# Assessing neighbourhood change: Gentrification and suburban decline in a mid-sized city

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The literature on neighbourhood change in large cities describes changing dynamics for inner cities and inner suburbs. This paper examines neighbourhood change in a smaller city: Halifax, Nova Scotia, Canada. As in larger cities, extremes of poverty and affluence and differences in social attributes (such as race and educational achievement) co-exist within neighbourhoods and have changed over time. We profile neighbourhood change in two inner-city and two suburban areas where incomes are highly stratified and spatially patterned. The trajectory of change in these neighbourhoods reflects the influence of scale, economic and cultural conditions, public policy decisions, and the legacy of urban history and geography. In mid-sized cities, social and spatial polarization may not be as extreme as seen in large cities, but processes of neighbourhood change that generate gentrification and suburban decline are still at play.

#### Introduction

Even when neighbourhoods have relatively distinct geographic boundaries they are dynamic spaces where social, cultural, and economic character is constantly changing. Stability seems rare. As Madden (2014) argued, neighbourhoods are fragile and contested spatial projects. They also change in different ways. Over the years, some neighbourhoods prosper and become attractive destinations for those with the means to live where they choose. Other areas may decline. In the most unfortunate circumstances, people abandon neighbourhoods or governments redevelop them through urban renewal. Here we consider the fate of four neighbourhoods in Halifax, Nova Scotia. A recent study of neighbourhood change in Halifax (Prouse, 2014) identified the four areas as socially and economically polarized, containing proximal pockets of affluence and disadvantage. Two of the neighbourhoods are inner-city districts described locally as gentrifying and improving economically; the others are inner suburbs where incomes declined more than 20% relative to the city average over the last 30 years (Prouse, Grant, et al., 2014). Using conceptual models developed from the literature on neighbourhood change, we assess how well theories of gentrification and suburban decline—typically developed to interpret experience in large cities—may explain the development of polarized neighbourhoods in a small city context.

With a population of almost 400 000 distributed over a large region, Halifax is a midsized city, though the largest in eastern Canada. About half the residents live around Halifax harbour, with the greatest proportion on the Halifax peninsula (Figure 1). Despite the relatively small size of its urban core, Halifax plays a prominent role in the regional economy of Atlantic Canada (Brender & Lefebvre, 2006) and possesses robust government, military, logistics, and IT labour market sectors.

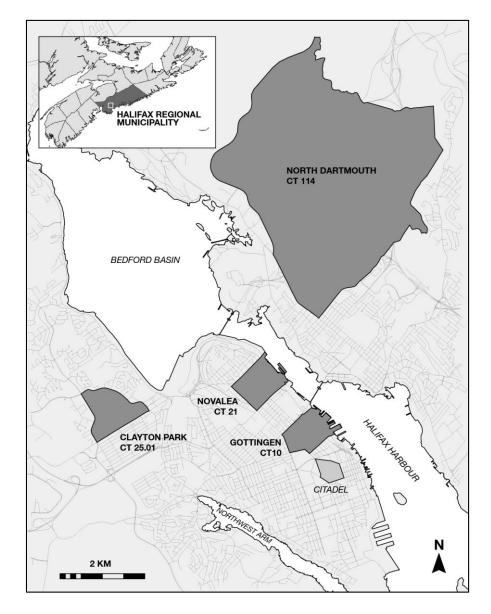


Figure 1. Halifax, Nova Scotia, showing study neighbourhoods

We begin by briefly reviewing the literature on neighbourhood change to develop models of what kinds of changes generally indicate whether inner city neighbourhoods are gentrifying and inner suburban neighbourhoods are declining. We then use the models to evaluate neighbourhoods in Halifax. We find that models of neighbourhood change developed for large cities provide an imperfect fit to explain transformation in Halifax. While many predicted changes have occurred, local circumstances and neighbourhood scale moderate some effects. Economic and cultural conditions, government policy, and

historical and geographical legacies influence the extent to which inner city and inner suburban neighbourhoods gentrify or decline in smaller cities such as Halifax.

## **Assessing Neighbourhood Change**

Neighbourhood change refers to the ways that residential areas transform in character, economy, and composition. Nicotera (2007, p. 29) discusses an inherent difficulty associated with neighbourhood change studies: 'Variables we employ ... are given the difficult task of assessing the neighbourhood as an objective entity and subjective experience'. Attributes used for understanding how neighbourhoods change may include the structure and form of buildings, infrastructure, demographic characteristics, class status, amenities, and local significance. Some scholars (Breuckner & Rosenthal, 2005; Rosenthal, 2005) argue that change reflects a neighbourhood's life cycle, with natural periods of growth, decline, and resurgence. Neighbourhood changes reveal broad social and economic trends and movements in the city (Lupton & Power, 2004). Van Beckhoven *et al.* (2005) suggest that housing 'filters down' to be occupied by less affluent residents over time. Others (Lucy & Phillips, 2000; Hanlon, 2008; Ley, 1986) differentiate specific types of neighbourhoods (such as gentrifying inner city areas or declining suburban regions), identifying indicators of neighbourhood change based on neighbourhood type.

Considerable research on urban change argues that cities have become more polarized in recent decades. Marcuse and Van Kempen (2000) describe divided cities, where areas of extreme affluence and extreme poverty coexist, sometimes separated by physical barriers. Recent studies of Canada's largest cities confirm that polarization and inequality have been increasing (Hulchanski, 2010; Ley & Lynch, 2012; Walks, 2013). Not only are cities increasingly socially and economically stratified, they are more spatially divided than ever (Hamnett, 2004). Urban areas face the challenges of gentrification (Smith, 2002), suburban decline (Vicino, 2008a; 2008b), and increasing securitization and privatization (Atkinson & Blandy, 2006). The emerging polarization, which increasingly exposes social fault lines and can trigger protest movements, has prompted heightened interest in understanding how and why neighbourhoods change.

