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Immigrant Business in Suburban America: How and Why Ethnic Economy Workers in the Suburbs Are Struggling To Get By

Somashekhar, Mahesh Hosagrahara

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IMMIGRANT BUSINESS IN SUBURBAN AMERICA:

HOW AND WHY ETHNIC ECONOMY WORKERS IN THE SUBURBS ARE STRUGGLING TO GET BY

Mahesh Somashekhar

A DISSERTATION

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Abstract

Immigrants are moving into U.S. suburbs at the same time that suburban areas are suffering from growing poverty, an aging infrastructure, and increasing anti-immigrant sentiment. These trends provide a unique context for immigrant entrepreneurship. Immigrant entrepreneurs are often part of ethnic economies, such as Chinatowns and Little Italies, and many scholars presume that successful ethnic economies derive from co-ethnic consumer demand and low-wage labor found in tightly-bound, densely populated urban ethnic neighborhoods. This dissertation examines how ethnic economies manage to form in suburban areas, many of which are more spread out and ethnically heterogeneous than urban ethnic neighborhoods. What effect are ethnic economies having on suburban areas? What effect are suburban areas having on ethnic economies? Drawing on techniques from population research, spatial statistics, and data science, my dissertation answers these questions, demonstrating that suburban ethnic economy workers are struggling to recreate the successes they found in urban ethnic neighborhoods due to various challenges unique to suburban areas.

Using nationally representative U.S. Census data across two decades, I first show that suburban ethnic economy workers earn incomes no better than their counterparts in central cities. This finding stands in contrast to several prominent case studies that suggest that suburban ethnic economies are wealthier than those found in cities. The finding also supports the theory that the differences between immigrant adaptation in cities and suburbs are diminishing. I then use U.S. Census microdata from before and after the Great Recession to show that unemployment rates grew most quickly in suburban areas characterized by the niching of ethnic minorities into ethnic economies. The geographic isolation of many suburban ethnic economies from co-ethnic social capital likely renders them particularly vulnerable to economic downturns. Finally, using data from Yelp.com, I assess how the rise of ethnic chain restaurants is affecting suburban ethnic economy growth. Ethnic restaurants are often

independently owned and operated by entrepreneurs who take part in ethnic economies. In many cases, chain and non-chain ethnic restaurants are equally likely to locate in suburban ethnic communities, suggesting that chains are cutting into a market that traditionally belonged to independent ethnic entrepreneurs.

In sum, as suburban ethnic economies continue to grow, the trajectories of suburban ethnic businesses and workers are likely diverging from those found in urban areas. New theories and policy initiatives are necessary to successfully integrate ethnic firms and their employees into suburban economies and communities.

Acknowledgements

It is a cliché of acknowledgement sections that they end on a nice, sweet note thanking the author's partner or spouse for their support while the author wrote the book. (The good academic that I am, I provide a citation to prove my point (Sica 2012:275).) I violate that convention here to put my spouse where she belongs: front and center. As I wrote my dissertation, Seema Shah was equal parts caring confidante, brilliant advisor, meticulous copy editor, cunning strategist, cheerful friend, and when necessary, able head of the household. To call her just a supporter would be a vast understatement. Early on, I was intimidated to marry someone more advanced in their academic career than I was. I've come to see that doing so was one of the smartest decisions I made in graduate school.

I came into graduate school a boy, and my dissertation committee made me a man. (Yes, this is a gendered phrase, for which I am sorry, but I had many growing pains that justify my statement.) Doug Massey, my chair, taught me what it means to be a professional sociologist; Paul DiMaggio taught me how to read, write, and think like a scholar; Martin Ruef taught me there can be a place for compassion in academia; and Emilio Parrado taught me the value of cross-sectional research. Their advice along the way was complemented by other faculty who played a pivotal role in my growth as a sociologist at Princeton. Matt Salganik and Delia Baldassarri transitioned from Columbia to Princeton at the same time I did, and they provided a personal level of continuity that helped make graduate school less intimidating. King-To Yeung was (and still is!) always willing to help make my scholarship stronger, no matter how fully formed or half-baked the idea. Patricia Fernandez-Kelly and Tod Hamilton not only served as readers on my dissertation: they gave me essential information that helped me prepare for the job market. I will continue to rely on insights I learned from other faculty at Princeton as well, including Miguel Centeno, Mitch Duneier, Kathy Newman, Alejandro Portes, Eddie Telles, Bob Wuthnow, and Viviana Zelizer.

At Princeton, my “informal” advisors were just as valuable as my formal ones. I cannot thank the heavens enough for all of the career advice I got from people like Bart Bonikowski, Clayton Childress, Julia Gelatt, Amir Goldberg, Adam Slez, LaTonya Trotter, and Erik Vickstrom. Perhaps the best thing about Princeton Sociology is that it introduces you to people like these, people who show you the light at the end of the tunnel of grad school. I continue to rely on these people for career advice today. Their presence in my life makes me a more capable scholar and a more generous friend.

There were countless others who made graduate school worthwhile. I was lucky to form an immigration working group with Maria Abascal, Winston Chou, René Flores, Denia Garcia, Yossi Harpaz, Jean Nava, and Sal Thorkelson. They helped ease my transition from being an organizations scholar to an immigration scholar, and with their help, I’ve never looked back. Clark Bernier, Manish Nag, and Nicole Pangborn were always at the ready with helpful coding advice. Sarah Brayne, Alfredo Garcia, Alex Murphy, Jayanti Owens, David Pedulla, Michelle Phelps, Mike Schlossman, Danny Schneider, Hana Shepherd, Naomi Sugie, Alex Tham, Sarah Thébaud, and Cristobal Young also gave me a ton of helpful advice and support along the way, for which I will always be grateful. Cindy Gibson, Amanda Rowe, and Donna Defrancisco were always ready to help me navigate the bureaucracy of Princeton University as well. The list of friends and colleagues I made during my time at Princeton is too long to put here. I just hope that I’ve been as helpful and kind to others at Princeton as these people have been to me.

My sojourn through the University of Maryland Population Research Center was a brief but wonderful one. Andrés Villarreal, my mentor, showed me that there are people out there with whom I share a genuine intellectual connection. The quirks in his thinking match the quirks in mine. I hope one day I can say my publication record matches his, too. S. Bandy, William Fennie, Sangeetha Madhavan, Tyler Myroniuk, and Michael Rendall all made my stay more enjoyable as well. I am lucky to have been formally affiliated with the University of Maryland as a college student and a PhD candidate, and I will take fond memories of UMD wherever I go.

Outside of the academy, my family's support was irreplaceable. My parents have never fully understood what a PhD involves or what my research is on. Mummy and Daddy: Read this thing, and you'll find out. You made many sacrifices so that my PhD from Princeton could be possible. All I can say is thank you for making them. No flowery language I could use would do justice to what you've done for me.

My sisters, on the other hand, know very well the highs and lows of graduate school. As I finished this dissertation, I was fortunate to live in the same town as both of them. We grew so much closer because of it. They have supported me throughout the years in ways they probably don't realize. They have been models of intellectualism and public service in their own ways, and their love got me through some of the darkest periods of graduate school. Now that I have my PhD, we can officially complete the rabblerousing triangle of professor, journalist, and non-profiteer.

The support of my in-laws was also crucial to turning this dissertation in on time. Their help, especially from my mother-in-law during the early days of my daughter's life, enabled me to keep writing through some hectic times. My sister-in-law also helped support my spouse at important moments so that I could focus on work.

Portions of this dissertation have either been published and/or presented publicly at scholarly conferences. An earlier version of Chapter 2 was presented at the Population Association of America's Annual Meeting in 2013. An earlier version of Chapter 3 was presented at both the Eastern Sociological Society's Annual Meeting and the Population Association of America's Annual Meeting in 2014. A version of Chapter 2 is forthcoming in Social Science Quarterly as well.

Finally, I divide my experience in graduate school into two periods: before and after fatherhood. My daughter gave me the strength to look my career straight on and recognize what I can and cannot achieve as a professional sociologist. The dual responsibilities of parenthood and sociology helped me realize who I wanted to be and who I needed to become to be a successful academic. I will defend this

dissertation just before I have my second daughter. As I prepare for the next phase of my academic career, in other words, I am also preparing for the next phase of my parenting career. It is said of Charles Horton Cooley, founding member of the American Sociological Association and creator of the concept of the looking glass self, "His family life was happy and many of his ideas about socialization came from his observation of his three children" (Vine 1959:149). I am fortunate that, with PhD in hand, I can now practice a profession that offers such work-life balance for one's mind.

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Chapter 1: The State of Ethnic Economies in the 21st Century United States

Vignettes of Three Suburban Ethnic Economies

Riverdale, New Jersey

Riverdale is a sleepy town of 8,000 residents about a half hour's drive from Philadelphia. It is the type of suburban town whose historical society boasts that, in the past, "People came here to enjoy our forests, meadows, streams and ponds." The town once housed the world's largest pocket watch case manufacturer, and the company's clock tower stands near the city center today as a cherished local landmark.[1] By some measures, Riverside is an all-American suburb. The 2000s brought unexpected change to the bedroom community. Although Portuguese immigrants had been living in Riverdale since the 1960s, local officials estimated that more than 3,000 foreign-born residents (both legal and not) arrived between 2000 and 2006. Many of these immigrants were of Brazilian origin. The sudden influx of international migrants unnerved longtime residents such as Nicole Forssell, a crossing guard and mother of three. She stated about the newly settled immigrant community, "I felt like a minority myself. I felt they were always staring at us, and I was uncomfortable that they spoke in their own language to each other" (Greco 2008:16). The anti-immigrant sentiment was strong enough that residents passed an ordinance in the summer of 2006 penalizing those who knowingly rented to or employed undocumented immigrants.

Brazilians and other Latin Americans quickly fled Riverside, a common response to the rising anti-immigrant sentiment that characterized many suburban locations across the United States in the mid-2000s (Brettell and Nibbs 2011, Walker and Leitner 2011). But a little known aspect of the story is that the dozen or so Brazilian-owned businesses—bodegas and restaurants, hair salons, and Western Union offices—shut down as a result of the ordinance. Scott Street, Riverside's main commercial strip,

[1] http://www.riversidetwp.org/community/#historical

was left deserted, the storefronts empty. The desertion led people like Ed Robins, a long-time resident, to exclaim, "There was a cold reality here after a while: We saw that our economic base was ruined and that the ordinance was wrong. It created nothing but prejudice and separation" (Greco 2008:16). In September 2007, Riverside rescinded its ordinance. Since then, some immigrants have come back, and some new businesses have opened. But the vital entrepreneurialism the Brazilians originally brought to the town has not returned. This suburban economy had become reliant on its immigrant-owned firms, an outcome realized too late.

Monterey Park, California

Perhaps the most robust and oft-studied collection of immigrant-owned businesses in the suburban United States is in Monterey Park, a Chinese community just outside of Los Angeles (Fong 1994, Horton 1995, Li 2009, Saito 1998). In 1960, Monterey Park was 85 percent non-Hispanic White, 12 percent Latino, and only three percent Asian. By 1990, the Asian population ballooned to almost 60 percent of the population. Non-Hispanic Whites represented only 12 percent of the community in 1990 (Horton 1995:10-11). The residential sea change correlated with the rise of a Chinese business sector that catered to two markets: first, the local Chinese community; second, financial and real estate speculators in China looking to invest in U.S. markets. According to estimates taken from the *Chinese Yellow Pages*, there were fewer than 1,000 Chinese-owned businesses Los Angeles County in 1950. By 1996, that number had grown to 15,000. Almost two out of every three of these firms were in Monterey Park (Li 2009:102).

The growth of the Chinese business sector in Monterey Park was no accident. Rather, it was the concerted effort of place entrepreneurs such as Frederick Fukang Hsieh, a first-generation immigrant who by the mid-1970s became the first Chinese realtor in the town. Hsieh saw an opportunity among the "vacant, overgrown land" that had blighted Monterey Park after many of the aging, non-Hispanic

White residents had moved away. He marketed Monterey Park as the "Chinese Beverly Hills" to his compatriots back in China, a trend that caught on in newspapers, magazines, and television ads in the mainland, Hong Kong, and Taiwan (Li 2009:86-92). By the 2010s, the Chinese population was not merely the largest ethnic group in the city. Chinese business elites had come to dominate many of the town's industries, enabling them to become the town's political elites as well (Oh and Chung 2014).

Monterey Park has become anything but the iconic suburban image of white picket fences, baseball games, and pie eating contests. The consequences of Chinese business growth in Monterey Park, furthermore, have not all been positive.

> The result [of the growth of Chinese businesses] is an imbalanced, highly competitive service economy that has brought greater density, more traffic congestion, and loss of open space, parking, and landscaping…Further, an economy that clearly emphasizes the immigrant and overseas Chinese market tends to create economic, social, cultural, and political consternation throughout the community…. [E]stablished residents saw their suburban dream turn into what they regarded as an urban nightmare (Fong 1994:174-175).

In addition to these complications brought on by ethnic business growth, Monterey Park's Chinese community has become so large and diverse that intra-ethnic conflict sometimes prevents the community from attaining more economic success and political power than it currently has (Fong 1994:153-156, Li 2009:133-143).

Buford Highway, Georgia

Buford Highway, "the greatest ethnic-owned business concentration in the southeastern United States" (Walcott 2002:51), lies about 14 miles northeast of Atlanta, Georgia. In many ways, ethnic business growth on Buford Highway is typical of many parts of the country. The surrounding area housed Jewish and African-American minorities in the 1960s, many of whom were legally discriminated against in other parts of the housing market. As the legal and social barriers to housing access diminished throughout the 1970s, these groups moved away, leaving behind unused houses and apartments. The cheap housing prices near Buford Highway were a welcome site for international

migrants in the 1980s. Combined with the growth of job opportunities in industries that fed the population boom of suburban areas, such as construction and landscaping, the area became a hotbed for immigrant activity (Adelman and Jaret 2010, Odem 2008, Walcott 2002).

The story of Buford Highway thus far is a straightforward one. But Buford Highway is unique in how multi-ethnic its businesses are. The towns of Chamblee and Doraville, which abut Buford Highway, have traditionally maintained weak zoning laws and neighborhood boundaries, resulting in a sprawl of multi-ethnic business clusters that yields rare business opportunities. Sun Tan Shopping Center, for example, a strip mall along the highway, labels itself using the Chinese script for "Top Notch" or "Highest Quality" Shopping Center.

> Occupants include a Chinese and a Korean restaurant (identified in their respective scripts), a Mexican video store, a travel agency run by Colombians…and a Thai restaurant (also advertised in native script). According to informants at the Hispanic travel store, the corner presence of a dance hall well known to the Latino community draws customers. All managers claimed that cross-ethnic traffic was good for their business (Walcott 2002:60).

As immigrant communities grow in the suburban United States, pan-ethnic agglomerations such as those on Buford Highway are increasingly becoming common. More to the point, the densely populated, spatially concentrated, urban Chinatowns and Little Italies of yesterday may today be transforming into something else, collections of loosely connected businesses spread across metropolitan regions (Zelinsky and Lee 1998). Whatever form these newer business clusters may ultimately take, they obliterate any notion that the ethnic and geographic boundaries of local business communities can always be easily identified.

Defining and Theorizing Ethnic Economies

The vignettes above belie much that has been written about ethnic economies. But before explaining why, one must start with a simpler question: What is an ethnic economy? The most prominent definition comes from Ivan Light and Steven Gold's *Ethnic Economies*. According to Light and

Gold, "an ethnic economy consists of co-ethnic self-employed and employers and their co-ethnic employees" (2000:4). The vagueness of their definition is a strength and a weakness. The definition is flexible enough to cover many varieties of ethnic economies that exist, such as those described in the above vignettes. Nevertheless, the definition says little about the mechanisms that hold ethnic economies together. In light of this fact, I use a more concrete definition throughout this dissertation: An ethnic economy is a cluster of businesses in which shared ethnic identity helps facilitate raising startup capital, finding a job, identifying suppliers, and learning trade skills. This definition makes concrete the types of economic exchange that occur in an ethnic economy, and it takes into account the porous nature of ethnic boundaries and identities (Brubaker 2002). Importantly, as with Light and Gold's conception of the ethnic economy, customer relations do not define the ethnic economy. Ethnic economies can serve multiple clienteles simultaneously.

In order to understand why these vignettes are important cases for ethnic economy theory, it is necessary to contextualize ethnic economies within broader trends in international migration. Ethnic economies occur all around the world (Dana 2007, Kristiansen 2002, Ram and Jones 2008, Rath 2002, Tsu 1999). Nevertheless, as a topic of scholarly inquiry, classical ethnic economy theories were borne out of the history of international migration to the United States after World War II. In the decades after the World War ended, three empirical puzzles came to define scholarly accounts of ethnic economies. First, despite the predictions of Marxists who anticipated the demise of the petite bourgeoisie, foreign-born self-employment rates were consistently high in the U.S. (Light 1984, Steinmetz and Wright 1989). Second, in at least one ethnic economy, the Cuban enclave of Miami, scholars found that wages could be higher than those earned by comparable workers in the open labor market (Wilson and Portes 1980, cf. Sanders and Nee 1987). Third, the federal government wanted to promote black capitalism as a way to quell civil unrest in major cities in the 1960s, and the program's

lack of success left some wondering how the foreign born managed to achieve business success that African Americans could not (Bates 1997, Light 1972).

To analyze these puzzles, scholars studied ethnic economies in those few places where they occurred. By 1993, 71 percent of immigrants lived in one of six states: California, New York, Texas, Florida, New Jersey and Illinois. Forty-three percent of legal migrants in fact lived in just seven cities: New York City, Los Angeles, Chicago, Miami, Washington D.C., Houston, and San Francisco (Portes and Rumbaut 1996:34-35). Unsurprisingly, then, most major empirical analyses of ethnic economies focused on these cities, particularly New York City, Los Angeles, Chicago, and Miami (Portes 1987, Min 1996, Waldinger 1996, Yoon 1997). Even more, many scholars focused on particular neighborhoods in these cities such as New York's Chinatown (Zhou 1992), Miami's Little Havana (Wilson and Portes 1980), Chicago's Little Village (Raijman and Tienda 2000), and Los Angeles's Koreatown (Light and Bonacich 1988). Although scholars looked at ethnic economies in non-urban areas from time to time (Bernardi 1988, Fanning 2005, Morawska 1996), the former set of studies influenced many scholars trying to theorize why immigrant entrepreneurship rates were high, why ethnic economy wages could be substantial, and why some ethnic minorities were more successful at doing business than African-American entrepreneurs.

The focus on a handful of urban neighborhoods highlights the implicit geographic bias of much ethnic economy research. The existence of ethnic economies in suburban areas that were neither geographically concentrated nor densely populated was downplayed in favor of a focus on more prominent urban ethnic communities. Many theories of ethnic economies grew from this intellectual foundation. For example, building off of hypotheses suggested by the Chicago School of Social Ecology, the protected market hypothesis argues that the first stages of ethnic economy development derive from burgeoning immigrant neighborhoods. Communities in these neighborhoods provide a "protected market" for aspiring ethnic entrepreneurs because residents desire ethnic goods and services that

mainstream businesses are either unwilling or unable to supply. Immigrant communities live in clustered settlements in particular urban neighborhoods, making it easy for co-ethnic businesspeople to serve the market where customers reside (Aldrich et al. 1985). Once an ethnic economy has its footing in the neighborhood, the ethnic economy may generate enough capital to expand into other niches of the local economy (Waldinger et al. 1990:124-127). The accrual of capital, moreover, can enable ethnic business groups to pursue new economic opportunities such as middlemanning (Bonacich and Modell 1980).

The orientation of ethnic economy theories toward densely populated, urban ethnic neighborhoods affects the outlook of scholars in other ways. For example, scholars have explicitly linked spatial segregation to ethnic economies. Racial segregation and ethnic entrepreneurship rates share a curvilinear relationship: An increase in segregation increases ethnic entrepreneurship, but too much segregation tends to concentrate poverty among a racial group's workers and consumers, inhibiting the group's ability to successfully grow businesses (Fischer and Massey 2000). Entrepreneurs benefit from access to a large co-ethnic labor supply in spatially concentrated communities as well (Evans 1989). A readily available labor supply sometimes allows co-ethnic employers to exploit their employees and pay them low wages (Bonacich 1990). While this may be true, others believe that labor exploitation occurs infrequently because of the forms of mutual reliance that develop within these local ethnic communities (Light and Gold 2000, Zhou 2004). The density of social networks in local ethnic communities results in enforceable trust and bounded solidarity, which ensures honesty and reciprocity in co-ethnic business dealings (Portes and Sensenbrenner 1993).

The theory of ecological succession provides another example of linking urban ethnic neighborhoods to ethnic economy development. Ecological succession theory claims that, when business owners of one ethnicity leave an industry or a neighborhood, this provides a vacancy for business owners of another ethnicity to fill (Aldrich et al. 1989). This idea has been invoked frequently

when discussing the growth of Jewish and Korean greengrocers in poor, urban African-American neighborhoods throughout U.S. history (Min 1996). The idea also comes up when discussing the wealthiest of ethnic economies, such as the enclave of Little Havana, where Cuban entrepreneurs took over businesses as local Jewish shopkeepers left for better storefronts in the suburbs (Portes 1987).

Not all ethnic economy theories have a spatial component. Proponents of mixed embeddedness, for instance, emphasize how ethnic economies are simultaneously embedded within local ethnic communities and broader welfare state regimes, which influence the shape and character that an ethnic economy can take on (Kloosterman and Rath 2001). Others highlight how blocked mobility in the labor market, due to either ethnic discrimination or a lack of language skills and occupational credentials, can push immigrant workers into self-employment and ethnic economy work (Waldinger et al. 1990). Others even believe in crudely cultural explanations by which the entrepreneurial success of some ethnic groups reflects a type of intelligence and determination that other ethnic groups lack (Sowell 1994). In spite of the importance of these aspatial approaches to ethnic economy development, they do little to dispel the belief that ethnic economies occur in urban ethnic neighborhoods.

The vignettes at the beginning of this chapter fit uneasily into any of the theories mentioned above. By virtue of Riverside's small population, for instance, the town's economy was dependent on its immigrant entrepreneurs by the time it passed its anti-immigrant ordinance. This form of economic dependency is hardly imaginable in a city like New York, where many ethnic businesses are a drop in an ocean of firms. In Monterey Park, a suburban town where Chinese residents managed to capture and co-opt the local government, aspiring Chinese entrepreneurs face a vastly different set of constraints than they do in cities dominated by non-Chinese business interests. In addition, the influx of transnational capital from China into Monterey Park helped the Chinese ethnic economy grow beyond what it could using local means alone. Buford Highway, finally, is a spatially dispersed, multi-ethnic

suburban area. To speak of an ethnic economy on Buford Highway minimizes the symbiotic relationship of businesses there that cut across numerous ethnicities. In short, existing ethnic economy theory is inadequate to explain these three cases. To grapple with this quandary, it is helpful to identify key contemporary trends in international migration to the United States.

Contemporary Trends in International Migration to the United States

Many of the theories discussed thus far associate ethnic economies with tightly-bound, densely populated urban ethnic communities. Several trends occurring in suburban areas and among immigrant populations have converged, however, rendering this association an inadequate representation of ethnic economies in the United States today. For example, spatial inequality in the metropolitan United States has gone through a transformation. The suburban United States grew tremendously after World War II, when the federal government created a vast superhighway system and insured the mortgages of non-Hispanic White home buyers (Jackson 1985). Consequent demographic changes led to a spatial sorting that Reynolds Farley and associates famously called, "Chocolate City, Vanilla Suburbs" (1978). The fractured governance structure of metropolitan regions, moreover, allowed wealthy suburban communities to fend off the encroachment of the poor minorities from urban areas through the use of zoning restrictions and housing covenants (Orfield 1997). Metropolitan spatial inequality in the U.S has led to the oversimplified association in popular culture of suburban areas with rich, white residents and central cities with poor, black residents.

As suburbs have continued to evolve, however, the infrastructure and housing of many older suburbs, particularly those on the inner ring of faded rust belt cities, have precipitated an exodus of wealthy White residents to either outer-ring suburbs, where housing is newer, or gentrifying central city neighborhoods (Frey 2012, Hanlon 2010, Orfield 2011), Lucy and Phillips 2000). This exodus has created a vacuum of available housing that immigrants and ethnic minorities are filling. Associated with the

ethnic transformation of inner-ring suburbs is the growth of impoverished suburban areas. There are now more people in poverty in the suburban than urban United States (Kneebone and Berube 2013). The affordability of many suburban areas today means that international migrants are increasingly leapfrogging cities and settling directly into suburban areas (Singer et al. 2008). International migration into suburban areas has also generated an array of multi-ethnic suburbs (Logan and Zhang 2010).

Some scholars have attributed the growth of suburban immigrant communities to the rise of new immigrant destinations. Since the 1990s, immigrants have increasingly moved beyond traditional destinations like New York and Los Angeles, settling instead in newer destinations that have little experience with international migrants. New destinations include cities and suburbs in the Southeast and Midwest (Massey 2008). The rapid growth of many cities in these regions has fueled a need for workers in industries that often attract immigrants, such as construction and landscaping (Johnson-Webb 2002).[2] Immigrants, especially Mexicans and other Latin Americans, are consequently moving to newly growing metropolitan areas, frequently resulting in the growth of ethnic minority communities in suburban rather than urban areas (Smith and Furuseth 2008).

In contrast to low-skilled immigrants in industries such as construction, high-skilled immigrants are fueling the suburbanization of international migration for other reasons. Traditionally, high-skilled immigrants spatially assimilated in the U.S. suburbs, meaning that immigrants or their children shed ethnic ties and joined the White majority after moving to the suburbs (Alba et al. 1999, Massey 1985). Today, however, many high-skilled immigrants who move into the suburbs often desire an ethnic infrastructure nearby, resulting in the growth of ethnic firms, places of worship, and other organizations in well-to-do suburban areas (Li 2009, Logan et al. 2002). Interestingly, the development of suburban ethnic organizations has sometimes adhered to the urban planning character of the suburbs. Called

[2] Many immigrants moved to rural destinations as well, in part because of the growth of the meatpacking industry in rural areas (Kandel and Parrado 2005).

heterolocalism by some, suburban ethnic economies can be spread across metropolitan regions rather than bound to specific neighborhoods (Zelinsky and Lee 1998).

Finally, transnational investment, touched on earlier, has changed the amount of capital available to ethnic entrepreneurs in the suburbs. Local ethnic economies in both urban and suburban areas no longer need be limited to resources generated within the local ethnic community. In smaller suburban municipalities, transnational investment can have dramatic effects on the well-being of foreign-born communities. For example, in Monterey Park, California, scholars suspect that real estate speculation from China kept the housing market afloat during the Great Recession (Kyser Center for Economic Research 2014:23). Whereas others in the United States saw their wealth collapse and their houses foreclosed, residents of Monterey Park benefited from what compatriots in China thought to be a smart investment opportunity. Again, because suburban municipalities are often smaller in size and population than urban areas, the impact of trends such as transnational investment can be magnified.

Outline of this Dissertation

Trends in international migration today place the vignettes that opened this chapter in a unique light. Suburban ethnic economies can unquestionably be consequential for local economies and labor markets. Nevertheless, little to no research has analyzed the size and scope of suburban ethnic economies, let alone how and why ethnic economies are growing in the suburban United States. Some of the best estimates of suburban ethnic economy growth come from Cathy Liu and Samir Adbullahi, who in 2012 analyzed minority-owned businesses in nineteen metro areas across the United States. The authors show that, in 2007, minority-owned firms comprised 26 percent of all suburban firms, up from 21 percent in 2002. During that same five year period, total employment and annual payrolls in urban minority-owned firms shrank, while employment and payrolls in suburban minority-owned firms grew, regardless of ethnicity. Although these data provides baseline estimates for the suburbanization of

ethnic economies, they say nothing about the impact that suburban ethnic businesses have on local economies and labor markets.

