# Income Distribution in Halifax, Nova Scotia
# Is there Increasing Suburbanization of poverty?

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## *Executive Summary*

A misunderstanding of how poverty is distributed throughout a city will lead to wasted resources and ineffective supports for the most vulnerable residents. The purpose of this study is to understand whether poverty in Halifax's suburbs is increasing in relation to its downtown.

In many cities, suburbs were originally places where less affluent residents could self-build their own homes without conforming to the city's building standards; poverty in the suburbs is not new. But over time, and with the help of urban renewal, poverty came to be largely concentrated in the inner city. In recent years, studies from the United States, the United Kingdom, Australia and Canada have all reported increasing levels of poverty in the kind of dense suburbs typically found outside but close to the city centre. By 2007, 49% of Americans living in poverty were living in the suburbs. At the same time, poverty in many city centres is decreasing, thanks largely to a push to revitalize downtowns and the consequent gentrification.

While there are certainly many broad development trends that explain the commonalities of how cities develop, each city nevertheless has its own history and unique localized patterns of development. Therefore, it is critical to evaluate poverty distribution independently, wherever possible, to determine whether the broad trend toward suburbanization of poverty is happening in a particular city or not.

This study uses a pre-established method to divide the Halifax Census Metropolitan Area (CMA) into five categories (Downtown and Suburb types A-D) based on dominant

housing age, residential population density, proximity to the downtown and land use. It relies on data from the 1981-2006 Census and the 2011 National Housing Survey (NHS) to compare prevalence of low income, average housing price and seven other variables that generally co-occur with poverty, in each of the five categories.

In 2011, the Parliament of Canada changed how Statistics Canada administered the Census by replacing the long-form mandatory census with a voluntary National Housing Survey (NHS). Since response rates to the 2011 NHS varied significantly, experts widely consider the 2011 NHS data to be biased.

Unfortunately, since current research indicates that the trend toward increasing poverty in the suburbs is very recent, it is critical that this study use the most current data available. It is not possible to rely only on 2006 Census data since most studies show that the trend toward suburbanization of poverty strengthened after 2006. To mitigate the effects of the biased 2011 NSH data, this study compared Average Individual Income from 2011 income tax data to Average Individual Income reported in the 2011 NHS, to obtain a baseline understanding of the NHS data's bias.

The study's results indicate that there is a trend toward increasing poverty in the Halifax suburbs relative to the Downtown. Prevalence of low income shows an increasing trend in the type A suburbs, and a decreasing trend in the Downtown. Average value of housing is highest in the Downtown, and increasing there at the fastest rate; average value of housing in the Downtown is 179% of that in the type A suburbs, which records the lowest average housing value. The highest proportion of lone parents and the highest proportion of residents with low educational attainment were also identified in the type A

suburbs.

The following indicators, however, were highest in the Downtown category:

- Proportion of renters
- Unemployment
- Housing in need of major repair
- Proportion visible minority

In many communities, the push to revitalize the downtown leads to gentrification, as more affluent residents move into an area, increase the demand for housing and drive prices up, leading to the suburbanization of poverty. Would-be gentrifiers are generally attracted to larger houses with architectural significance, proximity to natural, cultural and recreation amenities, proximity to an existing more affluent neighbourhood, and good transit and transportation connection to their places of work. They tend to avoid areas with high concentrations of low income, including public housing, active industrial sites, high crime, areas that are distant from employment generators, and areas with a proliferation of "middle age" housing that is too old to be new and too new to be old (and ripe for renovation).

Many of the characteristics that define neighbourhoods less likely to be gentrified are found in the type A suburbs, including a dominant housing type that is less likely to be attractive to would-be gentrifiers, poor transit and transportation connection, lack of proximity to employment generators and lack of cultural, natural and recreational amenity. All of these factors drive housing demand down, which improves affordability.

While affordable housing is critical, it is also critical that low-income residents are not isolated and concentrated in low quality neighbourhoods with poor physical access to good jobs and affordable transportation options.

## *Literature Review*

### A Brief History of the Suburbanization of Poverty

Until the 1990s, poverty was typically concentrated in inner city and rural areas, with very little poverty located in the suburbs. More affluent city residents leaving the congestion, pollution and discomfort of the city behind to build larger homes on big lots in a semi-rural setting created many suburbs. This was particularly common during the Victorian era, when an image of the "domestic ideal" was popularized (Harris, 2004).

