CHANGING RETAIL DYNAMICS IN GREENPOINT, BROOKLYN

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This study examines the impacts of gentrification on retail activity through a case study of Greenpoint, Brooklyn. Since 2000 Greenpoint has undergone rapid neighborhood changes that have affected both the sociodemographics of the residents and the types of businesses that line the streets. Retail changes at the street level have significant implications for neighborhood character that merit attention. To examine the relationship between gentrification and retail change, this paper looks at two questions: how has Greenpoint retail changed since 2000, and what are the underlying causes of these changes? Quantitative analyses supported by interviews with local retailers serve as the methodological framework for the study with change indicated by three determinants: business closures, business openings, and changes in establishment types. The aim of the research is to gain a better understanding of the reasons underlying retail change as it relates to gentrification, thereby serving as foundation for future efforts to preserve certain defining elements of neighborhood character.

I. Introduction

It is not simply the residential population that defines the character of a neighborhood but also the interactions that take place outside of the home, bringing life to the streets. As Jane Jacobs noted decades ago regarding New York City's West Village,[1] neighborhood businesses not only contribute to the economic livelihood of a neighborhood, but they are an integral element of neighborhood character, serving an array of needs for local residents. Yet, scholars and journalists disproportionately describe and analyze gentrification from the perspective of residents and housing. The effects of gentrification on neighborhood attributes such as retail remain an underrepresented area of study. While researchers have begun examining dimensions of retail gentrification, additional research is needed to better understand the impact of gentrification on local retailers.

Similar to the foreboding changes in the West Village that Jacobs noted during the 1960s, the Greenpoint section of Brooklyn is currently in the midst of significant change largely due to processes of gentrification, with rising property values and shifting household composition. Greenpoint, a traditionally working class and predominantly Polish neighborhood along the East River, has experienced notable demographic shifts over the last decade. Change in Greenpoint is due to a variety of factors including: area rezoning, housing policy, real estate development, and property value inflation in neighboring Williamsburg, leading to residents moving to Greenpoint instead.

The retail impacts of these forces are being seen in a variety of ways. For instance, new retail corridors are being created in areas that previously had little to no businesses, and new types of businesses catering to the new clientele are replacing some of the original neighborhood businesses along Greenpoint's primary retail corridor, Manhattan

[1] Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961).

Avenue. Such changes should not be taken lightly. As Sharon Zukin states, change to neighborhood retail "calls attention to displacement of local retail stores and services on which long-term, lower class residents rely.[2]"

While studies of the retail implications of gentrification in New York have been conducted for central retail corridors in Harlem and Williamsburg, further research is needed to better understand the underlying causes and attendant effects of these changes. This study builds on previous retail gentrification research by analyzing retail dynamics in Greenpoint, where traditional retail and business character have played a central role in the local economy for over half a century, serving the needs of the Polish working class neighborhood's local customer base. Unlike nearby neighborhoods that experienced waves of change over successive decades, the changes in Greenpoint began slowly in the 1990s and since 2000 the pace of change has quickened. Based on preliminary observations of the retail implications of these recent changes, the number of retailers in the neighborhood is increasing at a rapid rate, either filling in voids in established retail corridors, or creating new ancillary corridors. These new businesses are primarily independent and appear to be catering to the newer, younger, more affluent local residents.

This study examines the relationship between gentrification and changing retail dynamics through a comprehensive analysis of Greenpoint's retail. The primary research questions are the following: how has Greenpoint's retail landscape changed since 2000, and what are the underlying causes for these changes? After an initial analysis of the changes in the Greenpoint retail landscape, this study will examine the role of changing sociodemographics, increasing commercial property values, and business competition in affecting local retail change.

By conducting a comprehensive neighborhood analysis of changing retail dynamics in Greenpoint before the complete displacement of existing retailers, and by identifying the underlying causes of change, it is hoped that retail planning interventions could be implemented to both prevent future potential business displacement and preserve some of the neighborhood's traditional retail character. While policies to protect local residents and industry were incorporated into the area's 2005 rezoning, retailers were left vulnerable. However, it is not too late to address this gap. The thesis will conclude with immediate and long-term recommendations based on the findings and retail planning intervention precedents.

II. Literature Review

Gentrification research began in 1964 when the term was coined by British sociologist Ruth Glass to represent the influx of middle-class residents and displacement of lower-income residents.[3] Subsequent gentrification research has commonly focused on residential changes, examining the processes of gentrification and its effects on residents. Early debates on the underlying causes generally examined either the production-side or the consumption-side of the equation. Proponents of the supply side of the debate (derived from the work of Neil Smith) claim that gentrification is an economic process caused by deindustrialization and rent gaps, among other factors.[4] On the other side of the argument, authors such as David Ley claim that gentrification is a result of sociocultural factors, caused in part by an increased number of people wanting to move back to cities from the suburbs.[5]

[2] Sharon Zukin et al, "New Retail Capital and Neighborhood Change: Boutiques and Gentrification in New York City," *City and Community* 8 (2009): 47.

[3] Ruth Lazarus Glass, *London: Aspects of Change* (London: MacGibbon & Kee, 1964).

[4] Neil Smith, "Gentrification and the rent-gap," *Annals of the Association of American Geographers* 77, no. 3 (1987): 462-465.

The underlying reasons for gentrification soon developed into a more manifold explanation, influenced by a multitude of economics and social changes surrounding urban housing.[6]

A second substantial area of gentrification research focuses on its role in residential displacement. Despite the difficulty obtaining accurate and reliable data, as new residents move into a gentrifying neighborhood, older lower income residents are forced out due to escalating rents and speculation. However, Lance Freeman, in his 2004 article and subsequent 2006 book, *There Goes the 'Hood: Views of Gentrification from the Ground Up*, found that there is no causal relationship between gentrification and residential displacement. While not disproving the negative effects of gentrification, the implications are more varied, creating both benefits and disadvantages for long-term lower-income residents.[7]

The implications of gentrification extend beyond housing. The definition of gentrification can be broadened from Glass's original definition to encompass a series of associated neighborhood changes. In instances where gentrification is accompanied by zoning changes that permit residential uses in formerly manufacturing or commercial areas, these other building users can be physically displaced, which can have repercussions for local employment. As Winifred Curran presents in her 2004 article, "Gentrification and the Nature of Work: Exploring the Links in Williamsburg, Brooklyn," the rezoning of formerly manufacturing zones and the conversion of industrial buildings into lofts subsequently decreased industrial employment, creating a spatial divide between places of residence and places of work.[8]

A small but growing body of work has begun to examine the displacement of retail associated with gentrification, and the findings have been mixed. Freeman and Jason Patch note the benefits of increased safety[9] and the availability of essential goods and services resulting from increased retail investment. However, the benefits of new retail are not impartial, as shown in Freeman's research. In his interviews with the local populations of Harlem and Clinton Hill, Brooklyn, he found that many long-term residents were wary of the new retail that was both aimed at the higher-income residents moving into the neighborhoods and forcing existing local businesses to close as a result.[10]

Daniel Sullivan and Samuel Shaw added to this body of research in 2011. They conducted the first comparative study by race of opinions towards changing retail dynamics in a gentrifying neighborhood. In their analysis of a gentrifying retail corridor in Portland, Oregon, Sullivan and Shaw found that both new and old white residents looked more positively on the changing character of the street's retail offerings, whereas the local black population had more mixed reactions. As Freeman originally found, their apprehension was due to the accompanying displacement of previous businesses and the feeling that the new stores were aimed at the new higher-income white population moving to the neighborhood.[11]

Zukin has focused much of her research on the retail implications of gentrification. Her 2009 study,

[5] David Ley, "Gentrification and the Politics of the New Middle Class," *Environment and Planning D: Society and Space* 12 (1994): 53-74.

[6] See Damaris Rose, "Rethinking Gentrification: Beyond the Uneven Development of Marxist Theory," *Environment and Planning D: Society and Space* 2 (1984): 47-74, among others.

[7] Lance Freeman, *There Goes the 'Hood: Views of Gentrification from the Ground Up* (Philadelphia: Temple University Press, 2006).

[8] Winifred Curran, "Gentrification and the Nature of Work: Exploring the Links in Williamsburg, Brooklyn," *Environment and Planning A* 36 (2004): 1243-1258.

[9] Jason Patch, "Ladies and Gentrification: New Stores, Residents, and Relationships in Neighborhood Change," *Research in Urban Sociology* 9 (2008): 103-126.

[10] Freeman, *There Goes the 'Hood*.

"New Retail Capital and Neighborhood Change: Boutiques and Gentrification in New York City," uses both quantitative and qualitative methodologies to determine the changes in businesses types in two gentrifying New York neighborhoods, Harlem and Williamsburg. Though the two neighborhoods that Zukin examined had undergone different processes of residential gentrification, each had experienced a trend Zukin refers to as "boutiquing." The majority of new businesses that she encountered were independently opened shops catering to customers with relatively substantial disposable incomes. Additionally, as a result of these new shops, many independent stores that had traditionally served the neighborhood's lower-income residents were displaced.[12]

The implications of business displacement extend beyond the storefront and make up what Jason Patch terms "street gentrification," which has greater implications on changes to a neighborhood's character than residential gentrification alone.[13] As Andrew Deener discusses in his research on retail gentrification in Venice, California, by changing the character of retail offerings, the new residents are taking "symbolic ownership" over the street's identity, focusing on the aesthetic presentation of the space and redefining a neighborhood's character, excluding many long-term low-income residents in the process.[14]

Changes in retail and its implications for a neighborhood's character and livelihood have primarily focused on a debate between independent and chain retailers,[15] rather than discerning the more nuanced differences between different types of independent stores. As one example, Ray Oldenberg's 1997 book, *The Great Good Place: Cafés, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You Through the Day*, focuses on the importance of retail on neighborhood character. He defines retail as a neighborhood's "third place," with homes and places of work representing the first and second places. Oldenberg highlights the importance of third places as places of socializing and social leveling and finds fault with chain retailers due to their inability to serve as third places.[16]

As highlighted previously, the new retailers inserting themselves into gentrifying neighborhoods are not chain retailers. As Rachel Meltzer and Jenny Schuetz found in their study of differences in retail offerings in New York City, a gentrifying neighborhood is usually associated with a significant increase in independent businesses.[17] Yet, as evident in the mixed reactions and feelings of exclusion from local residents, these new shops are not third places (following Oldenberg's definition) and are potentially just as detrimental to neighborhood character as chain retailers.[18]

[11] Daniel Monroe Sullivan and Samuel C. Shaw, "Retail Gentrification and Race: The Case of Alberta Street in Portland, Oregon," *Urban Affairs Review* 47, no. 3 (2011): 413-432.

