Taming a “chaotic concept”: gentrification and segmented consumption in Brooklyn, 2002–2012

Mike Owen Benediktsson, Brian Lamberta & Erika Larsen

To cite this article: Mike Owen Benediktsson, Brian Lamberta & Erika Larsen (2015): Taming a “chaotic concept”: gentrification and segmented consumption in Brooklyn, 2002–2012, Urban Geography, DOI: 10.1080/02723638.2015.1096113

To link to this article: http://dx.doi.org/10.1080/02723638.2015.1096113

Published online: 01 Dec 2015.

Article views: 38

View related articles

View Crossmark data
Public debate and prior scholarship tend to emphasize the link between gentrification and high-end chain retail, underscoring the importance of taste cultures tied to social class in making sense of gentrification’s impact on neighborhood identity. In this study, we present evidence from 10 years of change in the businesses of Brooklyn, New York City, a period of extensive gentrification across a wide variety of neighborhood and census-tract level contexts. Adopting census tracts clustered in neighborhoods as the units of analysis, we model the effects of institutional and demographic change on two separate outcomes: chain retail density and homogeneity in the types of goods and services available. We argue that changes in consumer culture embedded in broader processes of gentrification are neither “chaotic” nor “unitary” but are “segmented” according to local spatial and demographic context, taking two discrete forms: institutionally facilitated corporatization; lifestyle-driven homogenization.

**Keywords:** gentrification; consumption; culture; retail; New York City

A popular cliché describes the local consequences of gentrification in terms of coffee consumption. As wealthy new residents arrive in a community, the story goes, the independently owned diner or delicatessen gives way to the inevitable Starbucks. Inexpensive coffee, brewed to local tastes, is replaced by a litany of expensive milk-and-coffee concoctions that hold a unique appeal for the nation’s young, urban professionals (Smith, 1996). In response to changing neighborhood demographics, local consumption relinquishes its local or regional character, becoming more corporate and more homogenous. Gaining affluence, a community “loses its soul” (Zukin, 2010).

Urban scholarship offers convincing reasons to take these concerns seriously. Under neoliberal urban regimes, consumer lifestyles are increasingly regarded as the raw materials that fuel post-industrial economic growth (Ley, 1997; Zukin, 1998). In this context, the arrival of the first chain store may mark a crucial point in the transition from “urban village” to “corporate city” (Zukin, 2010), signaling an infusion of capital that will erode neighborhood identity and displace longstanding commercial tenants. But several important empirical questions pertaining to this process remain unanswered. When, where, and why does gentrification lead to an influx of chain retail? What are the institutional and/or market processes at work? Where does gentrification lead to increasing homogeneity in the goods and services consumed? To what degree are these related trends affecting the same neighborhoods?

*Corresponding author. Email: mbenedik@hunter.cuny.edu
In an influential early essay, Rose (1984) argued that contemporary urban scholarship wrongly endorsed an understanding of gentrification as a “single or unitary phenomenon” in which an influx of wealthy residents and real estate capital produces “a new equilibrium of socioeconomic and cultural homogeneity” (49). Instead, Rose suggested, gentrification is a “chaotic concept,” gathering a diverse set of constituent social, spatial, and economic phenomena, including factors, such as changing household structure, that lead gentrification to take different forms in different local contexts.

In this article, we make a parallel argument. We suggest that the effects of gentrification on consumption vary by local setting, as business patterns in gentrifying neighborhoods are shaped by institutional and demographic processes that take place at the level of the census tract. However, by “disaggregating” the chaotic concept of gentrification, as Rose advised, we do not seek to call into question established theoretical perspectives linking gentrification with dramatic changes in local “landscapes of consumption” (Zukin, 1991). Instead, we strive for a more modest, but still important objective: empirically delimiting these theories and identifying the processes by which chain stores and retail homogeneity gain a foothold in any given neighborhood.

This study examines a decade of change (2002–2012) in the businesses of Brooklyn, a borough of New York City where recent years have seen extensive gentrification across a wide variety of residential and commercial settings. Focusing on patterns of commercial, economic, and demographic change, we argue that the effects of gentrification on local consumption are segmented, following distinct trajectories in different neighborhood and sub-neighborhood contexts. We identify two distinct processes through which local consumption was transformed in any given census tract: institutionally facilitated corporatization and lifestyle-driven homogenization.

In each of these processes, the socioeconomic aspect of gentrification tells only part of the story. In institutionally facilitated corporatization, municipal and public–private actors encourage tract-level increases in chain retail by modifying local commercial space. In lifestyle-driven homogenization, changes in household structure as well as age composition and socioeconomic status lead to localized decline in the diversity of goods and services available.

We provide evidence for each process separately, using quantitative data drawn from a comprehensive business directory database, the decennial census and American Community Survey, and several city agencies. These quantitative results are interpreted by drawing upon a series of brief, qualitative case studies that help to illustrate the local, place-based dynamics that drive changes in tract-level consumption and commerce. Based on this analysis, we call for more nuanced theoretical models of how socioeconomic, demographic, and political forces affect landscapes of consumption in gentrifying urban areas.

Gentrification and consumer culture

One possibility, prefigured by the Starbucks narrative at the start of this article, is that socioeconomic change leads to the corporatization of local consumption: the increasing predominance of chain stores, restaurants, and service providers. Implicitly, this model endorses a “consumption-side” or “demand-side” (Zukin, 1987) perspective, viewing gentrification as explained by the predominant taste cultures of a “new middle class”—white collar workers and professionals who, in recent decades, have opted for an urban lifestyle over the suburban amenities preferred by their antecedents (Butler, 1997; Jager, 1986; Ley, 1997). To the extent that affluent newcomers in gentrifying communities have
similar tastes in goods and services, socioeconomic change should be accompanied by an influx of national chains that compete with independently owned establishments in a variety of retail and service sectors: for example, grocery stores (e.g. Fresh Fields and Whole Foods), bakeries (e.g. Panera, Au Bon Pain), coffee shops (e.g. Starbucks), and fitness centers (e.g. Crunch, Equinox).