However, poverty in the suburbs is not new. Indeed, in many Canadian cities, including Toronto, many suburbs emerged as unplanned areas outside city limits, where low income or working class residents could build their own homes out of the watchful eye of city planners and building inspectors, and close to industrial workplaces (Harris, 1996).

*Middle Class Suburb in Cole Harbour, NS*

Gradually, however, most suburban developments were annexed to the main municipality, and became subject to building codes and planning standards. In some cases, this meant that previously un-serviced lots were connected to municipal water, sewer and electricity systems, much to their benefit. In other cases, the

costs associated with improved services and building standards priced self-built suburban homes out of reach of working class families, who were forced to abandon their properties, sometimes losing a significant time and financial investment (Harris, 2004). By the mid-1900s, thanks in large part to urban renewal, poverty was largely concentrated in inner cities.

At the same time, by the 1990s, many cities started to push back against the dull, empty downtowns that evolved with the booming suburbs. Cities started developing policies and plans to attract residents "back downtown" and by the 2000s, housing researchers were starting to see the trend of less affluent residents moving to the suburbs. Studies of Canadian, American, British and Australian income census data indicate that, increasingly, lower income residents are becoming more likely to live in the suburbs (Ballas, 2004; Randolph, 2004; Randolph, 2002; Lichter et al, 2012). According to 2000 data, 38.5% of America's poor residents lived in the suburbs, compared to 40.6% who lived in central cities (Dreier, 2004). Murphy (2007) put the number even higher, and concluded that, according to 2000 American Census data, 49% of all people living below the poverty line in the United States were living in the suburbs. Madden (2003) analyzed incomes between 1970 and 1990 in 23 large metropolitan areas in the United States and found that there was evidence of "economic decline" in inner ring suburbs *when compared to other kinds of suburbs, but not when compared to the inner cities of their associated metropolis* (Madden, 2003). This means that, while some inner ring suburbs were starting to show economic decline, the degree of the decline was still not as severe as that found in inner cities. However, Lee (2011) observed increasing levels of poverty in both inner and middle ring suburbs, and that poverty in downtowns, inner cities and

outer suburbs all *declined* in relation to poverty in middle and inner ring suburbs.

While different authors come to different statistical conclusions about the degree of the suburbanization of poverty, they agree that poverty is increasing in American suburbs. In 2010, *The Economist* reported that poverty in non-city areas was outpacing poverty in the city, with 13.7 million American non-city dwellers living in poverty, compared with 12.1 million city dwellers (United States, 2010). Since these studies all observed different cities, they support the proposal that income distribution trends are not universal; different cities follow different patterns of income distribution.

## The Situation in Canada

As recently as 1993, Bourne described Canadian national income distribution as being "remarkably stable" through time. More recently, however, Canadian scholars are beginning to track changes to income distribution in Canada that are similar to those being observed in the United States; by the 1980s, Canadian census data started to show a widening income gap between central (and older) suburbs and newer ones (Rose, 2004).

Hulchanski (2007) described evolving income distribution trends in Toronto as creating three different identities, which he described as "three cities" in one. City #1 is comprised of areas where resident income was quickly increasing. City #2 included areas where resident income was relatively stable, and the City #3 included areas where resident income was quickly falling. He found that City #3 was increasingly located in the north and northwest parts of the city, in the dense suburban area outside the service of the subway. Toronto's City #3 occupied 40% of the city by area; the proportion of what Hulchanski described as "low income neighbourhoods" had increased from 19% in 1970

to 53% in 2005, while during the same time frame, the percentage of middle-income neighbourhoods decreased from 66% to 29%.

Based on previously published research, it is apparent that, since 1970, there have been significant changes to income distribution in the Halifax Regional Municipality. In 1970, most of what is now the HRM was "middle income", with incomes that were 80% to 120% of the average income of the Halifax CMA. As shown on Figure 1, below, there were notable pockets of higher income (up to 162% of the CMA average) in Dartmouth, the South and West Ends of Halifax, and in Bedford. Low income areas (60% to 80% of average CMA income) were located in downtown Halifax and in the Spryfield area, west of the urban core (Cities Centre, 2012).