[12] Sharon Zukin et al, "New Retail Capital and Neighborhood Change: Boutiques and Gentrification in New York City," *City and Community* 8 (2009): 47-64.

[13] Patch, "Ladies."

[14] Andrew Deener, "Commerce as the Structure and Symbol of Neighborhood Life: Reshaping the Meaning of Community in Venice, California," *City and Community* 6, no. 4 (2007): 291-314.

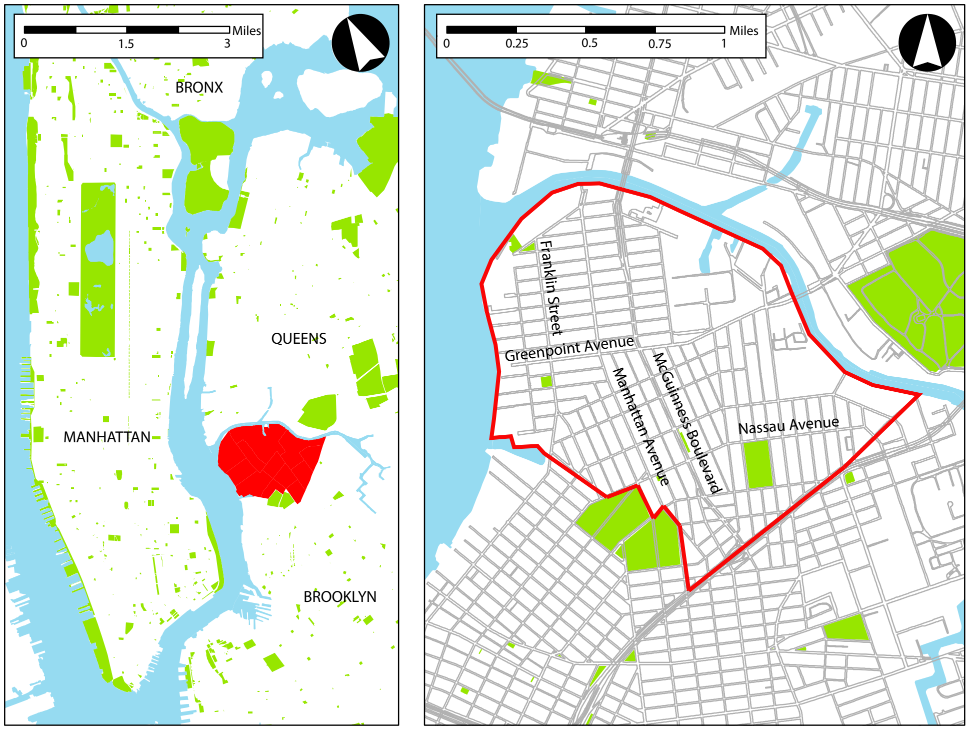
[15] See David Merriman et al., "The Impact of an Urban Wal-Mart Store on Area Businesses: The Chicago Case," *Economic Development Quarterly* (2012): 1-13, among others.

[16] Ray Oldenburg, *The Great Good Place: Cafés, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How they get you through the Day* (New York: Narlowe, 1997).

[17] Rachel Meltzer and Jenny Schuetz, "Bodegas or Bagel Shops? Neighborhood Differences in Retail and Household Services," *Economic Development Quarterly* 26, no. 1 (2010): 73-94.

[18] See Deener, "Commerce;" Zukin et al, "New Retail;" and Meltzer and Schuetz, "Bodegas," among others.

FIGURE 1
Greenpoint, Brooklyn



Added to the problem is the absence of other arenas for social mixing. Judith N. DeSena, in her book, *Gentrification and Inequality in Brooklyn: The New Kids on the Block*, examined the role of gentrification in the social life of Greenpoint, Brooklyn. She found that rather than adapting to existing social frameworks, newcomers to the neighborhood ("gentrifiers") were establishing social milieu parallel to those already existing and already in use by long-term residents. By creating a parallel world of retail, community, and educational offerings, the newcomers prevent potential social mixing.[19]

Existing gentrification research has shown that the implications extend beyond potential residential displacement. Associated changes to retail dynamics are usually aimed at new residents to the disadvantage of long-term lower-income residents, thus impeding the potential for independent businesses to serve as places of community social interaction. Less is known about the underlying causes for this shift in retail offerings and the displacement of existing retailers. This study aims to add to this body of knowledge, through a thorough examination of the causes of changing retail dynamics in Greenpoint, Brooklyn.

III. Background

Little Poland

Greenpoint, Brooklyn (shown in Figure 1) was first settled in the 1700s, and remained a small agricultural hamlet inhabited by just five families at the time of the Revolutionary War. Not until the middle of the nineteenth century, when ferry service began between Manhattan and Brooklyn, did industry left Manhattan for the neighboring borough. Greenpoint soon became a major center for shipbuilding, oil refining, and black arts[20] industries. The influx of industrial and low-skill jobs attracted immigrant workers and residents to the neighborhood.

[19] Judith N. DeSena, *Gentrification and Inequality in Brooklyn: the New Kids on the Block* (Lanham, MD: Lexington Books, 2009).
[20] The black arts industries refer to printing, refining, cast iron manufacturing, and glass and pottery making.

TABLE 1
Polish Speaking Population

	1990		2000		
	Total	Percentage	Total	Percentage	Percentage Increase
Total Population	34,799	100.0	35,887	100.0	3.1
Population Speaking Polish at Home	10,122	29.1	14,775	41.2	46.0

Sources: Census 2000 SF3 (American FactFinder); Census 1990 SF3 (Social Explorer); http://www.nyc.gov/html/dcp/pdf/census/sociopp.pdf
Notes: Brooklyn Census Tracts 499, 559, 563, 565, 567, 569, 571, 573, 575, 579, 589, 591, and 593

While the first immigrants to Greenpoint were mostly English, Irish, and German, by the early twentieth century the neighborhood's Polish community was firmly established. As the presence of Polish immigrants increased, the number of industrial jobs began to decline in Greenpoint. By the latter half of the twentieth century, many of the neighborhood's industries had left, although two major industrial employers, American Sugar and Leviton, remained.

This loss in industry sparked by the fiscal crisis was followed by disinvestment and decline, as seen in much of New York City at the time. With the exception of a new wastewater treatment plant along Newtown Creek, little to no new building was initiated in Greenpoint during this period. The facility, constructed between 1965 and 1979, would become a noxious and defining feature of the neighborhood.

While disinvestment and offensive facilities may have prevented some people from moving to Greenpoint, the Polish presence continued to increase. Sparked by the founding of the Independent Self-Governing Trade Union Solidarity (Solidarnosc) in Poland in 1980, the ensuing strikes, and declaration of martial law, many Poles immigrated to America. These new Polish immigrants were better-educated and more urbanized than the previous wave of Polish immigrants, and they began opening new Polish businesses in the neighborhood.[21] During the four-year period that Poland was part of the United States Diversity Program (1990 to 1994), 30 percent of all Polish immigrants moved to Greenpoint. This influx of Polish immigrants is evident in U.S. Census data for the last decade of the twentieth century with the number of Polish-speaking residents increasing by 46 percent (refer to Table 1). The neighborhood's status as Little Poland was established.

The neighborhood's Polish character was not just defined by the residents, but also by the commercial offerings, which served the residents and continued to attract more Polish immigrants. In the late 1990s, the New York City Polish language paper, *Nowy Dziennik*, printed a column titled "Visible from Greenpoint," proudly profiling the increasing number of Polish businesses and business owners. As evidence of the increase in Polish businesses during this period, between 1975 and 2000, the number of Polish-owned and -operated businesses more than doubled, from 72 to 146, with the largest increase seen in Polish travel agencies. These travel agencies were multipurpose commercial enterprises that served as one-stop shops for the local Polish community. They provided services such as assistance finding housing and jobs, translation and notary services, and parcel shipping, thus meeting needs specific to the local community.[22]

[21] Stabrowski, Filip Akira, "Housing Polish Greenpoint: Property and Power in a Gentrifying Brooklyn neighborhood" (PhD dissertation, University of California, Berkeley, 2011), 5.

There was organized local support for these businesses as well. During the same period, Greenpoint merchants formed a local business association (the Greenpoint Business Alliance, or GBA) to support local businesses and community. In the late 1990s, there was also an attempt by the North Brooklyn Development Corporation (NBDC), a group formed in 1979 to improve commerce, housing and education in North Brooklyn, to establish a Greenpoint Business Improvement District (BID). While the effort failed after more than two years of planning, these examples of local business cooperation and promotion highlight both the role that local businesses played in Greenpoint, and the community support among the local retailers.[23]

Spillover Gentrification

During this time, neighboring Williamsburg, located directly south of Greenpoint, was changing as well, but in a different way. In the 1970s, artists began moving to the neighborhood, living in (often illegal) lofts in former industrial buildings. Williamsburg remained an affordable place to live until the 1990s, when the neighborhood was rediscovered and rents began increasing dramatically. These changes did not reach Greenpoint right away for a series of reasons, including the aforementioned wastewater treatment facility and the less convenient commute to Manhattan; the subway line serving Greenpoint's two stations does not provide a direct connection to Manhattan.