Although few studies in urban sociology or urban affairs have tested this model, the link between chain store location and neighborhood affluence receives empirical support from other fields. Public health researchers and urban economists have found chain retail to be socioeconomically segmented: bank, pharmacy and supermarket chains are more likely to open branches in middle or high-income areas, while some fast-food chains favor low-income communities (Alwitt & Donley, 1997; Block, Scribner, & DeSalvo, 2004; Meltzer & Schuetz, 2012; Powell, Slater, Mirtcheva, Bao, & Chaloupka, 2007; Schuetz, Kolko, & Meltzer, 2012; Waldfogel, 2008; Zenk et al., 2005). These studies, however, are primarily geared toward identifying “food deserts” or “retail deserts” (Schuetz et al., 2012)—areas of service deprivation that may reflect an avoidance of low-income or minority neighborhoods by chain retailers, rather than the targeting of upscale markets, and this may limit the applicability of their findings to gentrifying neighborhoods (although see Meltzer and Schuetz, 2012). Using standard indicators of socioeconomic status to measure tract-level changes in class composition, a first hypothesis can be laid out:

**Class-Driven Corporatization**: Census tracts with increasing per capita income, educational attainment, and occupational status will contain a higher density of chain businesses, relative to independently owned businesses.

As Smith (1979) argues, gentrification involves changes that are not reducible to shifts in consumer demand. The physical restructuring of housing and commercial space, in particular, requires large outlays of capital, implicating government actors, civic institutions, and property owners in addition to consumers (Gotham, 2005; Wyly & Hammel, 2001). In gentrification’s political economy, the visible hand of the state guides the invisible hand of the market, channeling commercial and residential development into specific places at specific times.

Municipalities, states, and federal agencies use a variety of regulations and incentives to shape landscapes of consumption. By far, the most powerful and comprehensive of these tools is zoning, which is used by city planners to organize commercial activity on a block-by-block basis. New York City, for example, uses zoning to encourage the opening of supermarkets in some areas, while constraining the spatial distribution of “adult entertainment” (i.e. strip clubs and pornographic video stores) and big box retail in other parts of the city. When a city rezones a gentrifying commercial district, it invites a process of redevelopment and turnover that may favor chain retail, depending upon the land use category imposed under new regulations. To the extent that chain retailers raise commercial property values and, by extension, property tax revenue, municipal actors may view a rezoning as a desirable “upgrade” of a commercial area, even if it comes at the cost of independently owned businesses. If permissible commercial spaces are increased in bulk or required to include onsite parking, an area may shift toward chain stores and restaurants that require large, customizable commercial spaces to accommodate standard layouts, or that expect to draw consumers from distant areas of a city (Meltzer & Schuetz, 2012). These spatial needs are inseparable from the symbolic agenda of chains, which
typically seek to create an immersive, branded shopping experience that has broad appeal and is recognizable to consumers across locations.

Public–private partnerships also may play an important role in shaping the commercial environment (Hackworth, 2007; Suttles, 1990, p. 139). A particularly important type of organization for local consumption is the business improvement district (BID), an association authorized by the municipal government to levy an additional tax on property owners, providing funding for a variety of activities intended to enhance the business climate in a designated area, typically along a commercial street. The breadth and focus of these activities vary greatly, including neighborhood branding and public promotion, improvements to public space, and support to individual commercial tenants (Gross, 2005). In New York City, BIDs are funded by property tax assessments, and commercial property owners are empowered relative to commercial tenants in the BID governance structure. These stipulations place property values at the center of the common interests embodied in New York City’s BIDs and might be expected to predispose their activities toward businesses that stand to increase property values. Although empirical accounts of BID activity are sparse, Sutton (2014) finds that BIDs in New York City attract and retain chain stores to a greater degree than independent retail.

The economic literature on retail store location provides additional insight into these findings. To the extent that a rezoning or the creation of a BID attracts large chain retailers, these commercial tenants may generate “demand externalities” (Eppli & Shilling, 1995; Ingene & Ghosh, 1990) that stand to benefit proximate retailers by increasing the volume and regularity of commercial traffic within the district. This is particularly true if the rezoning or the BID succeeds in attracting an “anchor tenant” such as a large, chain department store (e.g. Target) conducive to multipurpose consumption. In such cases, institutional intervention in commercial space may catalyze a process of chain retail agglomeration (see Karande & Lombard, 2005), drawing branches and franchises that offer complementary or competitive products and services:

**State-Led Corporatization:** Census tracts where commercial districts were upzoned during or immediately prior to the period of study will contain a higher density of chain businesses, relative to independently owned businesses.

**Public–Private Corporatization:** Census tracts where a BID was created during or immediately prior to the period of study will contain a higher density of chain businesses, relative to independently owned businesses.

While the iconic image of the invading Starbucks as a symbol of yuppie gentrification retains a great deal of currency in media discourse, a countervailing tendency has been uncovered in a number of case studies. Following Bourdieu (1984), this research links middle and highbrow consumer tastes with modes of distinctive or unconventional consumption that undercut the demand for standardized products and services in gentrifying neighborhoods (Ley, 2003; May, 1996; Zukin, 2008; Zukin & Kosta, 2004). Nevertheless, this desire for distinction and authenticity often results in functional or aesthetic uniformity, for example “boutiquing” (Zukin et al., 2009) or the superficial historicity that Jager (1986, p. 87) terms “gentrification kitsch.”

A previously unexplored hypothesis is that, rather than attracting corporate retail, processes related to gentrification may channel consumption into specific retail sectors, in which case local businesses may retain their independent character, while becoming more homogeneous in terms of the goods and services available. Exotic, ethnic, and avant-garde cuisine are fixtures of gentrifying neighborhoods, underscoring the role of food
consumption as a cultural field within which young urbanites assert distinctive and authentic tastes (Bridge & Dowling, 2001; May, 1996). Media reports have documented the proliferation of cafés, bars, and restaurants in gentrifying neighborhoods throughout New York City, a process that has provoked substantial amounts of local controversy (Berger, 2012; Jacobs, 1996). These considerations suggest that taste cultures linked to class may guide local commercial activity into specific sectors (e.g. bars and restaurants), decreasing the overall diversity in the types of goods and services available.

