

Gentrification and Small Business: Threat or Opportunity?

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Abstract

Local, small businesses are very much tied to their surrounding communities. Therefore, when neighborhoods undergo meaningful economic and social changes, such as those that take place under gentrification, one would expect local businesses to feel the effects. Is gentrification, however, a threat or a boon for existing businesses? What are the implications for the residents who patronize these services? I test these questions here, using microdata on properties and businesses in New York City. I also drill down to three illustrative case neighborhoods, which reveal nuance beyond the average citywide effects. The results are mixed and show that gentrification is associated with both business retention and disruption. I find that most businesses stay in place, and displacement is no more prevalent in the typical gentrifying neighborhood than in nongentrifying neighborhoods. When businesses do leave gentrifying neighborhoods, however, the spaces tend to sit vacant for relatively longer periods of time than they do in nongentrifying neighborhoods. Gentrifying neighborhoods are more likely to attract new types of services than are nongentrifying and higher-income neighborhoods, and they more often attract multiple-establishment businesses (chains) to replace displaced businesses. As the neighborhood drill-downs show, however, cases still exist in which neighborhoods undergoing gentrification lose businesses without the upside of new amenities.

Introduction

Much of the literature on gentrification has focused on how it affects residents and housing. We know, however, that the nature and quality of neighborhoods, especially those in urban settings, are also determined by the commercial enterprises that serve the community. The “corner store,” an emblem of local retail, has long played an important economic and cultural role in neighborhood development and livelihood (Liebow, 1967). Retail services, particularly in mixed-use settings, not only provide material needs for those living nearby, but less-tangible social and cultural capital as well (Deener, 2007; Hyra, 2008; Zukin et al., 2009). Therefore, it follows that, when

neighborhoods undergo meaningful economic and social changes like those that transpire under gentrification, implications surely exist for the local business environment. These potential changes are important not only for the business proprietors but also for the residents who patronize their services and consume their goods.

We know that business location decisions and their subsequent survival are a function of the existing (and potential) consumer base in an area (Meltzer and Schuetz, 2012; Waldfogel, 2008). A gentrification-induced shift in its composition, certainly economically and often racially/ethnically, could mean several things for local businesses. These changes could be a boon for local businesses if they bring in new consumers; however, if the new consumers also have different tastes and usher in higher rents, then the incumbent businesses could suffer. For residents, the prospect of new services, new employment opportunities, and street vitality are weighed against the potential interruption in the culture and services on which they historically had relied.

To get at some of these tensions, I examine more closely the issue of business turnover and displacement under conditions of gentrification. I use microdata on business activity and neighborhood conditions in New York City to test what kinds of businesses tend to open, close, or persist in the face of gentrification. I also drill down to three illustrative case neighborhoods, which reveal nuance beyond the average citywide effects. I find that gentrification can bring both opportunities and threats for the businesses and the community as a whole. Citywide, most businesses stay in place over time. Furthermore, the rate of displacement/retention is no different across gentrifying and nongentrifying neighborhoods. When businesses do leave gentrifying neighborhoods, however, their spaces tend to sit vacant for relatively longer periods of time. Gentrifying neighborhoods more often attract *chains*—that is, businesses with multiple establishments or locations—to replace displaced businesses than do nongentrifying and higher-income neighborhoods and are more likely to attract services that are different from those that operated in the neighborhood before gentrification. As the neighborhood drill-downs show, however, cases still exist in which neighborhoods undergoing gentrification lose businesses without the upside of new amenities.

Neighborhoods and Small Business

In this section, I consider the role of small businesses in neighborhood life and the mechanisms through which they respond to localized gentrification.

Neighborhood-Based Small Businesses

Small, local businesses historically have played an important role in the cultural and economic capital of urban neighborhoods.¹ Before the 1970s and before inner cities faced decades of disinvestment, local businesses, like corner stores, markets, and eateries, were a central part of the neighborhood's fabric (Ehrenhalt, 1999; Lloyd, 2010; Oldenburg, 1999; Sutton, 2010). In addition, those businesses have long been considered vehicles for entrepreneurship, especially among

¹ Throughout the article, "small business" refers not only to establishments with fewer than 100 employees (as defined by the U.S. Census Bureau) but also to a set of businesses that tend to provide neighborhood services and goods. The current article does not dedicate much attention to the small businesses that do not necessarily rely on the local community for their livelihood (for example, small technology or finance firms).

minority and immigrant populations (Fairlie, 2012; Sutton, 2010). These neighborhood businesses epitomize “local” not only in terms of their consumer base and proprietors (many of whom often come from the immediate community) but also in terms of their cultural and economic reach (Hyra, 2015; Hyra, 2008). This geographic immediacy of their inputs and outputs is consistent with Jacobs’ argument (1961) that local small businesses are not only good for services and access to jobs but also are critical to the vitality of community life.

What Happens to Businesses When Neighborhoods Gentrify?

Patch (2008) suggests that retail change, or “street gentrification,” is an important harbinger of broader socioeconomic trends that has thus far been underappreciated. Gentrification, a term coined by Glass (1964), originally referred to a phenomenon of socioeconomic transition: one in which more affluent and more educated “gentry” enter a low-income neighborhood. These changes can bring new services and access to a wider choice of basic goods, more vital and safer streets, and even local employment opportunities. Gentrification, however, can also disrupt commercially driven neighborhood identities and introduce services and products that do not serve incumbent residents. The commercial activity and residential composition of a neighborhood are closely tied, and, when a neighborhood gentrifies, the consumer base and costs of operation for a local business can shift as well (Carree and Thurik, 1996; Hotelling, 1929; Meltzer and Schuetz, 2012; Zukin, 2008). Here I lay out the mechanisms through which gentrification might affect the livelihood and composition of neighborhood-based small businesses.

Changes in Consumer Demand

For existing businesses, a new pool of local residents could mean both more and less patronage. Waldfogel (2008) shows that preferences for retail services are strongly correlated with observable population characteristics, such as income, educational attainment, and race/ethnicity. Empirical evidence also shows that household residential preferences are influenced by local amenities like commercial services (Kolko, 2011; Meltzer and Capperis, forthcoming). If, on net, the local consumer base has tastes that do not align with the services or goods that existing establishments provide, then local businesses could suffer. On the other hand, new residential activity could be a stabilizing force if it provides an injection of cashflow that the neighborhood was previously lacking. In addition, these socioeconomic changes could draw new businesses and services into the neighborhood.²

Changes in Startup and Operating Costs

Gentrification can also change the costs of operating or opening a business. For existing businesses, the effect is very direct: because of increased demand for the area, rents can increase. Without a concomitant increase in revenues, the costs of operating could become unsustainable and force closure. It is important to note that the pressures from rising commercial rents can take a different form than residential ones. Commercial leases tend to be much longer than residential ones (Genesove, 2003; Mooradian and Yang, 2000), and, therefore, businesses can often sustain operations

² For example, empirical evidence exists about how crime can deter commercial activity (Bowes, 2007; Fisher, 1991; Greenbaum and Tita, 2004; Lens and Meltzer, 2016; Rosenthal and Ross, 2010). It follows, then, that if businesses know or understand an area to be less crime ridden, the likelihood of their opening up there (all else constant) should increase.

at the original, lower rents as properties in the neighborhood otherwise appreciate. Therefore, any displacement could take longer to transpire. Rising rents (and new investments more broadly) can also influence the kinds of businesses that opt into the neighborhood, and, by association, the range and prices of products that they sell. As an alternative, higher rent can also deter entry, leaving vacated commercial spaces empty for sustained periods of time.

What Is the Empirical Evidence?

The empirical literature on gentrification and commercial activity is less developed than that on residential outcomes. Much of this research gap is because of the fact that no census of businesses is conducted at a fine-grained level of geography that truly approximates a local neighborhood. We do know, however, that lower-income and minority neighborhoods have fewer and, in certain cases, less diverse retail establishments, smaller average establishments, and a higher proportion of “unhealthy” restaurants (Block, Scribner, and DeSalvo, 2004; Lewis et al., 2005; Meltzer and Schuetz, 2012). In addition, banks and supermarkets tend not to locate in poorer ZIP Code neighborhoods, even after controlling for purchasing power (Alwitt and Donley, 1997; Powell et al., 2007; Zenk et al., 2005). Therefore, the empirical evidence confirms that, as the demographics of an area change, so do the businesses that serve it.