This dissertation is perhaps the first comprehensive treatment of ethnic economy development in the suburban United States. Overall, the story is as follows: Much classical ethnic economy research presumes that ethnic economies grow out of tightly-bound, urban ethnic neighborhoods, which provide a low-wage labor source and a relatively captive consumer market for ethnic entrepreneurs. Nevertheless, as international migrants and ethnic minority groups move into the suburbs in large numbers, they are settling into communities that are geographically spread out, ethnically heterogeneous, and sometimes hostile toward immigrants and ethnic businesses. Ultimately, challenges unique to suburban areas exist that are limiting the opportunities for ethnic groups to engage in successful forms of entrepreneurship and ethnic economy development. As international migration streams continue to shift from urban to suburban areas, there are likely to be significant challenges for ethnic entrepreneurs who hope to reproduce the successes that have been found in urban ethnic neighborhoods. Each of the following chapters breaks down this message into several empirical components.

Chapter 2 provides the most extensive study ever conducted on the reasons behind ethnic economy suburbanization and its effect on earnings. In the chapter, I use fixed-effect OLS regressions on census microdata for nine ethnic groups from 1990 to 2010 to identify the extent and influence of ethnic economies in suburban areas. Ethnic economy suburbanization turns out to be strongly associated with ethnic residential suburbanization, and earnings are no different in the suburban and urban portions of the ethnic economy. This finding suggests that the differences between immigrant adaptation in cities and suburbs are diminishing, at least in terms of ethnic economy development. Case studies have occasionally argued that suburban ethnic economies deliver better outcomes for immigrant workers

than urban ethnic economies, but in my nationally representative analysis, I do not find this to be the case.

In Chapter 3, I look at the effect of economic recessions on suburban ethnic economies. Economic downturns often hurt foreign-born workers more than native-born workers. Some evidence suggests that ethnic minorities respond by working in the ethnic economy, where, unlike in the larger labor market, business owners may be more inclined to take on extra help in order to protect co-ethnics from unemployment. Scholars rarely treat the growth of ethnic economies during recessions as a viable phenomenon because no nationally representative study has demonstrated its occurrence. Using community-level American Community Survey data from before and after the Great Recession on eight national-origin groups, this study finds the phenomenon to occur on a large scale. Nevertheless, the protective effect of ethnic economies is limited to urban areas. Suburban ethnic economies are more likely to accelerate unemployment growth. Scholars should take seriously the role of ethnic economies during downturns and acknowledge how American suburbs provide unique contexts for international migrants and their employment patterns.

Chapter 4 addresses a curious paradox: Independently owned and operated ethnic restaurants, a common platform for small-scale immigrant entrepreneurship, are growing in U.S. suburbs at the same time that ethnic chain restaurants are penetrating urban U.S. markets. Using data on over 50,000 restaurants in the New York metro area taken from Yelp.com in 2015, this chapter shows that, among highly popular cuisines such as Chinese and Mexican food, chains are common and associated with mainstream markets, particularly in suburban areas. For less popular cuisines, such as Caribbean and Indian food, chains are also common but are associated with co-ethnic markets. In contrast to prior wisdom, which presumes that chains avoid ethnic neighborhoods, I find that chains sometimes succeed by operating in ethnic neighborhoods, regardless of their urban or suburban status. This finding suggests an added complication for the development of ethnic economies and independently run ethnic

restaurants in suburban ethnic neighborhoods. Many suburban ethnic economies are smaller and newer than urban ones. The vulnerability of suburban ethnic economies may allow chains to establish a strong foothold in suburban ethnic markets that traditionally would have belonged to ethnic economy workers.

The concluding chapter links the findings of the dissertation to federal and local policies that have been attempted throughout U.S. history to help municipalities reap the benefits of immigrant entrepreneurship and ethnic economy creation. Although the types of governmental support available to immigrant and ethnic minority entrepreneurs varies across the United States, I argue that the structure of existing policies is inadequate to help incorporate ethnic businesses into the larger economy in a sustainable manner. I highlight problems with some current policy proposals that aim to bring ethnic minority workers into the mainstream economy and suggest better ways to derive benefits from immigrant entrepreneurship. I also explain some directions that future research on suburban ethnic economies should take.

* * *

This dissertation leaves many questions unanswered about inequality within and across suburban ethnic economies, the influence of transnationalism on suburban ethnic economy development, and the multi-ethnic character some ethnic economies take on. In other words, this dissertation fits the adage perfectly: "There is no such thing as a finished dissertation, just one that is turned in." There are many questions left to ask, and I hope this dissertation inspires others to help me answer them.

Chapter 2: Suburban Ethnic Economies and Income Attainment

By 2009, within the 95 largest metro areas in the United States, the majority (59 percent) of immigrants lived in suburban rather than urban areas (Suro et al. 2011:4). As discussed in Chapter 1, this is changing how urban scholars and immigration scholars theorize the impact of international migration on communities across the U.S. Urban scholars are breaking down the myth that the suburbs are the preserve of rich, native-born White residents. More people in poverty today live in suburban rather than urban areas (Kneebone and Berube 2013), and suburbs are beginning to host multi-ethnic neighborhoods and communities (Iceland 2009, Logan and Zhang 2010). Migration scholars, in a different vein, focus on how successfully the foreign born are incorporating into suburban economies and polities. There is little consensus on the success of suburban immigrant integration (Jones-Correa 2008, Li 2009, Mahler 1996, Singer et al. 2008).

Few scholars work at the intersection of these issues, looking at the adaptive strategies that immigrant groups may be employing in order to buffer themselves from the possibility of downward mobility in today's suburbs. One such strategy is ethnic economy creation. Although studies abound on urban ethnic economies (Min 1996, Raijman and Tienda 2000, Waldinger et al. 1990, Wilson and Portes 1980, Zhou 1992), few studies have measured the scope and success of suburban ethnic economies. The study of ethnoburbs is rapidly growing to fill this void (Chan 2012, Wen et al. 2009, Zhou et al. 2008). Ethnoburbs are suburban regions characterized by "vibrant ethnic economies, due to the presence of large numbers of ethnic people, and strong ties to the globalizing economy" (Li 1998:482). Unlike ethnic economies in poor, urban areas, ethnoburbs tend to occur in middle-class suburbs because of the economic strength of the groups who create them (Li 2009:46). Prominent examples of ethnoburbs include the Chinese agglomeration of Monterey Park, CA and the Indian agglomeration of Edison, NJ.

Ethnoburban theory is valuable because it highlights a new form of immigrant incorporation in suburban areas. Nevertheless, ethnoburbs are rare occurrences, and the literature is often comprised of case studies, which suffer the selection bias of analyzing only highly successful ethnic economies in the suburbs (Chan 2012, Lin and Robinson 2005, Wang 2012). In order to make rigorous claims about the suburbanization of ethnic economies and its consequences, there is a need for a more comprehensive analysis of the different types of ethnic economies growing in suburban areas. This chapter addresses that need. Using an analysis of nine ethnic groups across the U.S. from 1990 to 2010, this chapter asks:

1) Why are ethnic economies suburbanizing?

2) What effect is ethnic economy suburbanization having on the income attainment of ethnic economy workers?

By answering these two questions, this chapter helps bridge the literatures on the new U.S. suburbs and on immigrant incorporation. The chapter also moves the study of suburban ethnic economies beyond ethnoburbs to ensure that lesser successful ethnic economies are included in future analyses.

International Migration and the Changing U.S. Suburbs

A rich literature in the social sciences discusses the decades-long settlement of immigrants in the American suburbs (Alba et al. 1999, Massey 1985, Massey and Denton 1988). Much of this literature emphasizes a process called spatial assimilation. Immigrants settle in less well-off urban neighborhoods when they first move into the country but eventually move into more well-off areas, such as parts of the American suburbs, in order to access resources such as schools and jobs available to the native-born majority. Immigrants settle in impoverished urban areas when they first enter the host society because they lack capital, are discriminated against, and attain housing more readily in urban neighborhoods (Massey 1985). Alternative perspectives exist, such as place stratification theory, which suggests that discriminatory processes like redlining make it insurmountable for immigrants and their children to

overcome the spatial sorting of minority groups into areas away from the majority group (Charles 2003). Despite the considerable research relying on both the spatial assimilation and place stratification perspectives, neither theory accounts for the possibility that immigrant communities will form and develop a vibrant ethnic infrastructure in the suburbs that includes businesses owned and operated by co-ethnics.

Evidence is mounting that immigrants are moving into the suburbs in large enough numbers to form such a suburban ethnic infrastructure. The suburbanization of ethnic communities has occurred for several reasons: the growth of labor-intensive industries in the suburbs that frequently employ immigrants (Singer et al. 2008:16); the growing wealth and political power of professional immigrants who have re-invented various suburbs as hubs of ethnic activity (Li 2009); and advances in communications and transportation technology that obviate the need to live in tightly-bound spaces to receive social support from co-ethnics (Zelinsky and Lee 1998). The suburbanization of ethnic communities, furthermore, is happening at a time when the aging infrastructure of inner-ring suburbs and the gentrification of urban areas are encouraging non-Hispanic Whites to move from the suburbs to the city (Frey 2012, Hanlon 2010).

Due to these trends, scholars are pointing out the inadequacy of previous theories that associate suburban immigrants with relative prosperity and straight-line assimilation. There has been a dramatic rise in suburban poverty, in part brought on by the number of poor immigrants moving into the suburbs (Suro et al. 2011). The dearth of social services available to immigrants in the suburbs compounds the effects of increased poverty (Murphy 2007:27). Furthermore, longtime residents of the suburbs have sometimes demonstrated great hostility toward immigrant newcomers. This hostility can drive away immigrants who formerly buoyed the local economy, as occurred in Riverdale, NJ (Greco 2008). Finally, immigrants are beginning to build an ethnic infrastructure in the American suburbs that

includes businesses and other institutions that facilitate the persistence of ethnic identity (Li 2009, Logan et al. 2002). These businesses are often part of an ethnic economy.

The Classical Approach to International Migration and Ethnic Economies

As discussed in Chapter 1, much traditional ethnic economy theory starts with the notion that ethnic economies begin in immigrant and ethnic neighborhoods.[3] The burgeoning ethnic community may desire goods and services that mainstream businesses either cannot or will not supply, such as ethnic groceries or travel services to the home country, and may be large and concentrated enough to comprise a profitable source of demand. To meet the demand, local ethnic entrepreneurs familiar with the needs of co-ethnics start businesses (Waldinger et al. 1990). Over time, these businesses may accrue enough capital that they move into different niches of the economy beyond the local co-ethnic client base. In the open market (i.e. outside of the ethnic market), ethnic entrepreneurs face competition from better-capitalized mainstream entrepreneurs, so ethnic entrepreneurs tend to move into niches either underserved by or considered too volatile for mainstream entrepreneurs. An example of an underserved niche is grocery stores in low-income African-American neighborhoods (Min 2008); an example of a volatile niche is the small-scale, special-order apparel industry (Bonacich and Appelbaum 2000).

If successful, ethnic economies can grow to the point that they employ a sizeable portion of the co-ethnic workforce. Growth often occurs through a process of network recruitment in which ethnic business owners hire co-ethnics whom they find through their social networks. Ethnic workers also typically recommend co-ethnics in their social networks to ethnic business owners in order to help

[3] Also touched on in Chapter 1, there are strands of ethnic economy research that start from the notions of mixed embeddedness or middleman minorities rather than the ethnic neighborhood. Nevertheless, the proponents of mixed embeddedness lament the degree to which the concept has influenced the field as a whole (Rath and Kloosterman 2000), and many middleman minority economies first start by serving the ethnic neighborhood before expanding to non-co-ethnic markets (Waldinger et al. 1990:119-122).

fellow co-ethnics find jobs (Light and Gold 2000). Although many ethnic business owners hire co-ethnic workers as a means of supporting the co-ethnic community, they sometimes do so in order to exploit co-ethnics as a low-wage labor force (Bonacich and Appelbaum 2000, Light 1972, Waldinger et al. 1990). Ethnic workers are nonetheless attracted to ethnic economy work because within the ethnic economy they can avoid ethnic discrimination, work longer hours, evade taxes, and be in the company of co-ethnics (Light and Gold 2000:Ch. 3).

As migration streams fan out to suburban areas, scholars are casting doubt on this classic model of ethnic economy development. Individual case studies demonstrate the extensive creation of ethnic economies in the suburbs among both low- and high-capital ethnic groups (Fong et al. 2007, Oberle 2006, Wood 1997). Much research on suburban ethnic economies revolves around the concept of the ethnoburb. Unlike in many urban enclaves, participation in ethnoburban businesses may be done by choice rather than as a response to social structural barriers such as racial discrimination. Social relations in ethnoburbs may connect co-ethnics to business partners both inside and outside of the ethnic group as well (Li 2009:45). Despite the conceptual advances made by ethnoburban theorists, ethnoburbs are noteworthy but rare in the U.S. (Li 2009:175-177). Little nationally representative research has looked beyond ethnoburbs to analyze the suburbanization of ethnic economies of all types. Furthermore, some scholars argue that, rather than support the development of ethnic businesses in the suburbs, suburban ethnic residents sometimes travel into the city to purchase goods and services in urban ethnic economies (Bubinas 2005:169-170, Zhou 1992:Ch. 8). Although it is clear that international migration is on the rise in the American suburbs, it is unknown how extensively ethnic economies have suburbanized and which market forces are driving suburban ethnic economy development.

Why Have Ethnic Economies Suburbanized?

According to prior research, ethnic economies initially come about due to consumer demand within the co-ethnic community (Waldinger et al. 1990). As the ethnic market, meaning co-ethnic clientele, moves into the suburbs, ethnic economies may follow. Nevertheless, several models of ethnic economy development treat ethnic demand as synonymous with tightly bound ethnic neighborhoods in cities (Aldrich et al. 1985, Kaplan 1998), so the spatial dispersal of ethnic communities in the suburbs may not generate much suburban ethnic economic activity. Immigrants in the suburbs, moreover, have a propensity to spatially assimilate and patronize non-ethnic businesses (Alba et al. 1999, Massey 1985), suggesting that suburban ethnic economic activity is attributable to non-ethnic rather than ethnic demand in the suburbs.

> ***Hypothesis 2.1a****: For each metropolitan-level ethnic economy, as the ethnic market suburbanizes, the ethnic economy suburbanizes as well.*
>
> ***Hypothesis 2.1b****: For each metropolitan-level ethnic economy, as the non-ethnic market suburbanizes, the ethnic economy suburbanizes as well.*

Of course, ethnic economy suburbanization may simply be a consequence of the decentralization of work that has occurred since World War II (Glaeser and Kahn 2001). Ethnic firms could have moved to the American suburbs for the same reasons that non-ethnic firms did: urban disinvestment, tax abatements for firms moving to the suburbs, and increased reliance by Americans on cars (Garreau 1991).

> ***Hypothesis 2.1c****: For each metropolitan-level ethnic economy, the ethnic economy suburbanizes in proportion to the overall economy.*

The Effect of Ethnic Economy Suburbanization on Income Attainment

Most existing debates about income attainment in ethnic economies come from discussions of wages earned inside versus outside the ethnic economy (Borjas 1990, Light et al. 1994, Portes and Bach 1985, Sanders and Nee 1987, Zhou 1992). Scholars have discussed differences in income attainment

between suburban and urban ethnic economies less because suburban ethnic economies are such a new phenomenon. The prevailing literature on suburban ethnic economies is that on ethnoburbs. Scholarship on ethnoburbs shows that one can earn higher wages by working in an ethnoburb compared to an urban ethnic economy (Li 2009:146-8), but as mentioned earlier, ethnoburbs are rare and may not accurately reflect the entire spectrum of suburban ethnic economies. Nevertheless, because ethnoburbs are the predominant literature on suburban ethnic economies, one should expect that incomes earned in suburban ethnic economies should be higher than urban ethnic economies.

> ***Hypothesis 2.2a****: For a given ethnic economy participant, their income will be higher if they work in a suburb rather than a city.*

Looking beyond ethnoburbs, however, it seems possible that suburban ethnic economies are delivering incomes comparable to those found in urban ethnic economies. As international migration suburbanizes, immigrant workers may be creating ethnic economies as a response to discrimination and blocked mobility, just as many of their urban counterparts do (Light and Gold 2000, Portes and Sensenbrenner 1993). Suburban ethnic entrepreneurs may also suffer similar barriers to entry in those niches of the economy dominated by better-capitalized mainstream entrepreneurs (Waldinger et al. 1990). In other words, suburban ethnic economies may be reproducing the same income attainment patterns associated with urban ethnic economies.

> ***Hypothesis 2.2b****: For a given ethnic economy participant, their income will be no different if they work in a suburb or a city.*

Ethnic economies are sometimes successful because entrepreneurs treat densely-populated neighborhoods as captive consumer markets (Aldrich et al. 1985, Kaplan 1998). Ethnic neighborhoods, for example, are often large, concentrated, and in need of ethnic goods and services they cannot get elsewhere. More generally, ethnic economies have been linked to the many benefits of economic agglomeration (Fong et al. 2007). In suburban areas, many of which are spread out and low-density,

ethnic economies may not be able to generate high earnings because they lose out on the benefits of agglomeration.

> ***Hypothesis 2.2c****: For a given ethnic economy participant, their income will be lower if they work in a suburb rather than a city.*

Data

Data come from five percent microdata samples from the 1990 and 2000 Decennial Censuses as well as the five percent microdata sample from the 2010 American Community Survey (ACS). 1990 is roughly the year in which the suburbanization of international migration to the U.S. began in earnest (Singer et al. 2008), and microdata on workers provide the most geographically fine-grained outcomes for ethnic economies and their workers available from nationally-representative data.

Operationalizing the Suburbs

The distinction between urban and suburban areas is traditionally made by treating central cities in metropolitan statistical areas (MSAs) as urban. Suburbs are the portion of each MSA that excludes central cities (Alba et al. 1999, Massey and Denton 1988). The smallest geographical unit available from the Census Bureau is the Public Use Microdata Area (PUMA), an arbitrarily bounded geographical unit that ranges from 100,000 to 200,000 residents. The geographical building block of my analysis is the Place of Work PUMA (PWPUMA), not the PUMA. PWPUMAs are frequently equivalent to PUMAs, but the Census Bureau sometimes aggregates PUMAs within PWPUMAs in order to maintain the confidentiality of respondents.

PWPUMAs, like PUMAs, occasionally cross the city-suburb divide. Throwing out PWPUMAs sharing urban and suburban territory would result in a steep loss of ethnic economies available for analysis. Social scientists sometimes relax PUMA boundary conditions such that if some of a metropolitan PUMA's residents live in a central city, then the PUMA is considered urban. The inverse

yields a suburban PUMA. Since the population minimum in published research using this approach ranges from 50 percent (Holzer and Stoll 2007:2-3) to 95 percent (Alba et al. 1999:ftnote 3), I use a rough midpoint of 75 percent. If 75 percent or more of a PWPUMA's residents live in a central city, then the PWPUMA is considered urban. If 75 percent or more of a PWPUMA's residents live outside a central city but within the MSA, then the PWPUMA is considered suburban.

In total, I include 28 MSAs in the analysis. Each of the PWPUMAs in these 28 metro areas can be identified as urban or suburban according to the criteria above, and each MSA includes at least one ethnic economy. The 28 MSAs span the U.S., vary in size, and differ in migration histories. Nevertheless, the analysis omits some sprawling metros that lack clearly defined urban-suburban boundaries, such as Los Angeles and Houston. I discuss later in the chapter how the findings extend to sprawling regions like L.A.

Operationalizing Ethnic Economies

In order to operationalize the ethnic economy, I adapt and expand a measure based on odds ratios created by Logan et al. in 1994. The use of odds ratios to identify ethnic economies has inspired much work in the field, and the approach of Logan et al. (1994) is commonly used (e.g. Logan et al. 2002, Wang 2010, Wilson 2003). The odds ratio is given by:

$$Odds\ Ratio_{ijk} = \frac{\left(\frac{W_{ijk}}{W_{i(\sim j)k}}\right)}{\left(\frac{G_{ijk}}{G_{i(\sim j)k}}\right)} \qquad (2.1)$$

where, in each metro area *k*, the numerator represents the odds that workers *W* from ethnic group *i* work in industry *j*, and the denominator represents the odds that workers from all other groups *G* work in the same industry *j*. *~j* denotes all industries except for industry *j*. The odds ratio is calculated separately for self-employed and wage workers. If the odds ratio is greater than 1.5 for both self-employed and wage workers, then all workers W_{ijk} are treated as part of the ethnic economy. For

example, if W_{ijk} is the number of Korean workers in the Chicago MSA's restaurant industry, then $W_{i(\sim j)k}$ refers to all Korean workers in the Chicago MSA who do not work in the restaurant industry. If G_{ijk} is the number of non-Korean workers in the Chicago MSA's restaurant industry, then $G_{i(\sim j)k}$ refers to all non-Korean workers in the Chicago MSA who do not work in the restaurant industry. If the odds ratio is greater than 1.5 for both self-employed and wage workers, then all Korean workers in the Chicago MSA's restaurant industry are treated as part of Chicago's Korean ethnic economy. The results shown below are substantively similar even if the 1.5 cutoff is double or tripled. I use the 1.5 cutoff because it is used in prior literature and maximizes the number of ethnic economies that can be analyzed.

In addition to the odds ratio specification, I limit industries in the analysis to those that are non-professional, non-agricultural, non-mining, non-military, and non-governmental. Governmental and military workers cannot be self-employed, farmers and miners are rarely found in the city or suburbs, and professional industry workers can rely on their high human capital rather than ethnic resources to start a business. Although I exclude professional industries from the analysis, I still allow for workers in professional occupations in non-professional industries to be included in the analysis. The final criterion I impose is a requirement such that, in order to be part of the ethnic economy in an MSA, the ethnic self-employed in a particular industry must make up at least one percent of all the self-employed in that industry in the MSA. This requirement ensures that very small groups are not mistaken to have a notable ethnic economy in an MSA. Very few industries were affected by this cutoff, yet I use it for added rigor.

Operationalizing Ethnic Groups

Similar to Alba et al. (1999:448), I include in the analysis nine national-origin groups that were growing through immigration during the study period and had more than 500,000 members in 2000.[4] I also include native-born, non-Hispanic Whites as a means of comparing trends in ethnic economies to trends affecting the majority group. Non-Hispanic Whites are less likely than ethnic minorities to suffer the same sorts of labor market discrimination and social and cultural capital deficits that encourage the creation of ethnic economies. I therefore use the odds ratio calculation mentioned previously to simply determine those industries in which Whites were overrepresented.

I ultimately organize the data into a set of 68 MSA-level ethnic economies between 1990 and 2010. Note that each ethnic economy was a unique combination of an ethnic group and an MSA. An ethnic economy must have been present across all three time points to be included in the analysis. This requirement may bias the data away from newer ethnic economies but more accurately addresses the issue of ethnic economy suburbanization. In addition to the 68 ethnic economies in the analysis, I also analyze 28 MSA-level collections of industries in which Whites were over-represented across 1990, 2000, and 2010.[5]

Methods and Variables

I test the hypotheses regarding why ethnic economies have suburbanized using OLS fixed-effects regressions. The dependent variable is the percent of ethnic economy workers in the suburbs at a given point in time, and the independent variables are respectively the percent of ethnic and non-

[4] The analysis should include Cubans, a highly entrepreneurial ethnic group in the United States (Portes and Bach 1985). According to personal correspondence with the Minnesota Population Center, however, the microdata on those who worked in the Miami-Hialeah, FL MSA in 2000 and 2010 are not identifiable. Miami is a central hub of Cuban economic activity, and any data that omit information on the Cubans of Miami will be biased away from trends found in prior research on Cuban ethnic economies. I consequently drop Cubans from the analysis.

[5] Ethnic economy industries were virtually identical across all three time points, and no matter what year was used to identify ethnic economy industries, the results are effectively the same as those reported in this analysis.

ethnic residents in the suburbs[6] at a given point in time.[7] I use fixed effects specific to each ethnic economy because unobserved characteristics specific to each ethnic economy may have influenced the suburbanization process. I also add time fixed effects because the 1990s and the 2000s were very different decades for U.S. immigration policy and the economy. The 1990s found the U.S. economy expanding like almost no other period in history, and a steady stream of undocumented immigrants moved to the United States throughout the decade. The late 2000s, on the other hand, were recessionary, and immigrants of all types faced a more hostile context of reception.

Control variables include the suburban poverty rate specific to the local ethnic population, which holds constant the extent to which ethnic minority members in poverty may have had few options except to work in the ethnic economy. Controls also include the overall educational attainment, nativity rates, and linguistic isolation rates of the local ethnic population. I also control for the Index Net Difference of City and Suburban Incomes for all MSA residents (Lieberson 1976) because the attraction to a portion of the MSA in which incomes were higher may have driven changes in ethnic economy suburbanization. The more positive and larger the Index was, the more lucrative jobs in the city were.

By constructing the dependent variable in terms of a proportion, I acknowledge that ethnic economies sometimes crossed the city-suburb divide. Because changes in the suburban portion of the ethnic economy may have been affected by a shrinking urban ethnic economy rather than a growing suburban ethnic economy, I do a series of robustness checks using raw numbers rather than proportions. In this set of regressions, the dependent variable becomes the logged value of the number of workers in the suburban portion of the ethnic economy, and the independent variables respectively

[6] Technically speaking, it is an overgeneralization to equate all ethnic residents in the suburbs with the suburban ethnic market. A more rigorous definition would isolate that portion of suburban ethnic residents who buy goods and services from the ethnic economy. The findings in this chapter should therefore be seen as an upper bound on who belongs to the ethnic market.

[7] It is customary to model a proportional variable that ranges between zero and one using a logit specification. I do not do this because the deviations from mean values over time on the variables of interest are normally distributed, and the models presented do not violate OLS regression assumptions.

become the logged value of the number of ethnic residents in the suburbs and the logged value of the number of non-ethnic residents in the suburbs.

In the regressions, I pool ethnic economies together due to small Ns. Regressions specific to each ethnic group would have been ideal, but national-origin groups did not have ethnic economies in every metropolitan area. Despite the fact that different ethnic minority groups populate different industries and share different human capital profiles in the U.S., I believe that any hypotheses upheld across these different contexts testifies to how robust the hypothesized associations are.

I test the hypotheses regarding income attainment using cross-sectional OLS regressions of logged annual income on several variables. I am unable to gauge change over time because the Census and ACS microdata lack an individual-level panel structure. Nevertheless, analyzing change in cross sections over time provides some evidence that can test Hypothesis 2.2. I create the dependent variable by combining annual wage and business incomes. Incomes are inflation-adjusted to dollar values in the year 2000. The primary independent variable is an interaction between the suburban status of one's PWPUMA and whether or not one worked in the ethnic economy. I use control variables common in wage models, including work experience [age – years of education + 6], experience^2, gender, highest degree attained, marital status, number of children, and class of worker, the latter of which includes three statuses: wage work, incorporated self-employment, and unincorporated self-employment. Each of these three classes of workers may have faced different degrees of income competition and income ceilings, particularly in the ethnic economy, where a sizeable portion of participants are self-employed and the market can approach perfect competition (Light et al. 1994, Sanders and Nee 1987). I also include the metropolitan-level unemployment rate, which constrained the options of those considering ethnic economy work, as well as a series of dummy variables controlling for industry at the NAICS two-

digit level.[8] Unlike the tests of hypotheses on ethnic economy suburbanization, the tests for the hypotheses on income attainment include enough Ns to conduct regressions separately for each group, except for Filipinos and Jamaicans. I consequently omit these two latter groups from the analysis of income attainment.