Theory and research in urban economics once again offers support for the assumptions behind this reasoning. When consumers possess imperfect information, there is a strategic benefit in the spatial agglomeration of similar businesses, which allow them to compare shop on site (De Palma, Ginsburgh, Papageorgiou, & Thisse, 1985; Hotelling, 1990). In lay terms, one or two high-end restaurants, bars, or boutiques may open on a gentrifying block in response to changing local demographics, but when five or six appear, the block becomes a destination for people who want to eat, drink, or shop. The added traffic produced by this dynamic may justify paying higher rent, but only for businesses within the same sector. Over time, the homogeneity of types of goods and services available on the block should increase:

**Class-Driven Homogenization:** Census tracts with increasing per capita income, educational attainment, and occupational status will exhibit increasing homogeneity (reduced diversity) in the types of goods and services available.

Such changes, however, are likely to be only partially driven by socioeconomic status. Young, single residents with moderate incomes and no children, a profile fitting the neo-bohemians in many contemporary gentrifying neighborhoods (Lloyd, 2002), are more likely to experience both the flexibility and the financial need to pursue affordable housing into gentrifying areas (Rose, 1984). In contrast to the range of establishments required by multi-generational households, the amenities valued by young residents living on their own, regardless of income, are those that provide opportunities for recreation, sociability, and courtship (Clark, Lloyd, Wong, & Jain, 2002; Patch, 2008; Zukin, 2008). This again suggests bars, restaurants, and coffee shops as areas of retail growth, but points to change in age and household structure, rather than income and socioeconomic class, as direct drivers of changing consumption patterns. As neighborhoods become more dominated by young, single residents without children, we expect that these sectors will increasingly dominate consumption, resulting in an overall reduction of retail diversity.

**Lifestyle-Driven Homogenization:** Census tracts with a growing population in their late twenties and early thirties, and where the share of non-family households is increasing, will exhibit increasing homogeneity (reduced diversity) in the types of goods and services available.

**Setting and data**

The setting for our research is the borough of Brooklyn in the city of New York, between the years of 2002 and 2012. Although gentrification did not affect every Brooklyn neighborhood equally during this period, it affected a wide variety of neighborhoods, including long established, working-class Polish, Caribbean, Latino, and African American communities, gateway enclaves populated by first and second generation
Asian and Latino immigrants, and mixed-income and middle-class neighborhoods where gentrification was already well underway at the start of the period.

In these neighborhoods, a transformative mix of capital investment, redevelopment, and commercial and residential turnover provided the broader context for more localized processes of social, economic, and cultural change: “super-gentrification” in the historic, “brownstone” neighborhoods of Park Slope, and Brooklyn Heights (Lees, 2003); contentious racial displacement in established African American communities such as Fort Greene and Bedford-Stuyvesant (Freeman, 2011); and the bohemian takeover of former industrial areas in Williamsburg, Bushwick, Red Hook, and Gowanus (Zukin et al., 2009). This heterogeneity offered a substantial analytical benefit. As a research site, Brooklyn permitted us to analyze the effects of gentrification across diverse urban settings, while holding constant the broader metropolitan context, bringing neighborhood and sub-neighborhood level factors into tighter focus.

Dependent variables

The dependent variables for our quantitative analyses were drawn from the comprehensive business directory compiled by InfoGroup, a private corporation that collects and business data on an ongoing basis, publishing a database containing more than 14 million US businesses. The database is meant to approximate as closely as possible a census of businesses, as individual records are updated and verified semi-annually via telephone. In order to focus our analysis on local patterns of consumption rather than production, we limited the sample to private retail businesses and service providers that provide goods and services to the end-user, excluding manufacturers, wholesalers, and government institutions from our data set. We extracted the records for every business that met these criteria in Brooklyn in 2002 and 2012 from InfoGroup’s database and geo-coded the data using an ESRI (Environmental Systems Research Institute) address locator. After associating each record with a census tract, we created a summary data set with census tracts as the cases and counts of businesses (by NAICS industrial code and corporate ownership structure) as variables. A small percentage (roughly 8%) of the census tracts contained nine or fewer businesses in 2012, as defined above, and we omitted these from the sample to keep the dependent variables from being distorted by outliers with very little commercial activity. This left us a sample of 642 tracts.

Two tract-level dependent variables were created using the InfoGroup data to measure changes in the goods and services available in a census tract over the period of study. First, we calculated the share of retail businesses or service providers in the census tract that were national or regional chains in 2012. Second, we calculated an indicator representing the homogeneity of the types of retail goods and services available. We employed a Simpson or Herfindahl index using industrial codes as the categories within and across which homogeneity is measured. The index was calculated as

$$\text{HOMOGENEITY} = \sum_k \frac{n_k(n_k - 1)}{N(N - 1)}$$

where $n$ denotes the number of businesses in $k$ industrial category in a given census tract and $N$ denotes the total number of businesses in that tract. We then rescaled the index by multiplying by 100 to increase the magnitude of all coefficients and make them more comparable across the dependent variables in the analysis. Variants on this index, typically
used to measure biodiversity in ecology or firm agglomeration in economics, have also
been widely used in sociology to measure organizational homogeneity or diversity (Clarke &
Estes, 1992; Ellison, Burr, & McCall, 1997). In this case, the index has a straightforward interpretation: the percent chance that any two randomly selected businesses in a
census tract will offer the same category of goods or services.\(^5\)

**Independent variables and controls**

Rather than employing change scores, we modeled change in the dependent variables
using the regressor variable method, including the level of each dependent variable at a
prior moment (2002) as a control variable in the analysis. (See Allison (1990) for a
discussion of the trade-offs involved.) The design thus approximates a pre-test–post-test
experimental method, controlling for the baseline chain retail density or homogeneity in
2002, while including, as independent variables, demographic and institutional changes
that occurred between \(T_0\) (2002) and \(T_1\) (2012). In this way, the analysis isolates changing
localized conditions as the “treatments” hypothesized to produce changes in the dependent
variables over a 10-year period, while controlling for the level of the dependent variables
at the beginning of the time of study.