Some kinds of neighbourhood change have received considerable attention. For instance, many cities are experiencing gentrification, a process wherein more affluent and better educated residents move into neighbourhoods, and often displace working class or disadvantaged residents and the businesses associated with them (Lees *et al.*, 2010). Associated with new economic conditions that treat the city as an important site of investment in the knowledge economy and that privilege knowledge workers, gentrification has transformed many once neglected neighbourhoods into trendy upscale districts (Atkinson & Bridge, 2004; Smith, 1996). As interest in central city living increased, and blue-collar work decreased, the economic fortunes of inner suburbs declined in many cities formerly dependent on industrial productivity (Lucy & Phillips, 2000; Nelson, 2013). Increasing rates of suburban poverty accompanied the decline in the United States, creating significant challenges for local governments (Holliday & Dwyer, 2009; Kneebone & Berube, 2013).

Many urban neighbourhoods in Canada changed considerably over recent decades as cities grew rapidly (Shearmur & Hutton, 2011) and became more unequal and even polarized (Walks, 2010). Gentrification began in Canadian cities as early as the 1970s, but sped up in the 1980s and 1990s (Meligrana & Skaburskis, 2005). As it spreads, gentrification presents a significant challenge to maintaining affordability and socioeconomic diversity in inner-city areas in Canada's largest cities (Walks, 2013; Walks & Maaranen, 2008). Artists often formed the first wave of newcomers entering older ethnic or working-class areas, transforming perceptions about neighbourhoods and creating opportunities for change through which more affluent households colonize neighbourhoods (Ley, 2003). During the 1990s and 2000s some Toronto neighbourhoods gentrified quickly (Hackworth & Rekers, 2005; Slater, 2004). Catalyzed by planning policies promoting urban densification, gentrification also transformed Vancouver (Quastel, 2009); as Ley & Dobson (2008) note, however, entrenched poverty in particular parts of Vancouver impeded comprehensive gentrification.

Although less has been written about suburban decline in Canada, studies of socio-spatial polarization in Toronto, Vancouver, and Montreal identify declining average incomes in some suburban areas, relative to the city averages (Walks 2013). Hulchanski (2010) describe different patterns in central and suburban areas in Toronto between 1970 and 2005: inner-city areas near the subway lines and waterfront transformed from lower than average to higher than average while inner suburban areas declined more than the city overall. Ley and Lynch (2012) report new patterns of polarization in Vancouver with gentrification in many inner-city neighbourhoods. Canada's largest cities have changed dramatically. Canada's suburbs have increasingly become the choice of immigrant households looking for affordable housing (Hiebert, 2000). Once identified as zones of affluence, some Canadian suburbs now contain disadvantage and even homelessness Preston *et al.*, 2009).

Smaller cities in Canada differ from large ones in several ways. They tend to grow less quickly than larger cities, have less diverse economies, and have less inequality in their income distributions (Bourne et al., 2011). Bunting et al. (2007) find that many mid-sized cities had low density profiles, easy automobile access throughout, and interest in protecting rural and small community attributes. Even after larger cities experienced vigorous urban redevelopment, core areas in smaller Canadian cities struggled with decline (Filion et al., 2004). Yet, as Filion et al. (2004) note, some mid-sized cities, such as Halifax and Victoria BC, retained relatively vibrant downtowns. Meligrana and Skaburskis (2005) find that rates of gentrification did not depend on city size; filtering up of older housing from less to more affluent households occurred in many cities, contrary to evolutionary models of urban change that suggest that older housing should filter down to lower income households (Skaburskis, 2006). Like Vancouver, Halifax showed some indications in the 1980s of an emerging reverse income gradient, with greater affluence in the city centre than in the suburbs (Bourne, 1989). Smaller cities, especially those that are growing, experience gentrification and displacement of the kind seen in larger cities, but less has been written about the processes at work in smaller cities.

Halifax has a lower average individual income than larger Canadian cities. Its fragmented geography distributes affluence and poverty around its large territory in pockets, concentrated at a finer scale than in larger cities (Prouse, Grant, *et al*, 2014; Prouse, Ramos, *et al.*, 2014). Larger cities with higher rates of immigration, more rapid growth, and more diverse economic opportunities may show more distinct patterns of gentrification or decline. Halifax does, however, reveal signs of growing affluence in areas closer to the city centre and declining incomes in older suburban areas (Prouse, Grant, *et al.*, 2014). Changing patterns of affluence and poverty in the city warrant further analysis.

Effective methodologies to measure neighbourhood conditions and their trajectories are difficult to find (Coulton *et al.*, 2004). Lupton and Power (2004, p. 14) maintain that 'Neighbourhood change research needs to find a balance between using composite indicators [to] identify patterns and generalize about neighbourhood types and trajectories, and illuminating the nuances of change within these overall patterns'. In Canada, researchers typically use the census tract as a proxy for neighbourhood, despite challenges associated with the construct. Moreover, obtaining adequate data becomes an issue because governments collect data for geographic units that may or may not reflect meaningful neighbourhood boundaries, particularly in smaller cities.

