URBAN GEOGRAPHY

Urban Geography

ISSN: 0272-3638 (Print) 1938-2847 (Online) Journal homepage: https://www.tandfonline.com/loi/rurb20

The impact of gentrification on residential evictions

Antony Chum

To cite this article: Antony Chum (2015) The impact of gentrification on residential evictions, Urban Geography, 36:7, 1083-1098, DOI: 10.1080/02723638.2015.1049480

To link to this article: https://doi.org/10.1080/02723638.2015.1049480

Urban Geography, 2015
Vol. 36, No. 7, 1083–1098, http://dx.doi.org/10.1080/02723638.2015.1049480

Routledge
Taylor & Francis Group

The impact of gentrification on residential evictions

Antony Chum*

Department of Social and Environmental Health Research, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London WC1H 9SH, UK

(*Received 23 January 2014; accepted 19 December 2014*)

Gentrification, a process of transforming working-class areas into middle-class use, is a pervasive process in many cities around the world. Although researchers recognize the dangers of displacement in this process, the magnitude of dislocation is highly contested. Literature on gentrification offers little guidance with regard to understanding the timing of displacement in a gentrifying neighborhood. Moreover, evictions have been neglected as a form of gentrification-led displacement, which may have led to underestimating displacement effects. This study sheds light on the geography of displacement through an analysis of 59,415 eviction applications in the City of Toronto from 1999 to 2001, which are compared with the timing of gentrification at the census tract level (n = 502). The study finds that evictions are positively associated with (1) neighborhoods in early stages of gentrification, and (2) "pre-gentrified neighborhoods" that are beginning to be marked by changes in social composition, that is, an increasing number of artists and people with higher education, but no significant increase yet in aggregate income or the number of owner-occupied dwellings. By illuminating the timing and magnitude of displacement in gentrifying neighborhoods, this study fosters a better understanding of gentrification outcomes that may inform policies to ameliorate its negative impacts.

Keywords: gentrification; displacement; residential neighborhoods; urban planning; quantitative analysis

Introduction

The study of gentrification, a process that transforms working-class or vacant areas of a city into middle or upper-class use, is more important now than ever with the increasing use and promotion of gentrification as an urban policy strategy to improve the economic, physical, and social outlook of disinvested central cities around the world (Atkinson & Bridge, 2005; Peck, 2005). Mainstream media and politicians have generally constructed gentrification as an emancipatory urban process, a practical solution to deal with urban decline and to attract investments (Lees, 2000). However, it has the potential for negative impacts, most notably displacement, for marginalized people in the central city (Atkinson, 2004).

Tom Slater (2006), who noted a shift in recent gentrification research toward investigating the "causes" of gentrification and a tendency for this type of research to be empathetic toward gentrifiers, argued that emerging studies should refocus on the people who are negatively impacted in the process in order to re-establish a critical perspective that has been diminishing in the field. However, documenting the impacts of gentrification is methodologically difficult. Although the displacement of working class and minority

*Email: antony.chum@lshtm.ac.uk

residents out of gentrifying areas is an often-cited negative impact, there is a general lack of agreement on the severity and extent of the phenomenon among researchers (Atkinson, 2000, 2004; Freeman & Braconi, 2004; Wyly & Hammel, 2001). In the Canadian context, the "magnitude of dislocation is unknown" even in the largest metropolitan areas (Ley, 1996, p. 70). Atkinson (2000) goes so far as to compare the study of displacement to "measuring the invisible." In our current political context of evidence-based decision-making, the lack of empirical findings on the impact of gentrification means that no policies are aimed at addressing it. The main purpose of this study is to address a methodological gap in measuring the magnitude of gentrification-led displacement using evictions data from the city of Toronto, Ontario. The next section briefly reviews the state of the science in the study of displacement, focusing on its limitations and implications for research.

Literature review

Newman and Wyly (2006) speak of the problem of researching gentrification effects as follows: "It is difficult to find people who have been displaced, particularly if those people are poor … by definition, displaced residents have disappeared from the very place where researchers or census-takers look for them" (p. 27). To understand why it is difficult to produce empirical data on displacement, we need to understand the complex nature of the phenomenon. Marcuse (1986) terms "direct displacement" as a process where tenants move because of rent increase or pressure from landlords. "Exclusionary displacement," on the other hand, occurs when a household does not get to move into the building. Finally, "displacement pressure" causes households to move away because they foresee impending gentrification. Housing demolition, ownership conversion of rental units to condominium status, increased housing costs (rent, taxes, and/or other maintenance and upkeep costs passed onto the tenant), landlord harassment, and evictions are generally the reasons for direct displacement in a gentrifying neighborhood. On the other hand, increased housing expenses associated with gentrification can also increase exclusionary displacement. Although direct displacement has been measured in some cases where there are relatively comprehensive datasets available (Freeman & Braconi, 2004; Newman & Wyly, 2006; Vigdor, 2002), exclusionary displacement is difficult to quantify.

Another major problem for displacement research is the difficulty in ascertaining that the observed out-migration of residents is due to gentrification-led displacement and not the result of "natural" replacement of residents due to occupational change of the area or a shift in housing preference. This question has led Hamnett to criticize Atkinson's (2004) review of the international English-language evidence on gentrification in relation to the UK "urban renaissance." Hamnett describes Atkinson's (2003) research as "misleadingly conflat[ing] displacement with replacement" (p. 182). Secular replacement and class transformation, Hamnett (2003) concludes, takes place "[in London] largely as a result of long-term industrial and occupational change, not of gentrification per se" (p. 182). However, Atkinson (2003) points out, "[this] macro picture of London's success" is not matched by "local stories of displacement and loss" (p. 2347).