Fewer studies have focused on how commercial services *change* under conditions of gentrification. In general, initially low-valued neighborhoods that experience faster price appreciation and/or larger income gains also get more retail establishments (Meltzer and Schuetz, 2012; Schuetz, Kolko, and Meltzer, 2012). Chapple and Jacobus (2009) and Zukin et al. (2009) all found that retail revitalization is most strongly associated with gains for middle-income neighborhoods (and, according to Zukin et al. [2009], largely for independent or local chains). Meltzer and Capperis (forthcoming) found that, although more business churn takes place in neighborhoods undergoing relative price appreciation, most of it is driven by new business births rather than business deaths or exits. The authors also found that retail churn is associated more with changes in the local consumer profile than in the commercial environment. Supply-side factors matter, too; evidence indicates that changes in local businesses are also driven by targeted investment (Koebel, 2002).

What are the implications for local residents and the businesses?³ One of the most comprehensive attempts to document these changes on the ground is a compendium of case studies from cities around the world by Zukin, Kasinitz, and Chen (2015). It is not surprising that they found that the experiences of local businesses and consumers vary, depending on the sociohistorical role of neighborhood businesses and the nature and degree of government intervention. A few other studies shed light on what gentrification-induced shifts in local retail services mean for incumbent residents in typically lower-income communities. Ellen and O'Regan (2011) observed that residents who stay in gentrifying census tracts report greater increases in their satisfaction with

³ Although not a focus in this article, gentrification can also affect local job opportunities. Meltzer and Ghorbani (2016) tested this idea for neighborhoods in the New York-Newark, NY-NJ-CT-PA Core Based Statistical Area and found that incumbent residents living in gentrifying census tracts experience job losses in the immediate neighborhoods but gain access to jobs at farther 1- to 2-mile distances. Another set of related papers on the local labor market impacts of big box store entry found that the opening of a Wal-Mart or other large retailers is associated with net job and business losses and drops in retail wages (Dube, Lester, and Eidlin, 2007; Ficano, 2013; Haltiwanger, Jarmin, and Krizan, 2010; Neumark, Zhang, and Ciccarella, 2008).

the neighborhood than those in other, nonupgrading low-income tracts. Another study (Dastrup et al., 2015) focused on how gentrification affects the residents of public housing in New York City. The authors found that, although residents appreciate improvements in safety, they are more hesitant about how new retail and services benefited them—the new commercial activity tended to cater to the new in-movers rather than the incumbent residents and signaled future threats of displacement. Less directly related is a paper by Ding and Hwang (2016), in which the authors found that those who stay in neighborhoods undergoing price appreciation show significant improvement in their credit risk scores. The result is increased access to credit and, possibly, a greater ability to patronize local businesses.

Empirical Strategy

Although case studies have been invaluable in drilling down and understanding the processes for particular neighborhoods, they tell us very little about how gentrification, writ large, can affect small businesses across municipalities. Here, I look at neighborhoods within a dense and diverse municipality—New York City—and exploit variation in gentrification and business activity across space and over time. I specifically test whether gentrifying neighborhoods are more likely to experience business displacement than are nongentrifying neighborhoods. I consider the implications both for businesses and for the local residents who consume their services and goods.

Although the forces of gentrification have been particularly acute in New York City and the unusually high density has been an advantage for small businesses, the city exhibits great diversity in its types of neighborhoods and retail markets. Indeed, many New York City neighborhoods are comparable with those in other large U.S. cities. For example, although the median resident lives in a much denser neighborhood than someone in an otherwise comparable city, the range of densities reflects those experienced in other large cities (Capperis et al., 2015). Typical education levels, unemployment rates, and racial/ethnic makeups are comparable with those in other large cities; incomes, in general, are also comparable, with the exception of slightly higher median household incomes and lower poverty rates (Been et al., 2013; Capperis et al., 2014).

Data

The primary data set for this analysis is the National Establishment Time-Series (NETS) Database, a longitudinal, establishment-level database that is constructed by Wall & Associates, Inc., from the Dun & Bradstreet business register. Unlike publicly available government data on establishments, the NETS data set does not suppress small-cell counts of employment and provides full street addresses for each establishment. In addition, NETS is more likely to capture nonemployer businesses than are other public records (Neumark, Zhang, and Wall, 2005). Industry is reported at the 6-digit North American Industry Classification System (NAICS) level to allow for a fine-grained distinction across establishment types and also across chains and stand-alone businesses.⁴ Most importantly for this analysis, because the NETS data are longitudinal and establishment specific, I can track

⁴ NAICS is a classification system for U.S. businesses that identifies the industry for the establishment's primary activities. NAICS are self-declared by the business and exist "for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. economy" (<https://www.sba.gov/contracting/getting-started-contractor/determine-your-naics-code>).

the movement of businesses into and out of very precise locations (that is, single buildings). The establishments are identified specifically by a unique identification (a Dun & Bradstreet D-U-N-S[®] number), which stays with the establishment even as it changes addresses over time.⁵

I augment the NETS data with information about the properties' physical characteristics and assessments from the New York City Department of Finance's tax assessment roll files and the New York City Department of City Planning's Primary Land Use Tax Lot Output (known as PLUTO). I also merge in tract-level economic and demographic variables from the Geolytics Neighborhood Change Database (1980 to 2000, decennially), the 2010 census, and the American Community Survey's 3-year estimates from 2008 to 2010.

Analytics

I operationalize the neighborhood as the census tract, as defined in the 2010 census, which is an area optimally populated by 4,000 people (U.S. Census Bureau, 2012). Previous studies have used the census tract to capture neighborhood communities and markets (Ellen and O'Regan, 2008; McKinnish, Walsh, and White, 2010), because it is a level at which sociodemographic information is readily available over time. The census tract also captures a walkable market area in New York City, which, on average, can be traversed in 5 to 10 minutes. This market area is consistent with my focus on neighborhood businesses and the proximate impact of localized economic change. I consider only mixed-use neighborhoods (that is, census tracts with populations greater than 200 and with some kind of commercial activity).⁶ In the end, I end up with 1,990 tracts, which constitutes nearly 95 percent of all census tracts in New York City.

I classify neighborhoods as gentrifying if they improve in their relative economic position during the course of the study period; doing so will capture any meaningful shift in local consumer characteristics. This classification is consistent with previous approaches (see Ellen and O'Regan, 2008; McKinnish, Walsh, and White et al., 2010; Meltzer and Schuetz, 2012) and with the (empirically supported) assumption that local commercial markets respond to changes in consumer demand.⁷

⁵ I recognize several limitations with using NETS. Other studies have advised against using it to identify very short-term changes in firm characteristics (and firm births, specifically), and, therefore, I process any changes during periods of 5 or more years (Neumark, Zhang, and Wall, 2005). Doing so will mitigate any lags in the NETS data in observing new firm births (Yang and Aldrich, 2012). Furthermore, I note that the NETS data are less adept at capturing within-city moves (Kaufman et al., 2015); because I am not following businesses across space and only within single, fixed locations, this limitation should not affect the current analysis. Finally, because employment numbers in NETS often are rounded to an even number or even imputed, identifying changes (especially short-term changes) in employment is difficult (Neumark, Zhang, and Wall, 2005). NETS data are better suited for identifying employment levels and changes during longer periods of time (a few years or more). Although I do use the employment data reported in NETS, it is a secondary part of my analysis and I rely on levels.

⁶ I retain selected commercial properties (store, loft, and garage buildings) and mixed-use properties (residential and commercial together) and exclude properties that are wholly office or residential. I do this to ensure that I capture local, neighborhood-based businesses rather than more corporate establishments. I select on the building classification rather than the type of actual commercial activity to retain areas that may be underpopulated by businesses but that are still set up to host them (indeed, the gentrifying neighborhoods might be disproportionately composed of building areas that are underused).