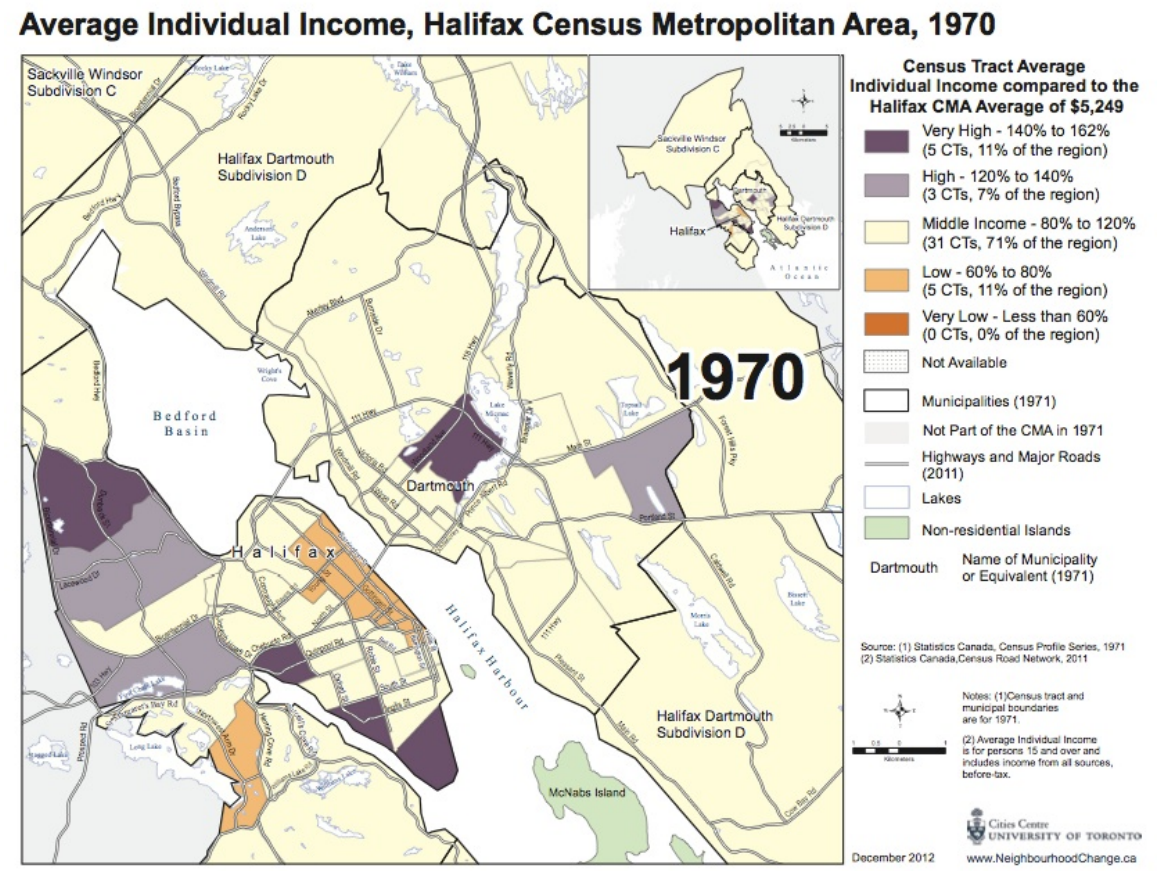


**Figure 1 Income Distribution Halifax, 1970 (Cities Centre, 2012)**

By 1990, a large area of low income had developed north of Dartmouth's downtown, extending into the suburban area north of the circumferential highway. There were also new areas of higher income, north of the urban core in Bedord, and south of Dartmouth in suburban Colby Village. Existing low-income areas in the Halifax downtown and Spryfield remained.