Another dimension to the problem of displacement research is the wide-ranging opinion among researchers regarding its magnitude. Freeman and Braconi (2002, 2004) draw on the triennial New York City Housing and Vacancy Survey (NYCHVS) to conclude that gentrification does not cause the direct displacement of low-income households:

> the primary mechanism seems to be normal housing succession; when rental units become vacant in gentrifying neighborhoods, they are more likely to be leased by middle-income households. Only indirectly, by gradually shrinking the pool of low-rent housing, does the reurbanisation of the middle class appear to harm the interests of the poor. (Freeman & Braconi, 2002, p. 4)

Drawing on the NYCHVS that covered the period of 1996–1999, Freeman and Braconi (2004) found that households with lower socioeconomic status (i.e., income and education lower than the city's average) were 19% less likely to out-migrate from the seven gentrifying neighborhoods investigated in their study. Based on these results, they conclude that displacement is not a concern for the poor of New York City. In fact, Freeman and Braconi suggest that households remain in the neighborhoods because they appreciate the improved amenities and public services that accompany gentrification. Policy-makers and the popular media were quick to draw on their studies to demonstrate that gentrification is, in fact, not harmful for the working class (Byrne, 2003; Hampson, 2005; Newman & Wyly, 2006; Slater, 2005). It is important to mention that Freeman and Braconi still raise the concern that the pool of affordable housing in the city is decreased due to gentrification, which may lead to increased exclusionary displacement; however, this point is not picked up by the aforementioned popular discourse. Thus, displacement as a concern, which has previously plagued a wide range of market-oriented urban policies of privatization, home-ownership, social-mixing, and dispersal strategies designed to break up areas of concentrated poverty, is seen as no longer valid (Crump, 2002; Fraser, Lepofsky, Kick, & Williams, 2003; Merrifield, 2002).

Freeman and Braconi's results have been highly contested in the field. Newman and Wyly (2006) have raised important questions about their work. First, by looking at an extremely gentrified area in Manhattan that has been gentrified in much earlier periods, the people who remain are likely to have stayed due to personal resilience and sacrifice. Thus, selection bias was not taken into consideration. Newman and Wyly (2006) point out that "after two generations of intense gentrification, low- and moderate-income renters who have managed to avoid displacement are likely to be those people who have found ways to adapt and survive in an increasingly competitive housing market…" (p. 28). Second, Freeman and Braconi's control group includes residents in the poorest areas of city, thus producing artificially high standards to use as a comparison for displacement rates from gentrifying neighborhoods. Third, sub-boroughs constituting the study area (the unit of analysis) contain within each a number of distinct neighborhoods, thus ignoring the fine-grained context of gentrification. The level of displacement at the neighborhood scale may be statistically significant (between gentrifying neighborhoods vs. ones that remained primarily working-class), but these effects may be invisible at a higher scale. Fourth, Freeman and Braconi's study, using the NYCHVS, is unable to detect those who leave the city, fall into homelessness, or double-up with friends or relatives as they get displaced. Finally, they exclude evictions from their definition of displacement:

> We have not included evictions in our estimate of displacement because both anecdote and logic suggest that nonpayment evictions are more often due to household financial crises than to incremental rent increases, even if relatively large. Short of an abrupt shock to income or to non-housing household expenditures, a rational renter would not remain in an unaffordable dwelling unit until the point where a non-payment eviction order is executed. (Freeman & Braconi, 2002, pp. 10–11)

In the Newman and Wyly (2006) study, eviction numbers were also excluded. However, this is done for the purpose of maintaining comparability with Freeman and Braconi's study. It should be noted that Freeman and Braconi mention a total of 23,830 evictions in 1999 alone (compared with the 37,766 total displacees over a four-year period from 1996 to 1999), which means that a significant percentage of displacees have been excluded. By not counting eviction results, they ignored the linkage that rent increases may lead to increased housing vulnerability. When residential cost is truly affordable, one is less likely to move, even in the face of mild-to-moderate shock to income.

Methods

The main objective of this study is to understand the relationship between gentrification and evictions. I use multiple regression analysis to assess the relationship between the number of evictions in Toronto (from 1999 to 2001) and neighborhood gentrification while controlling for known factors of evictions including living alone, unemployment, single parent status, and social status. The present study is an ecological-level study at the level of census tracts. First, I discuss the eviction data (i.e., how it is acquired and treated), followed by a discussion of the measures of gentrification taken from Walks and Maaranen (2008) that have been acquired for this analysis.

Dependent variable: residential evictions

The eviction data used in this study are obtained from the City of Toronto Social Development and Administration Division. The city originally obtained the eviction application data for its own analysis from the Ontario Rental Housing Tribunal (ORHT) Toronto offices for the period of 1998–2002. By 2002, due to the changing political climate, reporting of eviction applications from the ORHT stopped because of alleged privacy concerns. Each data entry in the database represents a landlord application for eviction before a hearing or a default order has been issued. The data contain landlord and tenant addresses and postal codes, phone numbers, the type of eviction being filed, the date it was filed, and the rent arrears owed when applicable. Data from 2002 only represent a partial number of the total number of eviction applications from the year due to reporting gaps. Similarly, data from 1998 do not include all of the applications from the entire year since reporting began on 18 June of that year with the formation of the ORHT authorized by the Tenants Protection Act (TPA). The 1998 and 2002 data are not considered because they do not cover the entire year, thus, only eviction records from 1999 to 2001 are considered in this study.

The term eviction is used in many different ways. It is a legal process that can take place over a period of months, from when the landlord first files an application with the provincial housing authorities to when an eviction order is issued and the Sheriff comes and changes the lock on a tenant's door. At any point, the tenant may terminate the process if they pay the full amount of the arrears owed (if applicable). In this study, the term eviction is used to refer to a situation where the landlord has commenced an eviction application with the rental housing authority. The evictions record does not include situations where tenants leave voluntarily because they have decided that the rent is too high for them—often referred to as "economic evictions." Although this is an important form of displacement, its scope and prevalence remains largely unknown, and cannot be traced with this dataset.

Evictions can occur for a variety of reasons: rental arrears and "rental unit is to be demolished, undergo major repairs, or conversion" accounts for over 80% of the cases in our dataset. Other reasons include illegal activities, interference with other tenants' reasonable enjoyment, landlord needing the unit for personal use, and damage to the rental unit. These other reasons for evictions are removed from the dataset because they are not theoretically linked to gentrification. Social housing eviction applications are removed because a subsidy is provided for rent-geared-to-income (RGI) households living in social housing. Although rent may go up due to various conditions, rent for the tenants remains at roughly 30% of the household's total income (Lapointe, 2004). Social housing makes up approximately 10% of Toronto's rental stock as of 1999, and there were no new social housing units built over the study period. The City of Toronto Social Development and Administration Division provided the number of social housing units per census tract as of 2001 in Toronto.