⁷ I also replicate the analysis across strata that reflect other neighborhood differences (those related to supply-and-demand factors) that could be correlated with both gentrification and business displacement, such as property values, housing age, population growth, and change in the share of the foreign-born population (see Freeman, 2005; Hammel and Wyly, 1996; Lester and Hartley, 2014). In general, the differences across strata are nonexistent or consistent with what is observed using the income-based gentrification metrics.

To be specific, I (1) identify neighborhoods as “low income” if they have average household incomes that are in the bottom two quintiles of the neighborhood income distribution in 1990 or 2000⁸ and, (2) out of those low-income neighborhoods, identify those in which the relative average household income (compared with the broader metropolitan statistical area [MSA]) has increased by the end of the decade that follows (each analysis is conducted for the 1990s and 2000s separately). I rely on relative measures of income and how those change over time to account for the fact that macrometropolitan area economic shifts may or may not be reflected equally at the neighborhood level (Ellen and O’Regan, 2008; Rosenthal, 2008). Of all the census tracts in the study area, between 905 and 941 are designated as low income (for 1990 and 2000 respectively); of those low-income tracts, about 5 percent during the 1990s and nearly 30 percent during the 2000s are identified as gentrifying.⁹

To measure business retention and displacement, I consider the succession, or “lifecycle,” of businesses within individual properties during the course of the study period, 1990 to 2011.¹⁰ I divide the study period into four separate intervals of about 5 years each and, in turn, observe business retention and displacement during these smaller 5-year intervals. I consider 5 years a reasonable window during which to observe business succession, because the median lifespan of a neighborhood-based business is around 5 years as well.¹¹ I include only properties that contain their maximum number of businesses at the start of the 5-year interval, because I cannot account for changes in or additions to the number of commercial units over time.¹² Finally, I construct metrics for

⁸ To be specific, I use average household income for the tract relative to average household income for the MSA.

⁹ This income-based designation reflects other demographic, housing, and commercial differences across gentrifying and nongentrifying neighborhoods, and these differences vary, depending on the decade. Furthermore, many of these trends for the neighborhoods that gentrify during the 2000s are already present in the 1990s. These findings demonstrate why it is important to consider gentrification processes during long periods of time (Zuk et al., 2015) and to segment the different time periods of change.

¹⁰ I use the term “business” and “establishment” interchangeably here, to keep with the theme of “small businesses.” In practice, however, a business can have multiple establishments (or locations).

¹¹ Furthermore, the NETS data are not known to be reliable in their year-on-year changes; previous reviews and critiques of the NETS data have suggested that longer intervals, like 5 years, produce more accurate measures of business flows (Neumark, Zhang, and Wall, 2005).

¹² To be specific, I can observe the number of establishments per property over time; if that number is higher at the end of the 5-year interval (compared with the start) then I drop these properties from the analysis. My concern is about whether more vacant spaces are available for commercial activity than what is observed by establishment activity. This restriction on the sample is not much of a concern for the current analysis because my focus is on business retention and displacement (and for incumbent businesses in particular) and not for business entry and formation in general. In addition, the omitted businesses are largely similar on observables compared with those represented in the sample (especially those located in multiple-business properties). The omitted businesses, however, tend to locate in larger properties and tend to be newer, independent, and more concentrated in insurance and professional services. Still, I note that the statistics presented here on business retention and displacement will be lower-bound estimates, because any businesses that enter the neighborhood into new spaces could also contribute to ongoing retention and/or displacement. I do replicate the analyses with a constant sample of properties based on business occupation in 1990 (the start of the study period). The results are substantively the same and do not indicate any bias from properties/businesses that enter the sample during later intervals in the study period. These results are available on request from the author.

single-business properties and multiple-business properties separately. I do this not only because the businesses that occupy them could behave differently but also because the buildings in which they are located are likely distinct (in terms of size, location, and classification).¹³

For each property, I construct rates of retention (*Stay*) and displacement during each 5-year interval, the latter of which is operationalized in two ways: (1) leaving without a new establishment to replace them (*Leave*) and (2) leaving with a replacement (*Replace*).¹⁴ I disaggregate the displacement metric to better identify how the business's exit affects the local community—both in terms of the new service that replaces it and in terms of the vacant space it leaves behind. I use the business's 6-digit NAICS industry classification to identify the kind of goods or services it provides. I also use information on the number of reported employees for the establishment to capture the typical size of each business. The employee count serves as a proxy not only for the size of the business (in terms of the number and perhaps variety of products offered) but also for the number of potential local jobs. Note that, because I have restricted the property types to include only retail and mixed-used classifications, I am focusing on small businesses (that is, those with fewer than 100 employees; Caruso, 2015). As another proxy for service type, I identify establishments that are stand-alone businesses versus chains (that is, linked to at least one other establishment through a common headquarters). This distinction is also important in light of the controversies around small businesses' vulnerability to chains, which are seen as more pervasive in gentrifying neighborhoods (Basker, 2005; Haltiwanger, Jarmin, and Krizan, 2010; Neumark, Jhang, and Ciccarella, 2008).

The analysis is twofold. First, I exploit the larger sample of single- and multiple-business properties to look at the within-building succession of businesses over time. Second, I drill down to several neighborhoods that have undergone different degrees of economic change to better understand the nature of the small business dynamics observed in the large-N sample.

Findings

In this section, I present results first from the citywide analysis of business displacement and replacement and then from three illustrative drill-down neighborhood analyses.

¹³ These differences are confirmed in the data. In addition, it is slightly harder to identify new businesses that replace displaced businesses for multiple-business properties, because there is not always a one-to-one replacement and I do not have consistent information on the number of commercial units. The one-to-one replacement in single-business properties is a much cleaner identification and I wanted to keep that part of the analysis separate.

¹⁴ $Stay = \frac{\#_Estab_Stay_t}{\#_Estab_Total_{t-5}}$ where $\#_Estab_Stay$ is the number of establishments that were in operation at $t-5$ and at t ;

$Leave = \frac{\#_Estab_Leave_t}{\#_Estab_Total_{t-5}}$ where $\#_Estab_Leave$ is the number of establishments that were in operation at $t-5$, but not at t

(and no other new establishment had reoccupied its commercial space by time t); and $Replace = \frac{\#_Estab_Leave_Replace_t}{\#_Estab_Total_{t-5}}$

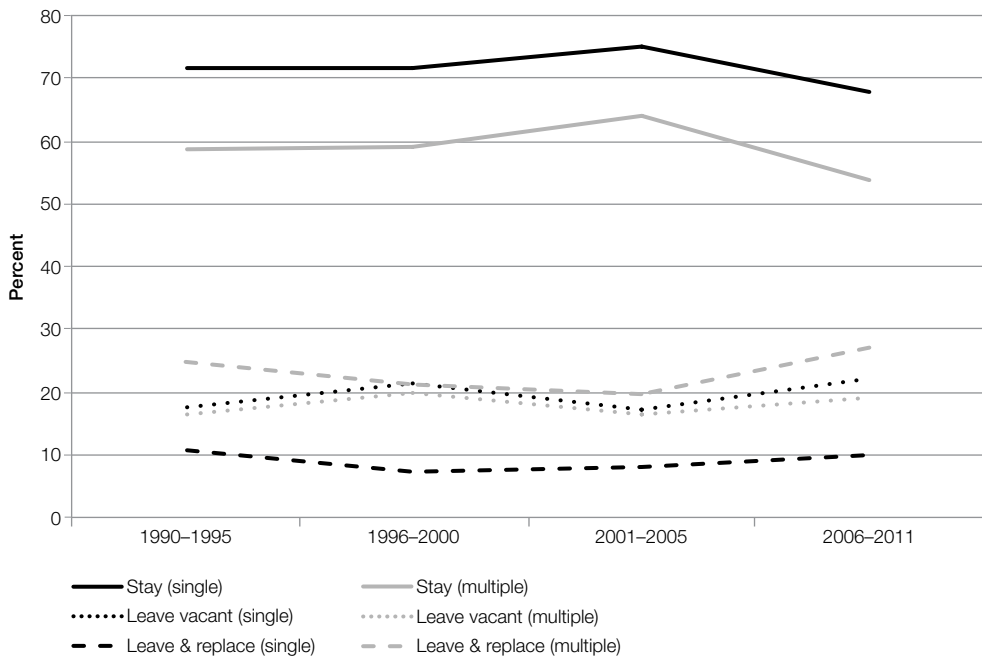
where $\#_Estab_Leave_Replace$ is the number of establishments that were in operation at $t-5$, but not at t (and with a new establishment in its commercial space by time t).