In order to test the effect of BID on the dependent variables, we mapped all BIDs that
were created during the time of study, with a one-year lag (i.e. between January 2001 and
December 2011) and assigned these tracts a dummy variable. To identify changes in
zoning during the study period, shapefiles of every commercial district that was either
created or upzoned (designated using a commercial district category that permitted a
greater floor area ratio (FAR) or bulk) between January 2001 and December 2011 were
downloaded from the same source and were incorporated into the map, assigning a
dummy variable to tracts overlapping these districts.

To measure economic and demographic changes in the census tracts during the period
of study, as well as tract-level population density, we used data from the 2000 Decennial
Census and American Community Survey (2008–2012), drawn from time-series tables
published by NHGIS (Minnesota Population Center 2011). By subtracting the 2000
Census estimates from the ACS estimates for 2008–2012, we constructed lagged estimates of socioeconomic and demographic change over roughly a 10-year period,
2000–2010, ending two years before the measurement of the dependent variable. In this
way, we calculated changes in per capita income, total population, educational attainment
(percent 2 or 4-year college degree), percent of the working population employed as
professionals or managers, age composition (percent 25 to 34 years old), and household
structure (percent non-family households) from 2000 to 2010. Prompted by several
studies which suggest that race and ethnicity informs the way commercial changes are
interpreted and responded to by neighborhood residents (e.g. Freeman, 2011; Papachristos, Smith, Scherer, & Fugiero, 2011; Sullivan & Shaw, 2011), we also included
indicators for change in the tract’s racial and ethnic composition (percent White and non-
Hispanic, Black and non-Hispanic, Asian and non-Hispanic, and Hispanic).

Several additional spatial control variables were included in every analysis that were
expected to affect changes in retail activity at any point in time. We included neighbor-
hood-level fixed effects using Neighborhood Tabulation Area (NTA) shapefiles created by
the New York Department of City Planning to link each tract with the neighborhood in
which it is located. Tracts overlapping a BID created before 2001 were assigned a dummy
variable, as were tracts overlapping a commercial district zoned prior to 2001. A spatial
control variable measuring each census tract’s proximity to mass transit was constructed
by using ESRI Street Map data to identify the locations of all subway stations in Brooklyn and creating a dummy variable indicating the existence of a subway station within the tract or directly adjacent (within 500 feet of the tract boundary). Population density (population per 1000 square feet) was calculated using Decennial census population data and TIGER file data from 2000. Table 1 presents descriptive statistics for all variables in the quantitative analysis.

Finally, the quantitative analyses were complemented by qualitative research drawing upon detailed information on individual businesses provided by the InfoGroup data and site visits to 12 of the tracts under study. The results of this qualitative analysis are not presented separately, but are instead incorporated in the ensuing discussion section in order to aid in the interpretation of the statistical analysis and provide illustrative detail.

**Results**

In the first analysis, we regressed chain retail density in 2012, expressed as a percentage of all retail and service providers in a census tract, on lagged measures of socioeconomic, demographic, and institutional change from the previous decade (2000–2010). We employed fixed-effects regression, including an identifier for the neighborhood in which the tract was located in order to control for unobserved contextual factors that varied by neighborhood. Results are presented in Table 2.
Model 1 regresses the relative retail density of chain businesses in 2012 on all controls and independent variables except for the dummy variables for upzoning and BID authorization during the period of study. Log change in per capita income is positive and significant, offering moderate support for the effect of socioeconomic status on chain retail density, but all other SES indicators fall short of significance. Finally, change in the White, non-Hispanic population share has a negative effect, significant at \( P < .05 \), suggesting that when other factors are fixed, chain retail density was lower in tracts where the White, non-Hispanic population increased in the previous decade.

Model 2 adds commercial upzoning and BID authorization to the analysis, both of which are positive and significant as predictors, a finding that offers support for the state-facilitated and public–private facilitated corporatization models. Just as significantly, the addition of these indicators decreases the size of the coefficient for income growth and increases the standard error. These results suggest that, contrary to the popular association of yuppie gentrifiers with chain retailers, the corporatization of consumption in Brooklyn census tracts was not driven primarily by the arrival of an affluent class. Instead, the rezoning of commercial space and the authorization of a BID, modes of public intervention that are more common in gentrifying settings, appear to have led to localized increases in chain retail and services. The analysis thus offers little support for class-driven corporatization, but does help to explain the perceived association of affluence with chain retail; income growth and increasing chain retail density were spatially correlated, as Model 1 suggests, but Model 2 tells us that state and public–private

### Table 2. Fixed effects regression results: chain retail density (2012) as a function of socioeconomic, demographic, and institutional change, Brooklyn census tracts.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>−.238</td>
<td>−.821</td>
</tr>
<tr>
<td><strong>Baseline control (2002)</strong></td>
<td>(1.876)</td>
<td>(1.878)</td>
</tr>
<tr>
<td>% Chain retail and services</td>
<td>.787***</td>
<td>.748***</td>
</tr>
<tr>
<td><strong>Spatial controls</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass transit</td>
<td>.754†</td>
<td>.388</td>
</tr>
<tr>
<td>Population density</td>
<td>−.014</td>
<td>−.012</td>
</tr>
<tr>
<td>Existing commercial district</td>
<td>.766†</td>
<td>.952*</td>
</tr>
<tr>
<td>Existing BID</td>
<td>.168</td>
<td>.241</td>
</tr>
<tr>
<td><strong>Public/private intervention (2000–2010)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New BID</td>
<td></td>
<td>2.001**</td>
</tr>
<tr>
<td>Commercial upzoning</td>
<td></td>
<td>2.098***</td>
</tr>
<tr>
<td><strong>Socioeconomic change (2000–2010)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Log) Per capita income</td>
<td>.492*</td>
<td>.330†</td>
</tr>
<tr>
<td>% professional or managerial</td>
<td>.033</td>
<td>.029</td>
</tr>
<tr>
<td>% college degree</td>
<td>−.008</td>
<td>−.013</td>
</tr>
<tr>
<td>Median rent</td>
<td>.066†</td>
<td>.061</td>
</tr>
<tr>
<td><strong>Demographic change (2000–2010)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>−.023</td>
<td>−.039</td>
</tr>
<tr>
<td>% White</td>
<td>−.066*</td>
<td>−.073**</td>
</tr>
<tr>
<td>% Black</td>
<td>−.057†</td>
<td>−.045</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>−.047†</td>
<td>−.038</td>
</tr>
<tr>
<td>% 25 to 34-year-old</td>
<td>−.020</td>
<td>−.021</td>
</tr>
<tr>
<td>% Non-family households</td>
<td>.026</td>
<td>.019</td>
</tr>
<tr>
<td><strong>R2</strong></td>
<td>.44</td>
<td>.48</td>
</tr>
</tbody>
</table>