Results

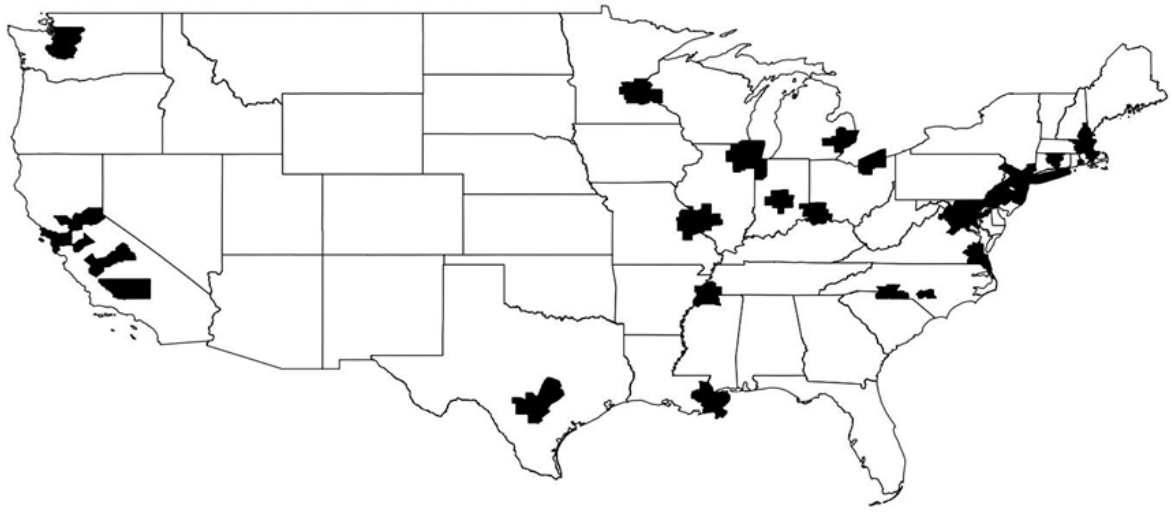
Before conducting multivariate analyses, it is important to understand the characteristics of the ethnic economies in the data set. Figure 2.1 lists the metro areas included in the analysis. A few regional ethnic economy concentrations are discernible. Filipinos and Jamaicans, for instance, only had one ethnic economy each—in the New York City MSA. Dominicans also clustered in the New York area despite having ethnic economies in three metro areas. Whites were unsurprisingly overrepresented in industries in all 28 MSAs.

Table 2.1 shows both the number of ethnic economies for each group as well as the top three industries and occupations in each group's ethnic economies. I constructed the list by aggregating ethnic economy workers across MSAs and time points. Table 2.1 highlights two important points. First, ethnic minorities specialized in different industries than Whites, supporting the argument made by prior literature that ethnic economies specialize in industries in which they will face little competition from the majority group. Second, many ethnic economies were comprised of those industries already mentioned in the literature, industries that have a low cost of entry, such as restaurants, grocery stores, and auto repair (Waldinger et al. 1990:Ch. 1).

Although not shown in Table 2.1, it is important to note that, across all years and ethnic minority groups, the average proportion of ethnic minority workers in the data set who worked in the ethnic

[8] Almost all ethnic economy participants were immigrants. Therefore, I ran models including immigration-specific human capital variables, including citizenship, number of years in the U.S., and English proficiency. In no case did it substantively alter the relationship between the independent and dependent variables.

Figure 2.1. Metropolitan Statistical Areas (MSAs) and Their Ethnic Economies (N_{MSAs} = 28)



MSA	W	I	C	F	K	V	J	M	D	S	*MSA*	W	I	C	F	K	V	J	M	D	S
Austin, TX	•					•		•			Memphis, TN/AR/MS	•		•					•		
Bakersfield, CA	•							•			Minneapolis-St. Paul, MN	•		•			•		•		
Baltimore, MD	•	•	•		•						Modesto, CA	•							•		
Boston, MA	•		•			•					New Orleans, LA	•					•		•		
Charlotte-Gastonia-Rock Hill, SC	•	•									New York-Northeastern NJ	•	•	•	•	•	•	•	•	•	•
Chicago-Gary-Lake IL	•	•	•		•			•			Newark, NJ	•	•	•						•	
Cincinnati, OH/KY/IN	•		•								Norfolk-VA Beach-Newport News, VA	•		•			•				
Cleveland, OH	•		•								Philadelphia, PA/NJ	•		•		•	•				
Detroit, MI	•		•								Sacramento, CA	•		•			•		•		
Fayetteville, NC	•							•			San Antonio, TX	•							•		
Fresno, CA	•					•		•			San Francisco-Oakland-Vallejo, CA	•		•			•		•		•
Hartford-Bristol-Middleton, CT	•		•								Seattle-Everett, WA	•		•		•	•		•		
Indianapolis, IN	•							•			St. Louis, MO	•		•			•		•		
Jersey City, NJ	•	•							•		Washington, DC/MD/VA	•	•	•		•	•				•

MSAs included in the analysis are colored in the map above and listed in the table below. A dot indicates that an ethnic group had an ethnic economy in the MSA between 1990 and 2010. For Non-Hispanic Whites, a dot indicates an MSA in which they dominated at least one industry rather than the presence of an ethnic economy. W = Non-Hispanic Whites; I = Asian Indian; C = Chinese; F = Filipino; K = Korean; V = Vietnamese; J = Jamaican; M = Mexican; D = Dominican; S = Salvadoran.

Table 2.1. Top Three Ethnic Economy Industries and Occupations, By Group

Group	Top 3 Industries	%	Top 3 Occupations	%
Whites (N = 28)	Construction	18	Managers, n.s.	9
	Machinery and Supplies	6	Salespersons, n.s.	7
	Motor Vehicle Dealers	5	Sales Job Managers	6
Indians (N = 7)	Machinery and Supplies	15	Taxicab Drivers	13
	Taxicabs	13	Sales Job Managers	12
	Drug Stores	13	Salespersons	5
Chinese (N = 18)	Restaurants and Bars	62	Cooks	27
	Apparel and Accessories	22	Sewing Machine Operators	14
	Grocery Stores	3	Waiters	11
Filipino (N = 1)	Private Households	57	Housekeepers, etc.	27
	Apparel and Accessories	15	Child Care Workers	22
	Wholesale Trade, n.s.	12	Nursing Aides	7
Korean (N = 6)	Grocery Stores	24	Sales Job Managers	26
	Restaurants and Bars	17	Cashiers	10
	Misc. Personal Services	8	Cosmetologists	9
Vietnamese (N = 13)	Misc. Personal Services	35	Cosmetologists	47
	Beauty Shops	21	Sales Job Managers	6
	Restaurants and Bars	13	Cooks	5
Jamaican (N = 1)	Personnel Supply Services	27	Auto Mechanics	19
	Urban Transit	26	Taxicab Drivers	14
	Auto Repair	22	Bus Drivers	10
Mexican (N = 16)	Landscaping	24	Gardeners	19
	Restaurants and Bars	16	Housekeepers, etc.	7
	Services to Buildings	10	Cooks	7
Dominican (N = 3)	Grocery Stores	44	Taxicab Drivers	19
	Taxicabs	21	Cashiers	14
	Auto Repair	9	Sales Job Managers	12
Salvadoran (N = 3)	Services to Buildings	51	Housekeepers, etc.	30
	Private Households	22	Janitors	29
	Landscaping	13	Gardeners	10

economy was roughly 15 percent, a percentage comparable to that found in prior research (Light and Gold 2000:32-33). The proportion of ethnic workers in ethnic economies ranged from a high of 28 percent of Koreans in 1990 and 18 percent of Chinese in 2000 to a low of one percent of Filipinos and

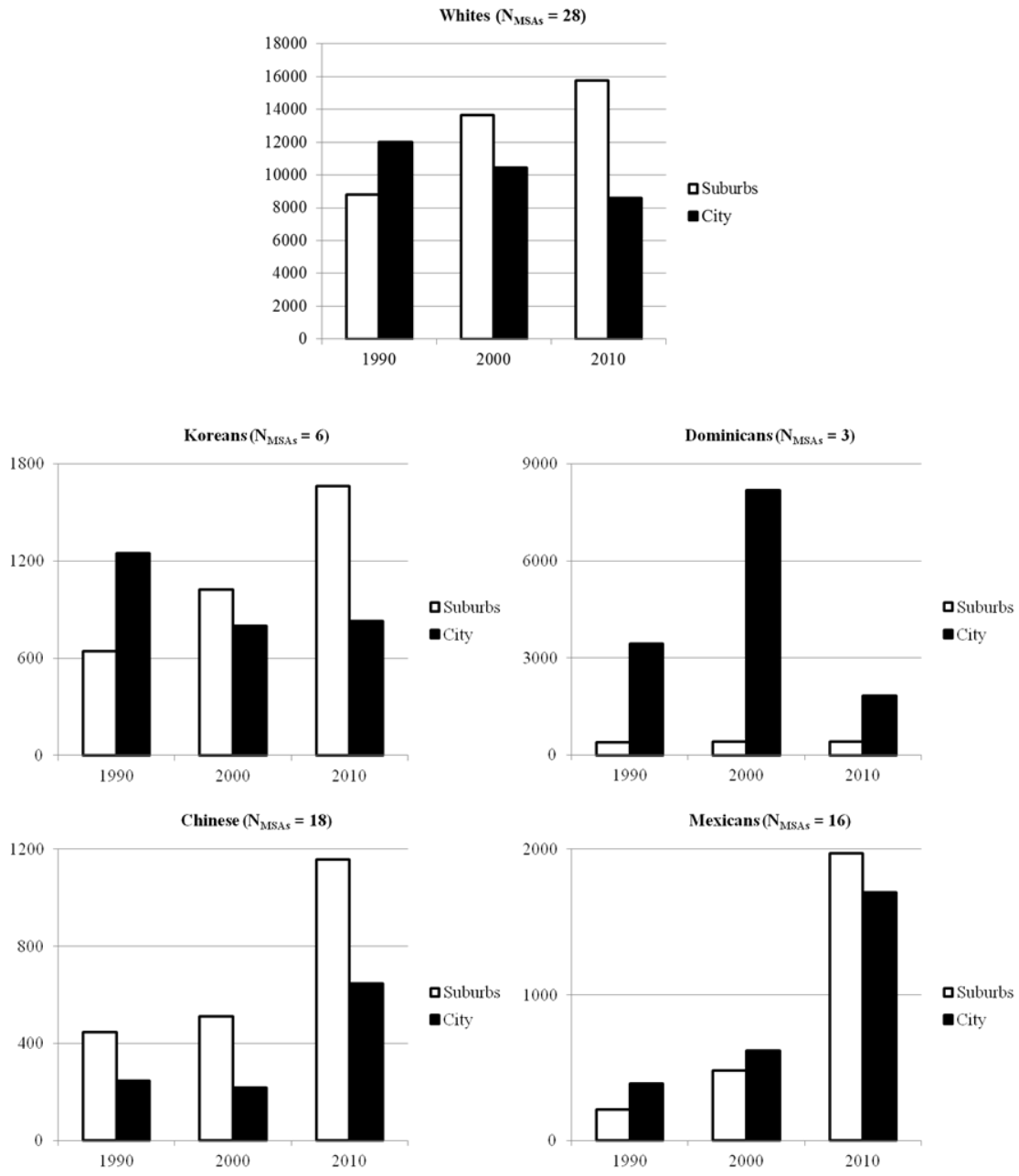
Jamaicans in 2010. This variation in the proportion of ethnic workers in ethnic economies across groups is consistent with prior research (Kasinitz and Vickerman 2001, Min 1986).

Furthermore, across all ethnic minority groups but for Mexicans, no less than 78 percent of ethnic economy workers were foreign-born. The ethnic economy, in other words, is largely a phenomenon driven by and affecting immigrant workers. Mexican ethnic economies included a more heterogeneous mix of foreign-born and native-born workers, however. In 1990, for instance, foreign-born workers comprised only 57 percent of Mexican ethnic economy workers. Mexicans have faced generations of exclusion from mobility in the mainstream economy (Telles and Ortiz 2009), and despite the ubiquity of Mexican ethnic economies across the U.S., Mexican ethnic economies have historically been smaller than those of other groups and have offered fewer opportunities for upward mobility (Guarnizo 1997, Oberle 2006, Portes and Bach 1985).

Ethnic Economy Suburbanization

Figure 2.2 reveals the extent to which ethnic economy suburbanization followed general work decentralization, the association posited by Hypothesis 2.1c. To simplify the presentation, I limit the figure to groups emblematic of larger trends. The average number of Whites working in a central city dropped by almost one-fourth from 1990 to 2010, while the number in the suburbs doubled. Among ethnic minority groups, only Korean ethnic economies followed a similar trend. Dominican ethnic economies hardly suburbanized throughout the same time period. Chinese ethnic economies, in a different manner, grew substantially in the suburbs but also grew in the city. Finally, Mexican ethnic economies grew roughly equivalently in both the city and suburbs. In sum, ethnic economies suburbanized in unique ways that differed from the majority group and violated the general trend toward work decentralization. I thus reject the hypothesis that ethnic economy suburbanization was due to general work decentralization.

Figure 2.2. Median Number of Ethnic Economy Workers for Selected Groups, By Year



Rather than highlight workers in White ethnic economies, the first bar chart refers to those industries in which native-born, non-Hispanic Whites workers were overrepresented locally as self-employed and wage workers.

Table 2.2 shows regressions that test Hypotheses 2.1a and 2.1b, which posit that the suburbanization of ethnic economies was due to the suburbanization of ethnic and non-ethnic market demand, respectively. Model (1) shows that ethnic economy suburbanization was statistically

significantly associated with ethnic residential suburbanization, and Model (2) shows that non-ethnic residential suburbanization was not likely associated with ethnic economy suburbanization, which upholds Hypothesis 2.1a and rejects Hypothesis 2.1b. Model (3), which combines ethnic and non-ethnic residential suburbanization into one regression and controls for other factors, further supports the argument that ethnic residential suburbanization drove ethnic economy suburbanization. Furthermore, a comparison of Models (1) and (3) shows that, of the 25 percent of variation in ethnic economy suburbanization explained by the independent variables, 17 percent is attributable to ethnic residential suburbanization. In other words, ethnic residential suburbanization explained a great deal of ethnic economy suburbanization.

As discussed earlier, it is important to address whether the results were due to the decline of ethnic demand in the city rather than the growth of ethnic demand in the suburbs. Models (4) through (6) demonstrate that this was not the case. Interestingly, in Model (6), more educated ethnic populations were associated with less ethnic economy suburbanization. Highly agricultural metro areas, such as Modesto, CA or Fayetteville, NC, drove this result. In addition, although the association was small, the proportion of the ethnic population that was native born was positively associated with ethnic economy growth in the suburbs. The association between nativity and suburban ethnic economies was driven primarily by Mexican suburbanization. Mexicans have long been highly suburbanized across the country (Lichter et al. 2010, Logan et al. 2002). When Mexicans are omitted from the model, all significant associations persist excepting for the one pertaining to native-born suburbanization.

Models (7) through (10) run comparable models on native-born, non-Hispanic Whites. Including all controls, no statistically significant association existed between White residential suburbanization and the suburbanization of overrepresented industries. Instead, unlike for ethnic minorities, the Index of Net Difference of City and Suburban Incomes was negatively, significantly associated with industrial suburbanization. The importance of the Index makes sense: Whites had much more freedom than

Table 2.2. Fixed-Effect Regressions of Ethnic Economy Suburbanization on Select Variables, 1990-2010

	Ethnic Economies						Non-Hispanic Whites			
Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
Independent Variables										
% EP Living in Suburbs	0.61***		0.67**				0.91***	0.29		
	(0.17)		(0.21)				(0.15)	(0.30)		
% Non-EP Living in Suburbs		0.52	0.04					0.32		
		(0.30)	(0.41)					(0.12)		
ln(# EP Living in Suburbs)				0.94**		0.97*			0.69*	0.71
				(0.29)		(0.41)			(0.26)	(0.49)
ln(# Non-EP Living in Suburbs)					0.87	0.27				-0.52
					(0.61)	(0.78)				(0.38)
Control Variables										
% Suburban EP in Poverty			-0.05			0.02		0.05		-0.02
			(0.18)			(0.01)		(1.16)		(0.06)
% EP College Educated			0.01			-0.09***		-1.78*		-0.07
			(0.33)			(0.02)		(0.78)		(0.04)
% EP High School Educated			-0.62			-0.04*		-0.87		-0.09
			(0.32)			(0.02)		(0.93)		(0.05)
Index of Net Difference of City			0.15					-0.82*		-0.03*
and Suburban Incomes[1]			(0.40)					(0.36)		(0.02)
% EP Recent Immigrants[2]			-0.53*			0.02				
			(0.26)			(0.02)				
% EP Native Born			0.09			0.04*				
			(0.23)			(0.02)				
% Suburban EP			0.03			0.04*				
Linguistically Isolated[3]			(0.25)			(0.02)				
EP Fixed Effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	204	204	204	204	204	204	84	84	84	84
R^2	0.17	0.10	0.25	0.45	0.39	0.54	0.48	0.64	0.10	0.28

*p < 0.05, **p < 0.01, ***p < 0.001
'EP' refers to the local ethnic population of the MSA in which the ethnic economy could be found.
1. See Lieberson (1976).
2. Recent immigrants are those who moved to America within the five years prior to when data were collected.
3. Linguistic isolation includes those members of the local ethnic population who spoke little to no English.

ethnic economy participants to find and choose work where incomes were highest, so more lucrative central city jobs were likely to slow down the suburbanization of industries in which Whites were overrepresented.

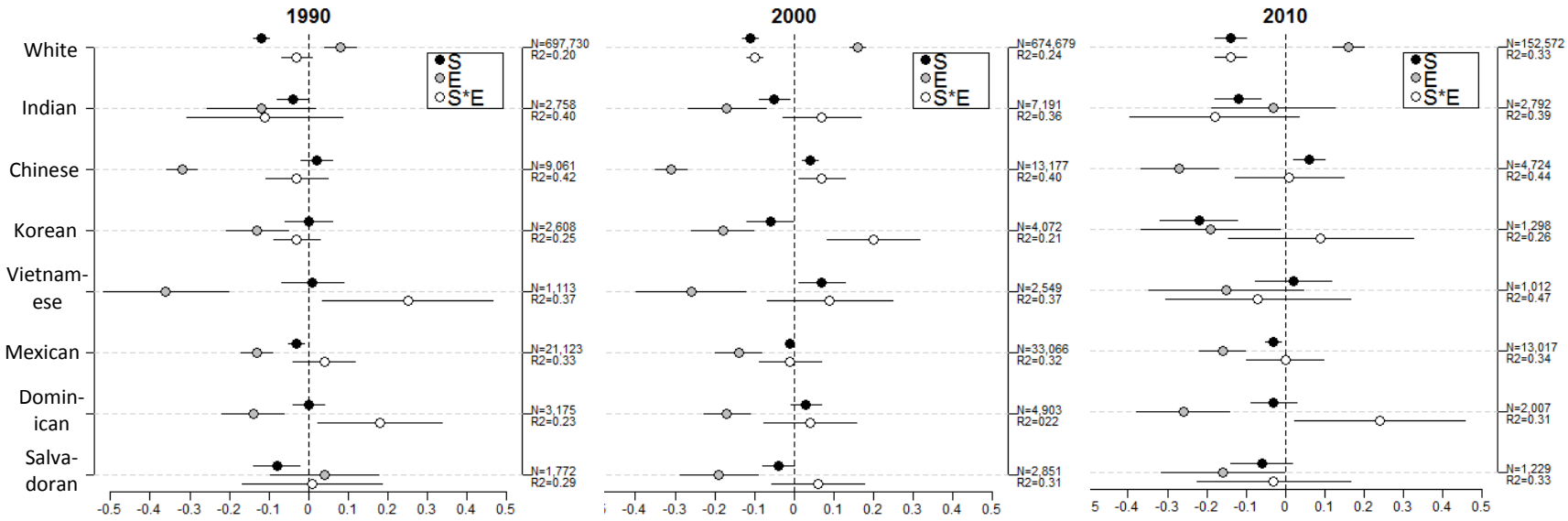
Ethnic Economy Suburbanization and Income Attainment

Figure 2.3 provides a coefficient plot revealing that suburban ethnic economies did not pay better than urban ones, controlling for other factors. I present a coefficient plot because I run individual-level regressions for each group in each year and am consequently unable to present regression tables for all 24 regressions. In the coefficient plot, a dot is the effect size of a given independent variable, and a line represents the associated 95 percent confidence interval. A dot whose line does not cross zero is statistically significantly different than zero at the five percent level. As mentioned earlier, I omit Jamaicans and Filipinos due to small Ns.

The black dots, which correspond to the association between logged annual income and working in the suburbs, are fairly consistently negative, meaning that working in the city yielded a higher income. Suburban work generally offers lower wages because job opportunities closer to a central business district are associated with higher nearby housing prices as well as greater transportation costs for workers living far away. Higher wages in the city offset these higher subsistence costs (Bartik and Eberts 2006). The grey dots in Figure 2.3 tell a more compelling story: In almost all cases, irrespective of suburban status, ethnic economy work was associated with lower wages. The ethnic economy is often a means of subsistence for immigrant workers, employing the least employable workers, so this finding is unsurprising (Light et al. 1994).

The white dots in Figure 2.3 reveal whether or not working in the suburban portion of the ethnic economy mitigated—or even compensated for—the wage penalty associated with ethnic economy work. Of the 24 regressions presented in Figure 2.3, only five regressions demonstrated a statistically significantly higher wage in the suburban rather than the urban portion of the ethnic economy. Put another way, suburban ethnic economy work likely provided no advantage to ethnic economy workers and was associated with similar wages as the city. Of the five instances in which suburban ethnic economy work was statistically significantly associated with a higher wage, only one group—

Figure 2.3. Coefficient Plots of Unweighted OLS Regressions of Logged Annual Income on Key Correlates by Year



This figure provides the regression estimates of the variables S, E, and S*E in regressions specific to workers belonging to a particular group in a particular year. S is a dummy variable indicating whether a person worked in the suburbs. E is a dummy variable indicating whether a person worked in one of the group's ethnic economies. S*E indicates whether a person worked in the suburban portion of the group's ethnic economy. For Whites, E refers not to ethnic economies but rather to industries in which they were overrepresented. Filipinos and Jamaicans are dropped from the analysis due to small Ns. A dot provides a regression estimate, and a line provides a 95 percent confidence interval. The number of cases and R^2 of each regression are reported on the right-hand side of each year's results. Consult the text for a list of the control variables in each regression.

Dominicans—demonstrated a higher suburban ethnic economy wage in more than one point in time. The suburban ethnic economy wage advantage for Dominicans only occurred in 1990 and 2010, not 2000. By and large, the suburban portion of the ethnic economy appeared to offer no income advantage over the urban portion, which supports Hypothesis 2.2b.

Discussion and Conclusion

International migration to the suburbs is changing both the character of suburban areas as well as immigrant incorporation patterns. Ethnic economy creation is an important part of immigrant incorporation, as it provides jobs and, on occasion, opportunities for upward socioeconomic mobility (Light and Gold 2000, Portes and Bach 1985, Waldinger et al. 1990). Little research has studied ethnic economy growth in the suburbs, and much of it has been confined to the study of ethnoburbs: highly successful, rare suburban ethnic economies noted for their integration into the global economy (Li 2009, Wen et al. 2009, Zhou et al. 2008). This chapter went beyond ethnoburbs to study suburban ethnic economies on a larger scale, capturing all types of ethnic economies growing in the suburban U.S. The analysis reveals that ethnic economy suburbanization is tightly coupled with ethnic residential suburbanization, and that most suburban ethnic economies provide earnings comparable to those earned in urban ethnic economies. This finding provides a counterpoint to the ethnoburban literature, which only focuses on highly successful suburban ethnic economies.

This chapter is perhaps the first ever attempt at measuring ethnic economy suburbanization on a large scale. It is consequently inevitable that future research will need to build upon this analysis and provide a more nuanced portrait of suburban ethnic economies. For example, this analysis included metro areas in which the urban-suburban distinction could be cleanly identified using PWPUMAs. This approach omits some large, sprawling immigrant gateways such as Los Angeles and Houston. Individual case studies nonetheless show that the trends in this chapter are occurring in these places as well. In

Houston, Chinese enterprises have penetrated the suburbs alongside Chinese residents since the 1980s (Lin 1998:322-323). Some of Atlanta's most successful immigrant-owned businesses are in the suburbs, where large ethnic concentrations live (Odem 2008). Finally, Mexican businesses are following Latinos into the outskirts of Phoenix as well (Oberle 2006). In the future, this chapter can be complemented by surveys on these metro areas to determine if the trends are widespread.

Additionally, this chapter makes no distinction between different types of suburbs. The growth in suburban poverty has largely concentrated in inner-ring suburbs, while the foreclosure crisis of the late 2000s had a greater impact on outer suburbs (Hanlon 2010, Kneebone and Berube 2013). By grouping different types of suburbs together, the relationship between ethnic economy suburbanization and income might be obscured. This study is a first pass at an issue that should be studied at a variety of levels of geography, and future research should investigate data at a finer-grained level.

In the end, this chapter supports the growing literature that highlights how immigrant incorporation and adaptation processes in the suburbs increasingly resemble those in cities (Jones-Correa 2008, Lichter et al. 2010, Murphy 2007:27, Suro et al. 2011). Immigrants living and working in the U.S. suburbs have traditionally been associated with relative prosperity over their urban counterparts (Alba et al. 1999, Massey 1985), yet today's international migration streams are altering the association between the U.S. suburbs, relative prosperity, and the economic incorporation of immigrants into the mainstream labor market. As international migration to the suburbs continues, and as many suburbs cease to be a haven for the most privileged Americans, it is likely that immigrant adaptation processes in the suburbs will increasingly reflect those in the city, at least in terms of ethnic economy development (Kneebone and Berube 2013, Light and Gold 2000, Singer et al. 2008).

Chapter 3: Suburban Ethnic Economies and Economic Downturns

Economic downturns are rarely experienced equally by all workers. Throughout American history, recessions have generally pushed immigrant workers into unemployment at a greater rate than native-born workers who belong to majority groups (Elsby et al. 2010, Lieberson 1980, Light 1979). For instance, during the Great Recession, which lasted in the United States from December 2007 to June 2009, the unemployment rate reached a high of 9.2 percent for immigrants versus a high of 8.3 percent for native-born workers (Orrenius and Zavodny 2009:3). Immigrants also experienced some of the largest losses in household wealth during the same period (Wolff et al. 2011).

In prior recessions, immigrants and ethnic minorities have sometimes exploited ethnic economies to avoid downward mobility (Boyd 2000, Light 1972, Light 1979, Tenenbaum 1993:59). Certain historical instances have demonstrated that, during economic downturns, ethnic economies operate under a unique logic that counters that of the open labor market. Ivan Light summarizes that logic this way:

> In hard times, it was meritoriously customary for Chinese employers [in America] to take on *extra* help in their businesses, rather than to fire surplus hands. This custom contrasts dramatically with capitalist theory and practice, and nicely indicates the manner in which the clannish social relationships of employer and employee influenced the conduct of Chinese businesses (1972:89).

If this logic pervades ethnic economies on a large scale, then scholars must include ethnic economies in their understandings of how the business cycle affects immigrant workers. Many scholars discuss out-migration as a response of foreign-born workers to recessions (e.g. Cadena and Kovak 2013, Carter and Sutch 1999, Kindleberger 1967), but few treat ethnic economies as a meaningful alternative. Testing this logic on a large scale, moreover, addresses an important gap in the literature. Little nationally representative research has addressed the effects of ethnic economies on group-level outcomes such as unemployment rates rather than individual-level outcomes such as becoming

unemployed, which has obscured the mechanisms linking ethnic economies to social stratification systems (Bean et al. 2001, Spener and Bean 1999). Considering both the vulnerability of immigrant workers in the open labor market and the tendency for recessions to exacerbate long-term inequality (Smeeding et al. 2011), these mechanisms should be analyzed further.