It is also possible that changes in economic conditions other than rent increases may price out RGI residents (and regular residents) of a gentrifying neighborhood (e.g., reduced access to affordable services). In the case of new-build gentrification and infill gentrification in older and working-class neighborhoods, Ilves (2007) suggests that these types of upgrading may feed back into neighborhood transformation processes through the political sphere, as the residents of the new condominiums and homes engage in NIMBY politics, support neoliberal policies, elect politicians on the right of the political spectrum, and crowd out the political voices of low-income residents. Thus, it is possible that residents may be filtered out through various political interventions such as social mixing policies. However, these "secondary" price increases and local political climate are difficult to decipher; therefore, the decision was made to exclude RGI residents from the current analysis. Steps are also taken to deal with tracts with few dwelling units. Census tracts with fewer than 30 occupied for-profit rental dwelling units are removed from the analysis (n = 12). The remaining areas for the City of Toronto (see map in Figure 1), totaling 502 census tracts, are included in all subsequent analyses.

Following all of the above considerations, there are 18,864; 20,371; and 20,180 evictions, respectively, in the years 1999, 2000, and 2001. Location quotients (LQs) were calculated from the eviction numbers for each census tract. The LQ is useful for quantifying how concentrated a particular activity, phenomenon, or demographic group is in a region as compared with the reference area (Klosterman, 1990). The evictions are pooled from the three years and a location quotient LQ is calculated for each tract as follows:

$$\mathrm{LQ} = \frac{\left(\frac{E_\mathrm{l}}{D_\mathrm{l}} \times 100\right)}{\frac{E_\mathrm{c}}{D_\mathrm{c}} \times 100}$$

where

E_l is the number of evictions in a given census tract;
D_l, the number of occupied for-profit rental dwellings in a given census tract;
E_c, the total number of evictions in the city; and
D_c, the total number of occupied for-profit rental dwellings in the city.

LQs can be interpreted as follows: if LQ > 1, this indicates a relative concentration of evictions in the local area compared with the region as a whole. If LQ = 1, the area has a share of the activity in accordance with its share of the base (the reference region). If LQ < 1, the area has less of a share of evictions than is regionally found.

Main predictor: gentrification

There are two major studies that use aggregate statistics to determine the extent and location of gentrification across cities in Canada (Meligrana & Skaburskis, 2005; Walks & Maaranen, 2008). The Walks and Maaranen (2008) study, which builds upon Hammel and Wyly (1996), Wyly and Hammel (1998), Meligrana and Skaburskis (2005), and Heidkamp and Lucas (2006), detects gentrification across Montreal, Toronto, and Vancouver using principal component analysis (PCA). They uncover a classification of neighborhood gentrification and upgrading occurring in stages within the 1971–2001 period using census tract data. Four gentrification indicators are selected based on their relatedness to three processes of gentrification, namely tenure de-conversion, shifts in housing values and rents, and social class upgrading (Glass, 1964; Hartman, 1974, 1984). The four indicators are (1) average personal income, (2) the percent of households that are tenants, (3) an index of social status derived from averaging the LQs for the proportion of adults with a university degree and the proportion of employed persons with managerial or professional occupations, and (4) the percentage of the employed population who are artists. These indicators are highly interrelated and load onto five components. The five components derived from the PCA scores allow for classification of census tracts based on the timing of neighborhood upgrading. The resulting timing and patterning of gentrification was then field tested and confirmed by those with expertise in each of the three metropolitan areas. Meligrana and Skaburskis' (2005) study also used PCA to derive a classification of neighborhood gentrification.

Results were obtained from the respective authors of both studies, and there are two major factors that justify our use of Walks and Maaranen's results as the independent variables in the analysis to follow, rather than the results from Meligrana and Skaburskis' study. First, in Meligrana and Skaburskis' study, all census data in subsequent years are downgraded to the 1981 census tract geography—rather than using the 2001 census tract geography. As tracts are split in every subsequent census period due to increase in population (theoretically splitting when it goes above 8,000), they are ignored and recombined back into the 1981 census tract geography. This results in a significant loss of spatial detail regarding neighborhood change. This is in contrast to Walks and Maaranen's study where older data are interpolated to the 2001 geography, resulting in a more detailed picture of neighborhood change. Second, the beginning period (i.e., 1981) in Meligrana and Skaburskis' study obfuscated temporary fluctuations in income levels, especially for post-war suburbs (e.g., Mount Pleasant and High Park in Toronto), with an actual instance of gentrification. Walks and Maaranen, by tracing back to the 1960s, point out their traditional middle-class profile and distinct trajectories of upgrading in the 1960s and identified them as an instance of "middle class recapture."

The degree of first-wave gentrification (beginning in the 1970s) is measured by the component 1 score. The second wave of gentrification beginning in the 1980s lasting until the onset of the 1989 recession is measured by the component 3 score. The third-wave gentrification that occurs during the early 1990s is measured by the component 2 score. Neighborhood gentrification in the late 1990s is measured by the component 4 score. Finally, the component 5 score measures the degree of potential for future gentrification, since they are marked by increases in artists and social status, but not income or owner-occupied dwellings in the period of 1996–2001. A decision was made to maintain these scores as continuous variables, rather than distilling them into a binary between "gentrified" versus "not gentrified" indicators that would not preserve the "degree of upgrading."

All component scores are normalized to a 10-point score system for ease of interpretation and appropriate scaling for regression modeling.

Control variables

To understand the unique causal linkages between gentrification and evictions, a number of control variables were taken from Canada Census 2001 at the census tract level: (1) percent of lone parents, (2) percent living alone, (3) unemployment rate, (4) median after-tax household income, and (5) an index for social status, created by taking the mean of the LQs for the proportion of persons employed with managerial/professional occupations and the proportion of adults with a university degree. These were chosen with respect to previous studies that have shown residents with low income, low social status, lone parents, and people living alone to be at the highest risk of eviction (Lapointe, 2004).