After analyzing the literature focusing on two kinds of neighbourhood change—gentrification and suburban decline—we developed generalized models of the factors that these processes transform. We aim to understand the directions and nature of changes in four socially polarized neighbourhoods in Halifax. Using census data (Statistics Canada, no date) and tax-filer data,<sup>2</sup> we systematically examined material, social, and physical indicators to determine what they suggested about trends in Halifax's inner urban and suburban neighbourhoods. To what extent do changing inner-city areas conform to the model of gentrification described for larger cities? Are inner suburban areas that show signs of polarization in Halifax following the trajectory of change described in the literature on larger cities?

Drawing on discussions of neighbourhood change in Canada (Figueroa, 1995; Meligrana & Skaburskis, 2005; Shearmur & Hutton, 2011; Walks & Maaranen, 2008), we developed a conceptual framework for analyzing neighbourhood change, focusing on gentrification and suburban decline (Table 1). Our model of neighbourhood change focuses on three categories of indicators we call material, social, and physical. We track the same indicators for both types of neighbourhoods. We expect that neighbourhoods that are **gentrifying**, for instance, have a substantial stock of historic housing, and will reveal increasing incomes, education levels, and housing prices; they are likely to see decreasing unemployment rates and lone-parent families. **Inner suburbs in decline** have aging housing seen as small and undistinguished, and not old enough to be valued as historic. They are likely to see decreasing incomes, education levels, housing prices, and ownership rates; we expect they will show increasing levels of lone parent families, unemployment rates, and immigrants moving in. In the next section we describe the four Halifax neighbourhoods studied before going on to apply the models to assess how they changed.

*Table 1: Conceptual model of factors changing in neighbourhoods* 

	Gentrifying areas	Suburbs filtering down
Material factors	Income increasing	Income declining
	Educational achievement increasing	Educational achievement declining
	Low income families decreasing	Low income families increasing
Social factors	Lone parent families decreasing	Lone parent families increasing
	Age decreasing	Age increasing
		Movers increasing
		Immigrants increasing
Physical factors	Substantial stock of historic housing	Stock of older postwar housing
	House prices increasing	House prices decreasing
	Ownership rates increasing	Ownership rates declining

# **Selecting Study Neighbourhoods**

Based on a broad analysis of changing income patterns in Halifax (Prouse, 2014), we identified census tracts with considerable socio-spatial polarization: that is, substantial internal diversity in social and economic attributes identified in the conceptual model. We examined four neighbourhoods—two inner city and two suburban—where substantial change occurred over the past 30 years. To situate the general socio-economic status of the neighbourhoods, Table 2 shows average individual income changes from 1980 to 2010, indexed to the Halifax Census Metropolitan Area (CMA) average. Incomes in the two census tracts north of Halifax's downtown—which we call Gottingen and Novalea—were well below the CMA average in 1980. By 2010 the Novalea area had improved 10% relative to the CMA average, but the Gottingen area fell 5%. Local media stories (Barnard, 2013; Beaumont, 2013) commonly describe these neighbourhoods as gentrifying, with new condominium developments and trendy cafés replacing rooming houses and pawn shops. Tracts we call Clayton Park and North Dartmouth are inner suburban areas where average individual incomes dropped as a proportion of the CMA average between 1980 and 2010, indicating a degree of suburban decline.

Table 2: Average individual income\* as proportion of Halifax Census Metropolitan Area average individual income, 1980, 2005, and 2010

	1980	2005	2010	Change 1980 to 2010
Inner City				
Gottingen	0.68	0.57	0.63	-0.05
Novalea	0.76	0.85	0.86	0.10
Inner Suburb				
Clayton Park	1.11	0.86	0.82	-0.29
North Dartmouth	0.86	0.68	0.64	-0.22

**Sources**: 1981 and 2006 Census of Population; 2011 Canada Revenue Agency Tax-filer Data.

**Notes:** For each indicator in the tables, the score for each neighbourhood is calculated from a proportion of a base where the Halifax Census Metropolitan Area for that year was = 1.0

Gottingen (census tract 10) is located in Halifax's north end adjacent to the downtown core. It borders the Halifax Common, a large urban green space with symbolic and recreational value to Halifax residents. Part of the first northern suburbs, Gottingen

<sup>\*</sup>Census income for persons 15 and over before tax. Tax-filer income before taxes. Census data report income from the previous year: hence the table shows 1980, 2005, and 2010 data.

became a working-class district by the early 20<sup>th</sup> century. The development of Uniacke Square, a sizeable public housing project, on Gottingen Street during urban renewal in the 1960s solidified its status as a low-income neighbourhood with a negative reputation (Silver, 2008). In the 1970s and 1980s, other non-profit and cooperative housing projects were located in the area. By the 1980s, a cluster of social services operated on Gottingen Street (Melles, 2003). By the 2000s, additional signs of gentrification emerged, in the form of trendy restaurants, condominiums, and loft apartments (Roth, 2012). Proximity to downtown and an historic housing stock offered potential for gentrification, but the cluster of lower income housing moderated the area's average income.

Novalea (census tract 21), toward the northern end of the Halifax peninsula, was originally settled by shipyard workers in the late 19<sup>th</sup> century. In 1917, a massive explosion in the harbour decimated the northern end of the city. The Relief Committee commissioned Thomas Adams, a British planner then employed by the national government, to redesign part of the area for displaced workers (Simpson, 1985). Adams created the Hydrostone District, with a unique street structure and mock-Tudor row and semi-detached houses (Latremouille, 1986). The Hydrostone is a visually distinctive and highly desirable district with access to the urban core, especially attractive to gentrifiers (Soward *et al.*, 2008). Housing built between the World Wars surrounds the Hydrostone and comprises the majority of housing stock in the census tract. A third area—Mulgrave Park, a public housing complex of row houses and apartment buildings erected in the late 1950s and accommodating 900 residents—occupies the eastern portion of the census tract closest to the shipyard.