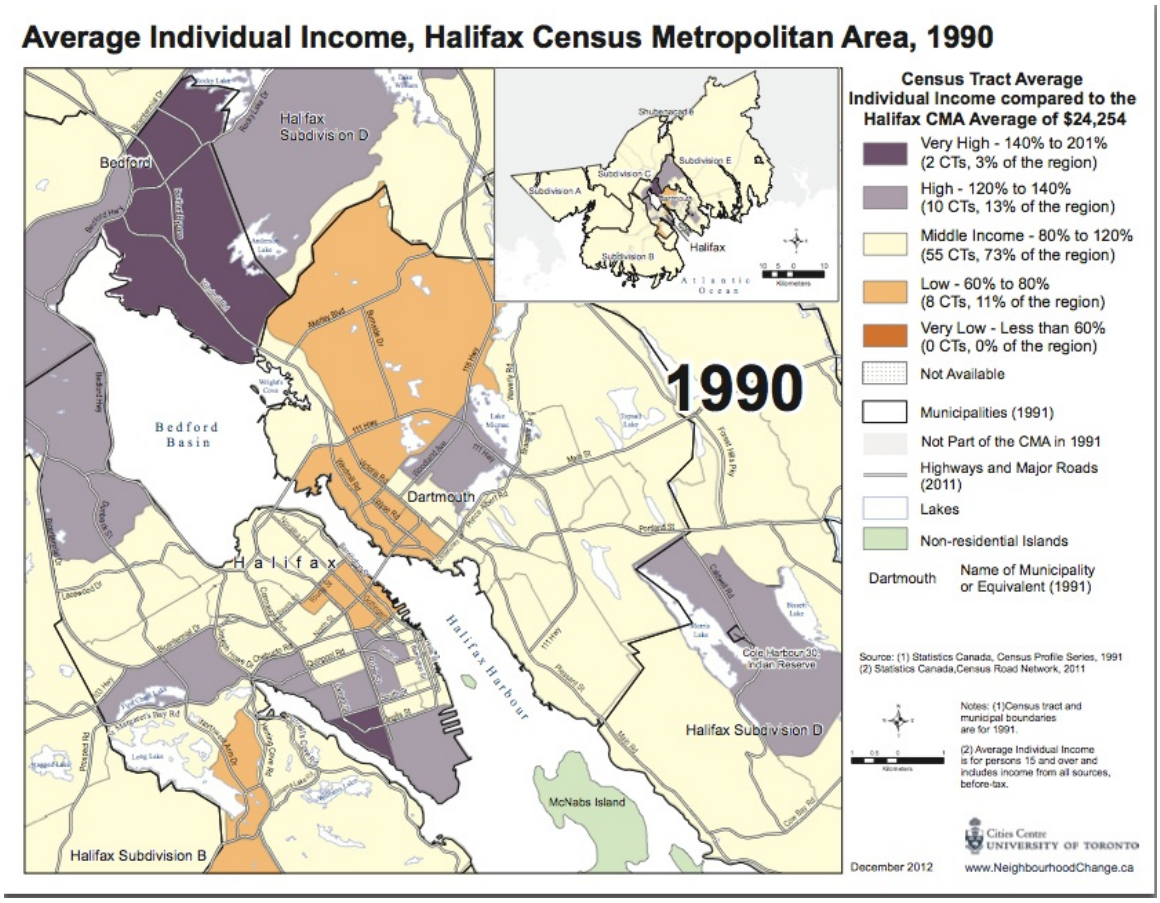


**Figure 2 Income Distribution in Halifax, 1990 (Cities Centre, 2012)**

By 2010, in addition to the existing low-income suburban area north of Dartmouth, new low-income areas were described in Woodside, south of Dartmouth, and in Halifax's North End (Cities Centre, 2012).