Citywide

Before looking at the association between business succession and gentrification, I establish some baseline retention and displacement rates for the overall sample. These rates are illustrated in exhibit 1. In general, businesses are more likely to stay in place than leave; this trend is consistent across both decades and both types of properties (single- and multiple-business), although the retention rate does go down in the second half of the 2000s and is lower for multiple-business properties throughout both decades. Businesses are also consistently more likely to leave without replacement, meaning that space is vacant by the end of the 5-year interval. This rate is relatively consistent across the decades, as is the share of those businesses that leave with a replacement establishment operating by the end of the 5-year interval. The likelihood of replacement, however, is substantially higher for multiple-business properties (about double), suggesting that commercial spaces in single-business properties are more likely to sit vacant after a business's displacement.¹⁵ I note that national retention rates of businesses within the first 5 years of operation fall at around 50 percent (SBA Office of Advocacy, 2014). The rates in the current analysis are higher, largely

Exhibit 1

Business Retention and Displacement Rates, Citywide



Sources: National Establishment Time-Series Database; author's calculations

¹⁵ To test whether these patterns vary across space, I replicate the same rates by borough (not shown here but available on request from the author). New York City consists of five rather distinct boroughs: Bronx, Brooklyn, Manhattan, Queens, and Staten Island. The five boroughs largely show similar retention, displacement, and replacement rates, which provides assurance that the results should not be driven by one borough in particular.

because the sample comprises both older and newly opened establishments; when rates are calculated for newer establishments only (that is, less than 5 years old) the rates are closer to the national rates (ranging between 50 and 60 percent) and the relative trends remain the same.

Does Gentrification Matter for Business Retention and Displacement?

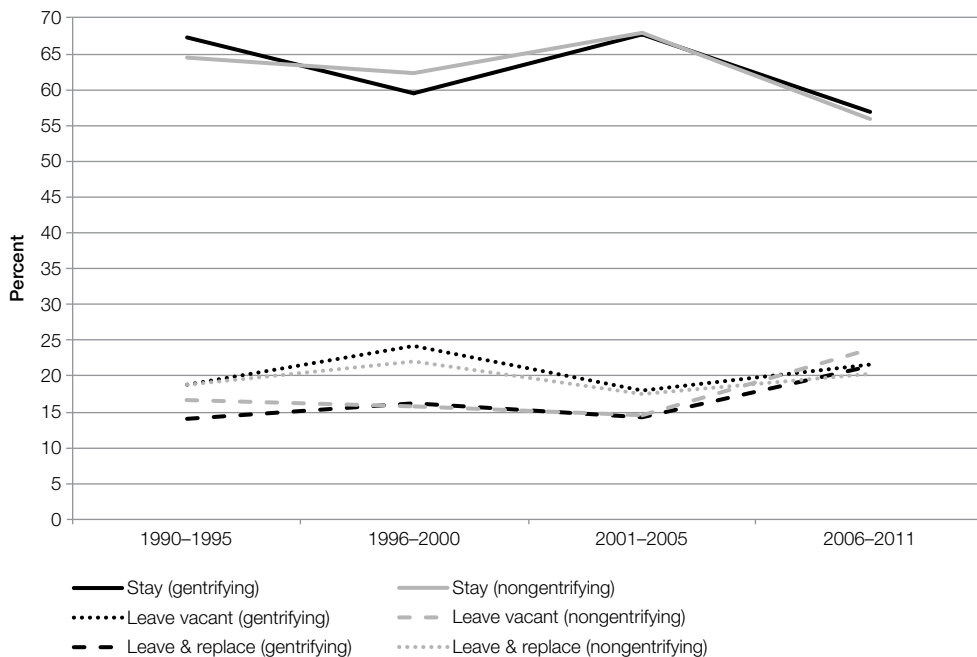
I now replicate the same set of statistics but stratified across three groups: low-income and gentrifying, low-income and nongentrifying, and the balance of tracts, where incomes range from moderate to high. Single- and multiple-business properties are combined, and I display here statistics that are contemporaneous with the decade of gentrification.¹⁶

Retention and Displacement Trends

Exhibit 2 displays retention and displacement rates across time for both gentrifying and nongentrifying neighborhoods (the underlying statistics are shown in exhibit 3). I first note that, although the magnitude of retention and displacement rates vary somewhat across time, the relative positioning of their shares persists. That is, most businesses stay in place, and the smallest share leaves with replacement. Second, the overall patterns indicate consistency in retention and displacement rates

Exhibit 2

Business Retention and Displacement Rates, by Gentrifying Neighborhoods



Sources: National Establishment Time-Series Database; author's calculations

¹⁶ For brevity of exposition, the displayed statistics are weighted averages of the single- and multiple-business property subsamples. When the analyses are conducted on the subsamples separately, the same patterns emerge. Where the data allowed, I also lagged the decade of gentrification and the results are substantively the same to those displayed.

Exhibit 3**Difference in Business Retention/Displacement Rates, by Gentrifying Neighborhoods**

	1990–1995		1996–2000		2001–2005		2006–2011	
	Difference	Sig.	Difference	Sig.	Difference	Sig.	Difference	Sig.
Gentrifying and nongentrifying tracts								
Stay entire period	0.027		– 0.027*		– 0.003		0.010***	
Leave without replacement	– 0.001		0.023*		0.006		0.013***	
Leave with replacement	– 0.027		0.004*		– 0.003		– 0.023***	
Gentrifying and moderate- to high-income tracts								
Stay entire period	0.037***		– 0.033***		– 0.002***		– 0.012***	
Leave without replacement	0.036***		0.056***		0.021***		0.026***	
Leave with replacement	– 0.073***		– 0.023***		– 0.020***		– 0.014***	

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Notes: Values shown are the differences in retention/displacement rates. Statistics are based off of weighted averages of single- and multiple-business samples.

across gentrifying and nongentrifying neighborhoods. The most significant differences in retention rates exist during the second half of the 2000s, when businesses in gentrifying neighborhoods actually exhibit higher retention rates (in substantive terms, however, this rate is only a 1-percentage point difference). In addition, businesses that stay in place in gentrifying neighborhoods during the 2000s tend to be older than those in nongentrifying areas; the opposite is true for the 1990s.¹⁷ Therefore, it is not the case that longstanding businesses are more vulnerable to gentrification-induced displacement. Separate analyses on only gentrifying neighborhoods, however, show that those with faster commercial assessed values (AV; that is, rent) appreciation do display slightly lower rates of retention and higher rates of displacement without replacement, suggesting that rising rents could affect business displacement under conditions of gentrification.¹⁸

What happens to the commercial spaces after businesses leave? Although the rate of displacement without replacement universally goes up during the latter part of both decades, this increase is more pronounced for gentrifying neighborhoods; the lowest rates tend to be in the moderate- to high-income neighborhoods. Again, these differences manifest themselves in fewer than a few percentage points.¹⁹ Additional analyses (not shown here) indicate that most (that is, upward of 80 percent) vacancies are filled immediately. For those spaces left vacant, however, the duration of vacancy is often longer in gentrifying neighborhoods than in nongentrifying ones (and vacancies are always more prolonged in gentrifying neighborhoods compared with those in moderate- to high-income areas).²⁰ To check

¹⁷ These differences are all significant at $p < .05$. When I look at only retention/displacement rates for new businesses (that is, those operating less than 5 years), there is still no meaningful difference between gentrifying and nongentrifying neighborhoods (one exception is the early 1990s, during which retention rates are higher in gentrifying neighborhoods for newer businesses).

¹⁸ These results are not displayed here but are available on request from the author.

¹⁹ Most (that is, 85 to 90 percent) businesses shut down rather than relocate to another space within New York City (or outside the city). In addition, Meltzer and Capperis (forthcoming) found that when businesses relocate within the city, they tend to move to neighborhoods with new housing investment and growing retail, suggesting more (and perhaps cheaper) spaces for commercial activity.