Spillover gentrification soon began as realtors continued to push the boundary of what would be called Williamsburg, encroaching on its northern neighbor. Comparing US Census information from 1990 and 2000, while median household income decreased throughout Greenpoint during this period, one census tract immediately adjacent to

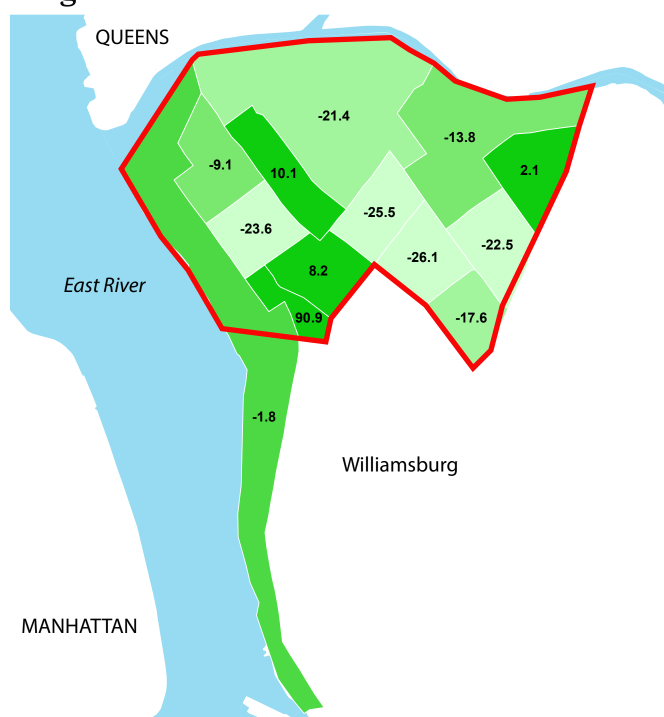
TABLE 2
Median Household Income ($)

	Greenpoint[1]	Williamsburg[2]	Brooklyn	New York
1990	39,330	23,403	34,417	38,909
2000	31,138	28,400	32,135	38,293
Percentage Change	-20.8	+ 21.4	-6.6	-1.6

Sources: Census 2000 SF3 (American FactFinder); Census 1990 SF3 (Social Explorer); http://www.nyc.gov/html/dcp/pdf/census/sociopp.pdf

Notes:
[1] Greenpoint 2000 Census Tracts 499, 559, 563, 565, 567, 569, 571, 573, 575, 579, 589, 591, and 593
[2] Williamsburg is the North Side-South Side NTA; 2000 Census Tracts 513, 515, 517, 519, 523, 525, 527, 547, 549, 551, 553, 555, 557, and 577

FIGURE 2
Change in Median Household Income 1990-2000



Sources: Census 2000 SF3 (American FactFinder); Census 1990 SF3 (Social Explorer)

[22] ibid.
[23] Juliet Linderman, "The Greenpoint Business Association, At it Again!" *The Greenpoint Gazette*, February 19, 2010, accessed February 20, 2013, http://www.greenpointnews.com/news/2121/the-greenpoint-business-association-at-it-again.

TABLE 3
Average Property Sale Values between 2010 and 2012 (price per square foot in 2012 $)

	Multifamily Buildings				Mixed-Use Buildings				Commercial Buildings			
	2010	2011	2012	Percentage Change[1]	2010	2011	2012	Percentage Change[1]	2010	2011	2012	Percentage Change[2]
Greenpoint	184	204	219	19.0	329	260	329	0.0	N/A	206	560	171.8
Williamsburg	177	200	304	71.8	292	261	423	44.9	175	349	273	-21.8
Brooklyn	152	153	173	13.8	224	230	220	-1.8	286	295	353	19.7

Source: Terra CRG LLC, "Brooklyn Sales Report" for 2010, 2011, and 2012; BLS CPI
Notes:
[1] Percentage change represents the percentage change in ppsf between 2010 and 2012.
[2] As 2010 Greenpoint commercial building data is not included the percentage change in commercial building ppsf represents changes between 2011 and 2012.

Williamsburg experienced a 90 percent increase in median household income (refer to Figure 2).

Developer speculation followed in the early 2000s in anticipation of two major policy and zoning changes: the 2005 rezoning of Greenpoint and Williamsburg and the 2007 extension of the 421-a plan Exclusion Area. The rezoning was the largest the City has undertaken to date, encompassing 185 blocks along the East River, and converting half of Greenpoint's previously industrial zoned tax lots to residential. The number of commercial tax lots remained relatively stable, only increasing by 0.8 percent with the rezoning. Along with this action, the extension of the 421-a plan Exclusion Area to include the entire Brooklyn and Queens waterfront meant that all housing built in those areas would be required to have 20 percent of their units be affordable.

These two actions brought on an onslaught of development in Greenpoint in the 2000s as seen in the spike in the number of Department of Buildings applications to alter, demolish and build new buildings during this time. Accompanying this building boom was an increase in property values. Sales transactions for multifamily residential, mixed-use and commercial buildings (shown in Table 3) attest to this fact. Looking at just the past three years, between 2010 and 2012, the average price per square foot (ppsf) of recorded Greenpoint building sales increased for all three building types; the most substantial increase was in the ppsf of commercial buildings, which more than doubled between 2011 and 2012.

These trends can be seen at the more micro scale as well by looking at two buildings sold in 2006 and 2012 on the same block of Greenpoint's primary commercial corridor. Their sales prices were $370 and $449 per built square foot, respectively, representing a 21 percent increase over this six year period.[24] These rising property values have significant implications on local businesses as property owners raise commercial rents to cover their costs.

Coupled with the increase in property values was a changing Greenpoint population. Between 2000 and 2010 the demographics of Greenpoint residents shifted to more non-family, younger, college-educated households with greater disposal incomes (refer to Table 4). While these shifts were not unique to Greenpoint, this does not negate the impact that they had on the character of the community. These new residents attracted new

[24] "Brooklyn Retail Property Sales (2003-June 2013)," CPEX Real Estate Services, accessed February 28, 2013, http://www.cpexre.com/research_items/76.

TABLE 4
Selected Sociodemographic Characteristics (2000-2010/2011)

	Proportion of Family Households			Median Age			Proportion of Population with at least a Bachelors Degree			Median Household Income (2012 $)		
	2000	2010	Percentage Change	2010	2010	Percentage Change	2000	2011	Percentage Change	2000	2011	Percentage Change
Greenpoint	55.1	41.0	-25.8	36.8	33.8	-8.2	20.9	45.4	117.2	45,249	61,263	35.4
Williamsburg [1]	57.8	62.9	8.8	29.8	30.7	3.0	22.3	45.7	104.9	37,051	52,033	40.4
Brooklyn	66.3	62.5	-5.7	33.1	34.1	3.0	42.1	29.2	-30.6	44,437	45,516	2.4

Sources: 2000 Census SF 3 (Social Explorer); 2010 Census SF3 (American Factfinder); 2010 Census SF1 (American Factfinder); 2011 ACS Five-Year Estimates (American Factfinder); BLS CPI Calculator

Sources:

[1] Williamsburg (North Side-South Side NTA) 2010 Census Tracts 513, 515, 517, 519, 523, 525, 527, 547, 549. 551, 555, and 557. See Table 2 Notes for 2000 Census Tracts.

types of businesses, which served as a further marketing mechanism to entice additional residents to the community.

Reflecting these changes in the Greenpoint retail landscape, newspapers like *The New York Times* began writing articles about the new chain retailers, such as Starbucks, Dunkin' Donuts, and Duane Reade opening on the established Manhattan Avenue commercial corridor, and new independently owned boutiques sprouting up on Franklin Street, neighboring the formerly industrial-zoned buildings along the waterfront.

Accompanying these business openings were business closures. The Polish-language newspaper *Nowy Dziennik* has been covering the closures. On May 2, 2012, the publication profiled the closure of a Polish meat market after 21 years in business. The author, Wojtek Maślanka, wrote:

> Staropolski Meat Martket & Deli is not the only Polish business [that] has vanished from the map of Greenpoint in recent years. Polish stores, agencies and even dance clubs have closed down because of skyrocketing rents, elderly Poles moving back to Poland or Poles choosing to live in other, cheaper neighborhoods.

The New York Times has also run several articles on the changes in area retail. On March 25, 2011, Liz Robbins profiled the closure of Manhattan Furrier after 95 years in business. As Robbins wrote, "From the outside, the shuttering of a business as anachronistic as its neon sign speaks to the gentrification of a once-Polish neighborhood now dotted with organic cafes and young artists."

Examining just two blocks within the neighborhood, the east side of Manhattan Avenue between Greenpoint and Java Avenues, we see evidence of these recent changes to the Greenpoint retail landscape. Starbucks opened at 910 Manhattan Avenue in 2007, after a series of corporate establishments, including Roy Rogers, Popeye's and Burger King were located in this former Polish movie theater. Next door, a Polish meat market at 912 Manhattan Avenue closed in 2012. A Polish restaurant, formerly Happy Ends, has reopened under the same ownership as a hip new café renamed the Brooklyn Point Café and catering more to the new neighborhood clientele. At the other end of the block, 946 Manhattan Avenue, a Turkish-owned Italian restaurant, La Taverna, resides in the space of one of the neighborhoods formerly omnipresent Polish bookstores, one that had been in operation for more than 25 years.

In 2010, to address some of these retail changes, the NBDC revitalized the GBA, an elective organization comprised of local business owners, that while organized differently from a BID at its base, sought to promote local businesses, both old and new, through efforts such as streetscape improvements and retail promotions. As NBDC project manager Jennifer Hilton stated in a 2010 profile of the GBA, "the initiative is to work cooperatively along [the Manhattan Avenue and Franklin Street] corridors . . . so instead of chasing the same moneys we want to work collectively to make bigger and better things happen.[25]" While the efforts of the organization were valiant, absent funding facilitated by BID status the GBA quickly disbanded, and changes in Greenpoint's retail landscape have continued.

In the fall of 2012, a new organization, the Greenpoint Chamber of Commerce, was formed. Made up of forty members of the local business community, the group is working on several initiatives, including weekly graffiti removal, advocating for solar-powered trash compacting receptacles, and installing "Welcome to Greenpoint," signs. The group serves as a more local, less policy-oriented arm of the Brooklyn Chamber of Commerce, to whom it pays dues. The membership-funded Chamber has been holding monthly meetings for networking and panel discussions with North Brooklyn success stories and experts on small business regulations.

Greenpoint's retail market today is changing. However, while the number of Polish residents in the neighborhood is decreasing, due both to the increased cost of housing and Poland's 2004 entry into the European Union, the Polish character of Greenpoint's businesses remains. At the same time, new boutiques, coffee shops and bars continue to open with increasing frequency. With the recent formation of a Greenpoint Chamber of Commerce, a more detailed examination of the changes in retail composition and their underlying causes will assist in pinpointing and addressing these changes and their implications on the character of the neighborhood.

IV. Research Design

This thesis addresses two primary questions: how does retail change in gentrifying neighborhoods, and what are the underlying factors for these changes? By better understanding these reasons, a study of policies to address the issue and preserve Greenpoint's and other gentrifying neighborhoods' existing character can be further examined. Following a description of the study area's geographic and temporal bounds, this section presents the methodology designed to answer the above questions and the data sources used. All research would conducted in accordance with and upon approval by the International Review Board (IRB).