Notes: \( N = 642 \). Models include fixed effects for neighborhood (neighborhood tabulation units). One-tailed tests of significance for hypothesized effects; Two-tailed for unhypothesized effects: *** \( (P < .001) \); ** \( (P < .01) \); * \( (P < .05) \); † \( (P < .1) \).
intervention were likely to be at the root of these changes in the consumption landscape, rather than wealthy new residents.

Next, we turn to retail homogeneity. Before analyzing the factors associated with changes in the diversity of goods and services available, we investigated the degree to which various types of consumption are represented by the index, calculating simple correlation coefficients for the retail homogeneity index in 2012 and the proportion of businesses representing each of the 288 industrial categories represented in the sample. These correlations were typically low due to the number of categories and generally high levels of retail diversity that prevail throughout Brooklyn, but the analysis was nevertheless revealing. The proportion of a tract’s retail activity comprising full-service restaurants ($r = .78$) and bars ($r = .39$) were the most strongly correlated with retail homogeneity and were far ahead of the next several categories, grocery stores ($r = .17$), second hand clothing stores ($r = .11$), and coffee-shops ($r = .05$). Together, bars and restaurants accounted for 65% of the variation in retail homogeneity across tracts. This confirmed our initial suspicion that increases in the homogeneity of goods and services available in many Brooklyn tracts were likely to have been driven by localized growth in a specific sector—the restaurant and nightlife industry.

In an analysis presented in Model 1 of (Table 3), we modeled homogeneity as a function of socioeconomic change, as well as all independent variables and controls, again including fixed effects for neighborhood. The control for retail homogeneity in 2002 is positive and significant at $P < .001$, as anticipated. Tracts containing a narrow variety of

<table>
<thead>
<tr>
<th>Table 3. Fixed effects regression results: retail homogeneity (2012) as a function of socioeconomic, demographic, and institutional change, Brooklyn census tracts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)                                                                                                                                  (2)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
</tr>
<tr>
<td><strong>Baseline controls (2002)</strong></td>
</tr>
<tr>
<td>Retail homogeneity index</td>
</tr>
<tr>
<td><strong>Spatial controls</strong></td>
</tr>
<tr>
<td>Mass transit</td>
</tr>
<tr>
<td>Population density</td>
</tr>
<tr>
<td>Existing commercial district (2002)</td>
</tr>
<tr>
<td>Existing BID (2000)</td>
</tr>
<tr>
<td><strong>Public/private intervention (2000–2010)</strong></td>
</tr>
<tr>
<td>New BID</td>
</tr>
<tr>
<td>Commercial upzoning</td>
</tr>
<tr>
<td><strong>Socioeconomic change (2000–2010)</strong></td>
</tr>
<tr>
<td>(Log) per capita income</td>
</tr>
<tr>
<td>% professional or managerial</td>
</tr>
<tr>
<td>% college degree</td>
</tr>
<tr>
<td>Median rent</td>
</tr>
<tr>
<td><strong>Demographic change (2000–2010)</strong></td>
</tr>
<tr>
<td>Total population</td>
</tr>
<tr>
<td>% White</td>
</tr>
<tr>
<td>% Black</td>
</tr>
<tr>
<td>% Hispanic</td>
</tr>
<tr>
<td>% 25 to 34-year-old</td>
</tr>
<tr>
<td>% Non-family households</td>
</tr>
<tr>
<td>R$^2$</td>
</tr>
</tbody>
</table>

Notes: $N = 642$. Models include fixed effects for neighborhoods (neighborhood tabulation units). One-tailed tests of significance for hypothesized effects; Two-tailed for unhypothesized effects: $^{***} (P < .001)$; $^{**} (P < .01)$; $^{*} (P < .05)$; $^{†} (P < .1)$. 

Downloaded by [Hunter College] at 09:30 16 February 2016
goods and services in 2002 were more likely to contain homogenous retail in 2012. Spatial controls for a subway stop and tract level population density are also both positive and significant, suggesting that retail became more homogeneous in high-density tracts and those close to mass transit. Increases in per capita income, educational attainment, and rent are positively and significantly associated with change in homogeneity, which offers strong support for class-driven homogenization.

In Model 2, indicators of lagged demographic change are added to the model. The effect of increases in per capita income and rent remain significant and positive, even while educational attainment decreases in effect size and significance. Meanwhile, several of the newly added demographic change variables appear to play a role in explaining retail homogeneity. While growth in the population share between 25 and 34 falls just short of significance, change in the share of nonfamily households exerts a significant, positive influence on retail homogeneity as well. These findings offer moderate support for the lifestyle homogenization hypothesis, which suggests that changes in age composition and household structure are associated with changing demand for specific goods and services, producing a reduction of the diversity of types of retail in an area. Finally, retail homogeneity appears to have a racial dimension, as a growing population share of White, non-Hispanic residents is associated with increasing retail homogeneity.