²⁰ These results are not displayed but are available on request from the author. The disproportionate vacancy duration in gentrifying neighborhoods is most pronounced in the later 2000s and least evident in the early 1990s. Spaces can sit vacant for as little as 1 year and for more than 10 years.

the robustness of these results, I also conduct multivariate regression analyses, estimating the likelihood that a business stays in place conditional on its neighborhood gentrifying (see exhibit 4). As I did previously, I pool the single- and multiple-business property samples, but I control for business- and property-level characteristics (including the number of other businesses in the same building) and also for time (that is, interval) and geographic (that is, borough and smaller neighborhood) trends.²¹ In the most parsimonious model, the coefficients on the gentrification dummies (both

Exhibit 4

Logit Regressions

	Pr(Stay=1) (1)	Pr(Stay=1) (2)	Pr(Stay=1) (3)	Pr(Stay=1) (4)
Gentrifying	- 0.080*** (- 4.71)	0.019 (0.86)	0.023 (1.04)	0.004 (0.15)
Nongentrifying	- 0.053*** (- 5.56)	0.053*** (4.25)	0.048*** (3.81)	0.005 (0.34)
Number of establishments in building	- 0.009*** (- 22.11)	- 0.009*** (- 18.78)	- 0.002*** (- 4.21)	0.0004 (0.83)
Number of employees		- 0.001** (- 3.04)	- 0.001*** (- 3.56)	- 0.001** (- 2.95)
Year start		- 0.005*** (- 15.13)	- 0.005*** (- 14.48)	- 0.006*** (- 16.03)
Lot frontage		- 0.001*** (- 7.80)	- 0.0004*** (- 4.52)	- 0.001*** (- 6.92)
Corner location		0.046*** (3.68)	0.060*** (4.65)	0.036** (2.77)
Chain		- 0.407*** (- 14.95)	- 0.323*** (- 11.72)	- 0.304*** (- 10.93)
Property NAICS index			0.521*** (24.78)	0.509*** (23.01)
Constant	0.584*** (86.89)	11.780***	11.690*** (15.27)	13.180*** (16.23)
Industry classification dummies	No	No	Yes	Yes
Time dummies	No	Yes	No	Yes
Geography dummies	No	Yes	No	Yes
N	211,279	156,465	156,465	156,465

NAICS = North American Industry Classification System.

* p < 0.05. ** p < 0.01. *** p < 0.001.

Notes: t statistics in parentheses. Sample includes the full sample of tracts and "moderate- to high-income" is omitted. North American Industry Classification System index is a Herfindahl-type index that ranges between 0 and 1, where values closer to 1 represent more homogeneous industry mixes (single-business properties are assigned an index of 1).

²¹ I run regressions on the more restricted low-income tract sample and also the full sample, including moderate- and high-income tracts (the latter version is shown). I also run regressions disaggregated into single- and multiple-business property subsamples. The results are consistent across all the specifications. I also run the regressions wherein the dependent variable is specified as the probability of leaving; the results are consistent with those discussed in the previous sentence. Finally, I run a number of parsimonious specifications (omitting, for example, the time and geographic controls), and the direction of the gentrification coefficients are consistent; the coefficients tend to be larger in magnitude (and more significant) in the more parsimonious models, but they are consistently attenuated as more controls are added to the model. For purposes of brevity, these results are not displayed here but are available on request from the author.

relative to the moderate- to high-income neighborhoods) are negative and significant, which is consistent with what the bivariate tables showed. In addition, the difference between the two gentrification dummies is statistically zero. As more controls are added to the model, the coefficients on the gentrification dummies universally become insignificant, which shows that, after controlling for other property, business, and temporal-spatial variation, the retention rates do not vary significantly across any of the neighborhoods. These results, in general, are consistent with those from the bivariate analyses and reinforce the null gentrification effect.

Replacement Businesses

I turn now to exhibit 5, which displays statistics on the businesses that leave and those that replace them, to get a sense of how the service and commercial environment changes for local residents.²² Across the board, new businesses tend to be smaller than those that leave (that is, have a higher ratio between the number of employees in the business that leaves and the number of employees in the business that replaces); although these ratios are higher in gentrifying neighborhoods, they are not significantly different from those in nongentrifying neighborhoods. So, any job loss resulting from displacement is no bigger in the gentrifying areas. I also look at the correspondence between the industry classifications of the outgoing and incoming establishments to get a sense of how services

Exhibit 5

Business Replacement, by Gentrifying Neighborhoods

	Number of Establishments That Leave w/ Replacement	Ratio of emp_leave: emp_replace	Is the 6-Digit NAICS the Same? (%)	Is the 2-Digit NAICS the Same? (%)	Is the Replacer a Chain? (%)
1990–1995					
Low income and gentrifying	93	0.70	9.7	26.9	10.2
Low income and nongentrifying	2,850	1.36	13.7	27.3	9.4
Moderate to high income	4,595	1.46	12.8	21.7	11.0
1996–2000					
Low income and gentrifying	226	1.43	11.1	27.9	4.0
Low income and nongentrifying	5,142	1.00	9.9	20.6	8.6
Moderate to high income	6,820	0.96	9.0	17.2	10.8
2001–2005					
Low income and gentrifying	940	1.69	10.0	23.0	4.2
Low income and nongentrifying	2,069	1.77	12.2	24.3	3.3
Moderate to high income	4,026	1.69	10.1	19.1	6.0
2006–2011					
Low income and gentrifying	1,805	1.56	6.8	14.7	1.8
Low income and nongentrifying	4,444	1.49	8.2	17.9	1.4
Moderate to high income	6,472	1.76	7.2	16.2	2.0

NAICS = North American Industry Classification System.

Sources: National Establishment Time-Series Database; author's calculations

²² I focus primarily on the statistics for the single-business properties, because the correspondence between businesses that leave and that replace is cleaner (the one-to-one replacement match is less reliable in the multiple-business properties because of the fact that the number of businesses that leave can differ from the number of replacers).

turn over. I consider the narrowest 6-digit classification (for example, full-service restaurants) and also the broad 2-digit classification (for example, accommodation and food services). Although the pattern is less consistent across the 1990s, displaced and incoming businesses are less likely to have the same NAICS classification in gentrifying neighborhoods compared with nongentrifying neighborhoods in the 2000s.²³ A higher correspondence exists regarding 2-digit NAICS codes, indicating that the spaces retain broader service consistency (for example, a food establishment can return, but it may serve very different kinds of food and in a different setting). This finding makes sense if the commercial space is built out for a particular activity (like a restaurant, food store, or office). Overall, a slightly larger shift exists toward new services in gentrifying neighborhoods compared with nongentrifying neighborhoods.²⁴

Finally, the likelihood that the new business is a chain varies as well by neighborhood classification and decade. In the 1990s, replacement businesses are less likely to be chains in gentrifying neighborhoods; in the 2000s, this trend reverses, and replacement businesses are more likely to be chains in gentrifying neighborhoods compared with those in nongentrifying areas. The highest replacement rate for chains, though, is in the moderate- to high-income neighborhoods.

In sum, regardless of the neighborhood's gentrification status, businesses are more likely to stay in place during 5-year intervals than not; this likelihood is particularly true for those businesses that have been operating for a longer time. Gentrification does not induce disproportionately more displacement among businesses than what typically takes place in low-income neighborhoods. In addition, when a business leaves a gentrifying neighborhood, its commercial space is more likely to stay vacant for a longer period of time; this trend not only means that those services are gone but that the physical space is inactive and not contributing to street vitality. It is most notable that replacement businesses in gentrifying neighborhoods are more likely than those in nongentrifying neighborhoods to offer new types of services and are more likely to be chains (during the 2000s).

Case Neighborhoods

The statistics presented thus far capture average effects across the entire sample of neighborhoods. It is possible, however, that these broader patterns are obscuring important variation on a finer level. I identify three case neighborhoods that, within their broadly defined boundaries, contain (1) both gentrifying and nongentrifying census tracts and (2) a commercial presence that also crosses the gentrifying and nongentrifying tracts.²⁵ This design not only allows for a cleaner identification across gentrifying and nongentrifying tracts (because they all exist in the same macroneighborhood, with similar infrastructure and localized trends), but it is realistic in how gentrification can play out at the street level. It is not unusual to traverse a single neighborhood and cross street blocks that are

²³ This association is significant ($p < .01$) only in the second half of the 2000s.

