	(1.886)	(1.758)	(1.871)	(1.664)	(1.889)	(1.847)
AIC	49686.2	48092	48011	48025.6	48035	48090.9	48097.6	47955.9
Observations	6,886	6,886	6,886	6,886	6,886	6,886	6,886	6,886
Note:								*p<0.05; **p<0.01; ***p<0.001



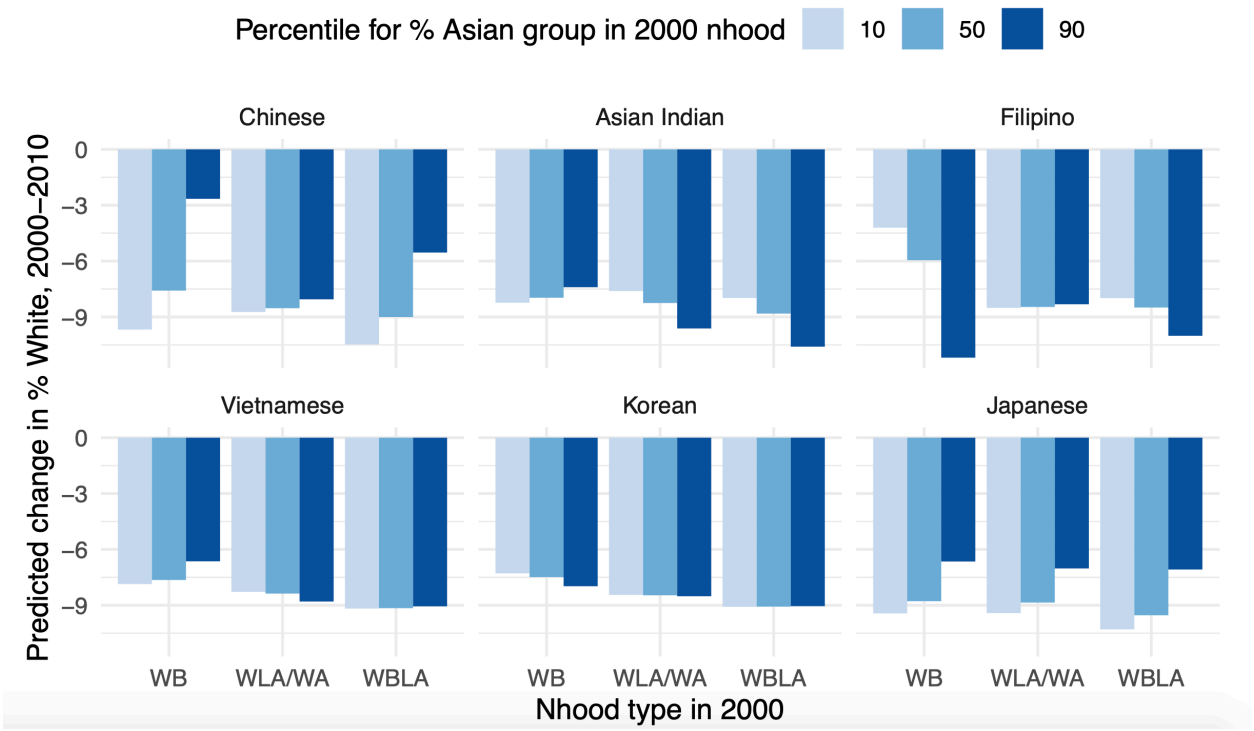
Appendix Figure 1. Predicted change in percent Black from 1990-2010 by neighborhood type in 1990 and percent Asian ethnic group in the 1990 neighborhood