Statistical analysis

First, the bivariate relationships between evictions (dependent variable) and all the predictors are assessed using correlation analysis. Second, multiple regression analysis is used to understand the independent association between gentrification and evictions while accounting for multiple control variables. To preserve the Gaussian distribution required on the dependent variable for the ordinary least squares regression, a log transformation was taken of the evictions LQ that would have a significant positive skew if left untransformed. The initial model contains all the independent and control variables. At each subsequent model, we remove the variables that change R^2 the least, provided that we cannot reject the null hypothesis that the true change is 0, using a predetermined significance level of 0.05.

Results

A total of 59,415 evictions (over the 1999–2001 period) are analyzed over 502 census tracts in this study. The eviction LQ of the 502 census tracts (compared with City of Toronto reference area) ranged from 0 to 4.5. A choropleth map of the (untransformed) evictions LQ is shown in Figure 1.

Results of the Spearman's correlation analyses between the log eviction quotient and each predictor are presented in Table 1. Spearman's correlations are performed since many of the predictors are positively skewed and do not adhere to approximately Gaussian distributions necessary for Pearson's correlation. With the exception of percent living alone and unemployment rate, all predictors were significantly associated with evictions at the $p < 0.001$ level. Next, we look at whether these associations persist after multivariate adjustments.

Results from the final regression model are presented in Table 2. The coefficients in Table 2 are reverse-transformed (from log to regular units) for ease of interpretation. Based on the model selection process already described, seven predictors (component 1, component 3, component 4, component 5, social status, household income, and % lone parents) remain in the final model. Since many of the independent variables are related to socioeconomic characteristics, multicollinearity diagnostics are also included to understand whether this may be a problem. Tolerance refers to the proportion of variance in the predictor that cannot be accounted for in the other predictors, and a variance inflation factor (VIF) greater than 10 indicates a multicollinearity problem (McCullagh & Nelder,

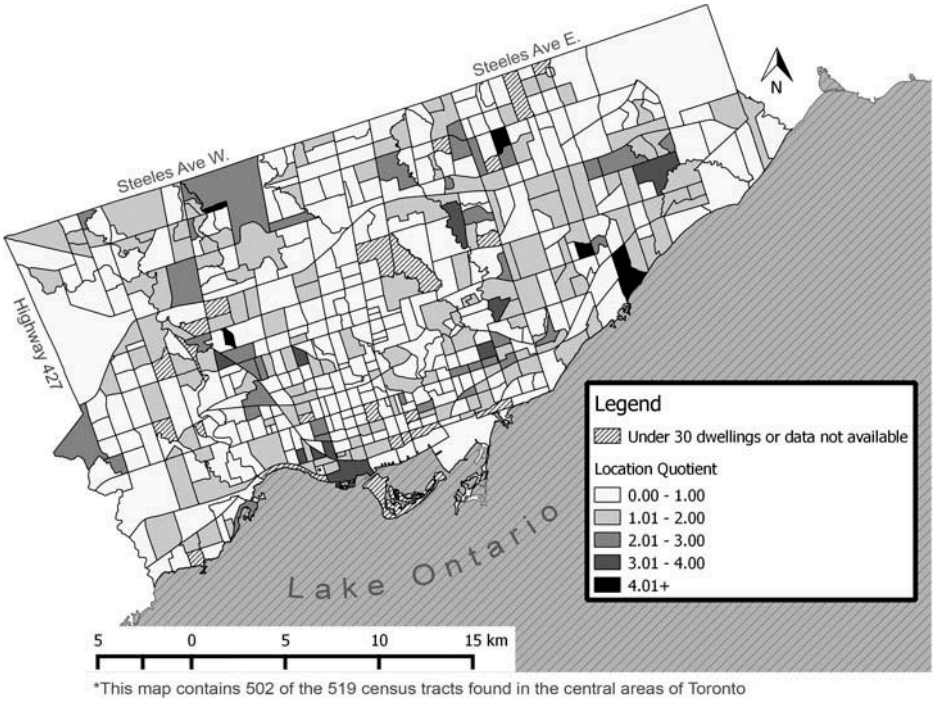

Figure 1. LQ of for-profit rental dwelling evictions (59,415 eviction applications over 1999–2001 pooled), Toronto, Canada.

Note: This map contains 502 of the 519 census tracts found in the central areas of Toronto.
Source: Evictions data from City of Toronto Social Development and Administration Division.

Table 1. Spearman's correlations between log eviction LQ and predictors (n = 502).

Predictors	Spearman's correlation (p-value for significance of two-tailed test)
Component 1 (upgrading in 1970s)	−0.356 (0.000)
Component 2 (upgrading in early 1990s)	−0.232 (0.000)
Component 3 (upgrading in 1980s)	−0.260 (0.000)
Component 4 (upgrading in late 1990s)	0.234 (0.000)
Component 5 (potential for upgrading)	0.462 (0.000)
Social status index	−0.300 (0.000)
Percent living alone	−0.064 (0.154)
Percent lone parents	0.328 (0.000)
Median after tax household income	−0.255 (0.000)
Unemployment rate	0.055 (0.223)

1989). Since at least 60% of each predictor cannot be explained by the other predictors, and the VIF of all predictors are well below 10, multicollinearity does not appear to be an issue.

About 39.2% of the variability of evictions is explained in the final model. After multivariate adjustments, the control variables were associated with evictions in the

Table 2. Final regression model, coefficients, and collinearity diagnostics (n = 502).