The immigrant experience during the Great Recession was unique in American history due to the spatial dispersal of international migrants into suburban areas. Although many immigrants continued to concentrate in densely populated neighborhoods in central cities, as had been the case in prior epochs, others branched out into the suburbs to both live and work (Liu and Abdullahi 2012, Singer et al. 2008). The suburbs experienced a rapid increase in poverty during the 2000s (Kneebone and Berube 2013), and suburban job growth has been associated with suburban communities whose minority populations are small (Stoll et al. 2000). Scholars are only beginning to grapple with the consequences of immigrant suburbanization, although research fairly consistently argues that immigrants are disadvantaged due to a lack of public transportation, language services, and job placement programs in the suburbs compared to the city (Allard and Roth 2010, Liu and Painter 2012). More importantly, as immigration diffuses into suburban areas, the strong community bonds that support ethnic economies may have diminished. The fate of immigrant communities during recessions may consequently play out in unique ways in the suburbs.

In order to address these issues, this chapter uses American Community Survey data on ethnic workforces in the top 100 largest metropolitan areas in the United States during the Great Recession to ask two questions. First, can ethnic economies protect immigrant workers from negative outcomes such as increased unemployment during recessionary periods? Second, in light of the fact that many suburbs offer few public services that support foreign-born populations, was the effect of the Great Recession worse on suburban rather than urban ethnic economies? The answers to these questions matter a great deal for scholars of international migration, social stratification, and urban studies.

Literature Review

When the economic output of a region falls, unemployment rates tend to rise, which can lower consumer spending and business investment, thereby feeding a downward economic spiral. The Great Recession exemplifies this principle. After the collapse of the housing market led to the failure of many industrial sectors associated with it, the American economy went through a slump in which the nation lost 8.5 million jobs, yielding an unemployment rate that peaked at 10.4 percent (Hout et al. 2011). The official poverty rate increased from 12.5 to 15.0 percent during this period as well (Danziger et al. 2012).

Much work has analyzed the effect of economic downturns such as the Great Recession on immigrants, and this literature has identified three responses of immigrant workers to the threat of unemployment: leave the country, move to a better-performing local labor market, or turn to self-employment. Immigrants can choose to leave the host country, either going back home or moving to another host country, in order to avoid unemployment (Carter and Sutch 1999, Kindleberger 1967). Data show that exits played a minor role during the Great Recession. The proportion of the American population that was foreign-born did level off during the recession, but this was largely due to a lower number of entries into the U.S., a common occurrence during economic downturns (Massey 2012, Papademetriou and Terrazas 2009).[9] Second, immigrants may move from poorly performing to better performing local labor markets within the host country. At least one group of scholars, for example, estimates that the internal migration patterns of the Mexican-born workforce during the Great Recession reduced the effect of local labor demand shocks on low-skilled native-born workers by more than 40 percent (Cadena and Kovak 2013). Finally, foreign-born workers may turn to self-employment. Self-employment is a common response to economic recessions even among native-born workers (Fairlie 2013). Nonetheless, because immigrants can face added barriers to mobility while doing wage work, they may be more inclined to move into self-employment (Catron 2014, Light 1979). During the

[9] The entry of undocumented immigrants ceased during this period as well.

Great Recession, self-employment indeed increased among some immigrant groups, although the role played by ethnic economies in this phenomenon remains unknown. Immigrant self-employment during the Great Recession has only been measured and analyzed as an individual-level process (Catron 2014, Lofstrom et al. 2011).

Ethnic economy scholarship often presumes the existence of a stable macroeconomic environment. During economically stable, non-recessionary periods, ethnic minority business owners and their co-ethnic employees can pool their capital and labor to dominate a niche or several niches of the economy. The dense social networks of ethnic workers facilitate the flow of information among co-ethnics and help them find jobs in the ethnic economy. Ethnic economies can even provide a training ground for newly-settled immigrant workers to learn a trade and start a business of their own, thus expanding the employment opportunities for co-ethnics (Bailey and Waldinger 1991, Light and Gold 2000, Waldinger et al. 1990).

Although much has been written about ethnic economies during stable economic times, less is known about how they function during economically unstable times. Occasionally, historical case studies have shown an important role for ethnic economies during recessions. Ethnic economies protected some immigrant workers during the Great Depression, the most severe economic downturn in United States history, lasting from 1929 to the early 1940s. For instance, Depression-era *kenjinkai*, or Japanese social organizations, acted as employment agencies for Japanese welfare recipients (Light 1972:63). This was no trivial matter. Bonacich and Modell estimate that, in 1941, 56.2 percent of Japanese males and 44.4 percent of Japanese females in the United States worked in an ethnic economy (1980:40). Beyond the Japanese, case studies have shown that African-American business startups and employment rolls grew in industries catering to fellow African-Americans during the same period (Boyd 2000), and Jewish credit agencies provided loans to co-ethnic business owners with the explicit purpose of preventing the collective reversal of Jewish gains in the U.S. (Tenenbaum 1993:59). The Great

Depression was not the only era in which ethnic economies provided employment to immigrant workers. Ethnic self-employment increased during the recessionary 1970s in the United States, affecting Chinese, Japanese, Mexican, and Indian entrepreneurs alike (Light 1979).

Less is known about the effect of ethnic economies on workers during the Great Recession. Ethnic economies, however, were an important phenomenon in the years leading up to the recession. Averaged estimates across 99 ancestry groups in the U.S. placed 15 percent of the ethnic minority labor force in an ethnic economy (Light and Gold 2000:32-33). And unlike in prior periods from which most evidence about ethnic economies comes, immigrants and their occupational patterns today are incredibly spatially dispersed. Immigrants traditionally tended to live in densely populated urban neighborhoods, and many ethnic economies started out by catering to co-ethnic clientele in these neighborhoods (Waldinger et al. 1990).[10] Today's immigrants have spread all across the metropolitan U.S. to live and work, however, and they have created new spatial forms of immigrant community and economic activity. These spatial forms include heterolocalism and ethnoburbs, both discussed earlier (Li 2009, Zelinsky and Lee 1998), and ethnic neighborhoods (Logan et al. 2002). A common area of overlap among these spatial forms is that immigrants and immigrant-owned businesses are no longer confined to concentrated urban areas and have spread across the metropolis. As mentioned in the previous chapters, because of the suburbanization of jobs, increased housing prices in the city, and growing ethnic diversity of the suburbs, immigrants are sometimes bypassing cities altogether, shifting migration streams toward suburban areas (Hanlon 2010, Kneebone and Berube 2013, Singer et al. 2008). Suburban municipalities have been grappling with these demographic changes, and unlike cities, which are more likely to have a history of immigration as well as an infrastructure for helping them adapt to local conditions, suburbs are sometimes ill-equipped to incorporate their changing populations into the polity and economy. Suburbs offer fewer language services, have a weaker public transportation

[10] For the sake of brevity and to focus on the more common types of ethnic economies, this discussion excludes the development of middleman minority ethnic economies (Bonacich and Modell 1980).

infrastructure, and can be more hostile toward immigrants than cities (Allard and Roth 2010, Jones-Correa 2008, Kneebone and Berube 2013). Immigrant-owned businesses in these environments are less likely to protect workers because they are likely struggling with local economic and social conditions.

In sum, despite the importance of ethnic economies during downturns suggested by previous research, little to no nationally representative research has tested if ethnic economies have any effect on immigrant workforces across urban and suburban communities. Prior research, moreover, takes little account of how labor market conditions may differ between cities and suburbs, or even within suburbs themselves. The next sections will lay out a nationally representative test of the protective effect of local ethnic economies during economic recessions.

Hypotheses

It is unclear whether or not ethnic economies have any effect on unemployment rates during economic downturns. During recessions, however, there can be normative pressure among immigrant and ethnic minority communities for co-ethnic business owners to provide jobs to unemployed co-ethnics (Light 1972:89). Furthermore, the density of social networks within ethnic communities enables ethnic economy workers to connect unemployed co-ethnic job seekers to job vacancies (Light and Gold 2000:119-120, Portes and Sensenbrenner 1993, Waldinger et al. 1990). Ethnic economies may consequently decrease the unemployment rate among co-ethnics during downturns. The protective effect of ethnic economies should be particularly strong where a greater proportion of the ethnic workforce is in the ethnic economy. If the proportion of the ethnic workforce in the ethnic economy is small, then an unemployed ethnic worker in the open labor market may struggle to draw on the network of co-ethnics who can help them find an ethnic economy job.

> ***Hypothesis 3.1****: For each community-level ethnic workforce, as the proportion of workers in the ethnic economy prior to the onset of the economic downturn grows, the greater the decrease, or the smaller the increase, in the community-level ethnic unemployment rate at the end of the downturn.*

Urban and suburban ethnic communities may not face a similar set of conditions, however. During economic downturns, the spatial dispersal of ethnic economy workers across cities and suburbs poses additional complications. First, increases in unemployment may be greater among suburban ethnic workforces because safety nets are not in place to help minority populations (Kneebone and Berube 2013). Second, suburban ethnic economies have less capacity to absorb workers because they are newer and smaller than many urban ethnic economies (see Chapter 2). Third, the lower density of suburban communities may translate into less efficient communication across social networks that can connect the unemployed to job vacancies. Consequently, Hypothesis 3.2 speaks to the distinction between urban and suburban communities.

> ***Hypothesis 3.2****: For each local ethnic workforce, a greater proportion of workers in the ethnic economy prior to the onset of the economic downturn will slow down growth in the unemployment rate. Among suburban local ethnic workforces, however, a greater proportion of workers in the ethnic economy prior to the onset of the economic downturn will yield an increase in the local ethnic unemployment rate.*

Data

Data come from American Community Survey (ACS) microdata on 25 to 64 year olds in the largest 100 metropolitan statistical areas (MSAs) in the United States. Pre-recession values come from the 3-Year 2005-7 ACS; post-recession values come from the 3-Year 2009-11 ACS. Although the recession officially occurred between the end of 2007 and the middle of 2009, which overlaps with what I identify as the pre- and post-recessionary eras, data were mostly collected outside the time bounds of the recession. Furthermore, the effects of the recession on labor markets, including unemployment, lasted well beyond 2009 (Hout et al. 2011). One could use the annual ACS estimates to conduct an analysis of ethnic economies throughout the Great Recession, but I look at ethnic economies for specific ethnic groups in specific communities. Annual samples would be too small to conduct this type of

analysis and would put the estimates' reliability into question. It is better to use 3-year estimates, which balance the ability to identify before and after conditions with the stability of estimates.

The smallest geographic unit on which data are available is the Public Use Microdata Area (PUMA), a geographical unit consisting of 100,000 to 200,000 residents. Similar to the use of Census tracts as a proxy for neighborhoods, PUMAs are a proxy for local communities (Owens and Sampson 2013:4). The ethnic workforce in a given PUMA is this chapter's unit of analysis. Although the analysis of Hypothesis 3.1 ignores urban or suburban status, the analysis of Hypothesis 3.2 requires one to operationalize suburban status clearly. Scholars have distinguished between suburbs and cities in many ways (Hanlon 2010), and for the purposes of this chapter, I treat the first city in each MSA's name as the central city and treat the remainder of the MSA as suburbs. Although this ignores the urban condition of secondary cities in a metropolitan area, prior research has found this to be a sufficient strategy for identifying suburbs when analyzing labor market processes across the city-suburb divide (Berube and Frey 2005).

Even though the unit of analysis is the ethnic workforce at the PUMA level, I identify those industries comprising ethnic economies at the level of the metropolitan area because ethnic niches tend to be fairly consistent across metropolitan areas. A comprehensive analysis of ethnic economies nationwide found the majority of ethnic economy industries to be nearly identical when analyzed at the level of the city or the entire metropolitan area (Logan et al. 1994). Many PUMAs, furthermore, are so small that estimating the overrepresentation of workers in particular industries leads to large variation in ethnic economy profiles, often inconsistent with prior literature. It is a safer assumption that ethnic economy industries be defined at the metropolitan level.

In addition, a focus on residential PUMAs rather than place-of-work PUMAs can be an appropriate approach to studying the community-level dynamics of ethnic economy workforce characteristics. Although workers may live in one PUMA and work in another, evidence has shown that

job search among low-skilled immigrant workers susceptible to working in an ethnic economy can occur through friends and family in local neighborhoods (Elliott and Sims 2001). Even more, evidence shows how access to high quality job networks are often concentrated in particular residential areas. Unemployed workers as a group are often spatially concentrated (Elliott 1999). Finally, although the most successful ethnic business owners may move to a better neighborhood or town while maintaining their business in the local ethnic economy, ethnic economy workers frequently live near where they work (Portes and Jensen 1992, Wang 2010).

In order to determine the set of industries that are likely part of a group's ethnic economy, I use the same industrial odds ratios discussed in Chapter 2. This approach was introduced into the literature by Logan et al. in 1994 and has inspired much work since (e.g. Logan et al. 2002, Model 1992). To reiterate, if the odds ratio of self-employed and wage-working ethnic workers in a given industry is greater than or equal to 1.5, then all of the ethnic workers in that industry are treated as part of the ethnic economy in that metro area.[11] I only use the pre-recession sample to identify ethnic economy and non-ethnic economy industries, applying the distinction to individuals in both the pre- and post-recession samples. When the odds ratio method is applied to the post-recession sample, the industries identified as part of the ethnic economy are similar to the pre-recession sample, meaning that ethnic economies did not grow into other niches in response to the recession.

Methods and Variables

The data include only those national-origin groups that grew through immigration and had more than 500,000 members in 2000. These groups include Asian Indians, Chinese, Korean, Vietnamese,

[11] Results are largely consistent no matter the odds ratio cutoff used above 1.5. However, as the odds ratio cutoff grows higher, Chinese ethnic economies make up more of the data set because of their ubiquity in metropolitan areas and the remarkable concentration of many Chinese workers in the restaurant industry. An odds ratio of 1.5 balances the need to capture overrepresentation while maintaining the flexibility necessary to find ethnic economies under a variety of industrial contexts.

Mexicans, Cubans, Dominicans, and Salvadorans.[12] The *dependent variable* used to test Hypothesis 3.1 is the change in the PUMA-level unemployment rate from before to after the recession for the ethnic workforce in question. The *independent variable* is the proportion of the PUMA-level ethnic workforce that worked in the local ethnic economy prior to the recession. A fundamental problem of analyzing the effect of ethnic economy workers on unemployment change is that the analysis will select on those PUMAs that have ethnic economy workers. In other words, one must control for the bias inherent in studying the association between ethnic economy workers and unemployment even though not all PUMAs have ethnic economy workers.

In order to control for this selection bias, I apply a Heckman correction, a two-step procedure to test the hypotheses (Heckman 1979). The first step involves the calculation of a probit model of regressors that determine the likelihood of a PUMA's ethnic workforce having workers in the ethnic economy. These include the logged ethnic population of each PUMA, the percent of the PUMA-level ethnic population that is foreign-born, and the proportion of the PUMA-level ethnic workforce that is self-employed, each of which has been shown to positively influence ethnic economy creation (Evans 1989, Light and Gold 2000, Waldinger et al. 1990). The estimates of this probit model are then used to calculate the inverse Mills ratio, λ, which is used as a regressor in a second equation. The second equation is an OLS equation that tests the association between unemployment growth and the pre-recession portion of the workforce in the ethnic economy. This second equation, used to test Hypothesis 3.1, is shown below.

$$\Delta U_{wp} = \beta_0 + \beta_1 E_{wp} + \sum_{j=1}^{k} \beta_{jwp} C_{jwp} + \sum_{q=1}^{r} \beta_{qm} C_{qm} + \varphi_0 \lambda_{wp} + e \qquad (3.1)$$

[12] Although this list should also include them, I omit Filipinos and Jamaicans from the analysis. These groups have such small ethnic economies that ACS estimates on them are virtually non-existent. This finding follows prior wisdom (Kasinitz and Vickerman 2001, Min 1986).

where ΔU_{wp} is the change in the unemployment rate from the pre- to post-recession periods for a given local ethnic workforce w in a given PUMA p, E_{wp} is the proportion of the pre-recession ethnic workforce that was in the ethnic economy, C_{jwp} is a series of k control variables at the level of the ethnic workforce w in PUMA p, C_{qm} is a series of r control variables at the level of the metropolitan area m, and φ_0 is the regression coefficient of λ_{wp}, which can be seen as the estimator of the covariance between the errors in the equation predicting having ethnic economy workers and the errors in the equation predicting unemployment change. Note that I combine all of the ethnic groups into one regression equation. I do this in order to identify overall trends affecting ethnic minority workers. Later on, I present results disaggregated by group in order to identify variation within each group's experience.

Control variables include the average age, age squared, and years of education of the PUMA-level pre-recession ethnic workforce, as well as the proportion of the PUMA-level pre-recession ethnic workforce that was male or immigrant. Some evidence shows that unemployment grew worse during the recession for very young and very old workers as well as the less educated, males, and the foreign-born (Elsby et al. 2010). Controls also include the pre-recession industrial mix of the metropolitan area, operationalized as the proportion of the overall workforce in construction, manufacturing, and retail, respectively. These industries were hit harder by the Great Recession than others (Hout et al. 2011), and changes in PUMA-level employment may in part be attributable to this fact.[13] Finally, I include dummy variables for ethnic group because certain ethnic groups had more PUMAs with ethnic economy workers than others.

I test Hypothesis 3.2 using the same model specification as Equation (3.1) excepting that I include another independent variable that interacts the proportion of workers in the ethnic economy with the suburban status of the PUMA. Both Hypotheses 3.1 and 3.2 are also tested on native-born,

[13] I did not use a multilevel model in which PUMAs were nested in MSAs because the intraclass correlation among metro area industrial mixes was 0.05. The low intraclass correlation indicates that only five percent of variation in my model came from MSA-level industrial mix variables, a negligible amount.

non-Hispanic Whites and Blacks as a means of comparing the ethnic minority models to majority groups. For Whites and Blacks, rather than identify ethnic economy industries, I use the same odds ratio calculation noted earlier to identify the industries in which these respective racial groups were overrepresented. Although Whites and Blacks may be overrepresented in certain niches of the economy, the density of networks and sense of shared fate that characterize many who participate in ethnic economies are likely weaker because characteristics such as linguistic isolation or a lack of citizenship occur less frequently among native-born, non-Hispanic Whites or Blacks (Portes and Sensenbrenner 1993). Consequently, the niching of Whites or Blacks in certain industries should provide less protection from unemployment than should ethnic economies.

Results

Characteristics of Ethnic Economies and Their Growth during the Great Recession

To understand the potentially protective effect of ethnic economies during the Great Recession, one must first understand the industrial, occupational, and geographic composition of ethnic economies prior to the onset of the recession. In terms of industries and occupations, the construction, transportation, and retail industries—particularly those involving restaurants and groceries—dominated many ethnic economies, a common occurrence throughout history due to the low costs of entry (Light and Gold 2000, Waldinger et al. 1990). Certain unique concentrations within these industrial categories were apparent, however, many of which have been recorded in previous scholarship. For instance, Chinese gravitated toward restaurants (53 percent of ethnic economy workers nationwide did so), Vietnamese toward hairdressing and cosmetology (51 percent did so), Mexicans toward construction (35 percent did so) and Koreans toward laundry (11 percent did so) (Kang 2010, Liang and Li 2012, Yoon 1997). The most common industries among Whites and Blacks were respectively construction (17 percent) and trucking (20 percent). In terms of geography, four metro areas—Houston, New York,

Washington D.C., and Atlanta—had ethnic economies for all eight ethnic groups included in the data set. Twenty-eight metro areas only had an ethnic economy for one group, usually Mexicans because these metros were almost all new immigrant destinations fueled by Mexican immigration (Massey and Capoferro 2008).

With regards to change over time, ethnic economy workforces grew by 2.5 percent on average from before to after the Great Recession. This growth rate compares to an average of a 1.6 percent growth rate in PUMA-level workforces overall. More importantly, in order to determine how non-ethnic workers comparable to ethnic economy workers fared during the recession, I create a measure I call the non-ethnic growth rate. The non-ethnic growth rate isolates the industries of each PUMA-level ethnic economy workforce and tallies the number of non-ethnic workers in those same industries in those same PUMAs from before to after the recession. The average non-ethnic growth rate was -1.5 percent, implying a contraction among non-ethnic workforces in ethnic economy industries. The faster pace of growth of ethnic economies during the Great Recession supports the possibility that ethnic workers used ethnic economies as a means of avoiding unemployment, particularly considering that non-ethnic workforces in the same industries as ethnic economies decreased in size during the same time period.

Ethnic Economies and the Unemployment Rate

Table 3.1 presents descriptive statistics of major variables in the data set. As mentioned earlier, the ethnic minority data set combines all ethnic groups together, and each row of the data set includes information on a PUMA-level workforce type. Among majority groups, I omit information on the proportion of the non-Hispanic White and Black workforces that was foreign-born because I restrict those samples to the native-born. There are three important takeaways from Table 3.1. First, on average, the local ethnic workforces included in the data set were heavily comprised of foreign-born

workers. When one talks of ethnic economies in America, they are in large part discussing a phenomenon driven by and affecting foreign-born workers, a finding verified by others (Nee et al. 1994,

Table 3.1. Descriptive Statistics of Key Variables

	All Ethnic Workforces		Non-Hispanic Whites		Non-Hispanic Blacks	
Variables	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Dependent Variable						
ΔUnemployment Rate	3.31	6.24	3.58	3.04	4.68	5.44
Independent Variable						
Proportion in EE (in %)[1]	16.48	11.50	27.07	8.30	10.74	5.21
Control Variables						
Mean Age of Workforce (in Yrs)	41.04	3.96	45.26	1.80	43.52	1.85
% of Workforce That Was Male	50.59	13.71	50.03	3.19	46.93	6.56
% of Workforce That Was Foreign-Born	80.50	21.64				
Mean Years of Education of Workforce	13.52	2.48	14.37	0.94	13.48	0.76
Industrial Mix of MSA						
% of Workers Overall in Construction	10.28	2.19	11.12	2.35	11.07	2.26
% of Workers Overall in Manufacturing	10.82	3.87	11.66	4.26	11.27	4.05
% of Workers Overall in Retail	13.16	1.10	13.34	1.09	13.25	1.04
Suburb	0.71	0.45	0.69	0.46	0.64	0.48
N_U	1993		1250		835	
N_C	2305		14		422	
N	4298		1264		1257	

1. 'Proportion in EE' refers to the proportion of the local ethnic workforce that works in the ethnic economy. For Whites and Blacks, rather than the proportion in the ethnic economy, this metric can be interpreted as the proportion of the local racial workforce that is overrepresented as self-employed and wage workers in local industries.

Values are specific to each local ethnic workforce. In addition, values are only taken from the pre-recession period unless preceded by **Δ**, in which case the value represents the change in the variable from the pre- to the post-recession periods. Furthermore, 'N_U' refers to the number of uncensored values, and 'N_C' refers to the number of censored values.

Portes and Shafer 2007). Second, growth in the unemployment rate was less among ethnic minorities than for Whites. Growth in unemployment was different for Asian and Hispanic groups, however. The growth in the unemployment rate among Asians was 2.46 percent on average, whereas it was 4.04 for Hispanics. Others have shown that unemployment grew less for Asians than Whites during the Great Recession, while Hispanics suffered higher growth in unemployment (Elsby et al. 2010). I address this more in detail later in the chapter. Third, ethnic workforces were slightly more suburbanized than Whites, which may demonstrate the degree to which the suburbs are diversifying (Kneebone and Berube 2013). When the data set is restricted to those combinations of PUMAs and ethnic workforces that had at least one ethnic economy worker, however, the suburban portion of PUMAs dropped to 67 percent, below the suburbanization rate of Whites.

Table 3.2 shows multivariate regressions that test Hypothesis 3.1, which argues that growth in the ethnic unemployment rate slowed as the proportion of the pre-recession workforce in the ethnic economy increased. Models (1) through (3) use as their dependent variable the change in the local ethnic unemployment rate. Model (4) uses as its dependent variable the change in the local ethnic employment-to-population ratio as a robustness check on the other models. Model (1) presents a baseline model that includes the key independent variable and standard control variables. This model shows a modest but statistically significant negative association between the proportion of workers in the ethnic economy and change in the unemployment rate. A one unit increase in the proportion of the local ethnic workforce in the ethnic economy prior to the recession was associated with a 0.02 unit decrease in ethnic unemployment growth. In addition, a more educated workforce was unsurprisingly associated with a decrease in unemployment growth. Finally, the proportion of the metro area's workers in construction prior to the recession was associated with a decrease in unemployment growth as well. This finding may appear to counter the story that the construction industry was hit hard by the Great Recession (Elsby et al. 2010), but this negative association was largely due to the fact that many

housing markets crashed in the pre-recession period, making the proportion of workers in the construction industry artificially low. For instance, the two metro areas with the lowest proportions of workers in the construction industry in the pre-recession period were Las Vegas, NV and San Jose, CA, both hit hard when the housing bubble burst. The final important piece of information in Model (1) is

Table 3.2. Regressions of the Change in the Ethnic Unemployment Rate on Selected Variables

	Ethnic Workforce Models				Non-Hispanic Whites	Non-Hispanic Blacks
Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Independent Variable						
Proportion in EE[1]	-0.02*	-0.02*	-0.02*	0.04*	0.05***	-0.06
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.04)
Control Variables						
Mean Age of Workforce	-0.17	-0.16	-0.14	-2.43	-1.76	3.71
	(0.73)	(0.72)	(0.72)	(1.39)	(1.04)	(3.24)
Mean Age^2 of Workforce	0.00	0.01	0.00	0.32	0.02	-0.04
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.04)
% of Workforce That	0.02	0.02	0.03	-0.13***	-0.03	-0.04
Was Male	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)
% of Workforce That	0.02	0.01	0.01	0.04*		
Was Foreign-Born	(0.10)	(0.10)	(0.10)	(0.02)		
Mean Years of Education	-0.22*	-0.22*	-0.24*	0.30	-0.78***	-0.31
of Workforce	(0.11)	(0.11)	(0.11)	(0.21)	(0.09)	(0.26)
Industrial Mix						
% of Workers Overall in	-0.21**	-0.21**	-0.19**	-0.07	-0.24***	-0.29**
Construction	(0.06)	(0.07)	(0.06)	(0.13)	(0.04)	(0.09)
% of Workers Overall in	-0.15	-0.15	-0.09	-0.14	-0.10	-0.33
Manufacturing	(0.29)	(0.30)	(0.29)	(0.57)	(0.16)	(0.40)
% of Workers Overall in	0.21	0.20	0.21	0.25	-0.04	0.42*
Retail	(0.16)	(0.16)	(0.16)	(0.30)	(0.08)	(0.21)
λ	-0.62	-0.63	-0.75	-3.11***		1.14
	(0.39)	(0.39)	(0.39)	(0.76)		(0.59)
Ethnic Group Controls	Yes	Yes	Yes	Yes	No	No
Other Control Variables						
E-Verify		0.16				
		(0.56)				
ΔPopulation, Logged			0.01*			
			(0.00)			
Intercept	7.91	7.92	6.86	43.40	72.65**	-65.68
	(15.33)	(15.34)	(15.29)	(29.58)	(24.44)	(70.36)
R^2	0.29	0.29	0.34	0.28	0.46	0.09

*p<0.05, **p<0.01, ***p<0.001

1. See note 1 of Table 3.1.

Values are specific to each local ethnic workforce. In addition, values are only taken from the pre-recession period unless preceded by **Δ**, in which case the value represents the change in the variable from the pre- to the post-recession periods.

that selection bias had little influence on changes in the unemployment rate.