²⁴ This shift is on a property-by-property basis; it could be the case that, as a neighborhood, a reshuffling of similar services occurs across properties.

²⁵ I use Neighborhood Tabulation Areas (NTAs), which were created by the New York City Department of City Planning to project populations at small geographies from 2000 to 2030. NTAs are compilations of census tracts, and, therefore, their boundaries are coterminous. They span multiple census tracts, but are smaller than Public Use Microdata Areas and Sub-Borough Areas. For all of the case areas, except Astoria, I combine two NTAs (that is, East Harlem South and East Harlem North) to constitute a larger, single neighborhood definition.

starkly different in their degree of development and their general character. I focus on gentrification classifications from the 2000s because a larger pool of tracts exists for this time period. I look at neighborhoods in three of New York City's five boroughs: East Harlem in Manhattan, Sunset Park in Brooklyn, and Astoria in Queens (see exhibit 6). Together, they illustrate the variation in change within and across macroneighborhoods.

For the discussion of the three case neighborhoods, I show an abbreviated set of statistics on retention and displacement. In addition to comparing these rates across tract classification (that is, low-income

Exhibit 6

Case Neighborhoods



Source: Underlying shapefiles from the New York City Department of City Planning

gentrifying and low-income nongentrifying, both within the same macroneighborhood), I also calculate the difference in rates across two decades—the 1990s and 2000s.²⁶ Therefore, the final column in each table represents a “difference-in-difference” of sorts, in which I first compare retention and displacement rates in the 2000s (the decade of gentrification designation) to those in the 1990s (to capture historical rates) for gentrifying and nongentrifying tracts. I then take this difference and compare it across the two neighborhood classifications. This approach controls somewhat for historical trends and baseline characteristics that could drive different outcomes above and beyond what is associated with the presence or absence of gentrification.

Case 1: East Harlem

East Harlem, located in the northeast section of Manhattan, historically has been an enclave for Hispanic residents. Public transit is moderately accessible and will improve even more after the new Second Avenue subway is complete (presumably, by 2017). Of the three case neighborhoods, East Harlem has the oldest housing stock, is the poorest, and houses the highest share of Black residents. More than one-half of the 22 census tracts that make up this macroneighborhood were designated as being low income in 2000, and, of those tracts, nearly one-half were classified as gentrifying in the decade that followed. The gentrifying tracts underwent significant economic and demographic changes during both the 1990s and 2000s compared with changes in the nongentrifying tracts. To be specific, population surged in the gentrifying tracts, as did the construction of new housing. The share of Hispanic households declined about 5 percentage points in the gentrifying tracts compared with increasing in the nearby nongentrifying tracts; the White population increased about the same throughout the macroneighborhood. The number of college-educated residents grew at a faster rate and the poverty rate declined more dramatically in the gentrifying tracts. It is not surprising that residential rents and prices also grew more acutely in the gentrifying tracts; the 2000s also brought increases in commercial prices and AVs compared with price declines and very modest AV increases in the nongentrifying tracts. Still, the gentrifying tracts saw a growth in retail establishments almost double that in nongentrifying tracts.

Business retention rates in the gentrifying tracts of East Harlem were slightly lower than the citywide average during the 1990s: about 65 percent of establishments in single-business properties (compared with 72 percent for the city overall) stayed in place (retention rates in multiple-business properties were slightly higher, at 68 percent, compared with 59 percent for the city overall).²⁷ In East Harlem, gentrification during the 2000s was associated with reduced business retention (see exhibit 7) compared with nearby tracts that did not gentrify. To be specific, the share of businesses that stayed in place decreased in the 2000s compared with the share in the 1990s for both gentrifying and nongentrifying tracts, but the decline was more pronounced for the properties in the gentrifying tracts (by about 5 percentage points, a meaningful drop that brings the neighborhood even further below the citywide mean). In addition, gentrifying tracts saw a larger decrease in the share of businesses that leave without any replacement and by a magnitude that makes a meaningful difference (almost 4 percentage points for single-business properties off of a base of 28 percent). A relative increase also occurred in the number of businesses that leave with replacement (based on the

²⁶ I do not include moderate- to high-income tracts as a comparison because very few or no tracts are in this income range in the case neighborhoods.

²⁷ These shares amount to 58 and 54 establishments for single- and multiple-business properties, respectively.

Exhibit 7**East Harlem, Retention and Displacement Rates**

	Difference: Gentrifying and Nongentrifying		Difference: 2000s and 1990s
	1990s	2000s	
Single-business properties			
Stay entire period	- 0.031	- 0.087	- 0.056
Leave without replacement	0.038	0.003	- 0.035
Leave with replacement	0.022	0.032	0.010
Multiple-business properties			
Stay entire period	0.036	0.040	0.004
Leave without replacement	0.032	0.023	- 0.010
Leave with replacement	- 0.051	- 0.076	- 0.025

Sources: National Establishment Time-Series Database; author's calculations

single-business properties) in gentrifying tracts, albeit smaller in magnitude. During the course of the 1990s and 2000s, the gentrifying tracts also witnessed a larger growth in the number of chains (although the nongentrifying tracts still have a higher absolute number of chains).²⁸ Older businesses were actually less likely to leave in the gentrifying areas than the in the nongentrifying ones (even though the average business age is the same across the two types of tracts).

To understand how the types of businesses and their services change over time, I compile statistics on the neighborhood's composition of NAICS codes for gentrifying and nongentrifying tracts (see exhibit 8a). The first column of each panel shows the average concentration of the industry groupings²⁹ during the two decades and the remaining columns show the percentage change in the number of establishments during three different time periods for each industry grouping. The composition of services is very similar across gentrifying and nongentrifying tracts, with the exception of manufacturing and other industrial activity. The group with the largest growth during the 2000s is manufacturing and industrial, which is largely driven by wholesale establishments (which started with a very small base). Otherwise, the largest gains for gentrifying tracts are seen in personal services and in educational, health, and social services, both of which exceed the gains in the nongentrifying tracts. It is also worth noting that these services are the very ones that were relatively less prevalent compared with those in nongentrifying tracts at the start of the 2000s. General retail and food establishments, on the other hand, started out with relatively larger shares of the commercial activity in the gentrifying tracts (compared with shares in nongentrifying tracts) and saw smaller gains.

The question remains, however, are residents seeing a qualitative change in services? To test this question, I consider five discrete types of businesses: (1) grocery stores, (2) drug stores, (3) doctors' offices, (4) full-service restaurants, and (5) exercise facilities (gyms). The first three

²⁸ The chain business results are not shown.

²⁹ I combine related two-digit NAICS categories into broader groupings to reflect the general services/goods provided. The groupings are created as follows: retail = NAICS44+NAICS45; service = NAICS51+NAICS52+NAICS53+NAICS54+NAICS55+NAICS56; entertainment and food = NAICS71+NAICS72; personal services = NAICS81; education, health, and social services = NAICS61+NAICS62; manufacturing and industrial = NAICS31+NAICS32+NAICS33+NAICS42+NAICS48+NAICS49.

Exhibit 8

East Harlem, Change in Services

a. Broad Industries

NAICS Grouping	Gentrifying				Nongentrifying			
	Avg. Share		Percent Change		Avg. Share		Percent Change	
	1990–2011	1990–2011	1990–2000	2000–2011	1990–2011	1990–2011	1990–2000	2000–2011
Retail	0.37	51.7	-7.6	64.2	0.31	133.3	34.1	73.9
Service	0.24	251.5	71.2	105.3	0.25	364.7	80.9	156.9
Food, entertainment	0.07	285.7	185.7	35.0	0.08	285.0	120.0	75.0
Personal services	0.16	352.9	88.2	140.6	0.17	287.5	95.8	97.9
Education, health, social	0.08	120.6	0.0	120.6	0.08	147.1	29.4	90.9
Manufacturing, etc.	0.07	127.6	-24.1	200.0	0.11	122.0	2.0	117.6

b. Discrete Services

Discrete Service	Gentrifying				Nongentrifying							
	Number of Establishments		Percent Change		Number of Establishments		Percent Change					
	1990	2000	1990–2011	1990–2000	2000–2011	1990	2000	1990–2011	1990–2000	2000–2011		
Grocery stores	17	39	87	411.8	129.4	123.1	26	38	83	219.2	46.2	118.4
Drug stores	12	11	22	83.3	-8.3	100.0	10	9	16	60.0	-10.0	77.8
Full-service restaurants	7	26	37	428.6	271.4	42.3	8	23	20	150.0	187.5	-13.0
Gyms	0	0	4				0	0	3			
Doctors' offices	21	26	56	166.7	23.8	115.4	18	17	33	83.3	-5.6	94.1

NAICS = North American Industry Classification System.