Study Area

Geographic Bounds

The research study area is generally bounded by the East River to the west, Newtown Creek to the north, the Brooklyn Queens Expressway (BQE) to the east, and North 12th Street to the south. The boundaries of the neighborhood have been defined to correspond with the Greenpoint Neighborhood Tabulation Area (NTA), which is composed of twelve census tracts. The study area generally corresponds with one New York City ZIP Code (11222).

To provide an accurate picture of the varying degrees of gentrification, four neighborhood analysis zones were delineated, based both on reflections from interview subjects and general observations (refer to Figure 3). These zones also correspond with different land use and development trends. Manhattan Avenue (Zone 1) and Nassau Avenue (Zone 2) are established retail corridors anchored by the presence of subway stations; the Nassau Avenue station is located on the corner of Nassau and Manhattan Avenues, and the Greenpoint Avenue station is located further north at the intersection of Manhattan and Greenpoint

[25] Linderman, "The Greenpoint Business Association."

FIGURE 3
Analysis Zones

Avenues. Franklin Street (Zone 3), while historically serving as the primary retail corridor for Greenpoint before the introduction of the subway, has only recently begun to return to more commercial uses; Zone 3 also corresponds with the area rezoned from industrial uses in the 2004 Greenpoint-Williamsburg rezoning. Zone 4 is more industrial in character; several large film studios have opened in this area in recent years.

Temporal Bounds

The neighborhood of Greenpoint experienced a turning point around the year 2000. While the period of 1990 to 2000 saw median household incomes declining, between 2000 and 2010, median household incomes (along with property values) rose as the neighborhood became known as more than Little Poland. External forces including the 2005 rezoning, the 2007 extension of the bounds of the 421-a plan, along with Poland entering the European Union in 2004 and the resulting slowed immigration of Poles to the United States precipitated these trends. Given the resulting changes to the neighborhood, this study examines the period between 2000 and the present (2013).

Methodology

This research begins with an analysis of Greenpoint retail change since 2000. Changes to the retail landscape were measured by looking at three factors: business closures, business openings,[26] and changes in types of retail, defined as corporate or independent. Drawing on Zukin's 2009 methodology, the introduction of a third category of existing retail (new entrepreneurial) was assessed. New entrepreneurial businesses are differentiated from traditional local retail based on a set of both structural and aesthetic criteria defined by ownership, product quality and atmosphere, and business promotion.

For the second study question, "What are the primary determinants of retail change?" the following dependent variables were used as indicators of retail change: business closures, business opening, local businesses opening, and boutiques/new entrepreneurial businesses opening over the 2000-2013 study period. As all dependent variables were measured as "yes" (1) or "no" (0), a logistic regression model was used to estimate the

[26] Business openings and closures were measured at the building lot level. Therefore relocations are classified as a business closure (at one location) and a business opening (at a different location).

factors that influence these discrete variables. The following four logistic regression models were used to calculate the relationship between key predictors and the four dichotomous outcomes:

$$C_t = \beta_0 I_{i,t} + \beta_1 P_t + \beta_2 S_t$$
$$O_t = \beta_0 I_{i,t} + \beta_1 P_t + \beta_2 S_t$$
$$L_t = \beta_0 I_{i,t} + \beta_1 P_t + \beta_2 S_t$$
$$B_t = \beta_0 I_{i,t} + \beta_1 P_t + \beta_2 S_t$$

where C_t and O_t are the dichotomous outcomes of a business closing or opening, respectively, over the study period t; L_t and B_t are the dichotomous outcomes that a business opening during the study period t is a local or boutique retailer, respectively; $I_{i,t}$ is the percentage change in median household income (MHI) in census tract i over study period t; P_t is the percentage change in property value over study period t; S_t is the percentage changes in the number of similar businesses[27] within Greenpoint over the study period t; and β_0, β_1, and β_2 are constants. The logistic regression model determines the log odds of the outcome variable as determined by the covariates, where odds = $(p/1\text{-}p)$ and p is the probability of the outcome.

The above described logistic regression models were extended to include additional covariates indicative of neighborhood change. The expanded regression models included the following supplemental variables available at the census tract level: population in 2010, percentage change in population, African American, Asian, and Hispanic populations, and percentage change in the proportion of family households and the population with a college degree or higher. The inclusion of these additional variables ensures that undue significance of the three primary independent variables is not inferred.

Data Sources

Sociodemographic Data

The study relied on two primary sources for sociodemographic data: the U.S. Census (2000 and 2010) and the 2011 American Community Survey (ACS) 5-Year Estimates. Data were gathered at the census tract level, with adjustments made to account for changes to census tract boundaries between 2000 and 2010. All income data was adjusted to 2012 dollars using the Bureau of Labor Statistics' (BLS) Consumer Price Index (CPI) Inflation Calculator. Tables presenting the variables of the logistic regression model are included in Appendix A.

Property Value Data

2004 and 2013 market value data for all Greenpoint businesses that were open in 2000 and/ or 2013 were obtained through the New York City Department of Finance (DOF) Real Property Assessment Data (RPAD) online interface. As DOF does not make accessible market value data for years prior to 2004, the 2004 data (representative of the pre-rezoning commercial real estate market) served as a proxy for 2000 market data. Market values for these years were recorded at the property lot level, and adjusted to current 2012 dollars using the BLS's CPI Inflation Calculator. Additionally, for properties with no associated tax lot, the average of the two neighboring properties was used as a proxy for property value change.

Considering Greenpoint/Williamsburg housing price appreciation witnessed from 2000 to 2004, it is likely that the 2000 commercial property market values are slightly lower than the values recorded in 2004.[28] As such, these figures provide a more conservative assessment of the change in property values over the study period. Notwithstanding, given the data available, and the fact that the 2004 data

[27] Defined as businesses with the same NAICS code.

[28] The Furman Center for Real Estate & Urban Policy, "Trends in New York City Housing Price Appreciation," *State of New York City's Housing & Neighborhoods*, 2008.

reflect both a pre-rezoning and pre-2008 recession Greenpoint commercial real estate market, the limitations of the data are not expected to be significant.

Retail Data

Current retail data were gathered through extensive field surveys conducted in January 2013. The business name and address, business type (e.g., full-service restaurant, supermarket, clothing stores), and establishment type (chain, local, or new entrepreneurial) were noted. Determination of establishment type was based on field surveys and supplemental internet research. All existing retailers were cross-referenced with ReferenceUSA to obtain North American Industry Classification System (NAICS) codes. The field surveys allowed for an additional NAICS code verification: unclassified establishments were assigned appropriate NAICS codes and ReferenceUSA classification errors were corrected.

The National Establishment Time-Series (NETS) Database served as the primary data source for 2000 retail data. This data source includes business names (both legal and trade names), addresses, NAICS codes, and establishment type (chain or independent[29]), as well as the last year that the business was open. As the data set did not reflect closures that have occurred since 2008, all businesses that were cited as being open in 2008 were verified through field surveys. Adjustments were then made to the data to eliminate double-counting and to address incorrect data entries.[30]

The analysis focused on fifteen primary 3-digit NAICS codes considered to be representative of retail. Business such as yoga studios, automobile repair shops, and lawyers' offices were excluded from the analysis. A full list of the 3-digit NAICS codes included in the analysis is included in Appendix B.

Interviews

During the January 2013 field surveys, local business owners and leaders in the Greenpoint business community were interviewed. Interviewed business owners represented a range of ownership tenure (one year to over thirty years), business type (e.g., food and drinking establishments, clothing/ accessories, book/hobby, and hardware stores, and repair and maintenance stores), establishment type, and locations (i.e., the four analysis zones). Local business community interview subjects included current members of the Greenpoint Chamber of Commerce and former members of the GBA.

Interview questions for all participants focused on the history of their business (e.g., ownership tenure, former locations), their connection to Greenpoint (e.g., current or former residents), and reflections on the neighborhood's recent changes and its both experienced and anticipated implications on their business. Questions regarding current or previous participation in local business organizations were also included. Current members of the Greenpoint Chamber of Commerce and former members of the GBA also provided information regarding organizational goals, initiatives, and challenges.

Research Limitations

While the above described research methodology is intended to allow for an analysis of the agents of retail change, there are certain limitations inherent in the available data. The primary shortcoming lies in the retail data for the year 2000. While field surveys of exiting retail provided a form of verification of business classifications, such substantiation was impossible for

[29] NETS data include a third establishment type category, "headquarters." In such instances, these businesses were researched and reclassified as either "chain" or "independent," based on ownership and business type.

[30] In several instances, multiple establishments with identical NAICS code and slight variations in legal or trade names were listed at a single location. In such instances of double-counting, the establishments were combined and counted as one single business. Additional erroneous classifications were determined through field surveys.

businesses that have closed since 2000. As such, certain assumptions were necessary.

Business Relocation

The NETS database's relocation information is limited to "significant moves," defined as one in which both the establishment's ZIP Code and physical address changed between years. As the Greenpoint study area generally corresponds with one New York City ZIP Code (11222), moves that occurred within the neighborhood were not represented. It is likely that in such instances, the business was categorized as both closing (at its original location) and opening (at its subsequent location) in the study's dataset. However, as business relocation can result from the factors of neighborhood change that this study is evaluating, including these relocations as openings and closures reflects resulting retail changes.

Industry Classification

As stated by the U.S. Census Bureau, no central government agency is responsible for assigning, monitoring, or approving NAICS codes for business establishments; NAICS codes are assigned to business establishments by a variety of agencies, with no consistent methodology. While primary NAICS codes for businesses that conduct more than one activity generally represent the activity that generates the most revenue for the establishment, the primary revenue generator may not correspond to the activity that would define the business type. As the classification of businesses that have closed since 2000 could not be verified through field surveys, minor misrepresentations of certain business sectors are unavoidable.

Business Closures

For businesses that were open in the last year included in the NETS dataset (2008), determinations of subsequent closures were conducted through a comparison with establishments existing in 2013. While the NETS database includes legal and trade names, for some establishments, it was unclear whether the business that was open in 2000 was the same as that which was observed during field surveys. In such cases, the following assumption was made: if (1) the 6-digit NAICS code for both the 2000 and 2013 establishment were the same, and (2) supplemental internet research did not prove otherwise, the businesses were considered congruent and were classified as "stable."