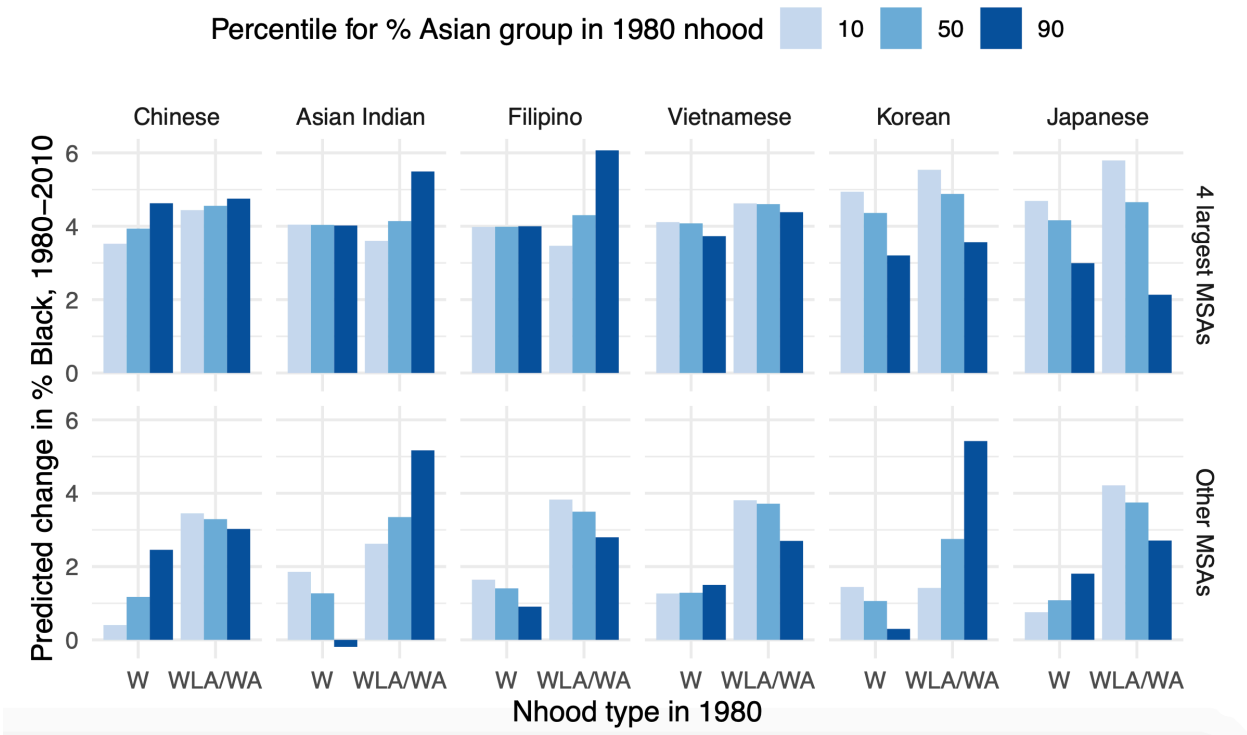
Appendix Figure 2. Predicted change in percent Black from 2000-2010 by neighborhood type in 2000 and percent Asian ethnic group in the 2000 neighborhood



Appendix Figure 3. Predicted change in percent White from 1990-2010 by neighborhood type in 1990 and percent Asian ethnic group in the 1990 neighborhood



Appendix Figure 4. Predicted change in percent White from 2000-2010 by neighborhood type in 2000 and percent Asian ethnic group in the 2000 neighborhood



Appendix Figure 5. Predicted change in percent Black from 1980-2010 by neighborhood type in 1980, percent Asian ethnic group in the 1980 neighborhood, and larger versus smaller MSAs

CHAPTER 5: CONCLUSION

In this dissertation, I used decennial census data to investigate the neighborhood patterns and processes of distinct Asian ethnic groups. In this conclusion chapter, I will summarize the findings from each of the three empirical chapters and discuss the implications of my work. I will then offer a few directions for future research.

1. Summary of empirical chapters

The exploratory analysis in Chapter 2 reveals considerable differences in the trajectories of the neighborhood environment between Chinese and Vietnamese ethnic neighborhoods, as well as across immigrant destinations. Chinese clusters are more socioeconomically advantaged, while Vietnamese clusters are situated in more distinct geographic spaces, are more racially diverse, and are more disadvantaged along socioeconomic indicators. There are few indications that these differences are converging over time, suggesting continued stratification in neighborhood contexts between Chinese and Vietnamese. The exploratory analysis also finds that Asian ethnic neighborhoods in emerging and less traditional destinations, such as Atlanta, GA, are places of both opportunity and constraint, while those in more established destinations, such as New York, NY, are flourishing as places of residence. Importantly, these differences across metropolitan contexts appear to be enduring and, in some instances, diverging over time. For example, the median household income in ethnic neighborhoods in more traditional destinations is rising at a faster rate over time than those in emerging areas. As the U.S. Asian population continues to rapidly grow, ethnic neighborhoods are likely to continue to develop and vary in their neighborhood characteristics, which may, in turn, result in a bifurcated residential landscape for Asian groups, especially between newer and traditional immigrant gateways.