The tract we call Clayton Park (census tract 25.01), situated just off the Halifax peninsula, includes parts of two suburbs. One is a portion of the Fairview suburb, developed in the 1950s and 1960s: that area has modest homes, walk-up apartments, and a mobile home park. The northern part is a master-planned community, Clayton Park, which was begun around 1970 and featured detached dwellings in its early phases. In 1980 average individual income for the tract was 11% above the city average. During the 1980s the city transformed a nearby industrial park into a big-box commercial centre. Development began on Clayton Park West (immediately west of the original suburb) in the 1990s. Clayton Park now has a mix of detached homes and low-rent, mid-rise apartment buildings. The diverse housing types are segregated in distinct areas separated by major roads, open space, or commercial uses. Average income for the tract dropped to 18% below the city average by 2010.

North Dartmouth (census tract 114), a suburban area within the highway circumscribing older urban districts on the Dartmouth side of Halifax harbour, was developed mainly with rental apartments between the early 1970s and the late 1980s. The population of the area grew by 50% between 1981 and 2006, largely as a by-product of the construction of Highfield Park, a cluster of mid-rise apartment buildings (McDiarmid, 2007); the massive scale of construction glutted the rental market and created a concentration of low-rent units. Burnside Industrial Park—a major employer in the region—is located immediately north of Highfield Park. Across a lake and near access to a major ring road, the Lancaster Ridge subdivision, developed in the 1990s, occupies the northeast portion of the census tract: it has a mix of detached, semi-detached, and row house dwellings. In 2006, a small

new suburb of predominantly single-detached units was built on the southeastern edge of the tract. Despite the addition of higher cost detached housing from the 1980s to the 2000s, average incomes declined with the influx of less affluent households to rental units in Highfield Park. North Dartmouth abuts excellent employment opportunities, yet is the most disadvantaged area in the city's suburbs.

The four tracts changed significantly over time and showed signs of internal polarization at the finer dissemination area (DA) scale.<sup>3</sup> For instance, in the 2006 census, the Gottingen tract near the city centre scored more poorly than the metropolitan area on several indicators, including the proportion of residents with no high school diploma, with low income, or living in lone-parent families. It had a substantially higher proportion of residents who self-identified as visible minorities. Figure 2 shows, however, that the Gottingen tract was internally divided: some DAs show signs of disadvantage, while others had higher status. Extreme differences appeared in figures for lone-parent families and visible minorities: one DA had 0% low-income and 5.5% visible minorities, while another nearby DA had 71% of households living in lone-parent families and almost 66% identifying as visible minorities. The Novalea tract, north of Gottingen, scored slightly better on some indicators, but was similarly stratified. Such differences may denote gentrification processes at work.

93 CMA AVERAGE CT10 AVERAGE NOHSD: 15.92% NOHSD: 17.7% NOHSD: 31.61% LICO: 10.8% LICO: 37.7% LICO: 35.9% LPF: 16.51% LPF: 36.61% LPF: 60% VM: 32.18% VM: 7 48% NOHSD: 31 58% VM: 66.30% LICO: 61.2% LPF: 71.43% **LEGEND** VM: 65.67% NOHSD: NOHSD: 22.58% No Highschool Diploma LICO: 48.3% LPF: 66.67% LICO: VM: 31.03% Low Income LPF: NOHSD: 24.64% Lone Parent Family LICO: 31.9% I PF: 25% NOHSD: 19.53% VM: 32.98% Visible Minority LICO: 28 3% LPF: 59 26% VM: 46.23% Census Metropolitan Area **NOHSD:** 7.14% NOHSD: 8.41% NOHSD: 28 4% NOHSD: 2.82% LICO: 17.3% LICO: 28 1% LICO: 50 5% LICO: 42.7% LPF: 0% LPF: 15% LPF: 33.33% LPF: 18.18% VM: 5.45% VM: 22.47% VM: 10.89% VM: 26.44%

Figure 2. Gottingen (CT10): Sample inner-city census tract showing values of four indicators by dissemination area

Source: 2006 Census of Population

Figure 3 illustrates Clayton Park, a suburban area which also had distinct differences among its DAs. The older tracts in Fairview were more disadvantaged than the tracts in Clayton Park proper. The tract had one DA with no low-income residents adjacent to another with 30.6% of residents living with low-income. One DA had no visible minority residents while another DA in the tract had over 28% visible minorities. Lone parent families ranged from 0% to almost 43%. North Dartmouth showed internal discrepancies as well, although not across all the same attributes (Prouse, 2014).