	Unstandardized coefficients		Standardized coefficients		Collinearity statistics	
	Beta	Standard error	Beta	Significance	Tolerance	VIF
Intercept	1.120	0.086		0.000		
Component 1 (upgrading in 1970s)	−0.130	0.014	−0.341	0.000	0.805	1.242
Component 3 (upgrading in 1980s)	−0.054	0.017	−0.104	0.002	0.939	1.065
Component 4 (upgrading in late 1990s)	0.095	0.013	0.253	0.000	0.873	1.145
Component 5 (potential for gentrification)	0.121	0.012	0.336	0.000	0.921	1.086
Social status index	−0.271	0.090	−0.140	0.003	0.475	2.105
Household income (in thousands)	−0.330	0.013	−0.061	0.000	0.721	1.387
% lone parents	0.371	0.105	0.145	0.000	0.606	1.651

Note: The dependent variable used is the log of the LQ of the pooled 1999, 2000, and 2001 evictions. R^2 = 0.392.

expected directions: social status and income were negatively associated with evictions ($p < 0.01$) and lone parenthood was a risk factor for evictions ($p < 0.001$). Gentrification is significantly associated with evictions, but the timing of gentrification tells an important story. First, where the gentrification timing coincided with the study's eviction years, we see a positive association among gentrification and evictions. The tracts that began to be upgraded in the late 1990s (i.e., indicated by the component 4 score) are positively associated with evictions (in 1999–2001) after controlling for socioeconomic factors: an increase of one in the component 4 score is associated with an increase of 0.095 in the eviction LQ ($p < 0.001$). Since the ranges of the component scores are normalized to a 10-point score system, an increase of 1 in the component score in a census tract can be interpreted as about 1/10th of the way for the tract to be fully upgraded within the time period. This suggests that displacement in the form of evictions in 1999–2001 continues to be experienced in tracts upgraded in the late 1990s; however, the relatively mild positive relationship indicates that the evictions associated with gentrification in the late 1990s may have already slowed down by the 1999–2001 period. Conversely, tracts that had potential for gentrification (i.e., marked by changes in social composition, i.e., more artists and individuals with higher education, without a significant increase in income or owner-occupied dwellings in the period of 1996–2001), indicated by component 5 scores, have a stronger association with evictions: an increase of 1 in the component 5 score is associated with an increase of 0.121 in the eviction LQ ($p < 0.001$).

Second, evictions are negatively associated with tracts that were gentrified decades before the eviction years (i.e., tracts upgraded in the 1970s and 1980s). With regard to tracts gentrified in the 1970s (represented by component 1), an increase of 1 in the component 1 score is associated with a decrease of 0.13 in the eviction LQ ($p < 0.001$). This suggests that tracts that began to gentrify in the 1970s no longer experience residential displacement in the form of evictions by 1999–2001. Similarly, for tracts that began to gentrify in the 1980s (represented by component 3), an increase of 1 in the

component 3 score is associated with a decrease of 0.054 in the eviction LQ ($p = 0.002$), which suggests that tracts that upgraded in the 1980s no longer exhibit evidence of gentrification-led displacement in the form of eviction in the late 1990s. In separate analyses, sensitivity testing through modeling three years of data separately revealed similar results (not shown), which confirms the stability of our findings.

Discussion

The current body of research literature on gentrification offers little help with regard to understanding the timing of displacement in a gentrifying neighborhood, as well as evictions as a form of displacement. The findings of this study contribute to this gap in the literature by illustrating evictions as a form of displacement and their relationship to gentrification during each decade since the 1970s. Our results confirm Lapointe's (2004) study for risk factors of evictions (i.e., those with low income, low social status, and lone parents). More importantly, this study demonstrates significant associations between gentrification and evictions, which have been previously disregarded by gentrification researchers such as Freeman and Braconi (2004) and Freeman (2005). Evictions have also been excluded in Newman and Wyly's (2006) study of gentrification effects on displacement, although the authors explained that this is done to maintain comparability with Freeman and Braconi's studies. The evidence presented in this study suggests that excluding evictions in the study of gentrification may lead to the underestimation of displacement effects.

An equally important issue is the timing of gentrification in relation to displacement. For example, Freeman and Braconi (2004) concluded that there were no significant displacement effects for low-income residents in gentrified neighborhoods in New York City during the 1990s; however, it is important to note that neighborhoods categorized as "gentrifying" in the study included Chelsea and the Lower East Side, which began upgrading in previous decades (Smith, 1996); therefore, a possible explanation for the lack of displacement in the 1990s is because vulnerable residents were already filtered out before the displacement data collection period. Our results suggest that future studies should consider the impact of *early-gentrification* and pre-gentrification upgrading upon evictions. Fully gentrified neighborhoods (neighborhoods that were gentrifying since the 1970s and 1980s) are, in fact, negatively associated with evictions. Special attention should be paid to neighborhoods that have the potential for gentrification (i.e., *pre-gentrification staged neighborhoods* that are marked by changes in social composition, i.e., with increasing numbers of artists and people with higher education, but no significant increase in income or the number of owner-occupied dwellings). This is the stage of neighborhood upgrade that is significantly associated with evictions.

There are a number of limitations of the study that should be kept in mind while interpreting the results. First, the eviction records do not tell us the cases where tenants simply give notice and vacate the unit because the rent has become too high for them. In interviews with landlords in Toronto, Lapointe (2004) also found that a number of people leave their homes after receiving a notice of termination from the landlord (even before the landlord applied for an eviction application from the Tribunal). Often this notice is given by the landlord simply as a warning with no intention of actually evicting the tenant. These cases of evictions are not reflected in the official records—thus, the true number of evictions is most likely understated. Second, since the present study uses aggregate socioeconomic data as proxies for unavailable individual data, within-census tract heterogeneity is a source of measurement bias (e.g., the difference between the

evictee's income vs. the mean neighborhood income); this may lead to an ecological fallacy since inferences regarding an individual-level outcome are deduced from group-level data (Diez-Roux, 2004). However, given the novel nature of a study of eviction records and the urgency to understand factors for displacement, an ecological approach can still make a unique contribution to the literature despite its lack of power to truly distinguish the individual-level effect of the predictors from its contextual effect (e.g., the effect of living in poverty vs. living in a poor neighborhood). To contextualize the gentrification–evictions dynamics and highlight the quantitative findings at a more local scale, the remainder of the section will look closely at three neighborhoods with some of the highest eviction rates (i.e., top quintile) in the city.