Model (2) includes a control indicating whether or not a portion of a given metro area overlapped with a state that implemented E-Verify requirements through 2009. E-Verify is a program to ensure that all new hires in local businesses are authorized to work in the United States in order to deter the employment of undocumented immigrants. Ten states used E-Verify through 2009.[14] The implementation of E-Verify could have affected the relationship between the change in unemployment and the proportion of workers in the ethnic economy in two ways. First, E-Verify programs sometimes encouraged the out-migration of both documented and undocumented immigrant workers from states with punitive employment laws, which potentially left job vacancies available to others (Bohn and Lofstrom 2013). Second, undocumented immigrants may have avoided employment in mainstream economic enterprises, turning instead to self-employment or ethnic economy jobs that are less concerned with documentation status. This is what occurred after Arizona passed the Legal Arizona Workers Act (Lofstrom et al. 2011). Despite these possibilities, Model (2) shows that the addition of a control for E-Verify does not change the association between the independent and dependent variables.

Similarly, the addition of a control for ethnic population change from the pre-to-post recession periods has little effect on the association between ethnic economy workers and unemployment growth. As mentioned earlier, a common response to economic downturns is for immigrants to move away from high-unemployment areas (Cadena and Kovak 2013, Carter and Sutch 1999), which may have affected changes in the unemployment rate. Ethnic population change is added to Model (3), and here, Hypothesis 3.1 remains upheld. The positive association between population growth and unemployment change may appear to counter existing literature. Actually, the correlation between the pre-recession ethnic unemployment rate and population change during the recession was -0.04, suggesting that population change may in part have been driven by those workers leaving places that

[14] For a list of the states that implemented E-Verify laws during this period, see Liu and Edwards (2012).

had initially high unemployment rates rather than high unemployment rates during the recession. These workers likely drove up the unemployment rate wherever they moved by the recession's end. Regardless, the association between population growth and unemployment growth is modest and does not influence the association between the dependent and independent variables.

Some scholars argue that the employment-to-population ratio is a better measure of labor market vitality because the unemployment rate ignores those who may have dropped out of the labor force. In Model (4), which uses as its dependent variable the change in the ethnic employment-to-population ratio, a one unit increase in the proportion of the local ethnic workforce in the ethnic economy prior to the recession was associated with a 0.04 unit increase in the employment-to-population ratio, which further corroborates Hypothesis 3.1.

Finally, Models (5) and (6) test the effect of respective White and Black industrial overrepresentations on unemployment growth. The model for Whites uses OLS estimation without a Heckman correction because only three PUMAs had no White workers in over-represented industries. Among Whites, the association of interest moved in the opposite direction as it did for ethnic minority workforces. Ethnic workforces frequently suffer discrimination, language barriers, and a lack of credentials, all of which encourage the development of dense networks of social and economic support among ethnic communities and their ethnic economies (Portes and Sensenbrenner 1993, Waldinger et al. 1990). Non-Hispanic Whites generally lack these experiences, which means that they are less likely to form these types of support networks. It is therefore unsurprising to see that the association between unemployment growth and the industrial overrepresentation of White workers moved in the opposite direction as it did for ethnic workforces.

Table 3.3 shows regressions that test Hypothesis 3.2. Model (1) of Table 3.3 is simply the same as Model (1) of Table 3.2 with the addition of two independent variables: a dummy variable for the suburban status of a PUMA and an interaction for suburban status and proportion of workers in the

ethnic economy. When the interaction variable is added, the negative association between ethnic economies and lower unemployment growth becomes larger because this quantity now represents

Table 3.3. Regressions of the Change in the Ethnic Unemployment Rate on the Suburban Interaction Variable

Variables	Ethnic Workforce Model (1)	Non-Hispanic Whites (2)	Non-Hispanic Blacks (3)
Independent Variables			
Proportion in EE[1]	-0.05**	0.09***	-0.08
	(0.02)	(0.02)	(0.06)
PUMA is Suburban	-0.23	0.22	0.59
	(0.41)	(0.34)	(0.44)
EE*Suburban	0.04*	-0.05*	0.02
	(0.02)	(0.02)	(0.07)
Control Variables			
Mean Age of Workforce	-0.17	-1.57	3.79
	(0.72)	(1.04)	(3.30)
Mean Age[2] of Workforce	0.00	0.02	-0.05
	(0.01)	(0.02)	(0.04)
% of Workforce That	0.03	-0.06	-0.03
Was Male	(0.02)	(0.03)	(0.03)
% of Workforce That	0.04		
Was Foreign-Born	(0.10)		
Mean Years of Education	-0.22*	-0.78***	-0.38
of Workforce	(0.11)	(0.09)	(0.28)
Industrial Mix			
% of Workers Overall in	-0.21**	-0.24***	-0.31**
Construction	(0.07)	(0.04)	(0.09)
% of Workers Overall in	-0.31	-0.07	-0.26
Manufacturing	(0.30)	(0.17)	(0.41)
% of Workers Overall in	0.23	-0.06	0.44*
Retail	(0.16)	(0.08)	(0.21)
λ	-0.56		0.95
	(0.39)		(0.61)
Ethnic Group Controls	Yes	No	No
Intercept	7.55	51.34	-68.30
	(15.44)	(23.64)	(71.61)
R^2	0.34	0.48	0.09

For notes on this table, see the notes for Table 3.2.

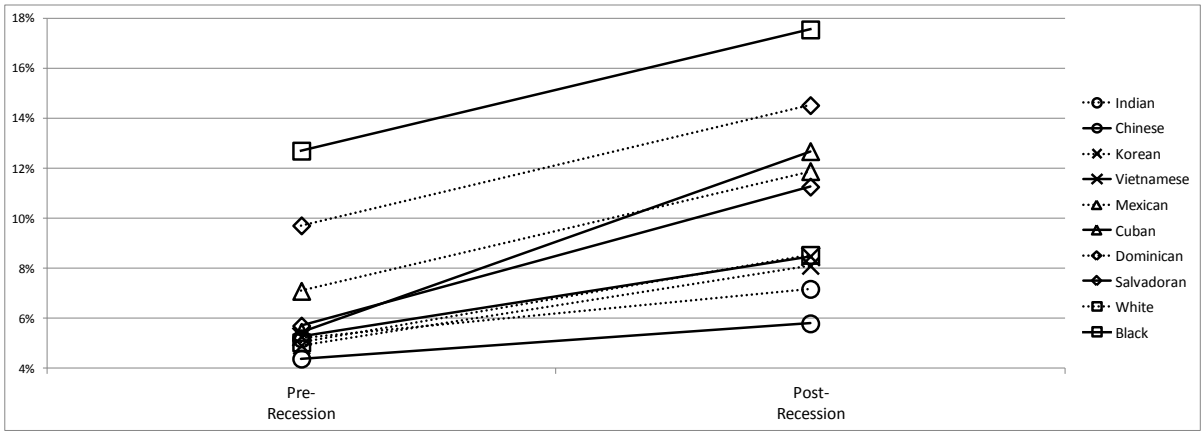
the association for urban ethnic economies only. The positive, statistically significant association between the interaction variable and unemployment growth signifies that the protective effect of ethnic economies was limited to urban ethnic economies. This finding upholds Hypothesis 3.2. As with

Hypothesis 3.1, the associations found among ethnic workforces were the opposite of what occurred among Whites, highlighting a unique effect among ethnic economies and their associated workforces.

Unemployment by Ethnic Group

The analyses in the previous section aggregated ethnic minority groups together in order to see how overall trends in ethnic economies contrasted with trends among non-Hispanic Whites and Blacks. In light of the fact discussed earlier that Hispanics suffered a disproportionately larger increase in the unemployment rate than Asians during the recession, it may be important to disaggregate the data by ethnic group. Indeed, according to Figure 3.1, there is variation in the impact of the recession on different groups. Figure 3.1 provides the average change in the unemployment rate for each group. As touched on earlier, some Asian groups suffered less growth in the unemployment rate than other groups, including Hispanics and non-Hispanic Whites.

Figure 3.1. Mean Growth in the Unemployment Rate for Local Ethnic Workforces, by Group

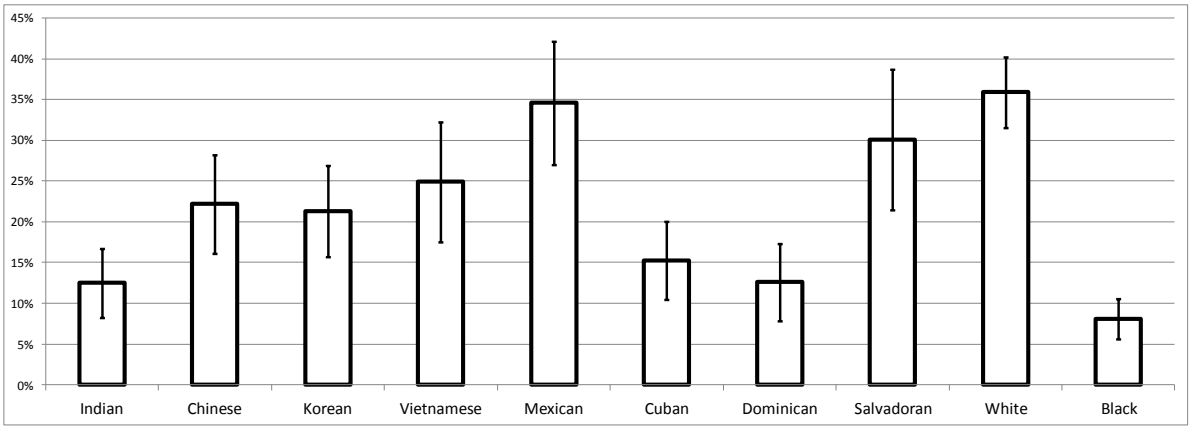


'Pre-Recession' refers to the years 2005-7. 'Post-Recession' refers to the years 2009-11.

Figure 3.2 calls into question the aggregated results for a different reason: the propensity to work in the ethnic economy may vary by group. This figure shows the average proportion of each

group's ethnic workforce that was in an ethnic economy prior to the Great Recession. Although ethnic economy participation rates did vary across groups, the average participation rate was no lower than 12.5 percent, the rate for Asian Indians. Ethnic economies across all groups, in other words, included a

Figure 3.2. Mean Proportion of the Local Ethnic Workforce in the Ethnic Economy, by Group



This figure shows, on average, what percentage of the pre-recession ethnic workforce in each PUMA belonged to the ethnic economy. The calculation is only for those PUMAs in which the group had ethnic economy workers. For Whites and Blacks, rather than the proportion in the ethnic economy, this metric can be interpreted as the proportion of the local racial workforce that is overrepresented as self-employed or wage working in local industries. Standard deviations are represented by error bars.

substantial number of ethnic minority workers at the onset of the downturn. Importantly, Mexicans and Salvadorans had proportions that rivaled the magnitude of workers in White-dominated industries, of which there were many. This finding contrasts with research showing that Mexican and Salvadoran ethnic economies in the U.S. tend to be extremely small (Portes and Bach 1985, Verdaguer 2009). The overrepresentation of Mexican and Salvadoran self-employed and wage workers in various industries was largely driven by workers in the construction, landscaping, and housekeeping industries. Each of these industries can include day laborers, independent contractors, and brick-and-mortar business owners, and it is difficult to use Census microdata to assess the degree to which self-employed workers are of one type or another. In other words, the aggregated analyses above may be skewed toward

trends among Mexican and Salvadoran groups. Each group should consequently get their own regression equation.

Table 3.4 presents regression results for each ethnic minority group separately. The table

Table 3.4. Regressions of the Change in the Unemployment Rate on Selected Variables, by Group

Variables	Indians	Chinese	Koreans	Vietnamese	Mexicans	Cubans	Dominicans	Salvadorans
Independent Variables								
Proportion in EE[1]	-0.21**	-0.08*	-0.13*	-0.03	-0.08**	-0.77*	0.08	-0.22*
	(0.07)	(0.03)	(0.06)	(0.07)	(0.03)	(0.34)	(0.08)	(0.10)
PUMA is Suburban	-3.00*	-1.15	-7.41***	-1.24	0.38**	7.12***	3.55	-2.67
	(1.34)	(0.85)	(2.09)	(1.86)	(0.55)	(2.12)	(2.15)	(2.23)
EE*Suburban	0.18*	0.05	0.21***	0.08	0.01	0.66*	-0.18*	0.19
	(0.07)	(0.03)	(0.06)	(0.09)	(0.03)	(0.31)	(0.08)	(0.11)
Control Variables								
Mean Age of Workforce	0.84	0.26	3.72	0.50	0.72	-11.17	-10.90***	4.92
	(2.36)	(1.68)	(2.02)	(6.04)	(2.02)	(11.87)	(2.66)	(3.77)
Mean Age[2] of Workforce	-0.01	0.00	-0.04	-0.01	-0.01	0.13	-10.90***	-0.06
	(0.02)	(0.01)	(0.02)	(0.07)	(0.02)	(0.13)	(2.66)	(0.04)
% of Workforce That	0.15*	0.00	-0.01	0.12	0.00	0.21*	-0.18	0.08
Was Male	(0.07)	(0.03)	(0.05)	(0.08)	(0.03)	(0.09)	(0.09)	(0.05)
% of Workforce That	0.11	0.00	0.03	0.24*	-0.01	0.14	0.12*	-0.06
Was Foreign-Born	(0.09)	(0.02)	(0.04)	(0.10)	(0.01)	(0.08)	(0.05)	(0.06)
Mean Years of Education	-0.09	-0.43*	0.64	0.17	-0.47*	-0.78	0.82	0.05
of Workforce	(0.36)	(0.19)	(0.49)	(0.46)	(0.21)	(1.30)	(0.67)	(0.41)
Industrial Mix								
% of Workers Overall in	-0.34	-0.27	-0.28	0.31	-0.28**	-1.08*	1.05	-0.02
Construction	(0.22)	(0.13)	(0.23)	(0.31)	(0.09)	(0.48)	(0.82)	(0.25)
% of Workers Overall in	-1.75	-0.39	-0.59	2.07	-0.08**	-7.05	-4.25	-0.06
Manufacturing	(0.92)	(0.54)	(0.98)	(1.51)	(0.03)	(4.35)	(5.11)	(1.11)
% of Workers Overall in	0.35	0.26	-0.03	1.23	-0.03	3.23*	1.11	-0.29
Retail	(0.50)	(0.32)	(0.66)	(0.84)	(0.20)	(1.35)	(2.29)	(0.76)
λ	1.05	-0.45	-0.25	-2.29	0.98	-0.10	-5.16*	-0.40
	(1.34)	(0.89)	(1.38)	(1.75)	(0.99)	(3.23)	(2.29)	(1.56)
Intercept	-25.12	8.18	-83.67	-56.71	1.04	223.21	191.37***	-88.24
	(50.18)	(35.80)	(45.38)	(132.57)	(40.03)	(248.17)	(56.10)	(77.08)
R^2	0.27	0.25	0.33	0.13	0.30	0.52	0.33	0.07

For notes on this table, see the notes for Table 3.2.

makes a strong case that the protective effect of ethnic economies is consistent across most groups, supporting the aggregated results presented earlier. Although the effect size varies across groups, only two groups are not statistically significantly associated with a protective effect of ethnic economies: Vietnamese and Dominicans. Similarly, the lack of protection provided by suburban ethnic economies is fairly consistent across groups. Dominicans, however, are again exceptional in that their suburban ethnic economies reduced the unemployment rate. The protective effect of Dominican suburban economies is likely because urban Dominican ethnic economies tend to be highly impoverished (Portes and Sensenbrenner 1993:1333-1334), particularly in major cities like New York, Miami, and Philadelphia. The overall point of Table 3.4 is that the disaggregated results are comparable to the aggregated results, suggesting that the overall trend during the Great Recession was that ethnic economies had a protective effect on the ethnic unemployment rate.

Discussion and Conclusion

Much research on the condition of immigrant workers during economic recessions ignores the potentially protective effect of ethnic economies (e.g. Cadena and Kovak 2013, Carter and Sutch 1999, Kindleberger 1967). Nevertheless, case studies show that employers in the ethnic economy sometimes hire extra co-ethnic workers in order to protect them from unemployment and the prospect of downward economic mobility (Boyd 2000, Light 1972:63, Light 1979, Tenenbaum 1993:59). Using American Community Survey data on ethnic workforces in the top 100 largest metropolitan areas in the United States during the Great Recession, this chapter offers possibly the first large-scale quantitative demonstration of the protective effect of ethnic economies during recessions. The protective effect, however, was limited to urban ethnic economies; suburban areas with sizeable ethnic economies endured greater increases in the ethnic unemployment rate than urban areas. Although the size of the

finding was modest, the finding has important implications for several areas of social science research, particularly theories of social stratification and international migration.

Social stratification scholars can do more to incorporate ethnic economies into their theories of economic inequality. Weberians and Marxists have traditionally felt that ethnic economies would diminish in importance as capitalism grew stronger (Weber 2004 [1930], Marx and Engels 2012 [1848], Steinmetz and Wright 1989). The continued existence of ethnic economies, however, challenges these approaches to labor market dynamics (Light and Gold 2000). More recent theories of social stratification, especially those in the neo-Weberian tradition, heed this lesson. Neo-Weberian theories of social closure provide a thorough account of the ways in which ethnic economic recruitment networks can exclude non-co-ethnics from particular niches in the economy (Elliott and Smith 2001, Tilly 1999:165-166, Waldinger 1995). Nevertheless, these theories are rarely dynamic enough to elaborate on the causes and consequences of social closure during periods of macroeconomic upheaval. If corners of the economy take on extra co-ethnic workers during recessionary periods, how does this affect the well-being of comparable workers outside of the ethnic group? How does recruitment into ethnic economies affect the ability of other sectors of the economy to absorb surplus labor during economic downturns? Future research should address these questions.

Those who study ethnic economies from the perspective of international migration can learn from this study as well. Immigration scholars often presume that ethnic economies occur in a stable macroeconomic environment because numerous ethnic economies are corollary outgrowths of labor migration streams into host societies (Light and Gold 2000, Logan et al. 1994, Portes and Bach 1985). Many theories of ethnic economy development, in other words, can reasonably presume the existence of a strong economy. Nevertheless, the recent Great Recession showed that immigrants still struggle to work in host societies during weak economic periods, meaning that extant ethnic economy theories are inadequate and incomplete. Perhaps the reason that immigration scholars ignore the impact of ethnic

economies on foreign-born workers during recessions is because most empirical research on ethnic economies is done at the level of individual workers, emphasizing outcomes such as personal wages and transitions into self-employment (Catron 2014, Lofstrom et al. 2011). Some scholars have called for more group-level analyses of ethnic economies and their impacts on foreign-born worker populations (Bean et al. 2001, Spener and Bean 1999). A greater focus on group-level outcomes such as unemployment rates would enable immigration scholars to keep larger economic trends in view when theorizing ethnic economy growth.

Despite the implications of this study, the use of large-scale quantitative data and regression analyses leaves unanswered the specific reasons that ethnic economies may protect workers. The study, furthermore, can do little but conjecture why the benefits do not extend into suburban areas. The quote by Ivan Light at the beginning of this chapter, which highlighted the norms that encourage ethnic entrepreneurs to hire extra co-ethnics during recessions, provides one testable explanation for future research to consider (Light 1972:63). Nevertheless, this explanation says little about city-suburb differences. Several mechanisms may drive the disparity in urban and suburban unemployment changes, such as the relationship between the suburbanization of poverty and suburban ethnic economy growth (Kneebone and Berube 2013); the forms of market competition that may drive weaker ethnic businesses from urban to suburban areas (Sanders and Nee 1987); the growth of ethnoburbs, which may concentrate economic vulnerability into specific suburban areas (Li 2009); or the lack of a social service infrastructure to support ethnic minorities in many suburbs (Allard and Roth 2010). One way to test these mechanisms in future analyses is to measure group-level and individual-level outcomes simultaneously and identify the connections between them.

At its core, the counter-intuitive finding in this chapter that ethnic economies can sometimes protect immigrant worker populations during recessions should be a wakeup call to scholars who downplay the importance of ethnic economies to larger labor market processes (Borjas 1990, Sanders

and Nee 1987). Although the protective effect of ethnic economies in this chapter was modest and limited to urban areas, the finding suggests that ethnic economies may play a vital role in how immigrants incorporate into the labor market during recessionary periods. With more research and a stronger understanding of the mechanisms involved, policy makers can exploit ethnic economies to ensure that foreign-born workers do not fall behind when the next recession strikes.

Chapter 4: Suburban Ethnic Economies and Ethnic Chain Retailers

Much ink has been spilled over the consequences of chain retailing for local economies, communities, and neighborhoods. Chains such as Starbucks have been accused of forcing the closure of local mom-and-pop shops (Merriman et al. 2012), worsening labor practices (Neumark et al. 2008), increasing crime rates (Wolfe and Pyrooz 2014), homogenizing neighborhoods (Deener 2007, Zukin et al. 2009), and raising housing prices (Hackworth and Rekers 2005). At the same time, others argue that chain retailers provide numerous benefits to communities. Chains can improve local health outcomes by introducing high-quality goods, such as fresh fruits and vegetables, into areas that previously did not have them (McMillan 2014). In addition, chain retailers tend to maintain low prices, making many goods and services more affordable for low-income groups (Akst 2001, Chung and Myers Jr. 1999, Postrel 2006).

The current state of the metropolitan United States adds complexity to this debate. Chains have existed in the U.S. since the late 19th Century (Chandler 1977), yet their ubiquity in urban economies is unprecedented, leading some scholars to claim that today's independent urban retailers are in a crisis for survival (Zukin et al. 2015:Ch. 8). At the same time, as this dissertation has shown, the demographic diversification of suburban areas has expanded the range of independently owned businesses that take part in suburban economies. Ethnic diversity is a particularly noteworthy form of demographic change that is influencing the character of suburban shopping corridors.

In total, three problems plague the debate over chain retailing. First, many debaters presume that chains are all equal and their impact on local areas is uniformly good or bad. (For notable exceptions, see Benediktsson (2015), Meltzer and Schuetz (2011), and Yue et al. (2013).) Second, scholars' heavy emphasis on chains in gentrifying neighborhoods often leads them to ignore the many chains in other types of neighborhoods. For example, in 2014, the Center for an Urban Future, which

tracks the growth of chain retailers annually across New York City, found only 11 zip codes in the city that did not contain at least one chain retailer. Public health scholars note that fast food chains such as McDonald's target low-income communities rather than gentrifying ones (Kwate 2008, Powell et al. 2007, Smoyer-Tomic et al. 2008), yet urban scholars have only begun to theorize the effects of chain retailing across neighborhood types. Third, little scholarship has analyzed the urbanization of chains and the suburbanization of ethnic economies simultaneously in order to identify how the two phenomena may be related.

This chapter tries to inject nuance into the debate on chain retailing by flipping the lens with which it is analyzed. Rather than take the perspective of local communities, this chapter takes the perspective of the chains themselves, demonstrating the diversity of market strategies that chains can have when they enter local communities. Numerous studies discuss the variety of political strategies used by communities that successfully thwart the growth of chain retailers (Halebsky 2004, Ingram and Rao 2004, Sutton 2010). Nevertheless, the characterization of chain retailers as monolithic and single-minded in their expansion strategies results in scholarship that misunderstands how chains integrate into local communities. It also obscures the practical recommendations that scholars can provide to planners, policy makers, and community activists regarding how to best approach economic and community development in an era of chain retailing.

This chapter homes in on one particular sector of chain retailing in which chains' locational strategies are diverse: the ethnic restaurant industry. Long viewed as the domain of ethnic entrepreneurs (Bailey 1985, Drucker 2003, Warde 2000, Zelinsky 1985), chains have recently infiltrated the market, turning ethnic food retailing into a multibillion dollar industry (Bloom 2014). The debate over chain retailing frequently invokes images of corporations such as McDonald's, Starbucks, Whole Foods, and Walmart (McMillan 2014, Merriman et al. 2012, Rascoff and Humphries 2015, Schlosser 2012, Smith 1996). By broadening the scope of the debate to include chains ranging from Pizza Hut to

P.F. Chang's, Golden Krust, and Pollo Campero, this chapter challenges urban scholars to account for the diversity of chains and their influence on neighborhood change.

Put concretely, this chapter asks:

1) How do ethnic chain restaurants decide which markets to enter?

2) Why are some ethnic chains more tightly associated with ethnic neighborhoods than others, and what does this mean for gentrification and other aspects of neighborhood change?

3) How has the growth of ethnic chains coincided with the growth of ethnic economies in suburban areas?

To answer these questions, this chapter relies on a data set of over 50,000 restaurants in the New York City region taken from Yelp.com in 2015. The chapter highlights four types of ethnic chains, each of which likely influences neighborhood change in divergent ways: Mundane Mainstreamers, Upscale Novelties, Classy Crossovers, and Enclave Insiders. Negative binomial regression analyses show that chains are sometimes as likely to occur in ethnic communities as their independently owned counterparts. Specifically, for ethnic cuisines less popular among the mainstream, such as Caribbean or Korean foods, as the ethnic share of a community's population increases, there is a roughly equivalent increase in the number of chain-affiliated and independently owned ethnic restaurants in the community. These results suggest the existence of a vibrant chain retailing industry that benefits from the presence of large ethnic minority populations rather than the presence of groups such as young, White gentrifiers. The chapter's conclusion discusses how the growth of chain restaurants may inhibit the prosperity of ethnic economies in both urban and suburban areas.

Locational Decision Making among Chain Retailers

Most retailers decide where to locate based on a trade area analysis of the site being considered. A trade area is "a geographical area containing the customers of a particular firm or group

of firms for specific goods or services" (Berman and Evans 2000:293). Trade area analysis involves measuring how many potential consumers live within the trade area, taking into account factors such as the location of competitors and the availability of public transportation to the site (Berman and Evans 2000:Ch. 9). The theoretical and methodological underpinnings of trade area analysis come from central place theory and spatial interaction theory, both of which dominated retail geography for most of the 20th Century (Brown 1993, Christaller 1933, Huff 1964). Central place and spatial interaction theories traditionally treat urban regions as unchanging, apolitical, two dimensional planes in which businesses locate near consumers who are trying to maximize their utility while traveling the minimum distance necessary.

To date, central place and spatial interaction theories have been virtually swept out of existence among academics who study space and place. Marxists and political economists thoroughly criticized these theories for ignoring how class conflict, real estate speculation, and growth machine politics influence the availability of commercial space (Gottdiener 1985, Harvey 1973, Logan and Molotch 1987). Among practitioners, on the other hand, variants of central place and spatial interaction theories have been alive and well, used in the research departments of numerous corporate retailers. The 1980s, a time when Marxists and political economists were advancing urban theory within the halls of academia, was considered by practitioners to be "a golden age for store location and market analysis" (Wrigley 1988:30, quoted in Brown 1991:368). At the end of the 20th Century, practitioners' criticisms of central place and spatial interaction theories came from a very different perspective. Unlike academics, chain retailers were unconcerned with the connections between class conflict and urban change. Chains were, however, extremely concerned with the fact that traditional methods for trade area analysis were "segmentation blind" (Mendes and Themido 2004:6). Traditional methods based on central place and spatial interaction theories, in other words, treated consumers as part of one demographically homogenous market rather than a series of diverse market segments. Therefore, in recent decades, the

field of geo-demographic marketing has increasingly become an essential element of retail location theory (Wedel et al. 2000). Geo-demographic analysis applies market segmentation research to spatial location theory, built upon the belief that different types of neighborhoods may require different marketing approaches. Geo-demographic marketing allows chains to enter different types of neighborhoods while maintaining the benefits of the chain form of organization, such as economies of scale in production and distribution. Furthermore, chains may stratify themselves such that certain chains expand into gentrifying neighborhoods while others expand into tourist centers, low-income neighborhoods, or suburban shopping corridors.