CT10 AVERAGE CMA AVERAGE NOHSD: 15.32% NOHSD: 15.92% REDEORD BASIN LICO: 10.8% LICO: 17.6% LPF: 16.51% LPF: 21.05% NOHSD: 29.17% VM: 7.48% VM: 7.48% LICO: 30.6% LPF: 34.38% NOHSD: 4.44% VM: 28.36% LICO: 9.4% **LEGEND** LPF: 21.05% VM: 3.13% NOHSD: No Highschool Diploma NOHSD: 0% NOHSD: 10.26% LICO: 0% LPF: 8.33% LICO: LICO: 35.0% Low Income LPF: 18.75% VM: 14.16% VM: 23.33% LPF: Lone Parent Family NOHSD: 2.44% VM-LICO: 11.6% NOHSD: 26.42% LPF: 0% Visible Minority VM: 18.75% LICO: 25.0% LPF: 42 86% CMA: VM: 18.18% Census Metropolitan Area NOHSD: 9.76% LICO: 12.5% NOHSD: 32.0% NOHSD: 17.82% VM: 7.69% LICO: 16.7% LICO: 19.6% LPF: 15.38% I PF: 25.0% VM: 0% VM: 8.33%

Figure 3. Clayton Park (CT 25.01): Sample suburban census tract showing values of four indicators by dissemination area

Source: 2006 Census of Population

In the next section, we examine how the neighbourhoods changed between 1981 and 2006 on key indicators commonly associated with inner city gentrification and inner suburban decline.

# **Evaluating the Neighbourhoods**

In order to examine how the four neighbourhoods changed we selected a range of indicators for analysis. Table 2 to Table 6 report changes from the 1981 and 2006 census data. Because the Canadian government did not conduct a comprehensive mandatory census for 2011, 2006 data are the most complete and reliable currently available. Income figures for 2010 are reported from tax-filer data. Figures in tables 3 to 6 are given as location quotients where the Halifax CMA rate is indexed to equal 1.0: thus a score of 1.5 for a neighbourhood indicates that its rate is 50% above the CMA average, while a score of 0.6 would be 40% below the city average.

### Inner city neighbourhoods: Gottingen and Novalea

The literature suggests that gentrification occurs when areas experience increases in residents' income levels and decreases in proportions of individuals classified as low-income. Both North End neighbourhoods studied are described locally as gentrifying, based on evidence of physical changes in the built environment, signs of commercial gentrification, and concerns about increasing rents. Individual incomes *decreased* relative to the city average in both census tracts between 1980 and 2010. Although dissemination area level data showed pockets of considerable affluence in the Gottingen tract, average incomes for those living in public and cooperative housing units may have decreased relative to the CMA average, pulling down the tract average. Note, however, that average income for the tract increased from 57% of the CMA average in 2005 to 63% of the CMA average in 2010. The remarkable gain in a five-year window suggests either a rapid increase in higher income earners in the Gottingen tract or improved incomes for low-income households: the latter seems unlikely, given modest social assistance benefits.

The material indicator trends, shown in Table 3, seem mixed, hinting that different processes worked in the two tracts. The proportion of individuals lacking a high school diploma declined dramatically in Gottingen, and modestly in Novalea. With large areas of social housing, both tracts are disadvantaged compared with the city average on material indicators. Novalea showed some signs of economic improvement, however, with a 44% decline in low-income families. Gottingen fared poorly, with an 83% increase in low-income families. While Novalea did not achieve parity with the city overall, its material trends from 1981 to 2006 provided some evidence of improvement as predicted by our model. Gottingen showed some indicators of gentrification (such as improving educational achievement), but also strong evidence of entrenched and worsening poverty. Both inner city tracts, however, experienced increases in the proportion of residents holding a university degree.

Table 3: Material indicators of neighbourhood change, 1981 and 2006

	Proportion of Individuals 15 years of age or older without a high school diploma			Proportion of low-income economic families (after tax)			Proportion of residents 15 years of age or older with a university degree		
	1981	2006	Change	1981	2006	Change	1981	2006	Change
Inner City									
Gottingen	1.52	0.92	-0.60	2.70	3.53	0.83	0.49	1.09	0.60
Novalea	1.46	1.30	-0.16	2.31	1.88	-0.44	0.55	1.16	0.51
Inner Suburb									
Clayton Park	0.72	1.03	0.31	0.99	1.64	0.66	1.31	1.00	-0.31
North Dartmouth	1.02	1.43	0.41	2.11	2.25	0.14	0.58	0.45	-0.13

Sources: 1981 and 2006 Census of Population, retrieved from the Canadian Census Analyzer

Social indicators aligned more closely with what the model predicted (Table 4). The proportion of immigrants declined notably in both tracts, though the areas had a higher than average percentage of immigrants relative to the city overall. Gottingen had a higher percentage of individuals who had moved in the previous five years: an increase of 51% over its 1980 rate. In contrast, Novalea maintained a relatively low mover rate (below the CMA average). The proportion of young adults increased while that of residents aged over 70 declined considerably in both tracts (Table 5). The proportion of lone parent families declined substantially in both inner-city tracts. Social indicators may support a diagnosis of gentrification.

Table 4: Social indicators of neighbourhood change, 1981 and 2006: immigrants and

movers [location quotient where Halifax CMA score = 1.00]

	Proporti	on of imm	igrants◊	Movers within last 5 years		
	1981	1981 2006 Change			2006	Change
Inner City						
Gottingen	1.63	1.17	-0.47	0.99	1.50	0.51
Novalea	1.72	1.34	-0.38	0.73	0.81	0.08
Inner Suburb						
Clayton Park	1.70	2.03	0.33	1.21	1.17	-0.04
North Dartmouth	0.36	0.55	0.19	1.51	1.47	-0.04

**Sources:** 1981 and 2006 Census of Population, obtained from the Canadian Census Analyzer **Notes:** • In the 1981 Census, Canadian-born children of foreign-born individuals were counted as immigrants. From 1996 onwards, the definition changed to refer to landed immigrants (S. Beaulieu, Personal Communication, 25 July 2014).