Little Portugal

Portuguese immigration to Toronto began in the 1950s and peaked in the 1970s, and by the 1980s Portuguese represented over 50% of the population in Little Portugal (Murdie & Teixeira, 2010)—a neighborhood located in the downtown southwest end of Toronto (Figure 2). Little Portugal has been characterized as a neighborhood in transition (Murdie & Teixeira, 2010), where an ageing Portuguese population was increasingly moving to the suburbs, only to be replaced by new arrivals including urban professionals, artists, and those with a higher level of educational achievement and employed in high-skilled occupations. Murdie and Teixeria's (2010) interviews with local residents have linked these sociodemographic shifts to increased housing demand, subsequently leading to rental price increases and loss of affordable housing. For example, one of their participants noted that:

> There has been a frightening change in the last seven years. Seven years ago, when I rented an apartment in the Portuguese area, the first one was $550 a month for rent. Then, I moved to a much larger apartment, two bedrooms, kitchen, bathroom quite large, for $750. Now I pay $875 for something that is half of where I used to live. It keeps going up because it's like this: there is more demand. I say this because my landlord talks about it. Demand is much greater now and they have to increase . . . but it has gone up a lot. (Murdie & Teixeira, 2010, p. 73)

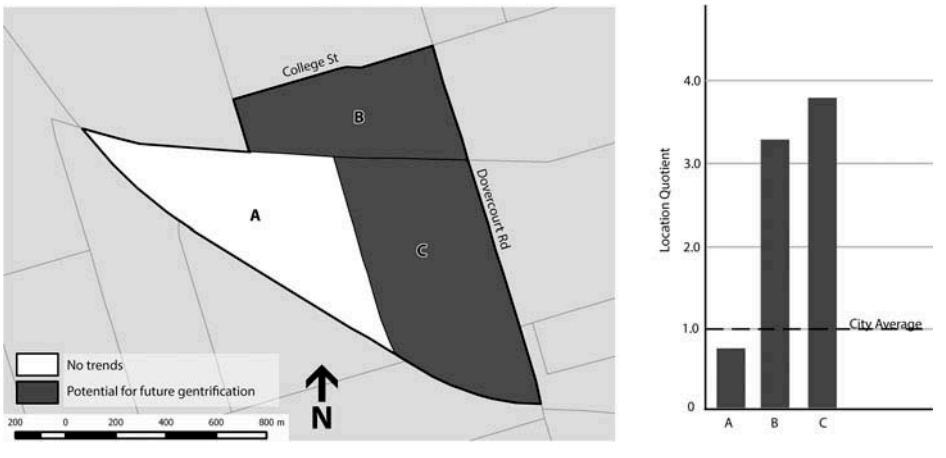

Figure 2. Little Portugal, map displaying gentrification by census tract and corresponding graph displaying eviction LQ.

While the eastern parts of Little Portugal (i.e., tract B and C in Figure 2) had seen an influx of highly educated urban professionals and artists (Walks & Maaranen, 2008), the western part (tract A in Figure 2) did not undergo similar shifts. Correspondingly, east Little Portugal had eviction rates over three times higher than the city average, whereas west Little Portugal evictions remained below the city average. Changes in east Little Portugal may have been due to geographic and built-environment factors. Although the eastern half is closer to downtown and has more Victorian houses, the western tract residences include high-rise rental apartments that are modestly built without the same architectural appeal (Murdie & Teixeira, 2010). The appeal of Victorian houses and proximity to central city work opportunities for the gentrifying post-industrial middle class who reject suburban conformity have been documented in previous research (Ley, 1996). In addition, west Little Portugal is exposed to a rail line that runs along the southern edge of tract A and C (Figure 2) that is accompanied by adjacent industrial land use, which may have had the effect of suppressing nearby housing value.

Although east Little Portugal underwent a sociodemographic shift, the overall trend in the neighborhood was that of early gentrification since the average income of the neighborhood did not significantly increase by the 1996–2001 census period (Walks & Maaranen, 2008). The signs of early gentrification, including sociodemographic shifts, can lead to increased housing demand in the neighborhood—and in turn may lead to increased rents for renters, exacerbating their vulnerability for evictions. The increased evictions associated with this early gentrification in east Little Portugal illustrate the patterns documented citywide in the quantitative analysis.

South Parkdale

Although South Parkdale was a middle-class area in the post-WWII era, the neighborhood was faced with middle-class flight and disinvestment as the result of (1) the construction of the Gardiner Expressway in the 1960s (along the southern edge of tracts A, C, and E in Figure 3), and (2) deinstitutionalization of psychiatric patients from a nearby hospital beginning in the 1970s (Slater, 2004). Discharged patients were subsequently housed in substandard and overcrowded rooming houses in South Parkdale; an estimated 1,000–1,200 former patients lived in South Parkdale across 39 group homes in the neighborhood (Simmons, 1990). Through a number of interviews, Slater (2004) found that South Parkdale was an attractive place to invest for gentrifiers because of its (1) spacious and affordable Edwardian and Victorian style residences; (2) easy access to public transit, highways, and downtown; and (3) wide, tree-lined streets. Similar to Little Portugal, there was an influx of artists into South Parkdale, estimated to be more than 600 individuals (Slater, 2004). The role of artists in facilitating the process of gentrification has been highlighted in previous studies (Ley, 2003; Smith, 1996).

Signs of early gentrification were most apparent in the north-east part of South Parkdale (i.e., tract B of Figure 3) with the appearance of independent art galleries and cafes on the Queen Street West commercial corridor. The early gentrification found in north-east South Parkdale also coincided with the highest level of evictions of the neighborhood—almost 200% of the city average. Although tracts A and E in Figure 3 had no discernable trends, they also experienced slightly heightened levels of evictions compared with the city average—this excess level of displacement may have been due to (1) the program of municipally managed policies such as exclusionary zoning to promote residences large enough for family occupancy, (2) active closure of substandard rooming

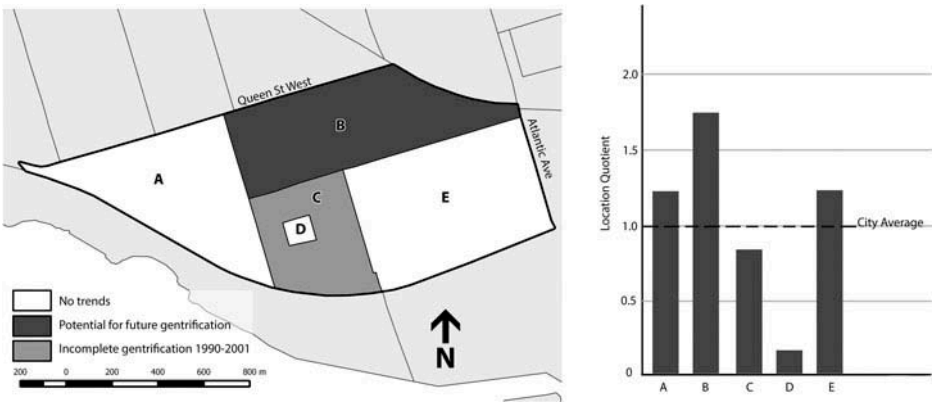

Figure 3. South Parkdale, map displaying gentrification by census tract and corresponding graph displaying eviction LQ.

houses, and (3) "nimbyist" tactics of the middle-class residents' associations in the adjacent area (Slater, 2004).