V. Findings

The presentation and analysis of this study's findings are presented in two primary sections. The first section looks at the study question, "How has retail changed?" Both quantitative and qualitative findings are presented, looking at overall retail changes seen throughout Greenpoint and within each of the four analysis zones. The second section, "What are the underlying causes of retail change?" presents the results of the logistic regression models evaluating the influence of property values, median household income, and competition on the factors of retail change.

How has Greenpoint retail changed?

Views of Retail Change

Given the dramatic changes that Greenpoint's business landscape has undergone since 2000, it was expected that local business owners would have something to say on the topic. Experience proved this expectation correct. In addition to providing valuable input on the local business perspective of the changes, their insight into the reasons for many of the changes served to validate the original study hypotheses regarding the primary determinants of retail change: increasing rents, changing demographics, and increasing competition.

In this study, Greenpoint business owners represented a mix of both local and non-local residents; this was true both for long-term retailers and those that had more recently begun operating their businesses since 2000. Many interview subjects reported living in nearby neighborhoods of Brooklyn and Queens, while others made the almost daily trip to Greenpoint from New Jersey. Despite not residing in the neighborhood, there was a general sense of community and pride in Greenpoint, with respondents providing anecdotes about other business owners, telling inside jokes and referring to them as old friends, irrespective of how long they had been operating their business. New independent retailers seemed similarly invested in the community and spoke of being *"welcomed with open arms"* upon their arrival.

It was precisely this community character that initially brought many of the retailers to the neighborhood. Several business owners cited the *"family oriented"* nature of Greenpoint; others chose to locate in Greenpoint because they could fill what they felt was a void. On numerous occasions, respondents mentioned being the only business of their kind in the neighborhood. However, both of these characteristics are changing. Those who had been in business longer had more to say about these *"rapid and unexpected"* changes. Older business owners spoke of the growth in *"young artists/students"* and stated that the *"economies of people coming in is higher."*

Commentary on the effects of these changes on retail were mixed. Several business owners spoke of the effects the different sociodemographic characteristics of the new residents were having on their businesses, although some were more optimistic about these changes than others. One business owner went as far to say that while the *"changes are good for the neighborhood, [they are] bad for business."* However, discussion also focused on the influx of new businesses to the neighborhood in recent years. Specific sectors that were highlighted included the *"huge increase in banks and pharmacies"* and the *"12 hundred percent increase in restaurants and pubs."*

Retail Density

Since 2000 the number of retailers in Greenpoint has increased by approximately 27.3 percent, from 440 retail businesses to 560 in 2013. This increase is even more significant considering that 301 of the 440 businesses (approximately 68.4 percent) that were open in 2000 had closed, relocated, or changed ownership by 2013.

Looking at the four analysis zones, while all areas experienced growth between 2000 and 2013, the most significant growth was seen along Manhattan Avenue and the area to the west (refer to Figure 4). Manhattan Avenue (Zone 1) has remained the primary retail corridor, with 185 businesses in 2000 (42.1 percent of Greenpoint businesses) and 271 businesses in 2013 (48.4 percent of the total); in total, the number of Manhattan Avenue businesses increased by 46.5 percent over the study period. Over the same period, the number of businesses located west of Manhattan Avenue (Zones 3) has increased by 85.1 percent, effectively transforming Franklin Street into a retail corridor in and of its own right; 87 businesses are currently located in this area. The number of businesses along Nassau Avenue (Zone 2) remained relatively stable, increasing by 25.8 percent, from 62 to 78 businesses. Businesses in the remainder of Greenpoint (Zone 4), decreased slightly, from 146 to 124 (15.1 percent).

As shown in Table 5, certain sectors experienced significant growth, while others declined over the 2000 to 2013 study period. Throughout Greenpoint, five of the fifteen sectors assessed experienced decline over this period; with the rental and leasing, and repair and maintenance sectors experiencing the greatest decline overall, decreasing by 78.6 percent and 62.5 percent, respectively. The total number of home furnishing, clothing/accessories, and miscellaneous retail stores also declined over this period. The amusement/recreation and accommodation sectors saw no change over the study period.

FIGURE 4
Change in Total Number of Businesses—2000 - Present

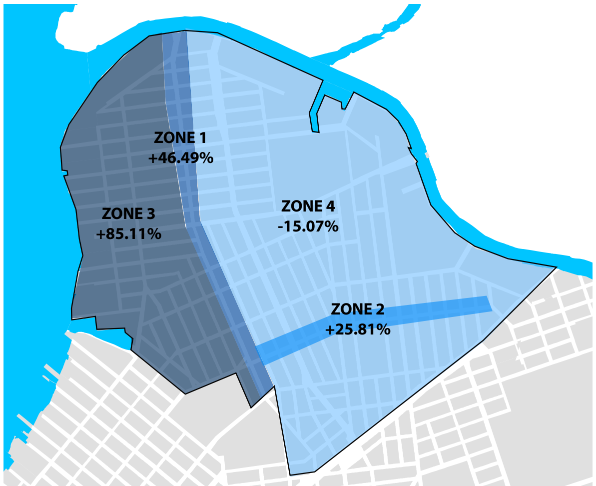


FIGURE 5
Change in Total Number of Food & Drinking Establishments—2000 to Present

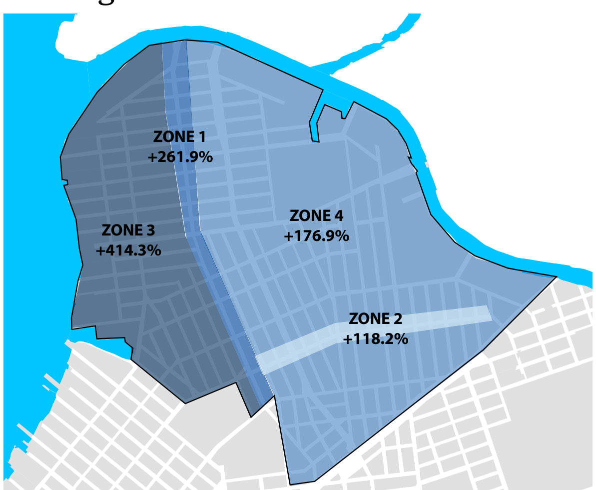


TABLE 5
2000 and 2013 Greenpoint Retail Landscape

Business Type/NAICS Code	2000	2013	Percentage Change
Home Furnishings (442)	16	9	-43.8
Electronics (443)	10	11	10.0
Building Equipment Supply (444)	13	14	7.7
Food & Beverage (445)	71	79	11.3
Health & Personal Care (446)	15	26	73.3
Clothing/Accessories (448)	52	45	-13.5
Sports/Books/Music/ Hobby (451)	9	15	66.7
General Merchandise (452)	13	20	53.9
Miscellaneous Retail (453)	45	29	-35.6
Rental & Leasing (532)	14	3	-78.6
Amusement/Recreation (713)	4	4	0.0
Accommodation (721)	1	1	0.0
Food & Drinking Places (722)	52	172	230.8
Repair & Maintenance (811)	56	21	-62.5
Personal & Laundry Services (812)	69	110	59.4
Total	456	560	27.1

Source: 2000 NETS data; ReferenceUSA; Jan. 2013 field surveys

The sector that experienced the greatest growth was the food and drinking places category. While this business category was the third most prevalent in 2000 (along with clothing and accessories stores), by 2013 there were 172 food and drinking establishments, making it was the most represented type of retail in Greenpoint. The health and personal care sector almost doubled (85.7 percent increase) and the general merchandise and sports/ books/music/hobby sector each increased by over 60 percent between 2000 and 2013.

As shown in Figure 5, the growth in the number of food and drinking establishments occurred neighborhood-wide with growth-rates of upwards of 100 percent within each analysis zone. Zone 3 (Franklin Street/west of Manhattan Avenue), saw the most significant growth in this sector (414.3 percent).

Establishment Type

Examining the types of businesses in Greenpoint in 2000 and 2013, we see that the neighborhood has been consistently made up of predominantly independent retailers (approximately 95 percent), with few chain retailers. While the number of chain establishment did increase at a

TABLE 6
Change in Business Types, 2000-2013

	Independent		Corporate	
	Total Number	Percentage	Total Number	Percentage
2000	419	95.2	21	4.8
2013	533	95.2	27	4.8
Percent Change	27.2	-0.1	28.6	1.1

Source: 2000 NETS data; ReferenceUSA; January 2013 field surveys

TABLE 7
Existing Businesses—Establishment Type, 2013

Local		New Entrepreneurial		Corporate		Total
No. of Establishments	Percentage	No. of Establishments	Percentage	No. of Establishments	Percentage	
426	76.1	103	18.4	27	4.8	560

Source: January 2013 field surveys

TABLE 8
Businesses that Have Opened Since 2000 by Type

Local		New Entrepreneurial		Corporate		Total
No. of Establishments	Percentage	No. of Establishments	Percentage	No. of Establishments	Percentage	
297	70.6	103	24.5	17	4.0	421

Source: January 2013 field surveys

slightly faster rate than seen with independent establishments (28.6 percent, compared to 27.2 percent), the change was not significant given the overall growth in the number of businesses over this period (refer to Table 6).

The reactions to the increase in corporate businesses were mixed. One former member of the GBA said that the organization had wanted more of these types of retailers to locate in the neighborhood, citing the positive elements of economic stabilization and increasing the local consumer base. However, corporate businesses lack the connection to the community that has defined Greenpoint businesses for many years; they were unable to (or chose not to) contribute to the GBA or other neighborhood organizations, such as the Lions Club and the local baseball teams.