Table 5: Social indicators of neighbourhood change, 1981 and 2006: age and family

status [location quotient where Halifax CMA score = 1.00]

_	Proportion of residents ages 20-34		Proportion of residents 70 years and over			Lone Parent Families			
	1981	2006	Change	1981	2006	Change	1981	2006	Change
Inner City									
Gottingen	0.99	1.73	0.74	1.42	0.71	-0.70	2.39	2.22	-0.17
Novalea	0.84	1.10	0.26	1.58	1.10	-0.47	2.15	1.75	0.40
Inner Suburb									
Clayton Park	1.01	1.09	0.08	0.89	1.28	0.39	1.24	1.28	0.04
North Dartmouth	1.57	1.52	-0.05	0.58	0.58	0.00	1.93	1.95	0.02

Sources: 1981 and 2006 Census of Population, obtained from the Canadian Census Analyzer

Housing stock and physical indicators suggest mixed trends. Some support the gentrification predictions; others do not. We found no major changes in average gross rents in relation to the CMA average during the study period. The preponderance of social housing in the tracts undoubtedly moderated rent increases, even dropping the average slightly in Gottingen (Table 6). The purchase price of homes rose, however, especially in Gottingen (52% greater than the CMA average increase). The neighbourhood evidently became more attractive for buyers and units more expensive: by 2006, average units in Gottingen were selling 18% above the CMA average. Changes in ownership rates were marginal in Gottingen: rates remained well below the city average, with only 22% of units owned. Novalea experienced a 13% decline in the percentage of owned dwellings, likely reflecting the increase in apartment units constructed in the area. While the rising cost of purchased units pointed to gentrification, especially in Gottingen, ownership rates and rents did not follow the trends predicted.

Table 6: Physical indicators of neighbourhood change, 1981 and 2006: value and ownership [location quotient where Halifax CMA score = 1.00]

	Average gross rent			Average gross rent Proportion of owned dwellings			Averag	ge value of p	orivate
	1981	2006	Change	1981	2006	Change	1981	2006	Change
Inner City									
Gottingen	0.90	0.85	-0.05	0.23	0.22	-0.01	0.66	1.18	0.52
Novalea	0.67	0.76	0.09	0.91	0.79	-0.13	0.87	1.05	0.18
Inner Suburb									
Clayton Park	1.04	0.87	-0.16	0.75	0.72	-0.03	1.21	0.84	-0.37
North Dartmouth	0.94	0.82	-0.13	0.14	0.18	0.04	0.83	0.81	-0.02

Sources: 1981 and 2006 Census of Population, obtained from the Canadian Census Analyzer

Suburban areas: Clayton Park and North Dartmouth

The conceptual model posits that indicators of suburban decline will reflect changes resulting from the life cycle of a neighbourhood. Housing stock built at one time experiences population loss as children of original families move out, and the population ages. Middle-income families choose recently built developments with larger lot sizes and amenities, which means that older homes often filter down to less affluent households. Those looking to purchase affordable homes may find aging suburbs attractive as the value of dwellings declines. The suburban census tracts diverged from this model in some ways, but supported it in others.

On material indicators, both suburban tracts declined against the CMA average. Developed in the late 1970s, Clayton Park began as a relatively homogeneous uppermiddle class suburban neighbourhood, with an average individual income 11% higher than the CMA average for 1980. During the period from 1980 to 2010, the Clayton Park census tract experienced substantial decline in average income relative to the CMA average. By contrast, North Dartmouth originated as a working class, lower income suburb and declined further over time. The proportions of individuals without a high school diploma and from low-income families increased both in Clayton Park and in North Dartmouth, but at different rates. Immigrants, university students, and young

white-collar and retail workers moved into Clayton Park: incomes were low, but high school completion was common. New development in North Dartmouth in the 1980s added large numbers of residents without a high school education and living in straitened circumstances. University completion rates decreased in both suburban tracts, but not at the same rate as for the inner-city tracts.

Social indicators proved mixed. The proportion of immigrants increased in both suburban census tracts between 1981 and 2006, but most prominently in Clayton Park. The rates of people moving did not change markedly over the period but remained above the CMA average in both communities: North Dartmouth seemed less stable, with about half of its residents moving within the last five years. With new seniors' complexes developed by 2006, and original homeowners aging in place, Clayton Park had many more residents over the age of 70, compared to the CMA average. North Dartmouth had a considerably smaller proportion of residents over the age of 70 than the city as a whole, but almost double the proportion of lone-parent families: these numbers were stable over the period. Although Clayton Park had more immigrants and residents over 70 in 2006 than in 1981, on some social indicators the suburban areas did not change in the ways the model predicted. On several of the social indicators, the suburban tracts were more stable over the period than were the inner-city tracts.

On some physical indicators the two inner suburbs appeared to have declined; on some they remained relatively stable. Average rents declined against the CMA average in both communities. Through the study period ownership rates barely moved: Clayton Park was 22% below the CMA average, while North Dartmouth was 82% below. Clayton Park was predominantly a community of homeowners, but North Dartmouth was consistently a community of tenants. Relative housing values decreased dramatically in Clayton Park: from 21% above to 16% below the CMA average. Most of the physical indicators, except home ownership, followed the directions predicted by the model of suburban decline.