Liberty Village

Liberty Village lies approximately 20 minutes walking distance west from Toronto's downtown business district (Figure 4). With the construction of the King Street Rail Overpass in the late 1800s (Wieditz, 2007), industries were attracted to the area due to excellent rail access. After WWII, industries began to suburbanize and the area fell into disuse. By the 1970s, small groups of artists moved into the area to take advantage of the abandoned factories and warehouses which offered large and inexpensive spaces for live/work studio spaces (Wieditz, 2007). By the mid-1990s, the neighborhood became the subject of real estate speculation as business owners bought up inexpensive properties

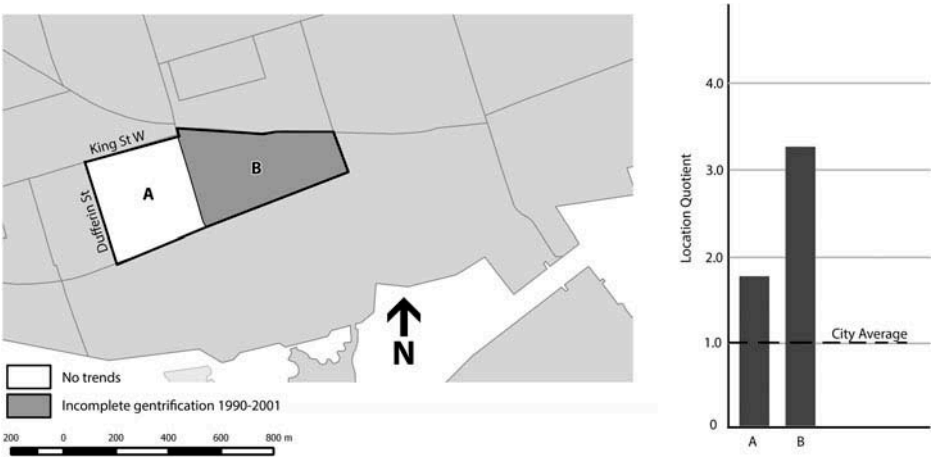

Figure 4. Liberty Village, map displaying gentrification by census tract and corresponding graph displaying eviction LQ.

with the expectation of a growing demand as downtown real estate development continued to expand westward (Walks & Maaranen, 2008). In 1994, the city implemented policies to deregulate land use in the King Street West area, by rezoning from industrial to mixed commercial/residential use; these changes further intensified real estate speculation and augmented property values. These trends were particularly apparent in east Liberty Village (tract B in Figure 4) where the average income and the number of owner-occupied dwellings significantly increased during the period of 1990–2001. Not surprisingly, the tract also had one of the highest levels of evictions across the city for the period of 1999–2001—exceeding 320% of the citywide rate. Although west Liberty Village did not experience the same income and sociodemographic shifts, adjacent development pressure and the general increased demand in the area may have been a factor for the heightened level of displacement.

These neighborhoods represented some of the highest rates of evictions in the city, and it is noteworthy that many of them were classified as having "potential for future gentrification,"—experiencing a sociodemographic shift but not a significant change in income and owner-occupied dwellings—and none of them were gentrified previous to the 1990s period.

Conclusion

This paper offers evidence that early gentrification, which is accompanied by an influx of artists, individuals with high achievements in education, or professionals, may lead to increased housing demand and rent increases that precipitate heightened levels of evictions. On the other hand, neighborhoods that have been gentrified previous to the 1990s do not have heightened levels of evictions in 1999–2001 because vulnerable populations have been previously filtered out. Given the displacement effects of early-stage gentrification, it may be useful to spatially and theoretically situate the gentrification frontier in neighborhoods that were undergoing upgrading but may or may not have been visibly gentrified. In Toronto, a contiguous group of neighborhoods that encroached outward and westward from the central city, including Little Portugal, South Parkdale, and Liberty Village, was a gentrification frontier because these areas were largely in the early stages of gentrification (or only partially gentrified) by the late 1990s, and these neighborhoods housed extensive vulnerable populations that experienced significant displacement in the form of evictions.

This study makes a unique contribution to the study of residential neighborhoods by quantifying the magnitude of displacement in gentrifying areas using eviction records, which have been excluded from nearly all previous studies. Although displacement is a well-cited concern in previous studies of gentrification, this is the first study to clarify the timing of displacement in a gentrifying neighborhood; the analysis demonstrates that (1) evictions are significantly heightened in neighborhoods that are undergoing the early stages of gentrification, and (2) neighborhoods that were gentrified over 10 years ago have significantly reduced eviction rates. Finally, given the dearth of quantitative analysis of displacement in gentrifying neighborhoods outside of unique datasets such as the triennial NYCHVS, the study provides a novel method for the analysis of displacement at the municipal scale using more widely available administrative data.

Disclosure statement

No potential conflict of interest was reported by the author.

References

Atkinson, Rowland (2000). Measuring gentrification and displacement in Greater London. *Urban Studies*, *37*(1), 149–165.

Atkinson, Rowland (2003). Introduction: Misunderstood saviour or vengeful wrecker? The many meanings and problems of gentrification. *Urban Studies*, *40*(12), 2343–2350.

Atkinson, Rowland (2004). The evidence on the impact of gentrification: New lessons for the urban renaissance? *European Journal of Housing Policy Studies Journal*, *4*(1), 107–131.