While the businesses in Greenpoint are primarily independent, the types of new independent retailers that are opening in the neighborhood are not local per se, according to Zukin's establishment classification methodology; recent additions to the Greenpoint retail landscape have been predominantly of the new entrepreneurial variety. As noted previously, new entrepreneurial businesses (boutiques) typically differ from traditional local retail in ownership, product quality and atmosphere, and business promotion. Table 7 shows the breakdown of the existing retail into the three categories of corporate, local, and new entrepreneurial; the following table,

FIGURE 6
Establishment Types of Existing Businesses by Analysis Zone

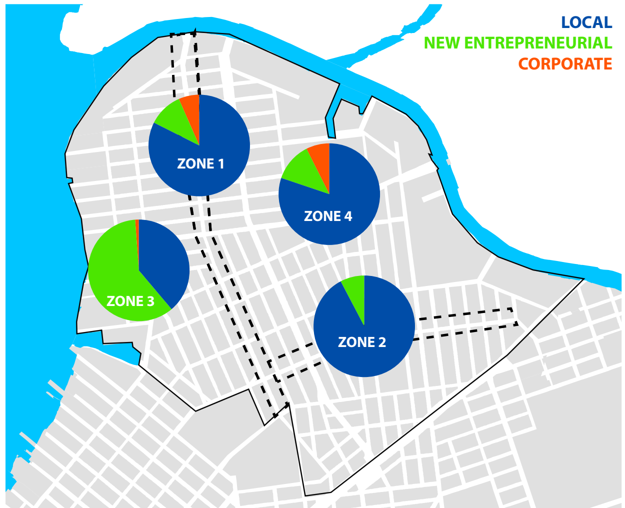


Table 8, looks at the same variables within the subset of businesses that have opened since 2000.[31]

As shown in Table 7, approximately 18.4 percent of the existing Greenpoint retail can be classified as new entrepreneurial, although this percentage varies significantly throughout the neighborhood (refer to Figure 6). The area west of Manhattan Avenue (Zone 3) is the only area with more new entrepreneurial businesses than local businesses (51, compared to 33); just under 50 percent of all of Greenpoint's new entrepreneurial businesses are located in this area.

As shown in Table 8, the percentage of new entrepreneurial businesses represents an even larger proportion (24.5 percent) of the 421 businesses that have opened since 2000; in addition, comparing Tables 7 and 8 we see that all the new entrepreneurial businesses in Greenpoint have opened since 2000.

Key Findings

Given these findings, Greenpoint has experienced significant growth in the number of retail establishments since 2000, especially considering that by 2013 approximately 60 percent of the businesses that were open in 2000 had closed, relocated, or changed ownership. However, retail growth was not consistent throughout the neighborhood or for all types of business establishments. The areas that saw the most growth over the study period (Zone 1 and 3) occupy the western portion of the neighborhood, along both the primary retail corridor (Manhattan Avenue) and the newly rejuvenated Franklin Street, an area that was rezoned from manufacturing to residential in 2005. These two areas lie along the border of gentrified Williamsburg and serve as continuations of Williamsburg's well-established Bedford Avenue retail corridor. As interviews with business owners showed, many of the reasons for this business spill-over are the same as those cited by residents; one Greenpoint restaurateur said that he began by *"looking for space in Williamsburg,"* and it was only through this search that he *"stumbled upon Greenpoint,"* a place where he saw that he could fill a void in an *"up-and-coming neighborhood,"* rather than entering into an already well-served market.

The total number of food and drinking establishments experienced the most significant growth (over 230 percent overall); the largest increase in this type of business was in Zone 3, along Franklin Street. This increase in restaurants is

[31] As stated in the Methodology section, to avoid speculation and potential error, the focus of the assessment of the presence of new entrepreneurial businesses looks solely at existing conditions.

to be expected given the changing neighborhood demographics (refer to Table 4). The same business owner that speculated the 1,200 percent increase in *"restaurants and pubs"* stated that these were the types of businesses that were doing well, because they were meeting the needs of what the *"new people in the neighborhood want."*

Additionally, while the Greenpoint retail landscape has remained almost entirely independent, approximately 18 percent of the existing businesses are classified as new entrepreneurial and approximately 25 percent of the businesses that have opened since 2000 fall within this category. The presence of new entrepreneurial businesses is even more marked in Zone 3. New entrepreneurial businesses are primarily locating in the newly rezoned waterfront area, near gentrified Williamsburg, west of Greenpoint's primary retail corridor, Manhattan Avenue. Similar to DeSena's findings regarding Greenpoint's residents creating their own separate social milieu, it appears that businesses are following suit, creating a retail landscape of their own, one block away.[32]

Despite all of these changes, many Greenpoint business owners, both new and established, seemed optimistic about the future, reflected in statements such as, *"as long as the neighborhood's growing and people keep coming"* and *"the more restaurants, the more people."* However, in interviews with current business owners, what is lacking are the voices of those that have been forced to close. Increasing rents and being unable to *"stay relevant"* were reasons why neighboring businesses had closed, as cited by some of the long-standing retailers.

What are the primary causes of retail change?

Business Closures

As noted above, 301 Greenpoint businesses closed between 2000 and 2013, yet the reasons for these closures remain purely speculative. Local business owners and leaders in the business community cited rising rents, the lack of available space for business expansion, and the shift in local consumption patterns. One longtime local business owner stated that, while before the predominantly Polish Greenpoint residents were the drivers of his business, purchasing gifts to send overseas, new residents favor alternate forms of consumption, often using *"the internet to shop."*

Table 9 presents the results of the logistic regression model conducted to evaluate the predictors of business closure using the above outlined predictors; four additional variables were also controlled for. With a Chi-value of 131.59, we see that the model is a good fit for the data (critical value = 14.07 [df=7] for significance at the 0.05 level).[33]

Of the three primary variables, the percentage change in similar businesses (business competition) is the only statistically significant predictor in the model, with a p-value of 0.000. Evidence suggests that as business competition increases, the likelihood of business closure decreases by 0.85. This finding is consistent with studies showing the economic benefits of business clustering, including customer proximity, reputation, reduction in consumer search costs, and knowledge spillovers.[34] Greenpoint is attracting more businesses, which, rather than depleting the consumer base of existing businesses

[32] DeSena, *Gentrification.*

[33] Indication of a statistically significant relationship between the log odds of business closure and the independent variables occurs at the 5 percent level (when P > | z | is less than 0.05). The Chi-square statistic tests the null hypothesis and is the difference in the -2 log-likelihoods between the final model and a reduced model, which is formed be omitting each of the included covariates. The greater the differences between the expected and actual data produces a larger Chi-square value. Combined with the p-value (the probability of obtaining the Chi-square statistic if the covariates combined had no effect on the dependent variable), this shows the overall statistical significance of the model.

TABLE 9
Logistic Regression Results--Business Closure

	Log Odds of Business Closure			
	Coefficient	Std. Error	z-value	P > | z |
% Change in Property Value	0.0034	0.0719	0.05	0.963
% Change in MHI	0.4904	0.6280	0.79	0.431
% Change in Business Competition	-0.8528	0.0973	-8.76	0.000***
2013 Population	-0.0001	0.0001	-0.72	0.473
% Change in Population	4.1019	1.5883	2.58	0.010**
% Change in Proportion of College-Educated Population	0.5427	0.1660	3.27	0.001***
% Change in Proportion of Family Households	-0.7578	2.8490	-0.27	0.790
Constant	-0.7617	0.7207	-1.06	0.291
Model Chi-square (df)	131.59 (7)			
p-value	0.0000			
Observations	861			

Notes: Significance levels are denoted as follows: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

and forcing them to close, are bringing additional customers to the neighborhood and therefore increasing business and decreasing the likelihood of closure.

Also of note in these findings is the direction of the coefficients for change in property values and median household income. In keeping with the reasons often cited by local business owners for neighboring businesses closing (*"increasing rents"* and trying to *"remain relevant"*), the above logistic regression shows that increases in both property values and median household income increase the likelihood of business closure. However, similar to the findings regarding residential displacement in gentrifying neighborhoods, while there is a sense among locals that there is a causal relationship, the quantitative analysis shows that the relationship is not statistically significant.[35]

Some interview subjects, however, did state that these two variables (increasing rents and median household income) were not affecting their businesses. One local photo processing store owner stated that, while the neighborhood is different now that it was ten years ago, the influx of *"young people and art students interested in photography"* has been good for his business. In this instance, the changing sociodemographics of the neighborhood was allowing him to stay relevant. Regarding increasing rents, when asked how rents have changed, for those still in business few complaints were made; most business owners were simply happy that they had signed their lease when they had and discussed the *"three percent"* or *"fifteen percent"* annual rent increases with little complaint.

The four additional variables (2013 population, percentage change in population, percentage change in the proportion of college-educated

[34] See Adrian T.H. Kuah, "Advantage for the Small Business Locating in a Vibrant Cluster," *Journal of Research in Marketing and Entrepreneurship* 4, no. 3 (2002): 206-228, among others.
[35] See Freeman, *There Goes the 'Hood*.

population, and percentage change in the proportion of family households) were included to ensure that undue significance was not inferred from the regression models. The latter two covariates were included as indicators of neighborhood change that have resulted in a Greenpoint that is increasingly comprised of college-educated non-family households with different spending patterns than was previously typical for the neighborhood. The population variables control for the overall growth and variation in nearby markets that could skew the results. While the above model is statistically significant, additional factors are not being controlled for. The variables of change in race and ethnicity were not included as they were not statistically significant predictors of business closures.

Business Openings

Examining the second logistic regression, with the odds of a new business opening as the dependent variable, the model is a good fit for the data (Chi-square = 112.83, df = 10, p = 0.0000). In addition to the three primary covariates, seven other independent variables were included. The 2013 population, percentage change in population, and percentage change in proportion of college-educated and family households were included again for the same reason described in the preceding section. Further, three variables presenting change in race and ethnicity were included. While Greenpoint is predominantly white non-Hispanic,[36] these variables were included to control for any effect that the neighborhood's racial composition would have on a businesses opening.[37]

The results of this model again correspond with theories on business clustering, indicating that there is a statistically significant relationship between business competition and the likelihood of a new business opening. Table 10 shows that as the number of businesses in a certain industry increases, the likelihood of a new similar business opening increases by 0.69. As one interview respondent stated as one of the primary reasons he chose to open his Greenpoint store in 2011, *"everything's here."*

While the above model shows that changing property values and median household income do not have a statistically significant impact on the likelihood of a business opening, the direction of the relationships should be noted. An increase in each of these variables is correlated with an increased likelihood of a business opening. These indicators of gentrification indicate the stability of the neighborhood and the available capital of Greenpoint residents. Therefore, despite the neighborhood's rising property values, new businesses are willing to pay higher rents when they expect a customer base with a greater disposal income.