In Chapter 3, the analysis demonstrates that the association between incorporation-related characteristics and the clustering of co-ethnics differs depending on the Asian ethnic group and matters more in some immigrant destination types than others. For example, poor English language proficiency is more strongly associated with Chinese and Filipino clustering together in traditional destinations, while it matters more in emerging, non-traditional destinations for the development of Asian Indian and Vietnamese clusters. Another example is that the level of education among residents is negatively related to the development of Filipino and Vietnamese clusters in newer destinations, but it is positively related to Chinese clustering in these less traditional gateways. These mixed findings point to the nuanced and complex ways that local-level neighborhood dynamics vary for different Asian ethnic groups and immigrant destination contexts. They also illuminate how ethnic neighborhoods in newer destinations may be developing in different ways than those in more traditional places.

There are likely several co-existing processes informing the development of clusters, reflecting processes of spatial assimilation, preferences, socially circumscribed networks, and/or discrimination. For example, the positive association between poor English language skills and clustering of Asian group members in emerging destinations may reflect a need to access resources in their native language, an indication of sharing resources and information about housing through networks in their native language, and/or a response to perceived or real discrimination and prejudice, such as language discrimination or anti-immigrant hostility. These processes may be especially pertinent in newer destinations where the local population may be less familiar with interacting with immigrants and ethnoracial minorities, and may be more unwelcoming to such growing populations.

Finally, the findings in Chapter 4 reveal that some Asian ethnic groups matter more for the emergence of racially diverse neighborhoods, while other Asian groups play a stronger role in maintaining stable diverse neighborhoods. Specifically, when Filipinos and Asian Indians are more concentrated in the neighborhood, they are more likely than other Asian groups to encourage Black entry into a neighborhood where Whites are also present, providing an opportunity for racially diverse neighborhoods to emerge. This pattern may signal their relative status as generally being situated outside the Asian group boundary and occupying a lower position along the racial hierarchy closer to other ethnoracial minorities. These social positions may help to blur the group boundaries between Blacks, Filipinos, and Asian Indians and increase their attractiveness as neighbors among Blacks. In comparison, when East Asian groups, like Chinese and Japanese, are more highly concentrated among the Asian population in the neighborhood, they are more likely than other Asian ethnic groups to hamper net White loss in racially integrated neighborhoods, perhaps allowing for the stability of diverse neighborhoods. This may reflect perceptions – based on racialized or class characteristics or both – of these groups as occupying a relatively higher position in the American racial hierarchy closer to Whites and thus may be deemed more acceptable and tolerable neighbors among Whites.

2. Contributions

Overall, the findings from my dissertation illuminate significant variations in the neighborhood dynamics of different Asian ethnic groups and further highlight the importance of disaggregating the Asian population. This has critical implications for providing a more complete and accurate portrait of the experiences of Asians in the United States and informing broader debates about immigrant incorporation trajectories of Asians. For instance, I find that Chinese and Vietnamese

ethnic neighborhoods are markedly distinct in their social and economic characteristics, and the differences appear to be enduring over time and not converging. I also find that some Asian ethnic groups play a stronger role in the development of racially diverse neighborhoods by encouraging Black entry, while other Asian groups matter more for the maintenance of racially diverse neighborhoods by preventing net White loss from these places.

As Asians are rapidly growing and quickly occupying a more prominent role in the American demographic landscape, the ethnoracial boundaries for Asians are brightening and enduring. Not all Asians in the U.S. follow the same path of residential attainment. Rather, there are drastic variations in the residential patterns and processes across distinct Asian ethnic groups that have different social and economic characteristics, modes of arrival, and racialization experiences. This is generally in line with segmented assimilation theories that acknowledge there are multiple pathways of immigrant incorporation (Portes and Zhou 1993).

Nevertheless, the findings in this dissertation also align with emerging scholarship arguing for the need to use a "racialized incorporation" framework to study Asians and their experiences (Lee and Kye 2016). That is, the different racialization processes of Asian ethnic groups, the (perceived) discrimination experiences that Asians face, and the persistent salience of ethnic resources are critical factors that can shape varying incorporation trajectories of Asian ethnic groups. As Lee and Kye (2016) note, "rather than waning with their succession into the American mainstream, ethnicity has instead remained instrumental to, and an object of preservation for, successful incorporation [of Asians] into American society" (p. 266). This dissertation thus further underscores the critical need to disaggregate Asians into distinct ethnic groups in studies and bolsters support for embracing a racialized incorporation framework that emphasizes ethnic group distinctions to understand the Asian experience in the United States.