The little academic research on this phenomenon shows that fast food chains such as McDonald's target low-income neighborhoods while boutique chains and coffee shops such as Starbucks target high-income communities (Kwate 2008, Powell et al. 2007, Rascoff and Humphries 2015, Smith 1996, Smoyer-Tomic 2008). Unfortunately, urban scholars have barely begun to analyze the association between chain retailing and other forms of stratification such as racial and ethnic inequality (Meltzer and Schuetz 2011). This informational gap has led scholars to call for more research on retail gentrification (Zukin et al. 2009). The state of academic research contrasts with that of practitioners, who have used geo-demographic marketing to carve spatial communities into detailed segments such as "Big City Blues," which, according to Claritas, one of the world's largest geo-demographic marketing firms, contains "the highest concentration of Hispanic Americans in the nation" as well as "downscale Asian and African-American households occupying older inner-city apartments...Concentrated in a handful of major metros, these young singles and single-parent families face enormous challenges: low incomes, uncertain jobs, and modest educations" (Golumbia 2009:132-133). This quote lays bare the sophistication with which geo-demographic marketers help chains expand into new markets, a sophistication lacking in academic treatments of the topic.

The Locational Strategies of Ethnic Chain Restaurants

For two reasons, the ethnic restaurant industry is a particularly effective sector in which to explore the link between urban change and the locational strategies of chain retailers. First, the industry is notable for how suddenly and quickly chain retailing caught on. As late as 1985, a thorough survey of ethnic restaurants in the U.S. argued that "the franchising of ethnic restaurants ha[d] scarcely begun" (Zelinsky 1985:56). Second, research has identified ethnic restaurants as symbols of neighborhoods untouched by commodification. Because of the many independent ethnic entrepreneurs who operate ethnic restaurants in ethnic communities, numerous scholars argue that the restaurateurs operating in these spaces are minimally influenced by large-scale capitalization (Bailey 1985, Drucker 2003, Mele 1996:6). This sentiment is captured effectively in the quote, "ethnic spaces are still the anti-Starbucks" (Zukin 2008:735). This view is being challenged, however, because of the ability of chains to present themselves as part of authentic ethnic communities (Hackworth and Rekers 2005, Pang and Rath 2007). A recent marketing study found that "Fifty-eight percent of panelists believe that Chipotle is an authentic representation of its cuisine, followed by Panda Express (47%) and Sbarro (41%)" (Fajardo 2015:1). Scholars are also scrutinizing the view of ethnic neighborhoods as not commodified because tourists are starting to seek out such spaces. Tourists believe that ethnic neighborhoods provide them with authentic insights into the world of ethnic minorities, and these tourist dollars are attracting investment from big business (Aytar and Rath 2012, Lin 2008, Zelinsky 1985).

To understand how ethnic chain restaurants can impact local neighborhoods, it is necessary to understand how ethnic chains came about. Ethnic chain retailing was poised to explode in the 1980s, the same era in which geo-demographic marketing took off. Marketers of the 1980s lamented how sales in the fast food sector had stagnated as the sector had matured (Paskowski 1984), so they instead began to segment the mass market, in part fueled by the growth in demographic diversity and the

increased purchasing power of ethnic minorities in the last quarter of the 20th Century (Gabaccia 1998). Ethnic chains also grew out of the public's response to rising obesity rates. Consumers started eating more meals containing fruits and vegetables, including food originating outside of the U.S. and Europe (Gallo-Torres 2014). Other factors that promoted the rise of ethnic chains included a decrease in meals prepared at home as well as growing concerns about the authenticity of food, particularly among the middle and upper-middle classes (Batterberry and Batterberry 1998, Carroll and Wheaton 2009). Estimates vary, but ethnic foods comprised over 40 percent of full service restaurants in 2012, up from 35 percent in 2002 (Gallo-Torres 2014).

Below I present a typology of ethnic chain restaurants that engage in four common but contrasting locational strategies. I call these types Mundane Mainstreamers, Upscale Novelties, Classy Crossovers, and Enclave Insiders. Rather than link these types to independent variables that may predict when and where the types occur, as an explanatory typology would (Collier et al. 2012:218), the typology below aims to conceptualize the range of ethnic chain restaurants that operate in various neighborhoods. Through rigorous description and conceptualization, I can demonstrate the diversity of locational strategies that exist among ethnic chains and call into question the notion that all chains enter local communities in the same way. Later in the chapter, I conduct a quantitative empirical analysis to show that ethnic chain restaurants likely use different locational strategies.

Mundane Mainstreamers

Mundane Mainstreamers are perhaps the most common type of ethnic chain restaurant. These restaurants locate near majority groups who enjoy foods they are comfortable with. In the United States, this strategy is particularly successful among Italian and Mexican foods, cuisines so ubiquitous that at least one prominent account of restaurant geography does not treat these cuisines as ethnic at all (Neal 2006). Chains such as Taco Bell target locations near major transportation corridors in order to

capture mainstream consumers who view tacos as "another variation on America's beloved meat and cheese sandwich" (Jakle and Sculle 1999:264). These ethnic chains are often treated as part of the general fast food industry, so they tend to locate in the same places as non-ethnic eateries, particularly major highways in suburban areas (Carroll and Torfason 2011:10-11).

Upscale Novelties

The second type of ethnic chain restaurant is Upscale Novelties, examples of which include Garbanzo Fresh Mediterranean, Texas de Brazil, and P.F. Chang's. Like Mundane Mainstreamers, Upscale Novelties desire locations in high-traffic areas. Nevertheless, Upscale Novelties are particularly interested in locations nearby affluent consumers who desire exotic dining experiences in a comfortable environment. The ideal location is also a place where the restaurant can agglomerate with other upscale retailers (P.F. Chang's China Bistro, Inc. 2008, Tristano 2013). When deciding where to expand, Upscale Novelties walk a fine line: The same affluence that characterizes lucrative consumers also typifies highly-educated professionals who may resist the growth of chain retailers. Professionals can demand independently-owned ethnic restaurants in their neighborhoods instead of chains (Deener 2007, Florida 2012). Meaningful resistance from affluent consumers can be a rare occurrence, however, because of divided opinions among elites regarding chain stores (Brown-Saracino 2004, Schuetz et al. 2010). Cuisines such as Mediterranean, Vietnamese, or Thai prosper as Upscale Novelties in the United States because they use fresh, healthy ingredients that are easily adaptable to high-end consumer tastes (Bloom 2014).

Classy Crossovers

The third type of ethnic chain restaurant is the Classy Crossover, and it presents significant challenges for urban scholarship on chain retailers. The appeal of Classy Crossovers comes from the

ways in which they span the divide between ethnic consumers and non-ethnic diners who seek out authentic ethnic fare. Classy Crossovers can locate in ethnic neighborhoods, thereby capturing the ethnic market. The association of a Classy Crossover with a local ethnic community, however, grants the Classy Crossover legitimacy when branching out into gentrified neighborhoods. Xi'an Famous Foods, for instance, became popular after a branch was featured on Anthony Bourdain's *No Reservations*.[15] The company boasts locations in traditional Chinese neighborhoods such as New York City's Chinatown and Flushing. The restaurant's exposure in mainstream media, however, allowed the chain to expand into trendy neighborhoods like St. Mark's Place and Williamsburg as well. The Classy Crossover is not as common as either Mundane Mainstreamers or Upscale Novelties, yet its existence belies those urban theorists who contrast ethnic spaces with gentrified areas. It could be argued that Classy Crossovers are merely the harbinger of a gentrifying ethnic neighborhood, but Classy Crossovers, which include other restaurants such as BCD Tofu House, tend to originate in ethnic neighborhoods and expand outward rather than vice versa. Many cuisines can include Classy Crossovers, provided that the chains present an unconventional twist on traditional and mainstream fare within the cuisine.

Enclave Insiders

Finally, Enclave Insiders explicitly locate in or near ethnic populations. For example, Paradise Biryani Pointe, the largest Indian restaurant chain in the U.S. (Yin 2013), encourages franchisees to locate in areas with a strong South Asian presence.[16] Global chain restaurants such as Jollibee and Pollo Campero also target diasporic immigrant communities (Bartlett and O'Connell 1998, Hernandez 2014). Enclave Insiders are most commonly found among cuisines less popular with mainstream consumers. In the U.S., this includes Indian, Caribbean, and Korean cuisines (Gallo-Torres 2014). The Enclave Insider provides the most problems for traditional urban theory because the Enclave Insider requires the

[15] http://xianfoods.com/press/
[16] http://www.paradisebiryanipointe.com/franchise.php

existence of a local ethnic community to remain profitable. This type of chain retailer, in other words, could lose its customer base if gentrification were to occur. Rather than homogenize and commodify the community, as may be the case with a branch of Starbucks, the Enclave Insider may want to preserve community differences. Consequently, Enclave Insiders sometimes play an active role in local communities. Golden Krust, for example, "the first Caribbean-owned business in the U.S. to be granted a franchise license,"[17] offers services such as a scholarship program for first- and second-generation immigrants in the United States and Jamaica.[18] This helps solidify their connection to the Caribbean community while boosting their bottom line.

Empirical Analysis of Locational Diversity among Ethnic Chain Restaurants

Translating the scheme above into quantifiable measures for empirical analysis is a difficult task. Certain firms may blend multiple locational strategies together, or their strategies may change over time due to changing consumer tastes. Nevertheless, one can use large-scale data to demonstrate how chain retailers tend to locate in different types of neighborhoods. The remainder of the chapter uses Yelp.com data on 50,000 restaurants across the New York City metropolitan region to examine the extent to which ethnic chain restaurants are more likely to locate in non-ethnic rather than ethnic neighborhoods. Scholarship tends to associate independent ethnic retailers with ethnic neighborhoods while it associates chain retailers with non-ethnic neighborhoods (Drucker 2003, Mele 1996:6, Raijman and Tienda 2003, Zukin 2008). Therefore, as the ethnic share of a community increases, there should be a greater increase in the number of independently owned rather than chain-affiliated ethnic restaurants in the local area. The analysis below shows this to be the case among popular cuisines such as Italian food. Among less popular cuisines, however, increases in the ethnic share of the community yield

[17] http://www.goldenkrustbakery.com/content/index.php?do=company&sect=overview

[18] http://www.goldenkrustbakery.com/content/index.php?sect=viewArticle&do=pressReleases&categoryId=3&contentTypeCode=article&pressReleaseId=56&am

similar increases in both the number of chains and non-chains. This finding highlights the diversity of community characteristics that can be associated with ethnic chain restaurants and complicates prior wisdom about the relationship between chains and local neighborhoods.

Data

Data on restaurants come from listings on Yelp.com, the largest publically available repository of restaurants that includes information on location and cuisine. During January and February of 2015, I collected data on restaurants in each major cuisine category in each neighborhood of New York City and each Census-defined place in the New York metro area.[19] The New York metro area is the largest immigrant gateway in the United States and is heralded alongside Paris and London as a "restaurant capital of the world" (Batterberry and Batterberry 1998:336). A unique advantage of Yelp data is that they provide a rare glimpse into the ethnic chain restaurant industry in both heavily populated areas, such as downtown Manhattan, as well as smaller areas on the fringes of the New York metro region.

I omit all grocery stores from the data set because many grocery store chains enter areas specifically zoned for large retail stores (Dunkley et al. 2004). Zoning plays a role in the location of other types of food retailers such as restaurants as well (Deener 2007). New York City, however, frequently zones restaurants in residential areas using commercial overlay districts, meaning that the first floor of many dense residential buildings is dedicated to retail stores such as restaurants.[20] Furthermore, the separation of commercial from residential zones is likely unproblematic in the data set. When the analysis below is conducted using spatially lagged independent variables, results are virtually identical to

[19] The list of New York City neighborhoods came from the New York City Planning Commission. See http://www.nyc.gov/html/dcp/html/census/demo_tables_2010.shtml.

[20] Beyond New York City, there are smaller towns that have outright banned chain stores from entering their communities. Only one exists in the New York metro area, Port Jefferson, NY (Institute for Local Self Reliance 2006). Results remain unchanged with this city taken out of the analysis.

those I present here.[21] Finally, for all demographic information on local areas, I use data from the 2000 and 2010 Decennial Census and the 2006-2010 American Community Survey 5-year estimates.

Operationalizing Ethnic Cuisine

To grasp the relationship between restaurants and the markets they serve, there must be a sufficient number of restaurants and consumers to be meaningful. I therefore limit my analysis to two types of mutually inclusive cuisines. The first set of cuisines comes from countries in which at least 100,000 foreign-born residents reside in the New York metro area. The second set comes from the most strongly represented ethnic cuisines in the data set. Although many foreign-born groups meet the 100,000 cutoff, not all associated cuisines had many restaurants, so those cuisines were dropped. The final list of cuisines includes Italian, Chinese, Mexican, Latin American (excluding Mexican), Mediterranean, Southeast Asian, Indian, Caribbean, and Korean. I discuss later the composition of grouped cuisines such as Mediterranean and Southeast Asian. A list of all the cuisines used by Yelp as well as how many times each cuisine was mentioned by a New York restaurant can be found in the Appendix.

It should be noted that restaurants' cuisine categories are user-generated. Yelp.com allows a restaurant to identify itself using up to three categories. If a restaurant entry is claimed by the business owner, then the business picks its own categories; if not, users supply the categories. Because users frequently search for restaurants by category, business owners, market research firms, and the Yelp Corporation police categories to ensure their accuracy (Salt 2011).

[21] This procedure involves running regressions after averaging the independent variables for all spatial units adjacent to the unit in question. For example, rather than use the population of a given spatial unit, I use the average population of all neighboring units.

Operationalizing Chain Restaurants

I operationalize chains as any restaurant whose name appears more than once in the data set, following a technique used in prior research (Kovács et al. 2013). The method does not assure that two restaurants sharing a name are part of a chain, however. For all potential chains, I conducted online searches to verify that restaurants were part of a chain, as determined by whether or not they shared a common website listing multiple locations. The legal structure of chain affiliation can nonetheless be specific to a parent-affiliate relationship. Therefore, in the Appendix, I also run an analysis of legally defined national chains listed in *InfoUSA*'s List of Chains and Franchises combined with those from Worldfranchising.com, Source Book Publication's online companion to *Bond's Franchise Guide*. Although this latter approach ensures high construct validity, it misses many local and smaller chains that are captured by the former method. Regardless, results using this latter definition are similar to those reported in the body of the chapter. I consequently use the former set of chains as the base data set for the analysis.

Overall, the data set includes 56,608 businesses. Of these businesses, 16,097 (28 percent) were chain-affiliated, while 40,511 were independently run. According to the New York City Department of Health and Hygiene, there were roughly 25,199 restaurants in the city.[22] My data set includes 22,880 restaurants in New York City, representing coverage of about 91 percent. Although scholars have shown some bias in user-generated websites such as Yelp.com toward wealthier areas characterized by better Internet access (Graham et al. 2014, Shelton et al. forthcoming), the effect of this bias is likely small in the data set.

[22] http://a816-restaurantinspection.nyc.gov/RestaurantInspection/SearchBrowse.do.

Variables and Methods

Dependent Variable and Analytic Strategy

The dependent variable of the analysis is the number of restaurants in a given census tract. Census tracts are used to approximate local neighborhoods. In 2010, there were 4,532 census tracts in the New York Metropolitan Statistical Area. I conduct a pair of negative binomial regressions for each cuisine. The first uses the *number of chain restaurants* as its dependent variable, and the second uses the *number of non-chain (i.e. independently owned) restaurants* as its dependent variable. Certain census tracts had exceptionally large counts of ethnic restaurants, which results in overdispersed count data, making negative binomial regression more appropriate than traditional Poisson regression.[23]

Because I want to determine if changes in the ethnic share of a community are more strongly associated with increases in either chain or non-chain restaurants, I run the regressions using seemingly unrelated estimation (SUE). SUE combines the covariance matrices of the models for chains and non-chains together, which allows me to test for cross-model effects (Greene 2003:Ch. 14, StataCorp 2005). In other words, within each cuisine, each pair of regression models is estimated using a joint covariance matrix, so I can directly compare the effect of changes in the ethnic share of the population on chains versus non-chains. This comparison is done with a Wald test on the equality of coefficients across paired columns. Although SUE alters the standard errors for each regressor, parameter estimates are identical to what would be found using traditional negative binomial regression. In the models presented below, furthermore, the statistical significance of associations between the independent and dependent variables are no different from what would be found using traditional negative binomial regression.

[23] As a robustness check, I conducted zero-inflated binomial regression (ZINB) because numerous census tracts have no chain restaurants. Results are similar to those presented in the chapter.

Independent Variable

The independent variable is the *ethnic share* of a tract's population, by which I mean the percentage of the tract's population that is of the same ethnicity as the restaurant. Ethnic share is operationalized as the proportion of a tract's population that was born in the country or countries associated with the cuisine. Although this biases the results toward foreign-born residents, this is likely a sufficient operationalization of the ethnic community that may support local establishments such as ethnic restaurants. Research on ethnic economies explains that native-born ethnics are much less likely than foreign-born ethnics to work in and patronize ethnic businesses. Native-born ethnics likely have more human and cultural capital than immigrants, which enables the former group to incorporate into the mainstream labor force and consumer base more easily (Light and Gold 2000, Kim 2004).

Control Variables

The larger the local population, the more potential consumers exist, so I include a control for *population size* (in 1,000s) of the census tract. In addition, a richer consumer base commands more purchasing power, so I control for the *median household income* (in $1,000s) of the census tract. Rather than locate in populous, rich areas, however, chains may locate in neighborhoods that are transitioning from a smaller, poorer population toward a larger, richer population. I consequently control for two more variables, *population change* and *income change*, which capture changes in the census tract's population and median household income from 2000 to 2010.

Beyond population and income, I control for the *percentage of the tract's population in the Creative Class*. The Creative Class consists of those "people in science and engineering, architecture and design, education, arts, music, and entertainment whose economic function is to create new ideas, new technology, and new creative content" (Florida 2012:8). The Creative Class is attracted to places containing ethnic restaurants (Park 2015), which may mean chains are located near the Creative Class.

Finally, I control for the *percentage of the tract's population that has moved in the past year*. Neighborhoods whose populations are rapidly changing are less inclined to resist chain retailer growth. The communities in these neighborhoods likely feel less attachment to local mom-and-pop stores and are less able to organize political action against chain retailers (Carroll and Torfason 2011).

Results

Surveying the Ethnic Chain Restaurants of the New York Region

Table 4.1 shows the immigrant groups and cuisines that I include in the analysis, ranking them in terms of how popular their associated cuisines are. The table also explains the composition of groupings such as Caribbean and Southeast Asian food. Extending a measure used by Zelinsky (1985:56), I ascertain a cuisine's popularity by how often the cuisine is used as a genre by restaurants. I count cuisines instead of restaurants because restaurants can specialize in multiple cuisines. All the cuisines in the analysis are relatively popular, but Italian, Chinese, and Mexican cuisines are exceptionally so. Several studies have found distinctions between how these three ethnic cuisines perform against others in the U.S. marketplace. Italian, Chinese, and Mexican foods have long histories in the United States and have become commonplace across U.S. towns, large and small (Neal 2006, Zelinsky 1985). Their ubiquity is striking given the makeup of the other top cuisines. As shown in Appendix Table A4.1, which lists all the cuisine categories used by Yelp.com, the most frequently mentioned cuisine by New York restaurants was American, with 6,436 mentions, followed by Pizza, with 5,702 mentions, and Bars, with 5,564 mentions. Mexican food was sandwiched between Fast Food at number ten and Burgers at number 12. All in all, Italian, Chinese, and Mexican food seem to have been highly popular among consumers overall, while the remaining cuisines were less popular and likely more exotic to mainstream consumers. Table 4.1 breaks up cuisines into highly popular, moderately popular, and less

Table 4.1. Immigrant Groups and Cuisines in New York

		Foreign-Born Population		Popularity	
Popularity	Regional Group	Total	% of Overall Population	Total Cuisine Mentions	Rank Among Cuisines
High	Italian	134,610	0.72%	4,283	4
	Chinese	422,164	2.26%	3,879	6
	Mexican	312,596	1.67%	2,242	11
Moderate	Mediterranean[1]	151,991	0.81%	1,697	14
	Latin American[2]	986,425	5.27%	1,683	15
	Southeast Asian[3]	222,579	1.19%	1,017	27
Low	Indian	288,612	1.54%	885	29
	Caribbean[4]	1,202,865	6.43%	745	30
	Korean	149,304	0.80%	531	37
Total in New York Metro Area		18,700,715		83,674	---
Total Number of Cuisines		---		---	113

1. Mediterranean includes any cuisine labeled Egyptian, Greek, Lebanese, Mediterranean, Middle Eastern, Moroccan, or Turkish. I include immigrants from all countries touching the Mediterranean Sea excluding France, Spain, and Italy. I associate Italy with Italian cuisine. French and Spanish cuisine have unique histories, and French and Spanish immigrants in the U.S. are exceptionally well off. When French and Spanish immigrants are included in the analysis, estimates become unstable.
2. Latin American includes any cuisine labeled Argentine, Brazilian, Colombian, Cuban, Latin American, Peruvian, Puerto Rican, Salvadoran, or Venezuelan. Although other countries and cuisines comprise Latin America, these are the only Latin American cuisine categories with which Yelp.com allows restaurants in the United States to identify themselves.
3. Southeast Asian includes any cuisine labeled Burmese, Cambodian, Filipino, Indonesian, Thai, or Vietnamese.
4. Caribbean includes any cuisine labeled Caribbean, Dominican, Haitian, Jamaican, or Trinidadian.

popular cuisines in order to simplify the analysis.

Table 4.2 showcases the top three largest chain restaurants in the New York area by cuisine. Certain categories are dominated by chains popular among mainstream markets, such as Taco Bell and Pizza Hut. Other types of chains exist, however, including Golden Krust and Xi'an Famous Foods (both of which I discussed earlier). Although Table 4.2 does not empirically validate the utility of the typology presented earlier, the table does demonstrate that different cuisines contain different types of chains.

Table 4.2. Top Three Chain Restaurants in the New York Area, By Cuisine

Italian		Chinese		Mexican	
Restaurant	N	Restaurant	N	Restaurant	N
Pizza Hut	77	P.F. Chang's	11	Taco Bell	121
Olive Garden	27	Panda Express	11	Chipotle Mexican Grill	110
Sbarro	14	Xi'an Famous Foods	10	Moe's Southwestern Grill	36
Total # of Chain-Affiliated Restaurants	**677**	**Total # of Chain-Affiliated Restaurants**	**640**	**Total # of Chain-Affiliated Restaurants**	**729**
Total # of Independent Restaurants	**3,606**	**Total # of Independent Restaurants**	**3,239**	**Total # of Independent Restaurants**	**1,513**

Mediterranean		Latin American		Southeast Asian	
Restaurant	N	Restaurant	N	Restaurant	N
Chickpea	13	Pollo Campero	11	Spice	8
Pita Grill	10	Pio Pio	7	Num Pang Sandwich Shop	6
Crisp	5	Sophie's Cuban Cuisine	6	Hanco's	3
Total # of Chain-Affiliated Restaurants	**165**	**Total # of Chain-Affiliated Restaurants**	**179**	**Total # of Chain-Affiliated Restaurants**	**118**
Total # of Independent Restaurants	**1,142**	**Total # of Independent Restaurants**	**1,405**	**Total # of Independent Restaurants**	**883**

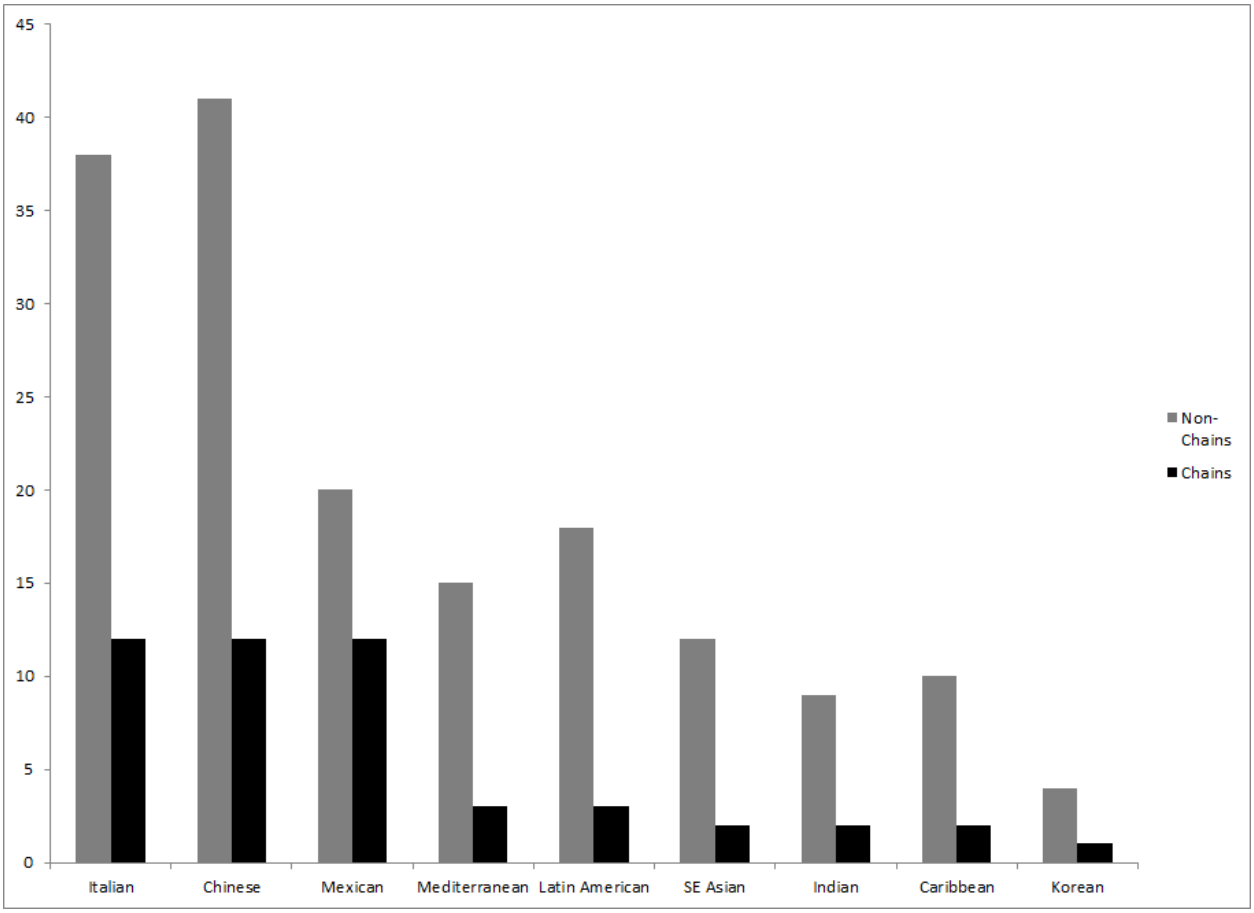
Indian		Caribbean		Korean	
Restaurant	N	Restaurant	N	Restaurant	N
Paradise Biryani Pointe	7	Golden Krust	74	BCD Tofu House	3
Brick Lane Curry House	5	Bahama Breeze	5	Bonchon Chicken	3
The Kati Roll Company	4	Fisherman's Cove	4	Glaze Teriyaki Grill	3
Total # of Chain-Affiliated Restaurants	**149**	**Total # of Chain-Affiliated Restaurants**	**124**	**Total # of Chain-Affiliated Restaurants**	**69**
Total # of Independent Restaurants	**736**	**Total # of Independent Restaurants**	**590**	**Total # of Independent Restaurants**	**462**

The next section more forcefully describes how variation across cuisines likely translates into differences in chains' locational strategies.