Discussion
Taken as a whole, our quantitative analysis suggests that gentrification’s effect on local landscapes of consumption is not reducible to the affluent tastes of newcomers. To the extent that the borough’s businesses became more corporate or more homogeneous during the period of study, these outcomes were tied to localized institutional and demographic processes that occurred within the broader dynamic context of gentrification, exerting an influence separate from socioeconomic change. Gentrification produces landscapes of consumption that are neither “chaotic,” to borrow Rose’s (1984) language, nor as “unitary” as the Starbucks narrative suggests, but that are instead segmented in accordance with immediate spatial and social contexts that guide the broader, transformative economic forces of gentrification toward discrete local outcomes.

Drawing upon the detailed snapshots of commercial activity afforded by the InfoGroup data, as well as site visits to 12 of the census tracts in the sample, we conducted an in-depth analysis of several neighborhoods where consumption had changed drastically during the period of study. This secondary analysis extended the quantitative findings, illustrating the local dynamics that explain changing patterns of consumption.

Corporatization
While small, storefront chain stores such as Dunkin’ Donuts and T-Mobile proliferated across Brooklyn during the period of study, the sharpest increases in chain retail density were concentrated in active commercial centers where the city changed zoning in order to expand existing commercial space. In downtown Brooklyn, for example, a controversial 2004 rezoning helped to transform an outdoor pedestrian corridor containing scores of independently owned businesses into a burgeoning mecca of high-end chain retail. The rezoning provided an incentive for developers to purchase and redevelop buildings in the area, resulting in the eviction of longstanding commercial businesses to make way for more lucrative tenants. Public relations for the project were handled by a local development corporation (LDC) created and funded by the city to coordinate the activities of the
BIDs in the footprint of the rezoning. By 2012, national and international chains such as Sephora, Nordstrom, H&M and the Gap had arrived, and many independently owned businesses had been displaced, a process that was greeted with outrage by community groups. A field visit in summer 2013 showed the vibrant sidewalk life of the area, previously dominated by African American and Caribbean street vendors and shoppers, to have diminished substantially, while the area awaited a wave of new residents who will soon inhabit the predominantly market rate apartments in new luxury residential towers that loom over the streetscape (Figure 1).

Although the downtown Brooklyn rezoning created space for upscale chains in a rapidly gentrifying area, governmental and public–private interventions had a parallel effect in areas beyond the reach of gentrification. Five miles down Flatbush Avenue is Census Tract 774, where per capita income barely kept ahead of inflation during the period of study. Between 2002 and 2012, by virtue of redevelopment, rezoning, and the work of a newly created BID, the area was transformed and rebranded as “Triangle Junction.” By 2012, the largest Target department store in the country had moved in, as well as a Circuit City and chain stores (e.g. Rainbow) and restaurants (e.g. Applebee’s) that specialize in food, clothing, and other consumer goods for diverse urban communities.

Figure 1. High-end chain stores have moved into newly built commercial space in the rezoned Fulton Mall in Downtown Brooklyn. A new residential tower can be seen rising in the background. Photo: Mike Owen Benediktsson.
with modest budgets. On a field visit in late 2013, the heavily branded interior design aesthetic of the Target department store, with its recognizable red and white color scheme, offered a backdrop for a multicultural crowd of shoppers: Orthodox and Hasidic Jews, Russian, Caribbean, and Central American immigrants drawn from the racially and socioeconomically diverse communities adjacent to the area, as well as neighborhoods in other parts of Brooklyn (Figure 2).

The two cases illustrate the patterns uncovered in the quantitative analysis presented above, pointing to the role of local governmental and public–private interventions in mediating local processes of commercial change. In both landscapes of consumption, independently owned businesses were replaced by national retailers offering standardized products. In both cases, the aesthetics of consumption spaces now reflect national or international corporate marketing strategies, rather than locally or regionally distinct iconography or cultural tastes linked to place. But residential turnover did not explain these changes in either setting: the drivers of corporatized consumption were public and public–private institutions that catalyzed redevelopment by expanding and modifying commercial space, opening the door to chain retail. In both cases, public and public–private institutions worked together to “upgrade” a retail environment, attracting chain stores that would replace increase commercial property values. Although these interventions were more common in rapidly gentrifying areas, where public agencies and private developers saw a greater potential for valorizing urban space through more intensive land use, they represented discrete moments of decisive institutional action rather than secular market dynamics rooted in residential turnover and changing local tastes.

**Homogenization**

The tracts with the greatest increases in retail homogeneity were located along active commercial corridors in the neighborhoods of Gowanus, Prospect Heights and...
Williamsburg—places that became synonymous, during the period of study, with Brooklyn’s thriving restaurant scene, and more generally, with eating out, drinking, and socializing. These areas saw coinciding increases in income, household structure, and race and ethnicity, as predominantly young, White, unmarried, childless residents moved in, bringing a taste for microbrew beer, artisanal cocktails, and cutting edge cuisine as well as a degree of disposable income.

In the heart of Williamsburg, for example, is an area covering approximately 30 city blocks and two census tracts (551 and 523) that contained a total of 52 restaurants in late 2012. Our data indicate that at least 90% (47) of these businesses were less than 10 years old, indicating that a thriving local culinary and nightlife industry was created in less than a decade. During this period, the census tracts saw respective increases of between 10 and 15 percentage points in their share of 25 to 34-year olds, and 15 and 20 percentage points in share of non-family households. Examining the types of businesses that disappeared from this area between 2002 and 2012 reveals a wide variety consistent with the needs of the multigenerational households that disappeared from these census tracts over that decade: small groceries, dry cleaners, family clothing stores, salons and barbershops, florists, and funeral homes. Most of these businesses appear to have been owned by Hispanic proprietors, judging from the business owners listed in the 2002 data. Tabulating the race of local business owners using a 2000 Census list of Hispanic surnames in the United States, we estimated that the two tracts lost 12 and 14 Hispanic-owned businesses, respectively. This evidence of ethnic transition in neighborhood business ownership may help to explain our regression findings in Table 3, which indicate a correlation between the racial and ethnic composition of a census tract and the variety of goods and services that are locally available. In this area of Williamsburg, as in similar areas south of Flatbush Avenue, an influx of White non-Hispanic residents meant a narrowing of the goods and services available, as local commerce was consolidated around eating and drinking out.