### **Understanding Neighbourhood Change**

Our analysis revealed that the four neighbourhoods changed in some ways predicted by models developed from analyses of urban change in larger cities, but also hinted at some differences from the kinds of inner-city gentrification and inner suburban decline documented elsewhere. Central neighbourhoods in Halifax showed signs of increased affluence relative to the city-wide average over time. The two central tracts examined, however, revealed signs of what Walks and Maaranen (2010) described as incomplete gentrification: that is, they experienced socioeconomic change but retained an average income below the CMA average.

Walks and Maaranen (2010, p. 30) suggested that a 'gentrification frontier' may form at the edge of areas, gradually shifting further into changing neighbourhoods. Waves of gentrification originated closest to the downtown core and large public open space in the Gottingen neighbourhood, moving west during the 1980s (Millward & Davis, 1986), slowing in the 1990s, then surging anew in the 2000s (Barnard, 2013). Media representations reflect this arc: Beaumont (2013, online) wrote, 'it feels like there are

walls that cut the neighbourhood in half. Higher-income residents closer to downtown stick to the south end of Gottingen Street, and lower-income residents hang out closer to Uniacke Square'. Despite the influx of wealthier residents, gentrification in Gottingen remains partial. Gottingen has more social housing than other parts of the city, along with five percent of Canada's 850 housing cooperatives (van Berkel, 2007). The substantial pocket of affordable housing in the north of the census tract may act as a brake on further gentrification. Unless government abandons its commitment to protecting affordable housing in the area, the neighbourhood is protected against complete gentrification. It is, however, increasingly what Galster and Booza (2007) call a 'bipolar' neighbourhood, with rich and poor coexisting.

The Novalea tract is also experiencing gentrification. Although it too has a substantial area of public housing, it is spatially configured in a way less likely to stall the transition to greater affluence. Public housing in Novalea is on the periphery of the census tract, separated from the areas that are most rapidly increasing in value and income by a steep hill, community amenities, and a large park. Novalea is a divided neighbourhood, with some areas positioned to gentrify further.

The inner suburban census tracts examined show few indications of decline predicted by the model. Incomes dropped, as did educational achievement, although not for all dissemination areas within the tracts. More immigrants moved into affordable districts to find accommodations. Despite the changes, the suburbs contained pockets of considerable advantage. The concentration of large numbers of affordable units did not drive residents from more affluent developments nearby. Affluent areas are separated from the older and newer housing types that reduce income averages in Clayton Park. In building recent components there, developers separated more affordable and denser units from the earlier homes with open space and commercial uses. In North Dartmouth, by contrast, more affluent residents entered the neighbourhood at the same time or after less affluent ones: a lake and road patterns physically segregate newer, upscale areas from lower income areas in the tract. In both cases, the convenience of living relatively near the city preserved the economic viability of middle-class housing while the geography and configuration of the districts provide physical barriers between populations with different attributes.

Although the suburban areas both showed signs of decline, they differed in important ways. First, residents had different age profiles. Clayton Park housed more seniors, but North Dartmouth's population remained very young. Clayton Park had modest rates of homeownership while North Dartmouth predominantly housed tenants. Clayton Park was relatively stable in duration of residency, while North Dartmouth had high mobility rates. Clayton Park retained a good reputation, while North Dartmouth – particularly Highfield Park—was described locally as a slum neighbourhood with high rates of crime (Bird *et al.*, 2011). The value of dwellings in Clayton Park showed a decline over the period, in part because of the increase in smaller condominium units built in recent years. The two neighbourhoods played distinct roles in the urban ecology. Even as it accommodated a greater mix of residents, Clayton Park remained a comfortable suburban node with good shopping, attractive urban amenities, and good transportation connections. Parts of North

Dartmouth, by contrast, struggled as a disadvantaged area with relatively poor services and prospects. Declining suburbs do not change in consistent ways.

What can we conclude about the factors influencing the character of neighbourhood change in the areas examined? The trajectories of change in these neighbourhoods appear to reflect the influence of scale, economic and cultural conditions, the legacy of history and geography, and public policy decisions. We consider each of these in turn.

#### Scale and measurement

Neighbourhoods studied in Halifax showed many, but not all, the changes described for larger urban centres. To what extent can city size affect how neighbourhoods change and whether the model proves useful for predicting patterns? Part of the challenge of investigating change in smaller cities is the scale at which we can obtain data. Census tracts prove too large to serve as proxies for neighbourhoods in smaller cities where clusters of housing types, ethnic groups, or school catchment areas tend to be relatively small (Prouse, Ramos, *et al.*, 2014). Although Statistics Canada intends census tracts to be relatively homogeneous, in smaller cities tracts are internally diverse. Their diversity may hide the extent of transformation over time and the magnitude of deprivation that may co-exist with pockets of advantage. The smaller census unit of dissemination area has the opposite problem: in many cases it proves too small to represent a neighbourhood. Moreover, because Statistics Canada changed its small-scale census geography (from enumeration to dissemination areas), tracking over decades can prove challenging. Identifying meaningful local neighbourhoods and understanding the nature and scale of change requires further community fieldwork and qualitative assessment.

### Economic and cultural conditions

Neighbourhood change depends on the choices people make about where to work, where to live, and where and how to build. Such choices are conditioned by prevailing economic circumstances and cultural preferences. Prosperity drives demand for city living and the financing to transform neighbourhoods. While some level of gentrification may occur in inner districts even in the face of severe local economic challenges—as seen in Detroit, for instance (Sugrue, 2014)—growth drives rapid and drastic changes. Cultural values influence whether people see particular parts of the city or specific types of housing as attractive. If a housing market becomes tight, or transportation congestion problems severe, then preferences for neighbourhoods may shift. The rate and character of neighbourhood change reflect economic and cultural conditions. Local investors make decisions about what and how much to build based on calculations of market conditions and consumer preferences: their investments have long-term consequences on neighbourhood trajectories. With smaller cities generally growing less quickly, experiencing less cultural diversity, and drawing more commonly on regionally-based developers, change may follow different patterns than seen in larger cities.