Ethnic Chains and Ethnic Neighborhoods

Figure 4.1 shows how many of the 4,532 census tracts in the New York Metropolitan Area had at least one non-chain (i.e. independently owned) or chain (i.e. chain-affiliated) ethnic restaurant by cuisine. Non-chains were found in far more communities than chains, regardless of cuisine. In addition,

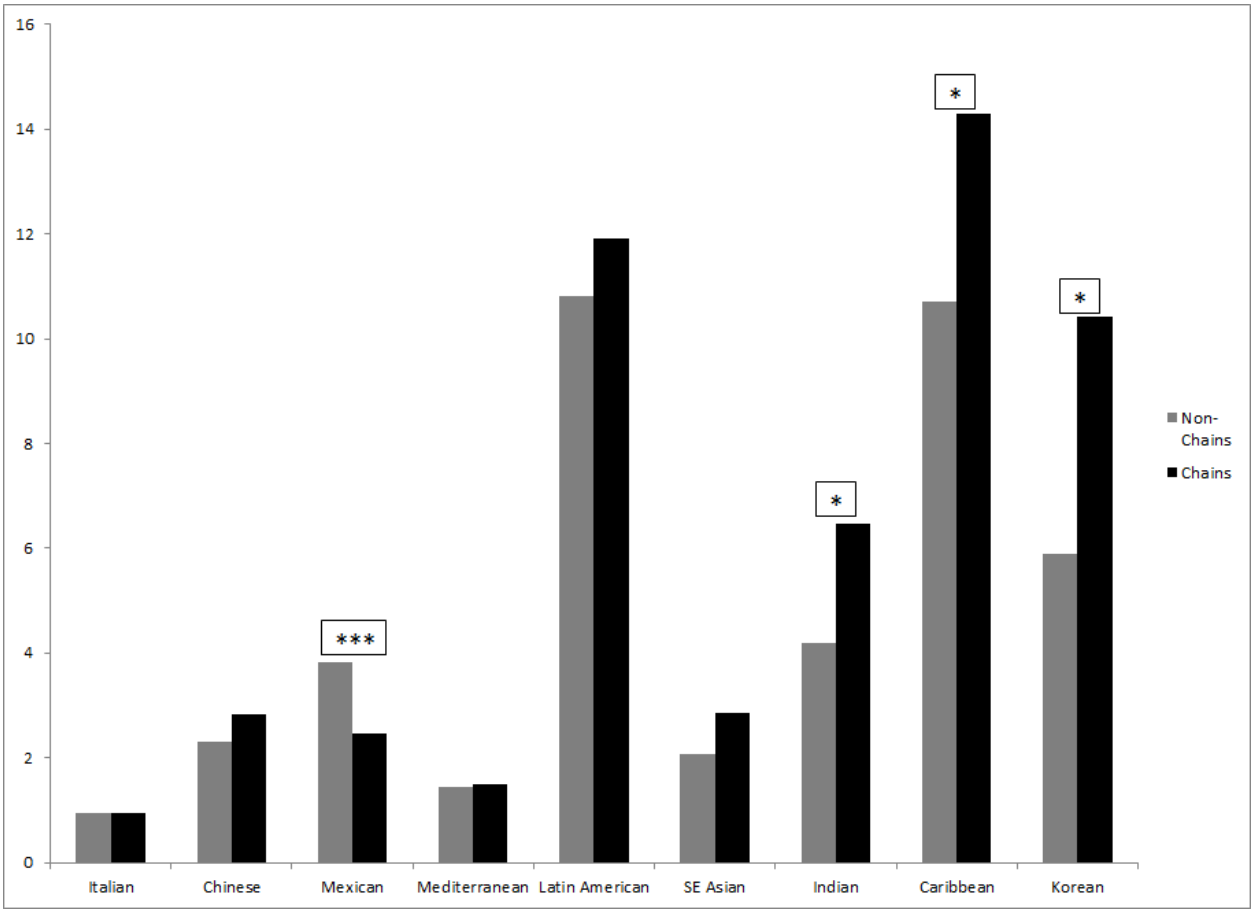
Figure 4.1. Percentage of Neighborhoods with an Ethnic Restaurant, By Cuisine and Restaurant Type



There were 4,532 census tracts in the New York City Metropolitan Area. For the Ns associated with this figure, consult Appendix Table A4.2.

Italian, Chinese, and Mexican foods were more ubiquitous than other chains, a spatial verification of those cuisines' popularity and ubiquity. Figure 4.2 supplements this finding by showing that, among less popular cuisines, particularly Indian, Caribbean, and Korean foods, chains were more likely to occur in communities whose ethnic share of residents was larger. Each bar of Figure 4.2 is the mean percentage of the local population that was of the same country of origin as the cuisine. The stars above certain

Figure 4.2. Average Ethnic Share of Communities that Had At Least One Restaurant, By Cuisine and Restaurant Type



*p<0.05, ***p<0.001
This figure shows, of those neighborhoods that had at least one restaurant of a given cuisine and restaurant type, the mean proportion of a neighborhood's population that was of the same ethnicity as the restaurant. The boxes with stars above certain pairs of bars indicate the statistical significance of t-tests within cuisines and across restaurant type. If there is no box above pairs of bars, then t-tests were not statistically significant at the five percent level.

pairs of bars indicate that, within those cuisines, t-tests of ethnic population proportions were statistically significantly different across non-chains and chains.

According to Figure 4.2, independently owned Mexican restaurants were more common among Mexican populations than chain-affiliated restaurants. For less popular cuisines, the opposite was true: Chains were more likely than non-chains to locate within neighborhoods whose ethnic share was larger. In general, restaurants belonging to highly popular cuisines were more likely to be found in non-ethnic communities, no matter if the restaurant was chain-affiliated or independently owned. Less popular cuisines, in addition to Latin American restaurants, were much more likely to be found in communities with a larger ethnic share of residents. Figure 4.2 provides strong evidence that chains' locational strategies were not all equal. Some chains may indeed be Enclave Insiders, profiting from a location within a large ethnic community.

Figure 4.2 speaks to the average ethnic share in neighborhoods that contain at least one non-chain or chain restaurant. Nevertheless, the figure neither accounts for the unequal distribution of ethnic restaurants across neighborhoods nor does it control for alternative factors that may influence the location of restaurants. In order to address these weaknesses, Table 4.3 shows the results of the negative binomial regressions using seemingly unrelated estimation. The table demonstrates how a one unit increase in a given variable is associated with an increase in the expected log count of restaurants in a community. Univariate statistics associated with Table 4.3 can be found in Appendix Table A4.2. According to Table 4.3, the ethnic population share is statistically significantly associated with more restaurants, no matter the cuisine or restaurant type. Findings varied by the popularity of cuisines, however. For highly popular cuisines, chain restaurants were more strongly associated with population size than ethnic share. By contrast, for the least popular cuisines, chains were more strongly associated with ethnic share than population size.[24] The ethnic share of the local population was likely more

[24] These statements are true even when regression estimates are standardized.

Table 4.3. Seemingly Unrelated Negative Binomial Regressions of Ethnic Restaurant Counts on Key Variables, by Cuisine and Restaurant Type

	Italian		Chinese		Mexican		Mediterranean		Latin American		SE Asian		Indian		Caribbean		Korean	
Variable	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains
Ethnic Share	0.17***	0.11***	0.06***	0.03***	0.14***	0.07***	0.25***	0.18***	0.08***	0.07***	0.13***	0.17***	0.15***	0.15***	0.06***	0.07***	0.31***	0.30***
	(0.02)	(0.03)	(0.00)	(0.00)	(0.00)	(0.01)	(0.03)	(0.04)	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	(0.02)	(0.00)	(0.00)	(0.03)	(0.03)
Pop Size	0.16***	0.19***	0.16***	0.18***	0.17***	0.16***	0.11***	0.12**	0.17***	0.22***	0.21***	0.14***	0.14***	0.08	0.08**	0.07	0.10*	-0.01
	(0.00)	(0.02)	(0.02)	(0.02)	(0.02)	(0.00)	(0.02)	(0.04)	(0.02)	(0.05)	(0.02)	(0.05)	(0.03)	(0.05)	(0.02)	(0.05)	(0.05)	(0.07)
Median HH	0.02	-0.00	0.01	0.05	0.01	-0.00	0.05	0.04	0.04	-0.07	0.02	0.02	0.05	0.07	0.04	0.07	0.03	0.03
Income	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.06)	(0.03)	(0.05)	(0.03)	(0.07)	(0.05)	(0.06)	(0.04)	(0.07)	(0.07)	(0.10)
ΔPop Size	0.00	0.00*	-0.00***	-0.00	-0.01***	0.00	-0.01***	-0.01	-0.02***	-0.01**	-0.01***	-0.01	-0.01***	-0.01	-0.02***	-0.02***	-0.01*	-0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)
ΔMedian HH	-0.01*	-0.00**	0.00	0.00	0.01***	-0.00	0.00	-0.00	0.02***	0.01	0.01***	0.00	-0.01***	0.00	0.01*	0.03**	0.00	-0.01
Income	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)
% in	0.03***	0.02**	0.01***	0.01***	0.03***	0.03***	0.05***	0.06***	0.03***	0.02*	0.04***	0.05***	0.04***	0.04***	0.01	0.01	0.04***	0.04**
Creative Class	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)
% Moved in	0.03***	0.02**	0.01**	0.01	0.04***	0.04***	0.05***	0.07***	0.04***	0.05***	0.04***	0.04***	0.05***	0.05***	0.03***	0.03*	0.09***	0.09***
the Last Year	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Intercept	-2.80***	-4.36***	-1.48***	-3.36***	-2.96***	-4.21***	-3.64***	-6.98***	-2.74***	-5.31***	-4.56***	-7.08***	-4.22***	-6.23***	-2.69***	-4.33***	-5.97***	-7.79***
	(0.11)	(0.17)	(0.10)	(0.16)	(0.01)	(0.17)	(0.17)	(0.38)	(0.17)	(0.38)	(0.18)	(0.40)	(0.24)	(0.39)	(0.22)	(0.43)	(0.38)	(0.56)
Ln(α)	0.18**	0.49**	-0.37*	-0.19	0.37***	0.43**	1.10***	1.89***	0.86***	1.42***	0.92***	2.31***	1.39***	1.64***	0.80***	1.56***	2.15***	2.17***
	(0.11)	(0.15)	(0.17)	(0.25)	(0.16)	(0.15)	(0.09)	(0.21)	(0.08)	(0.25)	(0.10)	(0.22)	(0.13)	(0.28)	(0.15)	(0.32)	(0.25)	(0.24)
Wald Stat[1]	4.03*		19.61***		33.63***		2.39		2.12		2.64		0.15		0.86		0.07	

*p<0.05, **p<0.01, ***p<0.001

1. This row reports chi-squared values of Wald tests (using one degree of freedom) comparing the effect size of Ethnic Share on restaurant counts. Within each cuisine, the null hypothesis is that the association of Ethnic Share with the expected log count of chain restaurants is equal to the association of Ethnic Share with the expected log count of non-chain restaurants. If the null hypothesis is rejected, then the difference in the size of the two associations is unlikely due to chance.

important to the locational decisions of chains in less popular rather than highly popular cuisines. With regards to control variables, the percentage of the community that either belonged to the Creative Class or recently moved into the area were associated with more restaurants, supporting prior wisdom (Carroll and Torfason 2011, Park 2015). Forms of community change, such as increases in population size or median income from 2000 to 2010, were less associated with the expected log count of chain restaurants. As a robustness check, Appendix Table A4.3 repeats the regressions using a strict definition of chain restaurants derived from *InfoUSA*'s List of Chains and Franchises and Worldfranchising.com. Appendix Table A4.3 upholds the results in Table 4.3, including the variations across highly popular and less popular cuisines.

Although the regressions in Table 4.3 suggest that the ethnic share of a community is important to chains among less popular cuisines, cross-model tests show this more clearly. The bottom row of Table 4.3 provides the results of Wald tests for the equality of coefficients across regressions on non-chains versus chains. For example, the statistically significant Wald statistic for Italian cuisine means that the stronger association of ethnic share with non-chains rather than chains in Table 4.3—0.17 for non-chains and 0.11 for chains—was unlikely due to chance. Ethnic share was likely more important to the location of independently owned rather than chain-affiliated Italian restaurants. Indeed, for each highly popular cuisine, ethnic share was more associated with non-chains rather than chains. This finding confirms prior wisdom about the Italian, Chinese, and Mexican neighborhoods of New York: they were more likely to be served by independent ethnic restaurants (Drucker 2003, Mele 1996:6, Zukin 2008). Nevertheless, for less popular cuisines, there was no statistical difference in the association between ethnic share and the number of non-chains or chains in the neighborhood. Especially among Indian and Korean foods, the ethnic share of a neighborhood likely had an equal impact on whether an independent or chain-affiliated ethnic restaurant located there. This finding violates prior wisdom about

ethnic neighborhoods: For less popular foods, chains were sometimes as likely to serve ethnic communities as independent ethnic restaurants.

Ethnic Chain Restaurants and Suburban Areas

Thus far, the analysis has yet to address how ethnic chains may operate differently across the urban-suburban divide. To address this issue, Table 4.4 shows seemingly unrelated negative binomial regressions across cuisines and restaurant types, as before, but with the inclusion of two new independent variables: *suburb* and an interaction between *suburb and ethnic share* of the population. Suburb determines if a restaurant is in an urban or suburban portion of the New York metro area. I define urban areas as those places identified as central cities by the Census Bureau. Suburban areas are portions of the metro area outside of any central city.[25] The interaction variable reveals if chain restaurants are found in large, suburban ethnic communities such as ethnoburbs (Li 2009).

Table 4.4 highlights even more locational diversity among ethnic restaurants. As with Table 4.3, increases in the ethnic share of a community's residents are statistically significantly associated with an increased expected log count of both chain and non-chain restaurants in the community. For highly popular cuisines, furthermore, ethnic share is again more strongly associated with non-chains than chains. The coefficients for suburb add a new dimension to the analysis, however, showing that restaurants may target different communities depending on the community's urban or suburban status. For instance, although Italian, Chinese, and Mexican chains are statistically associated with increased restaurant counts in the suburbs, Latin American, Mediterranean, and Caribbean chains are negatively associated with suburban areas. The latter cuisines' chains, in other words, were more likely to have clusters of restaurants in central cities rather than suburbs. Once Wald tests on the equality of

[25] Urban areas include New York City and White Plains, NY and Edison, New Brunswick, Newark, Union, and Wayne, NJ.

Table 4.4. Seemingly Unrelated Negative Binomial Regressions of Ethnic Restaurant Counts on Key Variables, by Cuisine and Restaurant Type, Including Independent Variables for Urban-Suburban Status

	Italian		Chinese		Mexican		Mediterranean		Latin American		SE Asian		Indian		Caribbean		Korean	
Variable	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains
Ethnic Share	0.16***	0.10**	0.06***	0.04***	0.13***	0.08***	0.23***	0.18***	0.08***	0.05***	0.13***	0.16***	0.16***	0.14***	0.05***	0.06***	0.31***	0.30***
	(0.02)	(0.03)	(0.01)	(0.00)	(0.01)	(0.01)	(0.03)	(0.04)	(0.01)	(0.01)	(0.02)	(0.03)	(0.02)	(0.03)	(0.00)	(0.01)	(0.04)	(0.03)
Pop Size	0.16***	0.19***	0.16***	0.18***	0.17***	0.16***	0.12***	0.13***	0.16***	0.22***	0.21***	0.24***	0.16***	0.09*	0.09***	0.07	0.11*	-0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)	(0.05)	(0.02)	(0.04)	(0.02)	(0.04)	(0.05)	(0.07)
ΔPop Size	0.04*	0.01	0.01	0.05	0.01	0.00	0.04	0.01	0.04	-0.08	0.02	0.02	0.03	0.07	0.04	0.06	0.02	0.05
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.05)	(0.03)	(0.05)	(0.03)	(0.07)	(0.04)	(0.06)	(0.04)	(0.07)	(0.07)	(0.10)
Median HH	-0.00*	-0.00	-0.01*	-0.01*	-0.01*	-0.00	-0.01*	0.00	-0.02***	-0.01	-0.01*	-0.01	-0.01*	-0.00	-0.01***	-0.01*	-0.01	-0.01
Income	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
ΔMedian HH	-0.00	-0.01	0.00	0.00	0.01***	-0.00	0.00	0.00	0.02***	-0.00	0.01*	0.00	-0.00	-0.00	0.01*	0.02*	-0.00	0.01
Income	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
% in	0.03***	0.03***	0.01***	0.01***	0.03***	0.03***	0.04***	0.05***	0.03***	0.01	0.04***	0.04***	0.03***	0.04***	0.00	0.01	0.04***	0.04***
Creative Class	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)
% Moved in	0.03***	0.02**	0.01***	0.01	0.04***	0.04***	0.04***	0.06***	0.04***	0.05***	0.04***	0.04**	0.04***	0.04***	0.03***	0.02	0.08***	0.09***
the Last Year	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Suburb	0.61***	0.50***	0.09	0.26*	-0.14	0.28*	-0.45***	-0.63*	0.02	-0.59*	-0.14	-0.15	-0.83***	-0.41	-0.18	-0.63*	-0.46	0.13
	(0.07)	(0.11)	(0.06)	(0.11)	(0.09)	(0.11)	(0.11)	(0.24)	(0.11)	(0.24)	(0.11)	(0.26)	(0.15)	(0.24)	(0.14)	(0.29)	(0.24)	(0.54)
Ethnic Share X	0.03	0.07	-0.03	0.02	0.01	-0.02	0.06	-0.06	0.02*	0.04**	0.00	0.00	-0.00	0.02	0.06***	0.07*	0.00	0.02
Suburb	(0.03)	(0.05)	(0.03)	(0.04)	(0.02)	(0.02)	(0.07)	(0.12)	(0.01)	(0.02)	(0.03)	(0.05)	(0.03)	(0.04)	(0.01)	(0.03)	(0.06)	(0.07)
Intercept	-2.85***	-4.40***	-1.41***	-3.33***	-2.72***	-4.19***	-3.36***	-6.64***	-2.21***	-4.77***	-4.37***	-6.81***	-3.95***	-5.90***	-2.33***	1.50***	-5.65***	-7.57***
	(0.11)	(0.18)	(0.11)	(0.16)	(0.15)	(0.17)	(0.16)	(0.35)	(0.16)	(0.32)	(0.18)	(0.40)	(0.22)	(0.37)	(0.20)	(0.33)	(0.37)	(0.50)
Ln(α)	0.15*	0.47**	-0.38*	-0.19	0.36***	0.45**	1.06***	1.78***	0.85***	1.38***	0.91***	2.29***	0.31***	1.59***	0.76***	-3.90***	2.13***	2.19***
	(0.07)	(0.16)	(0.17)	(0.25)	(0.09)	(0.15)	(0.10)	(0.22)	(0.08)	(0.24)	(0.10)	(0.22)	(0.14)	(0.30)	(0.15)	(0.39)	(0.24)	(0.25)
Wald Stat: Ethnic Share[1]	5.72*		17.44***		15.66***		0.98		4.23*		1.45		0.48		0.26		0.09	
Wald Stat: Suburb[1]	1.02		2.08		5.43*		0.58		6.36*		0.00		2.78		1.97		1.10	
Wald Stat: Ethnic Share X Suburb[1]	0.50		1.35		1.87		0.87		2.64		0.00		0.39		0.13		0.05	

*p<0.05, **p<0.01, ***p<0.001

1. These rows report chi-squared values of Wald tests (using one degree of freedom) comparing the effect size of Ethnic Share, Suburb, and Ethnic Share X Suburb on restaurant counts. Within each cuisine, the null hypothesis is that the association of each variable with the expected log count of chain restaurants is equal to the variable's association with the expected log count of non-chain restaurants. If the null hypothesis is rejected, then the difference in the size of the two associations is unlikely due to chance.

coefficients across paired columns are taken into account, this fact continues to hold for some cuisines. Suburban locations were more strongly associated with Mexican chains than non-chains, while urban locations were more strongly associated with Latin American chains than non-chains. Put simply, chains' locational strategies likely differed by cuisine across the urban-suburban divide.

Suburban communities heavily comprised of ethnic residents tell a different story about where chains were located. For two cuisines—Latin American and Caribbean—large, suburban ethnic populations were statistically associated with where chains located. In both cases, however, the effect size of this association was much smaller than that between restaurant counts and urbanicity, meaning that these cuisines' chains were heavily urban overall. It is also important to note that larger, suburban Latin American and Caribbean communities were statistically associated with greater counts of both chains and non-chains. According to Wald tests, the difference in these effect sizes was not statistically significant as well. In sum, for Latin American and Caribbean restaurants, chains and non-chains had comparable likelihoods of locating near suburban ethnic populations. This trend suggests that, in some cases, as ethnic business clusters grow in the suburbs, they may be comprised of both independently owned and chain-affiliated businesses.

Summary and Discussion

This chapter injected much-needed nuance into a longstanding debate about the potential effects of chain retailers on local communities and neighborhoods. On one side of the debate are those who demonstrate the negative effects of chain retailers on independent businesses, labor practices, crime rates, housing prices, and the character of neighborhoods (Hackworth and Rekers 2005, Merriman et al. 2012, Neumark et al. 2008, Wolfe and Pyrooz 2014, Zukin et al. 2009). On the other side are those who stress the contributions of chains to local consumers, economic development initiatives, and health outcomes (Akst 2001, Chung and Myers Jr. 1999, McMillan 2014, Postrel 2006). The problem with the

debate is that chain retailers are often treated as equivalent to one another. In addition, many analyses focus on the effect of companies such as Walmart, Whole Food, McDonald's, or Starbucks while ignoring the variety of chains that may exist beyond these behemoths (McMillan 2014, Merriman et al. 2012, Rascoff and Humphries 2015, Schlosser 2012, Smith 1996). Much research on chains, moreover, overlooks the connection between the growth of chains in urban areas and non-chains, such as ethnic restaurants, in suburban areas. Using Yelp.com and U.S. Census data on businesses and neighborhoods in the New York City metro area, this chapter analyzed the ethnic chain restaurant industry to make two points. First, chain retailers come in different types and use different locational strategies depending on the demographic makeup of the local area. Second, some chains profit off of the existence of concentrated ethnic minority communities rather than the affluent, White communities often discussed in the literature on gentrification.

These lessons hold despite some limitations of the analysis. Perhaps the biggest limitation is that this chapter's quantitative analysis was cross-sectional, meaning that the causal relationship between the dependent and independent variables is impossible to determine. The chains analyzed in this chapter may not have chosen to locate near certain demographically unique communities. Rather, the existence of chains may have caused demographically unique communities to move in and live near the chains. Although either causal pathway may have occurred—and future research should certainly determine which causal pathway is the correct one—the statistically significant association between chain retailers and ethnic minority communities should give pause to those who assume that chains universally and uniformly homogenize local areas. More pointedly, scholars who feel that "ethnic spaces are still the anti-Starbucks" (Zukin 2008:735) miss many of the economic dynamics that can shape neighborhood change.

This analysis also did not address the role of the state, which can promote or discourage the growth of chains in particular communities in order to stimulate economic changes in neighborhoods.

Business improvement districts, economic empowerment zones, and zoning changes can alter the path of economic development, including where chains choose to locate (Benediktsson 2015, Hackworth and Smith 2001, Sutton 2014). Nevertheless, chains desire to locate as close to their consumer bases as is reasonable. Examples include chains like Paradise Biryani Pointe, discussed earlier, which encourages franchisees to locate as close to local South Asian residential concentrations as possible. Politics is an important moderator of where chains locate, but it does little to alter the fact that chains are diverse and may differ amongst themselves regarding their ideal locations and orientations toward local communities.

Finally, much demographic information in this chapter was taken from census tracts, but chains likely serve markets that do not adhere cleanly to tract boundaries. Indeed, retail geographers working in the research wings of major corporations often have access to far more sophisticated geospatial data on individual households and their consumer habits than academics do. This limitation of the analysis is consequently difficult to overcome. As mentioned earlier, I spatially lagged all the independent variables in the analysis as a robustness check, and the results changed very little. Future research should nevertheless move beyond existing approaches to analyzing retailers' trade areas. In an era of big data, the wealth of business and consumer information available from digital sources may yield new methodologies that can liberate information on chains' locational strategies from private companies.

Conclusion

The findings of this chapter offer important lessons for scholars of gentrification, ethnic economy development, and urban planning. Gentrification scholars need to understand the role played by chain retailers in neighborhood change. Scholars have yet to determine if retail change stimulates housing gentrification or vice versa, with most scholars relying on the safer conclusion that the two are simply related (Meltzer and Schuetz 2011, Hackworth and Rekers 2005, Zukin et al. 2009). Scholars have

also been unable to tease apart the fact that affluence encourages as well as discourages the presence of chain retailers. As mentioned when I discussed Classy Crossovers, the presence of chains increases along with the income of an area, yet some affluent communities resist the growth of chain retailers (Schuetz et al. 2010). Residents can even disagree amongst themselves about the benefits of having chain retailers in their local communities (Brown-Saracino 2004, Deener 2007, Freeman 2006, Sullivan and Shaw 2011). Part of this confusion is likely due to the broad strokes with which scholars paint chain retailers as an economic force in the community. It is also likely due to the heavy emphasis in many popular and academic articles on a handful of chain retailers such as Whole Foods and Starbucks (McMillan 2014, Merriman et al. 2012, Rascoff and Humphries 2015, Schlosser 2012, Smith 1996, cf. Benediktsson 2015, Meltzer and Schuetz 2011). Before the study of retail gentrification can become a legitimate field of academic inquiry, which scholars want to be the case (Zukin et al. 2009), scholars must acknowledge the diversity of chains and their locational strategies.

Regarding ethnic economy development, it was presumed at one time that ethnic economies were an outgrowth of local ethnic neighborhoods, fueled by economically marginal entrepreneurs who used business ownership as a means of survival (Portes and Bach 1985, Light and Gold 2000, Waldinger et al. 1990). Today, however, ethnic neighborhoods are increasingly becoming recognized as central nodes in global circuits of capital (Aytar and Rath 2012, Lin 2008). Certain global chains, from Din Fai Tung to Pollo Campero to Pho Hoa to Jollibee, take into consideration the location of local ethnic populations before deciding where to expand (Bartlett and O'Connell 1998, Hernandez 2014). In the 20th Century, the ethnic economy literature heavily emphasized ethnic neighborhoods in urban areas full of independent ethnic businesses. 21st Century chain stores are increasingly targeting ethnic neighborhoods, and rather than promote the gentrification of these spaces, chains may be preserving or redefining their ethnic character. Chains may also be targeting burgeoning ethnic communities in the

suburbs, which may inhibit the success of entrepreneurs trying to build ethnic economies in suburban areas.

Finally, urban planners and activists have historically attempted many strategies to slow the encroachment of chains across the U.S. These have included lawsuits, boycotts, appeals to consumers, and the withholding of necessary licenses to chain retailers. These approaches have had varied success (Halebsky 2004, Sutton 2010). Nevertheless, if planners and activists recognize that chains differ in the markets they target and the communities they enter, then they can channel their limited resources toward challenging specific types of chains rather than using a blanket approach. This way, independent businesspeople can continue to play a meaningful role in local economies.