Note: Percent Change refers to the percent change in the number of establishments between the indicated end points; for example, Percent Change 1990–2011 (for Retail) = $(\#_Retail_{2011} - \#_Retail_{1990}) / \#_Retail_{1990}$.

Sources: National Establishment Time-Series Database; author's calculations

represent more necessity services (that is, those that are more critical to have nearby for regular consumption), and the last two represent more discretionary services (that is, those that are not necessary but convenient to have nearby nonetheless). Exhibit 8b shows how the availability of these services changes over time in gentrifying and nongentrifying tracts. In all cases, the gentrifying tracts exhibit much larger gains in these services than do the nongentrifying tracts, suggesting that economic changes in the neighborhood are associated with increases in both necessity and discretionary services. Physical access to grocery stores increases most significantly, and it is important to note that most of these establishments are classified as general grocery stores (not convenience stores).³⁰

Case 2: Sunset Park

Sunset Park, a neighborhood in southwest Brooklyn, has been home to mostly Hispanic and Asian immigrants. It also includes large swaths of land zoned for manufacturing and has attracted increased investment in those areas. Of all the case neighborhoods, it has the highest share of Hispanic and Asian residents and, economically, falls in the middle. Like East Harlem, most of the census tracts in the Sunset Park macroneighborhood were designated as being low income as of 2000; slightly less than one-half of Sunset Park's 20 neighborhoods were designated as gentrifying. Even though poverty rates declined in the gentrifying tracts compared with increases in nearby nongentrifying tracts, population growth was comparatively slower. The share of White households declined, but less dramatically, than in the nongentrifying tracts, and the share of residents with a college degree increased more in the gentrifying tracts. The rate of housing construction was slightly higher in the gentrifying tracts, and housing costs were modestly higher only during the 2000s. Although relative commercial prices went down more in gentrifying tracts during the 2000s, commercial AVs went up. Although gentrifying tracts got more chains than did nongentrifying ones, their growth in general retail establishments was slower. Some of the biggest chains, like Home Depot and Costco, were attracted into the manufacturing section of the neighborhood.

The business retention and displacement patterns (see exhibit 9) are slightly different from those experienced in East Harlem, which has starker demographic shifts. Like the gentrifying tracts in East Harlem, those in Sunset Park also exhibit lower retention rates in the 1990s compared with rates in the city overall (65 percent for single-business properties; rates for multiple-business properties are on par with the citywide rate).³¹ It is most notable that, on net, business retention rates went down in gentrifying tracts compared with those in nongentrifying tracts. Furthermore, the magnitude of the shift was larger in Sunset Park than in East Harlem. Although displacement rates went down overall, displacement without replacement went up significantly among multiple-business properties (about 8 percentage points off of a 13 to 15 percent base). Although the gentrifying areas lost a substantial share of their older businesses, it was a smaller loss than that experienced by the nongentrifying parts of Sunset Park. Personal services were also relatively less

³⁰ It is still possible that bodegas and other establishments that carry a range, but not a comprehensive supply, of food and produce self-classify as general grocery stores. It is unfortunate that there is no way to distinguish these establishments in the data. Regardless, an observed increase in food-carrying establishments occurs, which makes a qualitative difference in the neighborhood.

³¹ These shares amount to 77 and 66 establishments for single- and multiple-business properties, respectively.

Exhibit 9**Sunset Park, Retention and Displacement Rates**

	Difference: Gentrifying and Nongentrifying		Difference: 2000s and 1990s
	1990s	2000s	
Single-business properties			
Stay entire period	- 0.068	- 0.005	0.063
Leave without replacement	0.064	- 0.002	- 0.067
Leave with replacement	0.000	- 0.032	- 0.032
Multiple-business properties			
Stay entire period	0.034	- 0.051	- 0.084
Leave without replacement	- 0.010	0.065	0.076
Leave with replacement	0.028	- 0.010	- 0.038

Sources: National Establishment Time-Series Database; author's calculations

prevalent in the gentrifying sections of Sunset Park (see exhibit 10a), but they experienced about the same degree of growth as in the nongentrifying tracts during the 2000s.³² Food and entertainment establishments, however, grew at a faster rate in the gentrifying tracts. Any gains in discrete necessity services, like grocery stores or doctors' offices, similarly are substantially bigger in the nongentrifying tracts (see exhibit 10b). In fact, the gentrifying tracts have a relatively large loss in certain services, like drug stores and restaurants. These patterns could be a result of the combination of rising commercial rents and relatively slower population growth in the gentrifying areas.

Case 3: Astoria

Finally, Astoria is a neighborhood in the western part of Queens across the river from Manhattan. Astoria, which is quite diverse ethnically, includes large groups of residents from Europe, South America, and the Middle East. It is considered more of a middle-class neighborhood and has a smaller share of low-income tracts than the other two case neighborhoods (about two-thirds, as of 2000). Astoria consists of a population that is substantially more White, but, of all of the case neighborhoods, it has the highest share of foreign-born residents. Of the 17 low-income tracts, nearly one-half were designated as gentrifying during the 2000s. Even though its population increased during the 1990s, the gentrifying tracts actually saw a greater population decline during the 2000s (however, it was a smaller decline than that in the higher-income tracts nearby); this decline appears to have been driven by losses in the White population (both Black and Hispanic residents increased their population shares). At the same time, poverty rates were declining more substantially in the gentrifying tracts and the share of college-educated residents was increasing. The gentrifying neighborhoods had a higher rate of new residential construction and marginally larger increases in rents. Residential prices were appreciating in the 2000s, albeit less than in the nongentrifying low-income tracts. Commercial prices were dropping more dramatically in the gentrifying tracts, but commercial AVs were increasing compared with declines in the rest of Astoria. Growth in the retail market was marginally higher in the gentrifying tracts than in the nongentrifying tracts (but was more than double that in the higher-income tracts).

³² Compared with the 1990s, the growth in gentrifying tracts was only marginally smaller than the substantial decline in growth in the nongentrifying neighborhoods.

Exhibit 10

Sunset Park, Change in Services

a. Broad Industries

NAICS Grouping	Gentrifying				Nongentrifying			
	Avg. Share	Percent Change		Avg. Share	Percent Change		Percent Change	
	1990–2011	1990–2011	1990–2000	2000–2011	1990–2011	1990–2000	2000–2011	
Retail	0.26	115.9	49.2	44.7	0.35	135.9	42.3	65.8
Service	0.21	361.1	50.0	207.4	0.22	553.9	75.5	272.6
Food, entertainment	0.08	142.1	73.7	39.4	0.08	140.4	100.0	20.2
Personal services	0.23	208.9	77.8	73.8	0.15	288.1	122.6	74.3
Education, health, social	0.03	160.0	60.0	62.5	0.06	158.0	52.0	69.7
Manufacturing, etc.	0.20	67.2	14.8	45.7	0.13	241.3	50.0	127.5

b. Discrete Services

Discrete Service	Gentrifying				Nongentrifying							
	Number of Establishments		Percent Change		Number of Establishments		Percent Change					
	1990	2000	2011	1990–2011	1990–2000	2000–2011	1990–2011	1990–2000				
Grocery stores	21	33	44	109.5	57.1	33.3	50	101	203	306.0	102.0	101.0
Drug stores	1	4	3	200.0	300.0	–25.0	15	18	31	106.7	20.0	72.2
Full-service restaurants	9	23	17	88.9	155.6	–26.1	32	78	65	103.1	143.8	–16.7
Gyms	0	0	2				0	1	7			600.0
Doctors' offices	4	5	7	75.0	25.0	40.0	38	52	90	136.8	36.8	73.1

NAICS = North American Industry Classification System.