### Legacy factors

Although trend is not destiny in urban history, how things were affects how things change. Location matters. Timing matters. Reputation matters.

The location of particular kinds of urban artifacts affects the processes and rates of change. Amenities such as parks, waterfront areas, bridges, and lakes may attract reinvestment and newcomers. Similarly the availability of large areas of public housing built during the urban renewal era in areas relatively near the city centre in the north end of Halifax played a critical role in preventing wholesale change in some neighbourhoods. As the city has grown, some locations have become increasingly central with good access to jobs in the core, yet the legacy of public housing protected many lower income residents from displacement. The fragmented geography of Halifax—with development interspersed around lakes, inlets, bays, wetlands, and hills—affects the distribution of growth and decline.

Timing can influence the kind and direction of change. Development of the higher density areas of North Dartmouth occurred when local investors who were given permission to build mixed commercial and mid-rise apartment housing found few leasing opportunities for commercial space. Unwilling to delay construction, they built large numbers of two-bedroom apartments, increasingly occupied by disadvantaged households headed by young single-parents.

Neighbourhoods develop reputations that can affect the ways they change (Permentier et al., 2007). Two of the neighbourhoods discussed—Gottingen and North Dartmouth have negative reputations locally. The kind of stigma associated with public housing in the Gottingen census tract and with the concentrated low-rent market housing in North Dartmouth has significant repercussions for the health and well-being of residents (Borden Colley, 2013; McDiarmid, 2007). It also affects whether newcomers choose to relocate to the communities. Negative press reports and local perceptions slowed the rate of gentrification for Gottingen and contributed to decline in North Dartmouth. In Gottingen the gentrification pioneers are primarily young people or retired couples willing to live in an edgy neighbourhood but choosing locations at some distance from public housing (Gregory, 2013). Middle-class households living in the North Dartmouth census tract may identify with smaller neighbourhoods with distinct names that clearly differentiate them from nearby areas of rental apartments. By contrast, despite declining incomes and considerable neighbourhood change, Clayton Park retains a relatively positive local reputation as a neighbourhood with good shopping, good services, and good access to major highways.

# Public policy

The decisions that governments make about investment and regulations in the city affect the prospects of neighbourhoods. Investments in public housing, highways, bridges, schools, libraries, parks, and other services affect whether areas attract residents. Regulations shape the kind of development that occurs. Many city governments use policy and the regulatory environment to facilitate neighbourhood change. Since the 1970s, planning policies promoting urban intensification, enhancing public transit, and improving the public realm have increased demand for downtown living and helped to introduce new kinds of residents into neighbourhoods (Atkinson & Bridge, 2004). Fiscal policies that made it possible for people to buy homes with low or no deposit shaped the housing market in significant ways during the 1990s and 2000s. Governments facilitate

urban revitalization in the core, but have made few attempts to address aging suburbs (Grant *et al.*, 2013).

What government decides to do with public housing clearly matters. If governments destroy social housing, as the US government did through HOPE VI redevelopments, they significantly transform neighbourhoods, driving low-income earners away (Popkin *et al.*, 2004). If governments modify public housing by introducing mix, as Toronto is doing, then they initiate a slower, but equally powerful, process of change (August, 2014). By preserving public housing, as has happened in Nova Scotia, governments moderate the rate and effects of change. Protected social housing anchors opportunities for those with lower incomes and prevents the most rapid and extensive forms of displacement that can accompany gentrification.

In the planning process for Clayton Park local government worked consciously with the developer to create a mixed community. Recent stages of development have transformed a high-end suburb of detached units to a mixed-income, mixed-tenure, and mixed-housing community. The neighbourhood's 'decline' on certain indicators, such as housing costs, fulfilled policy objectives. Government investments in Clayton Park provided valued urban infrastructure to keep the community dynamic and viable. By contrast, the planning process for North Dartmouth has not strengthened the community. Concentrations of impoverished households do not have access to the same kind of government-provided amenities on offer in Clayton Park. North Dartmouth is a divided neighbourhood in continuing decline.

Processes of gentrification, decline, and neighbourhood change are underway in urban centres of all sizes, but are not monolithic or uniform in their effects. Models of neighbourhood change developed from the experiences of large cities cannot fully predict nor explain change in small cities. Our study of four neighbourhoods in Halifax may not definitively answer questions about how mid-sized cities change, but it offers insights into the kinds of factors which may affect the direction and character of neighbourhood change.

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<sup>&</sup>lt;sup>1</sup> Statistics Canada defines census tracts as 'neighbourhood-like' areas comprising 2500-8000 people who are as 'homogeneous as possible in terms of socio-economic characteristics, such as similar economic status and social living conditions at the time of its creation,' and demarcated by 'permanent and easily recognizable physical features' (Statistics Canada, 2012a, online).

 $<sup>^{\</sup>rm 2}$  Tax-filer data were obtained from the Canada Revenue Agency and provide average incomes by census tract for 2010.

<sup>&</sup>lt;sup>3</sup> Dissemination areas are typically several blocks in size with a population of 400-700 people. The DA is the smallest geographic unit for which Statistics Canada disseminates census data (Statistics Canada, 2012b).