Establishment Type

While the above models looked at general trends in business openings and closures, the following section examines the effects on the different types of establishments that have opened over the period. As discussed previously, approximately 95 percent of Greenpoint's retail landscape is made up of independent retailers. However, there has been an increase in the number of boutiques (new entrepreneurial businesses); these types of businesses represent just under 25 percent of the businesses that have opened since 2000. While local businesses remain the dominant establishment type, of the businesses that are opening, fewer are local, by Zukin's definition.[38]

Table 11 presents the results of two logistic regressions with the likelihood of a boutique

[36] Refer to Appendix A.

[37] See Latetia V. Moore and Roux, Ana V. Diez, "Associations of Neighborhood Characteristics with the Location and Type of Food Stores," *American Journal of Public Health* 96, no. 2 (2006): 325-331, among others.

[38] See Zukin, "New Retail."

TABLE 10
Logistic Regression Results--Business Openings

	Log Odds of Business Opening			
	Coefficient	Std. Error	z-value	P > | z |
% Change in Property Value	0.0915	0.0697	1.31	0.189
% Change in MHI	0.3851	0.6409	0.60	0.548
% Change in Business Competition	0.6853	0.0783	8.75	0.000***
2013 Population	0.0001	0.0001	0.68	0.494
% Change in Population	3.3367	2.3409	1.43	0.154
% Change in Proportion of College-Educated Population	0.1605	0.2068	0.78	0.438
% Change in African American Population	0.0385	0.0259	1.49	0.136
% Change in Asian Population	-0.7866	0.3128	-2.51	0.012*
% Change in Hispanic Population	0.9577	0.9023	1.06	0.288
% Change in Proportion of Family Households	-6.1733	2.8929	-2.13	0.033*
Constant	-1.8164	0.7046	-2.58	0.010
Model Chi-square (df)	112.83 (10)			
p-value	0.0000			
Observations	861			

Notes: Significance levels are denoted as follows: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

opening and the likelihood of a local business opening as the dichotomous outcomes. Both models include the three primary predictor variables and five additional variables were controlled for; the models are good fits for the data at the 0.005 level (critical value = 15.51 [df=8]), with Chi-square values of 55.00 and 60.61, respectively.

These models show that the predictors have different statistically significant effects on the likelihood of boutiques and local businesses opening; increases in property values and competition are correlated with an increased likelihood of a boutique opening, whereas the reverse is true for local businesses. The likelihood of a boutique opening increases by 0.26 and 0.49, respectively, with every one percent increase in property value and business competition. In contrast the likelihood of a local business opening decreases by 0.24 and 0.50, respectively, with every similar one percent increase. Combined, these models show that two of the changes that are occurring in Greenpoint (rising property values and increased competition) are making it more likely for a boutique to open. This indicates that boutique business owners are less likely to shy away from the neighborhood because of the higher rents, although this may be due to benefits they anticipate by clustering near similar businesses in an area with an existing customer base.

Increases in median household income are also related to an increasing likelihood of a new entrepreneurial business opening with a commensurate decreasing likelihood of a local business opening. While these relationships are not statistically significant, the trend is in keeping with

TABLE 11
Logistic Regression Results--Establishment Type

	Log Odds of Boutique Opening				Log Odds of Local Business Opening			
	Coefficient	Std. Error	z-value	P > | z |	Coefficient	Std. Error	z-value	P > | z |
% Change in Property Value	0.2617	0.1095	2.39	0.017*	-0.2421	0.1062	-2.28	0.023*
% Change in MHI	0.9669	1.1727	0.82	0.410	-1.7377	1.1265	-1.54	0.123
% Change in Business Competition	0.4908	0.1161	4.23	0.000***	-0.4966	0.1100	-4.51	0.000***
2013 Population	$6.18 \times e^{-06}$	0.0001	0.05	0.962	0.0002	0.0011	1.80	0.072
% Change in Population	4.9759	3.2293	1.54	0.123	-0.1558	3.0658	-0.05	0.959
% Change in Proportion of College-Educated Population	-0.2904	0.3110	-0.93	0.350	0.4366	0.2944	1.48	0.138
% Change in Hispanic Population	-3.0769	0.9234	-3.33	0.001***	3.5282	0.9310	3.79	0.000***
% Change in Proportion of Family Households	-0.3320	4.8656	-0.07	0.946	-5.2286	4.6088	-1.13	0.257
Constant	-2.3457	1.2558	-1.87	0.062	0.6186	1.1655	0.53	0.596
Model Chi-square (df)	55.00 (8)				60.61 (8)			
p-value	0.0000				0.0000			
Observations	421				421			

Notes: Significance levels are denoted as follows: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

the higher price points characteristic of boutiques. The influx of new higher income residents with more disposable income in turn attracts boutiques to the neighborhood. While not the subject of this study, this relationship is self perpetuating, as realtors market Greenpoint to higher income residents through brochures advertising the boutiques and upscale restaurants.

VI. Implications

The number of Greenpoint retailers has increased drastically since 2000, with the most significant growth in boutique businesses in the waterfront area west of Manhattan Avenue. Similar to DeSena's findings regarding changing social dynamics in Greenpoint, businesses serving the new neighborhood demographics have created their own retail corridor (Franklin Street), separate and distinct from the types of businesses along Manhattan Avenue.[39] While these new businesses are predominantly locally owned, they differ from the traditional local businesses that had defined the neighborhood; they tend to sell higher price items and are catering to clients with greater disposal incomes than the mom-and-pop shops found throughout the rest of the neighborhood. The coexistence of upscale and everyday businesses is common throughout New York City, and speaks to the variety of demand for goods and services.

[39] See DeSena, *Gentrification.*

The influx of these boutiques has allowed for a form of symbolic ownership for the new residents in this section of Greenpoint who identify with the hip locally owned shops and restaurants that are receiving citywide press.[40] However, by contributing to this symbolic ownership of the neighborhood the new entrepreneurial businesses are inadvertently excluding many of Greenpoint's older residents. A simple distinction made by one longtime business owner provides a clear example of who the new local businesses are catering to. As he stated, previously non-Polish store owners required their employees to speak Polish, as these were the local customers they were serving. This tradition has not been sustained with new businesses, despite the continued presence of Polish-American residents.

These shifts in the targeted consumer base are to be expected in a neighborhood that is seeing a similar shift in residents. However, despite the displacement of many Polish-American residents from Greenpoint, its remains a destination for Polish customers. One Polish electronics store owner who made the decision to follow his customers to Ridgewood, Queens, quickly learned that the Polish community continued to view Greenpoint as the place to shop; he decided to move his business back to Greenpoint just one year later. As this store owner stated in a December 14, 2012 interview in *Nowy Dziennik*, "Although the Polish population in Greenpoint in shrinking, this neighborhood draws the Polish residents from [the greater New York area]. Greenpoint . . . will for long remain their shopping destination." The problem, however, is that with increasing property values, new Polish businesses are finding it increasingly difficult to find a space for their stores. As the analysis indicated, increasing property values are leading to an increasing likelihood of new entrepreneurial businesses opening, rather than local businesses.

This illustrates the conflict existing in the current Greenpoint retail landscape. The neighborhood is still considered a shopping destination for Polish-American residents in the New York area, despite the decreased presence of many of the businesses they had traditionally frequented. At the same time, they are being unintentionally excluded from the new shops that do not require Polish-speaking employees.

VII. Recommendations

Greenpoint and the businesses that enliven its streets are changing. This is a natural phenomenon inherent to cities as dynamic constantly adapting environments, yet the process of change raises important questions. For instance: how should retail preservation be addressed or considered? As shown in Table 12, given the immediacy of the changes occurring in Greenpoint, two approaches are recommended: a local and immediate intervention and a long-term policy approach. The following section outlines these two recommendations and the reasoning behind them.

Immediate Intervention

In speaking with both new and established business owners, there is a strong sense of connection to the neighborhood, but more coordinated work must be done to encourage the long-term sustainability of the various types of businesses that Greenpoint has to offer, not just a targeted few. Community-based retail promotion can come in several forms, including retail associations, BIDs, and local Chambers of Commerce. All three of these forms have been attempted at some point in Greenpoint. While a Greenpoint Chamber of Commerce was established in November 2012, to be effective and non-exclusive, the new organization must learn from previous initiatives and incorporate a range of local business goals.

In discussing both the current Greenpoint Chamber of Commerce and past community-based retail association initiatives, local business owners

[40] See Deener, "Commerce."

Table 12
Recommendations

Time Frame	Actor	Approach	Area of Influence
Immediate	Local Business Organization	- Inclusive and transparent - Initiatives with shared benefits	Greenpoint
Long-Term	City Government	- Commercial rent control	Paired with City-initiated rezonings

brought up several issues of concern. The first issue is the conflicting viewpoints of the many businesses involved; one business owner stated that the group's inability to come to shared goals and purpose was one of the primary reasons for the GBA's failure. More established businesses had different ideas about what needed to be done to improve their business, and did not see the benefits of increased internet presence and larger chain stores. In addition, some felt that they were entitled to the benefits of GBA initiatives without needing to contribute monetarily.

Lack of funding is another significant issue that is unlikely to be resolved unless a BID were to form. However, as one local business owner said, a BID is "unlikely to succeed." Current property owners do not see the incentive of voluntarily paying higher taxes to improve the area's economic livelihood and in turn its property values when property values are already increasing. Without financing through property taxes, business organizations must rely on the actors involved to give their free time to support the organization. While both the GBA and Chamber of Commerce models rely entirely on memberships dues, the local Chamber also contributes to the Brooklyn Chamber of Commerce with whom it is affiliated, and it is unclear whether this relationship is necessary and beneficial given the limited time that the new organization has existed.

How, then, can a local business organization be inclusive and have the financial capital necessary to ensure its functionality and effectiveness? As shown in Table 12, one recommendation is increasing Chamber transparency so that those unable to contribute financially are aware of the initiatives being undertaken.

However the success of any local business association depends on the drive and motivation of those involved. Businesses will be less likely to become involved if they do not see the benefit. To ensure that the benefits are felt by the greatest number of businesses, the Chamber must ensure that their initiatives are not simply embracing newness, but are adequately concerned with maintaining tradition in an economically productive way. There are initiatives that benefit both of these interest groups, such as the streetscape improvements that have been undertaken in the few months since the Chamber formed. Such mutually beneficial initiatives must be publicized to ensure that the greatest number of local businesses, both new and old, see the advantage of becoming involved.