Appendix Table A4.1. Full List of Cuisines, and Total Mentions of Cuisines, by New York Restaurants on Yelp.com

Cuisine Category	# Mentions	Cuisine Category	# Mentions	Cuisine Category	# Mentions
American	6,436	French	471	Modern European	66
Pizza	5,702	Ethnic Food	424	Falafel	64
Bars	5,564	Food Truck	407	Polish	58
Italian	**4,283**	Farmers Market	405	Afghan	57
Coffee & Tea	4,025	Kosher	398	Fish & Chips	53
Chinese	**3,879**	Halal	370	Cheesesteaks	52
Delis	3,306	Vegetarian	348	Malaysian	47
Sandwiches	3,246	Seafood Market	343	Belgian	44
Bakeries	2,935	Street Vendor	320	Himalayan & Nepalese	37
Fast Food	2,709	Fruits & Veggies	319	Persian & Iranian	34
Mexican	**2,242**	Tex Mex	312	Pretzels	34
Burgers	2,104	Irish	272	Food Court	33
Ice Cream & Frozen Yogurt	1,741	Hot Dogs	257	Hot Pot	30
Mediterranean	**1,697**	Health Markets	245	Bangladeshi	29
Latin American	**1,683**	Soup	232	Herbs & Spices	27
Japanese	1,655	Buffets	207	Cafeteria	24
Seafood	1,586	Chocolatier	197	Live & Raw Food	22
Breakfast & Brunch	1,458	Gastropubs	175	Ethiopian	21
Donuts	1,354	Vegan	174	British	20
Bagels	1,335	Bubble Tea	172	Pasta Shop	19
Cafes	1,281	Candy Stores	165	Fondue	18
Sushi Bars	1,273	Comfort Food	160	Scandinavian	16
Desserts	1,090	Pakistani	154	Ukrainian	16
Diners	1,066	Tapas & Small Plates	154	Arabian	15
Beer, Wine, & Spirits	1,057	Soul Food	150	Organic Store	13
Convenience Stores	1,023	Portuguese	146	Mongolian	10
SE Asian	**1,017**	Southern	135	Australian	9
Chicken Wing	990	Butcher	130	Armenian	8
Indian	**885**	Wineries	123	Senegalese	7
Caribbean	**745**	Russian	118	Czech	6
Asian Fusion	719	Cheese Shops	101	South African	5
Steakhouse	638	Creperies	94	Hungarian	3
Juice Bars	627	Cupcakes	87	Singaporean	3
Meat Shops	570	Gelato	82	Laotian	2
Spanish	568	German	81	Slovakian	2
Barbeque	550	Cajun & Creole	70		
Korean	**531**	Shaved Ice	70		
Food Stand	502	African	68		
Salad	495	Taiwanese	67		

Appendix Table A4.2. Univariate Statistics of Key Variables

	Italian		Chinese		Mexican		Mediterranean		Latin American		SE Asian		Indian		Caribbean		Korean	
Variable	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains
Ethnic Share	0.94	0.93	2.83	2.31	2.45	3.82	1.48	1.45	11.88	10.78	2.85	2.06	6.46	4.18	14.29	10.70	10.42	5.88
	(1.39)	(1.35)	(7.51)	(6.26)	(5.21)	(6.19)	(2.57)	(2.13)	(10.63)	(9.98)	(4.72)	(3.61)	(9.74)	(7.44)	(14.35)	(12.91)	(10.98)	(8.60)
Pop Size	5.03	4.65	5.03	4.74	4.87	4.78	4.73	4.65	5.03	4.64	5.08	4.90	4.83	4.83	4.17	4.42	4.10	4.78
	(2.24)	(1.98)	(2.40)	(2.04)	(2.12)	(2.00)	(2.36)	(2.15)	(2.42)	(1.95)	(2.04)	(2.20)	(2.39)	(2.26)	(3.01)	(2.06)	(1.99)	(2.24)
Median HH	83.13	80.03	71.70	68.72	74.94	63.30	81.95	71.93	57.36	57.71	79.12	76.49	82.67	72.92	53.13	54.11	75.23	76.62
Income	(31.77)	(32.98)	(30.76)	(31.04)	(31.58)	(31.05)	(33.15)	(31.58)	(30.33)	(26.43)	(33.08)	(32.36)	(34.59)	(31.27)	(22.41)	(23.57)	(26.17)	(32.02)
ΔPop Size	-0.12	-0.12	-0.04	-0.13	-0.12	-0.07	0.02	-0.11	-0.29	-0.08	0.04	-0.03	0.17	-0.08	-0.24	-0.09	-0.10	-0.10
	(1.52)	(1.38)	(1.59)	(1.36)	(1.48)	(1.40)	(1.46)	(1.47)	(1.71)	(1.26)	(0.95)	(1.37)	(1.77)	(1.51)	(1.90)	(1.38)	(1.99)	(1.37)
ΔMedian HH	1.72	2.60	2.15	2.25	2.13	2.96	5.21	3.06	1.65	2.78	4.22	4.11	82.67	2.73	3.63	2.24	5.87	4.00
Income	(15.45)	(14.26)	(12.37)	(11.94)	(16.05)	(11.70)	(21.58)	(14.45)	(11.98)	(12.00)	(14.07)	(13.31)	(34.59)	(16.78)	(11.06)	(10.95)	(16.99)	(13.79)
% in	45.76	43.73	40.47	38.67	43.56	37.48	52.43	45.46	33.31	34.12	48.48	46.53	51.14	46.20	31.94	31.99	48.55	47.48
Creative Class	(16.53)	(16.48)	(16.87)	(16.59)	(18.24)	(19.15)	(18.82)	(17.89)	(19.93)	(18.78)	(17.87)	(17.68)	(17.55)	(18.52)	(16.07)	(16.80)	(17.67)	(17.26)
% Moved in	10.94	10.85	11.31	10.67	12.78	13.01	16.43	12.99	13.63	13.11	13.60	13.02	15.62	13.77	12.58	11.98	17.26	15.17
the Last Year	(7.50)	(7.49)	(8.16)	(6.84)	(8.44)	(7.88)	(12.32)	(8.62)	(7.86)	(7.51)	(8.11)	(8.90)	(10.18)	(8.91)	(9.38)	(6.72)	(11.53)	(9.12)
Suburb[1]	0.65	0.64	0.51	0.50	0.55	0.42	0.34	0.38	0.38	0.42	0.43	0.46	0.47	0.38	0.18	0.31	0.35	0.36
	(0.48)	(0.48)	(0.50)	(0.50)	(0.50)	(0.49)	(0.48)	(0.48)	(0.49)	(0.49)	(0.50)	(0.49)	(0.50)	(0.48)	(0.39)	(0.46)	(0.48)	(0.48)
# of Restaurants[2]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(Min - Max)	(1 - 5)	(1 - 40)	(1 - 4)	(1 - 52)	(1 - 6)	(1 - 13)	(1 - 6)	(1 - 17)	(1 - 4)	(1 - 19)	(1 - 5)	(1 - 9)	(1 - 5)	(1 - 24)	(1 - 3)	(1 - 6)	(1 - 4)	(1 - 41)
$N_{\text{Tracts W Rests}}$[3]	527	1,725	547	1,864	557	912	129	675	152	804	96	555	113	409	107	431	46	165
(% of Tracts)	(12)	(38)	(12)	(41)	(12)	(20)	(3)	(15)	(3)	(18)	(2)	(12)	(2)	(9)	(2)	(10)	(1)	(4)
$N_{\text{All Tracts}}$	4,532		4,532		4,532		4,532		4,532		4,532		4,532		4,532		4,532	

1. This row presents, of all the tracts that contain at least one restaurant of a given cuisine and type, the proportion of tracts that are suburban.
2. This row reports the median number of ethnic restaurants among neighborhoods that contained at least one ethnic restaurant. Numbers in parentheses refer to the minimum and maximum number of restaurants in a neighborhood. Many census tracts did not contain a restaurant, but zero-inflated negative binomial regressions provide estimates similar to those presented in the chapter.
3. 'Tracts W Rests' refers to the number of census tracts that contained at least one restaurant of a given cuisine and restaurant type. '% of Tracts' refers to the proportion of all census tracts that contained at least one restaurant of a given cuisine and restaurant type.

Appendix Table A4.3. Seemingly Unrelated Negative Binomial Regressions of Ethnic Restaurant Counts on Key Variables, Using InfoUSA and Bond's Definition of Chain Restaurants

	Italian		Chinese		Mexican		Latin American		Caribbean	
Variable	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains	Non-Chains	Chains
Ethnic Share	0.16***	0.02	0.05***	0.02	0.14***	-0.02	0.08***	0.08***	0.06***	0.07***
	(0.02)	(0.06)	(0.00)	(0.03)	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)	(0.01)
Pop Size	0.17***	0.20***	0.17***	-0.03	0.17***	0.13***	0.18***	0.23**	0.08**	0.07
	(0.02)	(0.03)	(0.02)	(0.09)	(0.02)	(0.03)	(0.02)	(0.07)	(0.02)	(0.05)
Median HH	0.02	-0.07	0.02	0.47**	0.01	0.00	0.03	0.41	0.04	0.07
Income	(0.02)	(0.06)	(0.01)	(0.14)	(0.02)	(0.04)	(0.04)	(0.24)	(0.04)	(0.07)
ΔPop Size	0.00*	0.01**	-0.00***	-0.00	-0.01***	0.01**	-0.02***	0.01	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.09)	(0.00)	(0.00)	(0.00)	(0.04)	(0.00)	(0.01)
ΔMedian HH	-0.01***	-0.01	0.00	0.02	0.01**	-0.01*	0.02***	-0.02	0.01*	0.03**
Income	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.04)	(0.00)	(0.01)
% in	0.03***	0.00	0.01***	-0.01	0.03***	0.02**	0.03***	-0.09	0.01	0.01
Creative Class	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.07)	(0.00)	(0.01)
% Moved in	0.03***	0.04**	0.01**	0.04*	0.04***	0.04***	0.05***	-0.09	0.03***	0.03*
the Last Year	(0.00)	(0.01)	(0.00)	(0.02)	(0.00)	(0.01)	(0.01)	(0.07)	(0.01)	(0.01)
Intercept	-2.67***	-5.52***	-1.37***	-5.11***	-2.91***	-4.81***	-2.71***	-6.39***	-2.69***	-4.33***
	(0.11)	(0.33)	(0.10)	(0.66)	(0.14)	(0.23)	(0.17)	(1.35)	(0.22)	(0.43)
Ln(α)	0.22**	1.31**	-0.45**	3.16***	0.37***	1.23***	0.86***	-0.22**	0.80***	1.56***
	(0.07)	(0.39)	(0.15)	(0.91)	(0.08)	(0.21)	(0.08)	(0.07)	(0.14)	(0.32)
Wald Stat[1]	5.97*		17.60***		35.16***		0.07		0.86	

*p<0.05, **p<0.01, ***p<0.001

Note that Indian, Korean, Mediterranean, and Southeast Asian cuisines are excluded from this table because none of the restaurants considered chains by InfoUSA and Bond's belonged to these cuisines on Yelp.com.

Chapter 5: Conclusion and Policy Implications

The 21st Century presents a new dawn for immigrant entrepreneurship and ethnic economy growth in the United States. International migration has touched all four corners of the country, and immigrant-owned businesses can be found from the largest of cities to the smallest of towns. Until recently, scholarship focused on ethnic economies in urban neighborhoods and large cities. Shifts in migration streams toward smaller municipalities outside of major urban areas force scholars to rethink what is known about how ethnic economies grow and impact local communities. This dissertation was the first ever comprehensive treatment of ethnic economy growth in the suburban United States, a portion of the country experiencing a profound demographic transformation. Increases in suburban poverty, racial and ethnic diversity, and reliance on social services have changed the conditions under which economic development can occur in suburban areas (Allard and Roth 2010, Kneebone and Berube 2013, Murphy 2007, Singer et al. 2008). The association often made between tightly bound, densely populated neighborhoods, such as a Chinatown or Little Italy, and ethnic economy growth is rapidly becoming insufficient to characterize ethnic economies growing in sprawling, multi-ethnic suburban regions (Iceland 2009, Logan and Zhang 2010, Portes and Bach 1985, Zhou 1992).

To summarize the primary conclusion of this dissertation, as international migration streams shift from urban to suburban parts of the United States, there are likely to be significant challenges for suburban immigrant entrepreneurs who hope to reproduce the successes found in urban ethnic economies. Despite the promise held by a select number of suburban ethnic economies, especially ethnoburbs (Li 2009), income attainment is similar in suburban and urban ethnic economies. Economic downturns such as the Great Recession disproportionately affect suburban ethnic economies, which often lack the social and financial capital of urban ethnic hubs. Additionally, immigrant entrepreneurs are facing competition from a new organizational form, the ethnic retail chain. Ethnic chains such as P.F.

Chang's and Chipotle have increased their presence among both mainstream and ethnic markets, and some, such as Golden Krust, explicitly target ethnic markets. As ethnic minority communities expand into suburban areas, one should expect those retail chains targeting the ethnic market to expand there as well.

Three lessons should be taken from the findings. The first is that immigrant adaptation in suburban areas is likely converging with that occurring in urban areas. In the 20th Century, many of the immigrants who lived and worked in suburban areas were those with the greatest cultural and financial capital (Alba et al. 1999, Massey 1985). Today, however, the suburbs house foreign-born residents of every type (Iceland 2009, Jones-Correa 2008, Singer et al. 2008, Suro et al. 2011). Suburban areas are no longer the preserve of the best-off international migrants, meaning that many of the outcomes seen in urban ethnic economies are beginning to be seen in suburban contexts. The convergence between urban and suburban conditions is especially the case for outcomes such as income attainment and ethnic economy composition, both of which were shown in Chapter 2 to be similar across suburban and urban ethnic economies.

Second, suburban ethnic economies may suffer added problems by virtue of their newness and smallness, problems rarely discussed in the literature on urban ethnic economies (Light and Bonacich 1988, Portes and Bach 1985, Zhou 1992). These features render suburban ethnic economies highly vulnerable to changes in the business cycle, a point elaborated on in Chapter 3. Even more, as explained in Chapter 4, the growth of ethnic communities in suburban areas provides market opportunities for newly created, highly capitalized ethnic chain retailers who may out-compete more traditional immigrant-owned businesses. Recent research shows that some urban immigrant entrepreneurs can resist takeover by non-ethnic, mainstream business interests. Local entrepreneurs and community members may market the "ethnic brand" of their neighborhood's businesses, thereby delegitimizing the attempts of chains to enter the neighborhood and take over its economy (Aytar and Rath 2012). Unlike

these ethnic economies, which are often entrenched in tightly-bound urban ethnic neighborhoods, suburban ethnic economies are likely ill-equipped to engage in such defensive strategies.

This dissertation, finally, contrasted with the predominant analytic approach taken by those who study suburban ethnic economies: the case study method. Much prior research analyzes a handful of highly successful suburban ethnic economies such as the Chinese ethnic economy of Monterey Park, California, outside Los Angeles (Fong 1994, Horton 1995, Li 2009, Saito 1998). The conclusion one draws from these case studies is that suburban ethnic economies are vibrant and thriving. By using the case study method, however, struggling suburban ethnic economies are omitted from view. The comprehensive approach I use in this dissertation analyzed successful and less successful ethnic economies simultaneously. On the whole, the dissertation painted a picture in which suburban ethnic economies may struggle to prosper and sustain foreign-born workers trying to navigate the U.S. labor market.

Future Directions

This dissertation leaves many questions unanswered. By taking a bird's eye view of ethnic economies spanning much of the suburban United States, the dissertation was able to reveal general conclusions about ethnic economies occurring across different places and groups. This research is a unique addition to the literature, which tends to be comprised of in-depth case studies of a handful of successful suburban ethnic economies, as discussed earlier. Nevertheless, because the dissertation lacked the fine-grained details of an in-depth case study, it was unable to provide strong causal links between the social life of immigrant workers and the material consequences of ethnic economies. Wider ranging work should bridge the gap between large-scale studies such as this one and case studies of individual ethnic economies.

In addition to integrating the micro- and macro-dynamics of ethnic economy growth in the suburbs, future scholarship should engage directly with research on parallel issues affecting immigrants in suburban areas. For example, the introduction of international migrants into some suburban towns has caused political upheaval. One outcome has been the rise of anti-immigrant ordinances, discussed in earlier chapters (Flores forthcoming). But even pro-immigrant legislation can be difficult to pass due to the growth of so many different groups in suburban municipalities. Political mobilization is tough to achieve across ethnic lines, a necessity for developing pro-immigrant coalitions in multi-ethnic suburban communities (Horton 1995). Furthermore, some immigrant communities are spread throughout metropolitan regions rather than concentrated in one neighborhood, resulting in added complications. The Salvadorans of Washington D.C., for example, spread themselves throughout both urban and suburban areas, not all of which are served by public transportation. Political activists consequently have difficulties organizing the community to take part in political acts such as protesting or even voting (Jones-Correa 2008). In a different vein, the smallness of some suburban communities enables immigrant entrepreneurs to wield considerable political influence. Access to policy makers can lead to problems, however, because political power breeds in-fighting within the local ethnic community. Earlier cohorts of immigrants can disagree with the political strategies of later cohorts, just as first generation immigrants may disagree with the strategies of the second generation (Fong 1994). Entrepreneurs start businesses in order to wield economic power, yet economic power helps business owners wield political power. Given the complexities of suburban life in the United States today, future research must analyze how ethnic economy growth intersects with changes occurring in local politics.

Research should also explore the significance of multi-ethnicity to suburban ethnic economies. Although this dissertation presumed no mixing of businesses and workers across ethnic groups, it begs the question: How common are stories such as the one of Buford Highway in the opening chapter? What impact do inter-ethnic ties have on business opportunities? In the dissertation, I relied on

administrative data from the Census Bureau and big data sources such as Yelp.com. Administrative data in particular is useful for capturing the breadth of multi-ethnic communities in the suburban United States (Logan and Zhang 2010, Wen et al. 2009). Nonetheless, administrative and big data sources should be tied to research that interprets the meaning of ethnicity in suburban communities. When possible, it would be worthwhile for Census data to be supplemented with ethnographies or survey data that identify how cultural and structural elements of ethnic economies co-constitute one another.

Finally, despite the profound social and economic consequences of international migration to the suburbs, scholars debate how sustainable the changes occurring in suburban parts of the U.S. are. On the one hand, some scholars view gentrification of the central city, increases in suburban impoverishment, and the movement of ethnic minorities into suburban communities as evidence that U.S. cities are becoming more like some European cities, where the center is reserved for urban elites and the poor live on the suburban periphery (Brueckner et al. 1999). On the other hand, some see the changes occurring in the U.S. suburbs as a "blip" in the long-term trend toward elite suburbanization that has occurred since the beginning of the 20th Century (Guest and Brown 2005:66, Kotkin 2010). They even argue that the rise in suburban poverty is exaggerated (Cooke and Denton 2015). If the changes occurring in the suburbs truly are short-lived, then suburban ethnic economies are a curious development. How sustainable are the business corridors being created by immigrant entrepreneurs in suburban areas? What contributions do these firms make to community development if indeed it turns out that demographic changes in the U.S. suburbs were a temporary phenomenon? Future research is needed to answer these questions.

Policy Implications

In addition to the theoretical implications of this dissertation, policy makers should use the findings to ensure that ethnic economy development maximizes benefits for the larger economy. The

association between immigrant entrepreneurship, economic development, and social policy is hardly trivial. Numerous mayors and governors are nervous about their towns' and states' shrinking populations and economic bases, and they hope that international migrants and their entrepreneurialism will reverse these declines (Preston 2013). Rick Snyder, currently the governor of Michigan, is emblematic of this anxiety. In a recent press release, he heralded the opening of his state's Office for New Americans, which aims to promote Michigan as a destination for international migrants. Upon naming entrepreneur Bing Goei as the founding director of the office, he stated,

> [Goei's] experiences as an immigrant and job creator will benefit our entire state. We want the world to know that Michigan is a welcoming state. We value the cultural diversity, professional contributions and entrepreneurial skills offered by foreign-born residents. Encouraging legal immigration will create more jobs for families and enhance the quality of life across Michigan.[26]

Governor Snyder's efforts echo those attempted by local officials across Michigan. Sterling Heights and Hamtramck, both suburbs of Detroit, in addition to numerous other cities and towns across Michigan, are formal partners of Welcoming Michigan and the Partnership for a New American Economy. These initiatives aim to reform immigration policy and, among other goals, promote the growth of immigrant-owned enterprises. The state of Michigan has even requested that the federal government create 50,000 region-specific visas for entrepreneurs and high-skilled workers willing to live and work—and hopefully stimulate economic development—in Detroit.[27]

The track record of using immigrant entrepreneurship as a lynchpin of economic development is sadly mixed. On the one hand, there are those such as Jacob Vigdor, who argues that, "For every 1,000 immigrants living in a county, 46 manufacturing jobs are created or preserved that would otherwise not exist or have moved elsewhere," (2013:2). Although his analysis does not specify how much job growth is due to immigrant entrepreneurship rather than the fact that an influx of low-skill immigrant labor can keep costs down for native-born businesspeople, the finding echoes research done by others who

[26] http://www.michigan.gov/snyder/0,4668,7-277--321024--,00.html
[27] http://www.michigan.gov/snyder/0,4668,7-277-61409_67367-320068--,00.html

associate immigrant entrepreneurship with economic development (Hohn 2012, Stangler and Wiens 2015). Furthermore, set-aside programs, in which firms are required by law to conduct a certain amount of business with minority-owned firms, have been particularly noted by experts as beneficial to both economic development and the socioeconomic mobility of ethnic minority groups (Gold and Light 2000, Woodward 1997). Some programs are viewed in a less positive light, however. Economic development initiatives tied to low-interest loans for minority-owned businesses, for instance, show little success in the long run. Local branches of the Small Business Administration sometimes offer low-interest loans to aspiring minority entrepreneurs in the hopes of stimulating business growth, yet default rates on the loans are notoriously high (Bates 1997).

Governor Snyder's provocative proposal—visas should be distributed to immigrant entrepreneurs willing to move to economically underdeveloped regions of the country such as Detroit—is certainly a way in which immigrant entrepreneurs may benefit some local economies. Although region-specific visas have never been handed out in the United States, they are regularly used in Canada and Australia to re-populate and reinvigorate small rural regions. Since 1998, Canada has maintained a Provincial Nominee Program (PNP), which enables individual provinces to maintain a worker-based permanent residency program independent of the federal government's points-based visa selection criteria (Dalmia 2012). If a particular province wants to recruit entrepreneurs to its cities and towns, it can do so. Nevertheless, in the hopes of attracting the highest-skill workers and entrepreneurs, numerous rural, economically underdeveloped provinces attach a time limit to the residency requirement, after which international migrants are free to live wherever they like in Canada. Saskatchewan and Manitoba, for instance, both highly rural provinces, require foreign-born workers to stay for a minimum of three years before moving. Although they are free to stay and continue supporting local economic development, most immigrants move to traditional gateways such as Toronto, Vancouver, and Montreal after the three year moratorium in order to be in a stronger labor

market closer to co-ethnic populations (Krahn et al. 2005). Region-specific visa programs for entrepreneurs carry further risks as well. In Australia, 64 percent of immigrants brought in by the Regional Established Businesses in Australia program, similar to Canada's PNP, feel dissatisfied with their overall experience in Australia (Collins 2007:38-39).

Although it is unlikely that ethnic economy creation can be used as a long-term panacea for economic development woes, evidence does indicate that ethnic economies help low-skill workers avoid unemployment, learn occupational skills, and revitalize local neighborhoods (Light et al. 1994, Light and Bonacich 1988, Portes and Manning 1986). It is likely that these facts will persist as ethnic economies are created in the suburbs. Weighing the upsides of ethnic economies for immigrant workers against the downsides to economic development leads to this conclusion: An ethnic economy is worthwhile as a mechanism that prevents the socio-economic decline of immigrant workers rather than one that revitalizes local economies. Set-aside programs, however, should be expanded, where possible.

This conclusion comes from historical evidence. Nonetheless, new policy levers may alter the calculus of using ethnic economies for economic development. Some rural municipalities, for example, are using microfinance to build on community relations and create startup capital for struggling immigrant-owned businesses. A good example is the Somali-owned business cluster of Willmar, MN, whose Somali population has indeed reversed economic and population decline (Chicago Council on Global Affairs 2013:12). Rotating credit associations (ROSCAs), a related concept in which entrepreneurs band together to draw on a pot of money to which they regularly contribute, have been used by immigrants of many types throughout history (Granovetter 1995, Light and Gold 2000, Vélez-Ibañéz 1983). The experience of the Somali community of Willmar may mark the first time that ROSCA-like institutions are gaining state support in the United States. How the adoption of microfinance and related state-supported strategies will affect immigrant entrepreneurship and ethnic economy growth in the long term is unclear.

Another concept gaining traction is ethnic banking. Ethnic banks are "U.S. chartered commercial banks and savings and loans that are owned, controlled, and/or managed by members of U.S. ethnic minority groups and that focus on meeting the specific needs of minority businesses and residents" (Li et al. 2006:114). More specifically, these banks rely on local ethnic community ties, conduct business in the language of the ethnic community, and actively engage in attempts to teach financial literacy to the community. Ethnic banking has taught financial literacy and wealth creation to a wide variety of low-income immigrants (Gibson et al. 2014, Li et al. 2006). Historically, many immigrant entrepreneurs have relied on financing from family and friends because they lack banking knowledge or do not qualify for loans from mainstream banks (Light and Gold 2000). It consequently remains an open research question how ethnic banking will change immigrant entrepreneurship, business longevity, and job creation. In addition to microfinance and ethnic banking, some immigrant entrepreneurs are proving crucial to smaller towns as liaisons to the local ethnic community, helping ensure that governments can work with their local constituents to provide quality social services and opportunities for community-based civic engagement (Griffith 2008, Somashekhar 2014). The arbiter role of immigrant entrepreneurs may also change the association between ethnic economies and economic development.

Thus far, I have discussed the local policy implications of ethnic economies without addressing the larger laissez-faire welfare state system of the United States, which forces some immigrants to use entrepreneurship as a means of survival. Without a social safety net to rely on, some immigrants are forced to work in ethnic economies in order to avoid unemployment (Bonacich 1993, Light et al. 1994). Indeed, it has been shown that foreign-born petty entrepreneurs are sometimes promoted by capitalists for the benefit of the elite. Immigrant entrepreneurs are often willing to maintain an economic infrastructure in poor neighborhoods until speculators find it profitable to build in these areas (Light and Bonacich 1988:Ch. 15). In policy terms, this can come in the form of economic empowerment zones (EZs). EZs, or the designation of certain depressed areas as appropriate for added economic investment,

are supposed to support local businesses by promoting "collaborative efforts to invest in the community and build social capital that would contribute to the lasting revitalization of neighborhoods" (Gittell et al. 1998:530-531). Nevertheless, EZs are often co-opted by corporate elites who leave local community members disengaged from the process (Meltzer 2012, Venkatesh 2006:Ch. 3). Some even believe that state support of ethnic economies allows mainstream banks to continue discriminating against minority entrepreneurs, who react by turning inward, relying on one another for financing instead of protesting against the policies of the banking sector (Gold and Light 2000). In many respects, these elements of ethnic economies are the flip side of the coin discussed in the body of the dissertation. As much as ethnic economies can be reduced to a matter of labor markets and industrial niches, there is a role for political activism within them as well.

In the end, much ethnic economy policy is a subset of larger economic and immigration policy. As Waldinger et al. stated 25 years ago,

> While we agree that governments should undertake policies aimed at promoting ethnic or minority business development, we argue that those policies can be thought of only as part of a much broader strategy aimed at tackling the multiple problems of unemployment, discrimination, and low earnings…Governments [sometimes] promote the development of ethnic businesses while simultaneously maintaining policies that impede the attainment of that goal (181).

Little is different today. Without comprehensive economic and immigration reform at the national level, the means by which ethnic economy participants in suburban areas can improve their lot in the economy will likely continue to be small. No easy solutions will be found until scholars, policy makers, and activists take seriously the consequences of the economic marginalization of immigrant labor, including the dynamics that occur in ethnic economies.

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