Atkinson, Rowland, & Bridge, Gary (Eds.). (2005). *Gentrification in a global context: The new urban colonialism*. New York, NY: Routledge.

Byrne, J. Peter (2003). Two cheers for gentrification. *Howard Law Journal*, *46*(3), 405–432.

Crump, Jeff. (2002). Deconcentration by demolition: Public housing, poverty, and urban policy. *Environment and Planning D: Society and Space*, *20*, 581–596.

Diez-Roux, Ana V. (2004). The study of group-level factors in epidemiology: Rethinking variables, study designs, and analytical approaches. *Epidemiologic Reviews*, *26*, 104–111.

Fraser, James, Lepofsky, Jonathon, Kick, Edward, & Williams, J. Patrick (2003). The construction of the local and the limits of contemporary community-building in the United States. *Urban Affairs Review*, *38*, 417–445.

Freeman, Lance (2005). Displacement or succession? Residential mobility in gentrifying neighborhoods. *Urban Affairs Review*, *40*(4), 463–491.

Freeman, Lance, & Braconi, Frank (2002). Gentrification and displacement. *The Urban Prospect*, *8* (1), 1–4.

Freeman, Lance, & Braconi, Frank (2004). Gentrification and displacement: New York City in the 1990s. *Journal of the American Planning Association*, *70*(1), 39–52.

Glass, Ruth (1964). *London: Aspect of change*. London: MacGibbon and Kee.

Hammel, Daniel J., & Wyly, Elvin K. (1996). A model for identifying gentrified areas with census data. *Urban Geography*, *17*(3), 248–268.

Hamnett, Chris (2003). *Unequal city: London in the global arena*. London: Routledge.

Hampson, Rick (2005, April 20). Studies: Gentrification a boost for everyone. *USA Today*, pp. 13A–14A.

Hartman, Chester (1974). *Yerba Buena: Land grab and community resistance in San Francisco*. New York, NY: Glide.

Hartman, Chester (1984). The right to stay put. In C. Geiser & F. Popper (Eds.), *Land reform, American style*. Totowa, NJ: Rowmand and Allanhead.

Heidkamp, C. Patrick, & Lucas, Susan (2006). Finding the gentrification frontier using census data: The case of Portland, Maine. *Urban Geography*, *27*(2), 101–125.

Ilves, Eerik (2007). *New-build gentrification and inner city political polarization in Toronto and Vancouver*. Paper presented at the annual meeting of the Association of American Geographers, San Francisco, CA.

Klosterman, Richard E. (1990). *Community and analysis planning techniques*. Savage, MD: Rowmand and Littlefield.

Lapointe, Linda (2004). Analysis of evictions under the Tenant Protection Act in the City of Toronto. Retrieved from http://www.homelesshub.ca/Library/Analysis-of-Evictions-Under-Teh-Tenant-Protection-Act-in-the-City-of-Toronto-the-Non-Profit-Housing-Sector-36152.aspx

Lees, Loretta (2000). A re-appraisal of gentrification: Towards a geography of gentrification. *Progress in Human Geography*, *24*, 389–408.

Ley, David (1996). *The new middle class and the remaking of the central city*. Oxford: Oxford University Press.

Ley, David (2003). Artists, aestheticisation and the field of gentrification. *Urban Studies*, *40*(12), 2527–2544.

Marcuse, Peter (1986). Abandonment, gentrification and displacement: The linkages in New York City. In N. Smith & P. Williams (Eds.), *Gentrification of the city*. London: Unwin Hyman.

McCullagh, Peter, & Nelder, John A. (1989). *Generalized linear models* (2nd ed.). London: Chapman & Hall/CRC.

Meligrana, John, & Skaburskis, Andrejs (2005). Extent, location and profiles of continuing gentrification in Canadian metropolitan areas, 1981–2001. *Urban Studies*, *42*, 1569–1592.

Merrifield, Andy (2002). *Dialectical urbanism: Social struggles in the capitalist city*. New York, NY: Monthly Review Press.

Murdie, Robert, & Teixeira, Carlos (2010). The impact of gentrification on ethnic neighbourhoods in Toronto: A case study of Little Portugal. *Urban Studies*, *48*(1), 61–83.
Newman, Kathe, & Wyly, Elvin (2006). The right to stay put, revisited: Gentrification and resistance to displacement in New York City. *Urban Studies*, *43*(1), 23–57.
Peck, Jamie (2005). Struggling with the creative class. *International Journal of Urban and Regional Research*, *29*(4), 740–770.
Simmons, Harvey Gerald (1990). *Unbalanced: Mental health policy in Ontario, 1930–1989*. Toronto: Wall & Thompson.
Slater, Tom (2004). Municipally managed gentrification in South Parkdale: Toronto. *Canadian Geographer*, *48*(3), 303–325.
Slater, Tom (2005). Gentrification and the displacement question. Retrieved from http://www.urbancentre.utoronto.ca/pdfs/curp/SLATER-Tom_Displacement_Jun.pdf
Slater, Tom (2006). The eviction of critical perspectives from gentrification research. *International Journal of Urban and Regional Research*, *30*(4), 737–757.
Smith, Neil (1996). *The new urban frontier: Gentrification and the revanchist city*. New York, NY: Routledge.
Vigdor, Jacob (2002). Does gentrification harm the poor? *Brookings-Wharton Papers on Urban Affairs*, (2002), 133–182.
Walks, R. Alan, & Maaranen, Richard (2008). Gentrification, social mix, and social polarization: Testing the linkages in large Canadian cities. *Urban Geography*, *29*(4), 293–326.
Wieditz, Thorben (2007). Liberty Village: The makeover of Toronto's King and Dufferin area. *Centre for Urban and Community Studies Research Bulletin*, *32*, 1–7.
Wyly, Elvin K., & Hammel, Daniel J. (1998). Modeling the context and contingency of gentrification. *Journal of Urban Affairs*, *20*(3), 303–326.
Wyly, Elvin K., & Hammel, Daniel J. (2001). Gentrification, housing policy, and the new context of urban redevelopment. In K. Fox-Gotham (Ed.), *Critical perspectives on urban redevelopment* (Vol. 6, pp. 211–276). London: Elsevier Science.