Note: Percent Change refers to the percent change in the number of establishments between the indicated end points; for example, Percent Change 1990–2011 (for Retail) = $(\#_Retail_{2011} - \#_Retail_{1990}) / \#_Retail_{1990}$.

Sources: National Establishment Time-Series Database; author's calculations

Like broader citywide trends, most establishments stayed in place during both the 1990s and 2000s. For single-business properties, retention rates in gentrifying tracts were at 73 percent during the 1990s; for multiple-business properties, this number was lower, at 66 percent.³³ During the 2000s (relative to the 1990s), gentrifying tracts in Astoria, on net, had lower business retention rates and a higher likelihood of businesses leaving without getting replaced (see exhibit 11). The magnitudes of these shifts were small relative to what was observed in the other neighborhoods; for example, less than a 5-percentage-point decline off of a 73 percent share of stayers is not dramatic for a decade’s worth of change. Any decrease in the likelihood of displacement (with replacement) was small—less than 1 percentage point off of a 6 to 17 percent base. In addition, gentrifying tracts were no more likely to lose their older businesses (even though the businesses were older, on average, in the gentrifying tracts) than were nongentrifying tracts.

The growth in chains was also lower in gentrifying tracts than in the nearby nongentrifying tracts (in fact, the number went down during the 2000s). Otherwise, industry-specific gains were more prevalent in the nongentrifying tracts, although retail services grew slightly more in the gentrifying tracts (see exhibit 12a). Patterns for the discrete services tell a slightly different story: all these businesses grew relatively more in the gentrifying tracts, especially the necessity businesses, like grocery stores, drug stores, and doctors’ offices (see exhibit 12b).

Exhibit 11

Astoria, Retention and Displacement Rates

	Difference: Gentrifying and Nongentrifying		Difference: 2000s and 1990s
	1990s	2000s	
Single-business properties			
Stay entire period	0.025	0.030	0.005
Leave without replacement	- 0.014	- 0.022	- 0.008
Leave with replacement	- 0.023	- 0.038	- 0.015
Multiple-business properties			
Stay entire period	0.025	- 0.013	- 0.039
Leave without replacement	- 0.046	0.007	0.054
Leave with replacement	0.032	0.035	0.003

Sources: National Establishment Time-Series Database; author’s calculations

Conclusions and Policy Implications

Local, small businesses are very much tied to their surrounding communities: physically, economically, and culturally (Deener, 2007; Hyra, 2008; Meltzer and Schuetz, 2012; Zukin et al., 2009). Therefore, when neighborhoods undergo meaningful economic and social changes, such as those that take place under gentrification, one would expect local businesses to feel the effects. Is gentrification, however, a threat or a boon to existing businesses? What are the implications for the residents who patronize these services?

³³ These shares amount to about 76 establishments in single-business buildings and 144 establishments in multiple-business properties.

Exhibit 12

Astoria, Change in Services

a. Broad Industries

NAICS Grouping	Gentrifying				Nongentrifying			
	Avg. Share	Percent Change		Avg. Share	Percent Change			
	1990-2011	1990-2011	2000-2011	1990-2011	1990-2000	2000-2011		
Retail	0.27	60.0	24.2	0.32	10.2	27.8		
Service	0.28	253.3	48.3	0.23	25.2	174.5		
Food, entertainment	0.10	120.0	70.0	0.10	77.4	42.6		
Personal services	0.14	114.7	64.7	0.14	78.1	46.9		
Education, health, social	0.08	73.3	51.1	0.07	38.8	35.3		
Manufacturing, etc.	0.13	151.7	60.0	0.13	- 8.2	141.0		

b. Discrete Services

Discrete Service	Gentrifying				Nongentrifying							
	Number of Establishments		Percent Change		Number of Establishments		Percent Change					
	1990	2000	2011	1990-2011	1990-2000	2000-2011	1990-2011	2000-2011				
Grocery stores	29	47	74	155.2	62.1	57.4	30	46	70	133.3	53.3	52.2
Drug stores	9	10	16	77.8	11.1	60.0	10	8	12	20.0	-20.0	50.0
Full-service restaurants	21	46	46	119.0	119.0	0.0	28	60	58	107.1	114.3	-3.3
Gyms	0	1	8			700.0	1	0	13	1200.0	-100.0	
Doctors' offices	34	50	59	73.5	47.1	18.0	37	54	63	70.3	45.9	16.7

NAICS = North American Industry Classification System.

Note: Percent Change refers to the percent change in the number of establishments between the indicated end points; for example, Percent Change 1990-2011 (for Retail) = $(\#_Retail_{2011} - \#_Retail_{1990}) / \#_Retail_{1990}$.

Sources: National Establishment Time-Series Database; author's calculations

The results are mixed and show that the nuances of gentrification cannot necessarily be observed in broader citywide trends. I find that the typical gentrifying neighborhood in New York City does not experience elevated rates of business displacement compared with a comparable nongentrifying neighborhood. This finding is in line with the evidence on residential displacement, which does not show systematic displacement of low-income residents in the context of gentrification (Ellen and O'Regan, 2011; Freeman, 2005; Freeman and Braconi, 2004; Freeman, Cassola, and Cai, forthcoming; McKinnish, Walsh, and White, 2010; Vigdor et al., 2002). It is also consistent with other research (Meltzer and Capperis, forthcoming) on neighborhood retail churn, a process that tends to be driven by new business entries (rather than business closures). When businesses vacate a space, however, it tends to sit vacant for longer in gentrifying than in nongentrifying neighborhoods. Therefore, implications apply not only for the displaced businesses but also for the communities left with empty storefronts. Businesses that replace the displaced establishments are more likely to introduce new types of services in gentrifying neighborhoods compared with both nongentrifying and higher-income neighborhoods. Although gentrifying neighborhoods have relatively more chains that replace displaced businesses, chains constitute a very small share of activity overall (less than 5 percent of all the replacement businesses).

The case studies illustrate how idiosyncratic the process can be. Together, the neighborhood drill-downs show that tracts undergoing gentrification in the 2000s had relatively larger, but varied, declines in retention rates than did nongentrifying tracts. In addition, the tracts' socioeconomic changes attracted new businesses and increases in both necessity and discretionary services. This shift was particularly true in East Harlem, which experienced larger population and income surges. On the other hand, gentrifying tracts in Sunset Park experienced increased displacement without replacement relative to nongentrifying tracts and smaller growth in necessity services from the businesses that moved in. So, here, the neighborhood experienced the disruption of business turnover but without the upside of more services.

Nonetheless, the results should be interpreted in the context of a large, dense city, which has experienced intense gentrification (especially during the 2000s); therefore, although the pressures from gentrification are particularly acute in New York City, the commercial markets are also relatively robust. The fact that displacement is not systematically higher in New York City's gentrifying neighborhoods bodes well for cities experiencing less aggressive gentrification; however, cities with less vibrant neighborhood retail markets could be more vulnerable to gentrification-induced displacement. Although the drill-down analyses attempt to shed light on some of this variation, the reality is that neighborhoods in less dense or walkable cities might have a harder time supporting local retail markets, even in the absence of gentrification.

In conclusion, opportunity appears to exist for the neighborhoods that gain quality-of-life services and that retain more businesses under conditions of gentrification—perhaps because of new and increased spending power locally. The threats are also palpable: the displacement that does occur can leave gentrifying neighborhoods with disproportionately more vacant spaces and without the promise of new amenities. Even in the neighborhoods where services grow and/or change, the new products, price points, or cultural orientation could be more alienating than useful for incumbent residents. Therefore, even in the absence of systematic business displacement, gentrification can present challenges around the management of changing neighborhood services.

Here, neighborhood-based organizations, like business improvement districts and Community Development Corporations, and real estate brokers can play a role in coordinating input from the community and conveying it to property owners. Moreover, new investment, which tends to happen in gentrifying neighborhoods, provides a critical opportunity for local government to negotiate the terms of development, including where commercial space is created and how it is used. This approach increasingly has been used with housing, where permitting or zoning allowances are contingent on affordable housing provision; a similar approach can be applied to the provision of commercial space and services.

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