The explosive growth in restaurants and bars in this area has not been driven by land use regulation on the part of the city or by public–private brokerage on the part of local development corporations or BIDs. Commercial turnover in recent years has taken place within the existing zoning laws, through “as of right” redevelopment or straightforward commercial succession, resulting in new tenants for the neighborhood’s storefronts. In other parts of the city, local community boards and elected officials have fought against a tide of bars and restaurants by attempting to limit liquor licenses, but licenses are granted by the state, and communities have little in the way of political tools to curtail the demographic changes and market forces that have drastically altered the commercial landscape.

Nor has escalating retail homogeneity in central Williamsburg been attributable to an influx of chain stores. In part, this is due to the size constraints on commercial spaces, as local zoning limits building height and narrow (~25 foot) lots are the norm, but the growth of chain retail may have been slowed by a less immediately obvious factor: ideological resistance to mainstream corporate consumption. In 2010, a chain pharmacy set to open a location across the street from an independently owned pharmacy was met with a local boycott and a Facebook page voicing disapproval. In order to placate local opposition, the pharmacy obtained a liquor license and opened a small bar inside the retail space, adjacent to the checkout counter. A corporate spokesman described the logic behind the bar: “It’s really a young hipster community, so we thought it would work well” (Clifford, 2011). Other chain retailers seeking to open in the area followed suit, filing for liquor licenses and opening bars, while still others opened stores that reversed their usual marketing
strategy, downplaying corporate branding and spotlighting local designers or artisans (Velsey, 2014). By serving alcohol in places of corporatized consumption or by feigning an authenticity rooted in place, national retailers compensate for their ideological and aesthetic distastefulness by appealing to the lifestyle of young gentrifiers (Figure 3).

In seeking opportunities for entertainment, sociability, and distinctive and authentic modes of consumption in independently owned bars and restaurants, the young people moving into these neighborhoods make them more homogeneous in terms of the goods and services available. This market-driven process is imbricated in the broader process of gentrification, which provides a neighborhood-level spatial and economic context that facilitates rapid demographic and commercial turnover, but it is not reducible to income or, for that matter, the taste cultures of an affluent class. The lifestyle and consumption choices at work were reflective of the age, race, and family structure of new residents and involved a simultaneous rejection of recognizably mainstream consumption and an embrace of consumption options that offered a sense of cultural distinction as well as opportunities for sociability and recreation (Figure 4).

**Conclusion**

Our findings have clear implications for urban scholarship. The consumption spaces of gentrifying neighborhoods are not well served by the unitary narrative of the invading Starbucks, in spite of the coffee chain’s iconic status as an apparent harbinger of corporatization and homogenization. The general insight supported by this study is that the local commercial and cultural effects of gentrification are segmented, with state and public–private institutions taking a more consequential role in some neighborhoods and secular demographic changes affecting others, producing outcomes that vary dramatically from one setting to the next. Rather than a single construct, gentrification appeared in our study as a set of discrete processes that we found it analytically helpful to disentangle. In
state-led corporatization, public–private corporatization, and lifestyle-driven homogenization, we have attempted to offer several modest conceptual tools that may be used to probe below gentrification’s surface and reveal the forces at work in observed patterns of cultural or commercial change.

In a methodological trade-off that bartered breadth for depth, our research was confined to Brooklyn. But rather than leave it there, we would like to point out that our findings imply a broader taxonomy of gentrifying communities that vary with regard to the relative dominance of state and market forces, the public–private institutions concerned, and the specific lifestyles of gentrifying newcomers, as well as those of the residents they are in the process of replacing. Within this taxonomy, state-led and public–private corporatization seem more likely to be found in urban settings where public and public–private institutions are particularly responsive to property valorization as a mode of economic growth and public revenue. In New York City, for example, property taxes comprise more than a third of municipal government revenue (New York City, 2014). BIDs, as previously mentioned, are structured in a way that favors the shared interests of commercial property owners and are directly funded by property tax assessments, factors that may increase the receptivity of these institutions to commercial redevelopment that will increase the exchange value of urban space. By the same token, our findings suggest that lifestyle-driven homogenization is more likely to be found in settings where changing residential patterns are directly informed by the consumptive possibilities of a neighborhood, for example where attempts to brand urban communities as playgrounds for “creative class” professionals or neo-bohemians have proven successful. By identifying the forces behind specific trajectories of commercial change, our analysis may point toward the conditions that are likely to produce similar outcomes beyond Brooklyn’s borders.

Our findings have implications for public policy and local advocacy. Zoning, in particular, emerges as a powerful tool that affects neighborhood commercial identity, a result that highlights the connection between public policy, physical space, and local
consumption. City planners played an important role in the corporatization of consumption in Brooklyn, literally granting chain retailers “room to operate.” For local stewards of neighborhood identity, this may be paradoxically good news, suggesting that an infusion of chain retail on local shopping streets is not inevitable. If preserving existing businesses in rezoned areas is a priority, then strategies for reducing commercial displacement could be explicitly incorporated into the public review process for large-scale projects, in the same way that other social and environmental impacts are assessed and mitigated. Land use itself is a double-edged sword and can be used to protect small, independently owned businesses rather than replace them with chain retailers or banks. In other neighborhoods and cities, zoning has been used to specifically regulate the location of chain retail in order to protect local character and small, independently owned businesses. In still other cases, spatial conditions conducive to independent retailers, for example, small storefront commercial spaces or marketplaces with kiosks, have been intentionally preserved. The perception of gentrification as an inexorable, market-driven process obscures the degree to which its course is charted by the state, a revelation that opens up at least a de jure potential for community-level self-determination.