Doing so provides an opportunity to shed more light on the intragroup stratification within the U.S. Asian population, which has ramifications for the equitable distribution of services and funding to both larger, more visible Asian ethnic groups and smaller, less visible, and potentially more vulnerable groups. Disaggregating the Asian category in studies also has important implications for refining the applicability of theoretical frameworks for different Asian groups.

3. Future research

While my dissertation provides important insights into the varying neighborhood dynamics of distinct Asian ethnic groups, it is simply the first step in a much broader research agenda. This dissertation thus raises important questions for future research in order to further understand the residential dynamics of Asian ethnic groups and the implications for immigrant incorporation trajectories. For example, the finding that Chinese and Vietnamese ethnic neighborhoods are increasingly concentrated with co-ethnics – which suggests they are continuing to be prime places of residence – but have different characteristics in different immigrant gateway types raises questions such as: what does it mean to live in an ethnic neighborhood; how do different Asian ethnic groups experience residing in ethnic neighborhoods with co-ethnics; what defines an ethnic neighborhood space from the perspective of Asian residents and out-group members, whether it be the concentration of ethnic businesses, the community, the closeness of ethnic networks, or other factors; what are the social and economic outcomes – intra- and inter-generationally – of residing in ethnic neighborhoods for different Asian groups; and how do these patterns and experiences compare across more traditional and newer destinations? Tackling these questions in future research provides the opportunity to better understand the on-the-

ground experiences and the effects of residing in such neighborhoods on wellbeing and life course trajectories.

The analysis on the role of Asian groups in the emergence of racially diverse neighborhoods elevates another set of questions for future research. Specifically, why do Asian groups want or decide to live in racially diverse neighborhoods; who do they interact with in these diverse settings; how do Whites, Blacks, and Latinos perceive different Asian groups as neighbors and, likewise, how do dissimilar Asian groups perceive other ethnoracial groups as neighbors; and are the preferences toward certain groups as neighbors related to in-group affinity or out-group avoidance, which may be based on group prejudices or fear of discriminatory treatment; or, alternatively, are racial preferences simply a proxy for social class? Addressing these questions has important implications for broadening our understanding of the residential experiences of Asians, the theoretical mechanisms underlying such processes, and the consequences of such patterns.

Nevertheless, more data on disaggregated Asian groups, especially qualitative data, are needed to effectively answer these questions. We are likely at the limits of what we can do with and how much information we can glean from aggregated census data. Surveys and qualitative data, including in-depth interviews with residents of distinct Asian ethnic groups in different neighborhood settings across different types of metropolitan contexts, would thus be extremely valuable for helping us to dive further and deepen our understanding of the residential dynamics for Asians in the United States.

Another direction for future studies is to examine the neighborhood dynamics of other subgroups in the Asian population. Indeed, the U.S. Asian population is diverse in other ways, not just by ethnic national origin. For example, multiracial Asians are a growing population.

Asians in the U.S. have among the highest levels of interracial marriage rates. Since 1960, Asian intermarriage rates in the U.S., especially with Whites, has increased twentyfold (Lee and Zhou 2015). According to the Pew Research Center, in 2010, approximately one-third of Asian marriages were interracial, compared to 26% for Latinos, 17% for Blacks, and 9% for Whites (Pew Research Center 2012). The residential experiences of the growing multiracial Asian population may challenge patterns of residential segregation and locational attainment (Ellis et al. 2012) – either by muting or intensifying such dynamics. Furthermore, there may be varying patterns depending on the specific Asian ethnic group that is represented in the mixed-race household. Investigating these dynamics would have important implications for our understanding of not only residential processes, but also group boundary processes and the U.S. color line more broadly.

In addition to the growth of the multiracial Asian population in the U.S., the undocumented Asian population has grown recently. Today, one in seven Asian immigrants in the U.S. is undocumented and the undocumented Asian population is growing at a faster rate than their Mexican and Central American counterparts (Lee and Ramakrishnan 2021; Ramakrishnan and Shah 2017). While scant attention in the segregation literature has been paid to the undocumented Asian population, prior research that has studied the residential patterns of undocumented Latinos (Asad and Rosen 2018; Hall and Stringfield 2014) provides clues that the undocumented status may likely influence the residential patterns of Asians, especially in newer immigrant destinations. Overall, these directions for future research would provide a fruitful and important opportunity to expand upon the findings uncovered in this dissertation, identifying additional cleavages that further dismantle the general notion that all Asians are faring well and

further brightening group distinctions and the different experiences of Asians in the United States.

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