Policy Approach

How do we decide what is worth protecting? When regarding changes to the commercial landscape, these questions become even more controversial within a City where policy-makers often defer such decision-making to the marketplace. However, as the change that Greenpoint's retail landscape is undergoing is not unique,[41] a policy approach should be evaluated for its potential in other gentrifying neighborhoods.

A variety of incentives and regulations have been adopted both within New York City and throughout the United States to bring a degree of control to business changes. In June 2012, the New York City Department of City Planning established the first Enhanced Commercial special district in Manhattan's Upper West Side, effectively limiting the ground floor retail frontage to ensure that the neighborhood maintains its predominantly independent retail character. This tool is also being used in Downtown Brooklyn to encourage active streets through minimum ground-floor retail frontage requirements. Another form of retail intervention is through City-initiated development projects. Requests for proposals (RFPs) issued by the City's Economic Development Corporation (EDC) have stipulated preference for local businesses in certain instances. Such was the case in a RFP issued for the Mart 125 Redevelopment in Harlem in May 2010. However, neither of these solutions address the issue facing New York City's gentrifying neighborhoods today; often these predominantly local retail corridors are thriving. Ensuring that future businesses are similarly local fails to note the important distinction between local and boutique businesses and therefore leaves unresolved the problems of exclusion and isolation.

Commercial rent control is one of the most controversial forms of retail intervention initiated in New York City. New York City first instated commercial rent control in 1945 as an emergency measure to address the impacts of escalating commercial rents post-World War II, and the statute remained in place until 1963. Attempts to reinstate the measure were discussed in the 1980s by New York City Council member Ruth Messinger and again in 2009 under the Small Business Survival Act. These attempts to reinstate commercial rent control differed from the original 1945 act though, applying solely to smaller retailers rather than all commercial rental spaces. Commercial rent control remains a highly contested form of local business control that has been passed in only one other city in the United States, Elmwood, California. Opponents of commercial rent control argue that it hinders economic development and commercial revitalization, while proponents cite the benefits of preserving retail diversity and ensuring the provision of essential goods.[42]

In essence, commercial rent control functions similarly to residential rent control, limiting the percentage increase in a tenant's rent during his or her tenure while allowing building owners to affect more significant rent increases when a new tenant signs a lease. As such, commercial rent control both protects and supports local businesses and allows economic growth and progress. While such a policy would not address the boutiquing anticipated with future businesses opening, its potential to protect and preserve should not be overlooked and it could serve a key role in maintaining the balance between retail continuity and change in gentrifying neighborhoods.

As shown in Table 12, I recommend that commercial rent control be implemented in concert with future City-initiated rezonings, market interventions in and of themselves. Use of this planning tool in such a targeted neighborhood-specific way would serve to counter the escalating rents that often accompany such rezonings. More local businesses in rezoned neighborhoods would reap the economic benefits of the rezonings, slowing the shift in the balance between local and boutique retailers. In addition, given the opposition to reinstating commercial rent control in New York City, a targeted approach is more feasible.

While this is not to say that such a policy intervention would be unanimously supported, the reasoning behind targeted commercial rent control accompanying City-initiated rezonings is not without precedent. In anticipation of rising property values resulting from the 2005

[41] See Freeman, *There Goes the 'Hood*, Meltzer and Schuetz, "Bodegas," and Zukin, "New Retail," among others.

[42] See W. Dennis Keating, "The Elmwood Experiment: The Use of Commercial Rent Stabilization to Preserve a Diverse Neighborhood Shopping District," *Journal of Urban and Contemporary Law* 28 (1985): 107-194 and John J. Powers, "New York Debates Commercial Rent Control: Designer Ice Cream Stores versus the Corner Grocer," *Fordham Urban Law Journal* 15, no. 3 (1986): 657-707.

Greenpoint-Williamsburg rezoning, residential tenant protections were passed to address community fears of displacement. In the future, communities facing rezonings and anticipating rising property values must fight not only for residential protection but business protection as well.

VII. Conclusion

While this study focused on Greenpoint, the issues presenting themselves in this rapidly changing neighborhood are not unique and the impacts of gentrification on neighborhoods, their residents, and their businesses show no sign of stopping. While both community-based and policy interventions could be implemented in other areas of the City, early action is of utmost importance so that the economic benefits of gentrification can be shared with both newcomers and long-term business owners without displacement. Furthermore, without some type of commercial regulation the types of businesses able to feasibly operate in Greenpoint and other gentrifying areas will be predetermined, and neighborhood character will inevitably change.

In Greenpoint, as in any neighborhood, this change will not be the last. The population is not stagnant and will continue to evolve, and Greenpoint retailers seem optimistic about the future.

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Appendix A
Socioeconomic Data

TABLE A-1
Change in Median Household Income (2000-2011) in 2012 Dollars

Census Tract	2000	2011	Percentage Change
499	42,684.22	57,264.02	34.2
561	52,028.29	62,791.08	20.7
563	41,649.58	57,863.17	38.9
565	43,222.87	63,538.23	47.0
569	53,522.60	66,915.71	25.0
571	47,041.44	65,524.50	39.3
573	47,449.43	58,312.28	22.9
575	40,073.62	61,183.49	52.7
579	31,259.18	44,439.00	42.2
589	55,401.22	88,593.22	59.9
591	44,061.52	59,771.87	35.7
593	46,942.77	42,695.65	-9.1
Total	45,444.73	60,741.02	33.7

Source: 2011 ACS 5-Year Estimates; 2000 Census; BLS CPI Inflation Calculator

TABLE A-2
Change in Population (2000-2010)

Census Tract	2000	2010	Percentage Change
499	1,649	1,753	6.3
561	3,728	3,295	-11.6
563	4,440	4,360	-1.8
565	3,563	3,255	-8.6
569	1,664	1,630	-2.0
571	5,083	4,400	-13.4
573	2,787	2,608	-6.4
575	5,006	4,249	-15.1
579	1,362	1,117	-18.0
589	1,774	1,904	7.3
591	4,277	3,920	-8.3
593	2,488	2,228	-10.5
Total	37,821	34,719	-8.2

Source: 2000 and 2010 Census (SF1)

TABLE A-3
Change (%) in the Proportion of Family Households (2000-2010)

Census Tract	2000	2010	Percentage Change
499	54.7	41.7	-23.8
561	52.4	41.4	-21.0
563	47.2	37.1	-21.4
565	50.1	34.8	-30.5
569	49.6	37.0	-25.4
571	57.6	41.9	-27.3
573	58.9	42.3	-28.2
575	57.2	41.5	-27.4
579	60.0	46.7	-22.2
589	59.6	47.1	-21.0
591	58.6	42.3	-27.8
593	63.3	46.7	-26.2
Total	55.2	41.0	-25.7

Source: 2000 and 2010 Census (SF1)

TABLE A-4
Change (%) in the Proportion of College-Education Population (2000-2011)

Census Tract	2000	2011	Percentage Change
499	22.8	37.6	64.9
561	27.1	55.3	104.1
563	21.4	46.4	116.8
565	30.4	45.5	49.7
569	34.1	46.1	35.2
571	16.8	44.6	165.5
573	17.1	34.7	102.9
575	17.0	43.7	157.1
579	11.7	40.5	246.2
589	20.5	50.5	146.3
591	20.2	47.5	135.1
593	11.1	41.2	271.2

Source: 2000 Census SF3; 2011 ACS Five-Year Estimates

TABLE A-5
Change in Race/Ethnicity (2000-2010)

	White nonhispanic			Black nonhispanic			Asian nonhispanic		
Census Tract	2000	2010	Percentage Change	2000	2010	Percentage Change	2000	2010	Percentage Change
499	1,649	1,386	-15.9	1	24	2,300.0	25	79	216.0
561	2,876	2,644	-8.1	36	18	-50.0	191	198	3.7
563	1,786	2,580	44.5	207	148	-28.5	355	338	-4.8
565	2,303	2,485	7.9	41	26	-36.6	166	163	-1.8
569	1,313	1,335	1.7	5	9	80.0	63	66	4.8
571	4,647	3,907	-15.9	7	17	142.9	87	177	103.4
573	2,436	2,219	-8.9	11	23	109.1	87	114	31.0
575	3,231	2,964	-8.3	46	59	28.3	257	255	-0.8
579	482	503	4.4	35	25	-28.6	83	67	-19.3
589	1,624	1,656	2.0	6	13	116.7	19	66	247.4
591	3,557	3,324	-6.6	13	46	253.8	52	103	98.1
593	1,616	1,689	4.5	19	25	31.6	49	63	28.6
Total	27,520	26,692	-3.0	427	433	1.4	1434	1689	17.8

Source: 2000 and 2010 Census (SF1)

TABLE A-5 (cont'd)
Change in Race/Ethnicity (2000-2010)

	Other nonhispanic			2 or more races nonhispanic			Hispanic		
Census Tract	2000	2010	Percentage Change	2000	2010	Percentage Change	2000	2010	Percentage Change
499	3	10	233.3	62	27	-56.5	171	228	33.3
561	15	15	0.0	121	53	-56.2	489	367	-24.9
563	74	44	-40.5	242	93	-61.6	1,776	1,157	-34.9
565	25	20	-20.0	160	63	-60.6	868	498	-42.6
569	15	7	-53.3	49	39	-20.4	219	174	-20.5
571	6	11	83.3	120	57	-52.5	216	231	6.9
573	1	17	1,600.0	43	40	-7.0	209	195	-6.7
575	26	28	7.7	121	66	-45.5	1,325	877	-33.8
579	25	27	8.0	29	21	-27.6	708	474	-33.1
589	5	18	260.0	13	29	123.1	107	122	14.0
591	19	7	-63.2	137	65	-52.6	499	375	-24.8
593	5	15	200.0	121	35	-71.1	678	401	-40.9
Total	219	219	0.0	1218	588	-51.7	7,265	5,099	-29.8

Source: 2000 and 2010 Census (SF1)

Appendix B
Retail Data

TABLE B-1
Included Business Categories and Associated NAICS Codes

Business Type	NAICS Code
Home Furnishings	442
Electronics	443
Building Equipment Supply	444
Food & Beverage	445
Health & Personal Care	446
Clothing/Accessories	448
Sports/Books/Music/Hobby	451
General Merchandise	452
Miscellaneous Retail	453
Rental & Leasing	532
Amusement/Recreation	713
Accommodation	721
Food & Drinking Places	722
Repair & Maintenance	811
Personal & Laundry Services	812