Finally, we should acknowledge two fundamental shortcomings of this study, both of which present openings for empirical inquiry that moves beyond our research. In addressing how policy intervention and secular demographic changes influence local commercial landscapes, we have focused on factors that are indirect in their effects. Commercial tenants are not directly displaced by rezoning, but by landlords or developers seeking to extract higher rents under new land uses. Similarly, changing demographics do not directly cause local businesses to close their doors and move on. The precipitating events at work—a rent increase, a sharp decline in sales, a landlord who refuses to renew a lease in the hope that a more profitable tenant will materialize—were not directly observed in this study, but offer particularly fertile ground for future research examining how and why consumption landscapes change. The possibility of landlord collusion in gentrifying neighborhoods deserves special attention, as multiple landlords could feasibly work together to produce sweeping changes in a neighborhood’s spaces of consumption of the sort we observed in parts of Williamsburg.

Tenant–landlord interactions are, in turn, guided by legal and normative frameworks that also vary across urban settings and that also are likely to affect the pace and the direction of commercial turnover in gentrifying neighborhoods, offering leverage to a business owner who wishes to stay in place or depriving her of such, as the case may be. By locating our study in Brooklyn, we held constant the state and municipal laws that govern commerce and commercial real estate, a methodological move that hindered our ability to observe the effect of legal and regulatory context on commercial change. Comparative research that examines changing consumption landscapes in urban settings that differ in their political economy or their laws would build directly upon this study, showing how differing institutional contexts may shape the effects of gentrification on neighborhood identity.

In closing, we generally suggest that more research attention be given to the political and social forces that alter the consumption landscapes of the city. Salient changes in a neighborhood’s symbolic environment—the appearance, for example, of the ubiquitous green and white siren—tempt observers to view gentrification in monolithic and impressionistic terms, obscuring the institutional actions and demographic shifts that ushered her into a local shopping street. Other recent research on gentrification has made valuable contributions in revealing the role of state and market in local commercial culture (e.g. Zukin et al., 2009), but the Starbucks model continues to loom large in urban theory, as in
the popular press. In the case of Brooklyn, the effects of gentrification were neither chaotic nor uniform, but *segmented*, taking on a different character in different parts of the borough. Coffee here. Milk there. No latte in sight.

**Acknowledgments**

Frank Donnelly at Baruch provided valuable assistance in acquiring the data, and Alex Murphy, Stacy Torres, and Kate Slevin, among others, offered helpful conversations related to the research at various points. All errors are ours.

**Disclosure statement**

No potential conflict of interest was reported by the authors.

**Funding**

The authors thank Macaulay Honors College at Hunter and the PSC-CUNY grant program for supporting this research.

**Notes**

1. Chain stores are typically able to afford higher commercial rents than are independently owned businesses, and commercial property values are pegged to expected rental income, which makes a transition to chain retail a value-generating process for landlords and municipalities.

2. In order to cross-check the completeness of InfoGroup’s directory and probe for sample bias in the data, the business records representing each industrial code (NAICS) were aggregated at the zip code level for 2002 and 2012 and compared to the zip code business data compiled by the US Census’s Business Register program, the most comprehensive government source of business data for small geographic units. The results of this comparison suggested a high level of correspondence between InfoGroup’s data and the Census Bureau’s data. InfoGroup’s data, however, possessed several advantages over the Business Register data, containing detailed information on individual businesses, including variables indicating whether the business was independent or part of a chain (a branch or franchise) and permitting aggregation at far more fine-grained levels, for example the census tract, allowing a small geographic area to be used as the unit of analysis.

3. Specifically, we excluded agricultural businesses (NAICS code 11), mining businesses (21), utilities (22), manufacturing (31–33), wholesale trade (42), and public administration (92) from the sample.

4. We excluded 68 tracts (less than 10% of the tracts in Brooklyn) that had fewer than 10 businesses. These tracts represented areas with very little commercial activity, resulting in unreliable outcome measures. Both chain retail density and the homogeneity index were prone to artificial inflation when calculated across a small sample size (e.g. five or six businesses).

5. A weakness of this approach is that in many cases, it does not capture diversity in the specific products available. A grocery store, for example, may have a wide variety of items on its shelves, but is represented by one industrial category. Instead, the index captures diversity in types of businesses, for example, if three of the ten businesses in a census tract are coffee shops with on-premise brewing (NAICS category 722515) and the other seven businesses each represent distinct categories, then the homogeneity index (the percent chance of choosing two coffee shops at random) would be 7. In another hypothetical tract, where half of the businesses are coffee shops, the index would be 22. A hypothetical census tract where *every* business is a coffee shop will have a value of 100 on this indicator; a census tract where every business offers a *different* type of good or service will have a value of 0.

6. A range of other model specifications were run: The dependent variable was modeled as a change score between 2002 and 2012; independent variables were lagged 12 years instead of...
two years (in other words, 2000 and 1990 Census data were used to construct change variables), and the overall number of chain businesses in 2012 was modeled as a count variable, using Poisson and zero-inflated Poisson as well as negative binomial regression. We ran random effect and mixed effects regressions, allowing neighborhood intercepts to vary randomly and incorporating neighborhood-level as well as tract-level demographic and socioeconomic indices in the model. Finally, all of the preceding models were run with positive outliers excluded. With the exception of the change-score specification, which had low reliability, probably due to regression to the mean (Allison, 1990), these models had similar results in terms of the direction and statistical significance of independent and control variables. We choose to present the results of the fixed-effects regression because it is theoretically justified (the neighborhoods are not a random sample), parsimonious compared to the more elaborate models described, which did not add substantively to the findings and because count models may not be theoretically justified in cases where the dependent variable captures events (e.g. chain businesses) at T1 that exited before T2 or when unobserved entries and exits occurred (e.g. when a business opened and then closed during the period of study). Several additional control variables were also included in the analysis, but added little to the model’s fit. The most notable of these were precinct-level changes in violent crime rates and property crime rates during the time of study.

7. An anonymous reviewer pointed out that an increase in online shopping between 2002 and 2012 may have had an overall effect in increasing the homogeneity of brick-and-mortar retail across New York City, a possibility we readily acknowledge.

8. The recent transformation of Fulton Mall and the area’s historical significance to the African American and Caribbean communities in Brooklyn are documented by the film My Brooklyn (2012).

9. Several laws that would provide additional legal leverage to commercial tenants in lease negotiations were under consideration by New York City lawmakers at the time of publication.

References