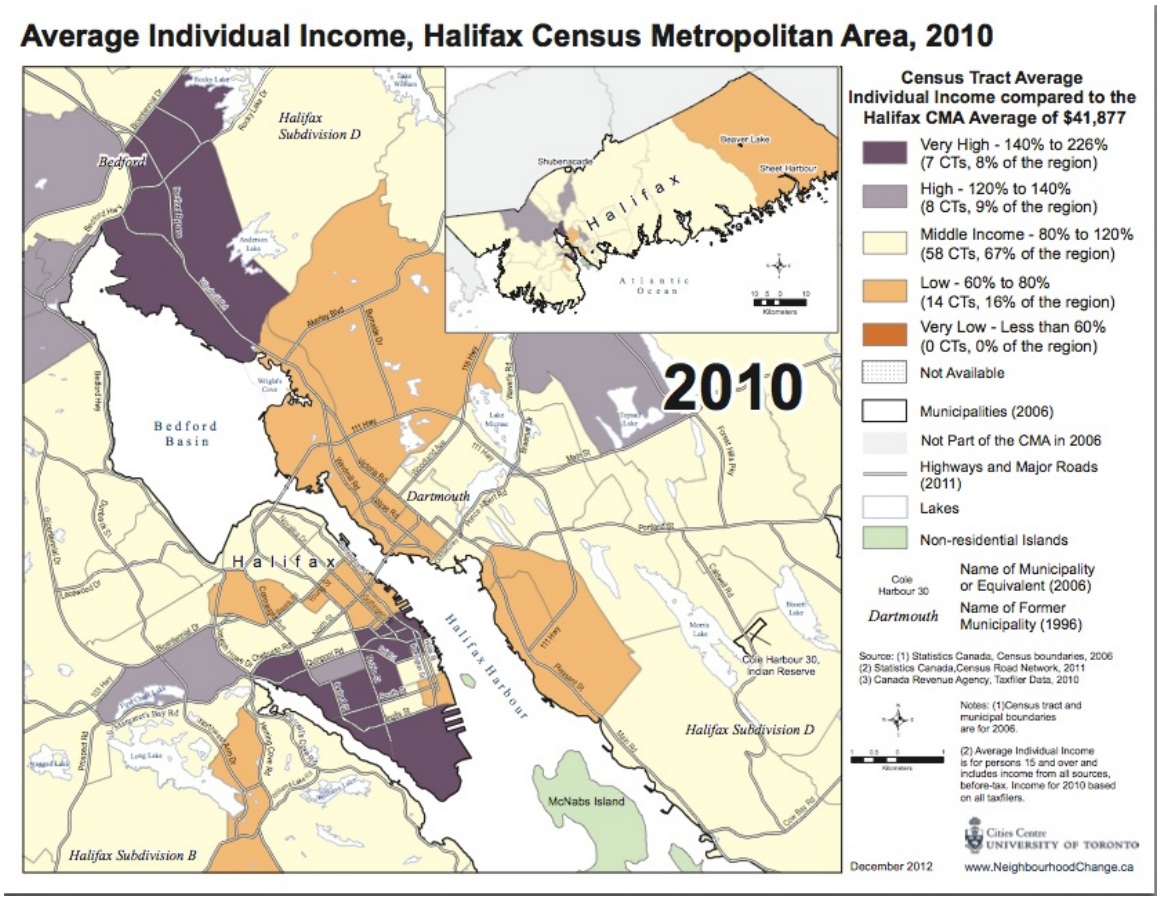


**Figure 3 Income Distribution in Halifax, 2010 (Cities Centre, 2012)**

*Typical Suburban Housing – Willow Ridge*

Despite these recent changes, however, stereotypes that suburban residents are affluent persist. The Burnhams in the movie *American Beauty* live an exaggerated suburban lifestyle, and The Simpson family from television's *The Simpsons* enjoy their single detached house on the outskirts of Springfield. The common assumptions that all suburbs are homogeneous and affluent can be particularly damaging, since they encourage planners, municipalities and others to place affordable housing and

affordable transportation infrastructure in the wrong places.

Understanding why suburbanization of poverty occurs (or not) is an important way that planners and others can predict whether it is likely to occur as a result of their actions, and can allow them to avoid the kinds of actions that will lead to an undesirable outcome. For example, understanding the unintended effects on housing affordably that often occur as a result of redevelopment and environmental improvements may help planners to preserve affordable housing in low income areas that could be displaced with gentrification (Walks & August, 2008).

## Why it is Important to Understand Whether Poverty is Suburbanizing

The benefits of living in a dense inner city neighbourhood are often magnified for low income earners. It is even more important for them to live within walking distance of, or have excellent transit connection to, their place of work, cultural and recreational amenities, and their children's schools and day care. If you can't afford a car, you have to find other ways to get around, or you're not going to be able to participate in your community (Ross et al, 2001).

The lower density that is characteristic of most Canadian suburbs is a double problem. Not only are things people need farther apart (and therefore more expensive to get to) (Dreier, 2004), but government and non-government services aimed at helping lower income residents have to spend more of their time and money on traveling, and have less to spend on programs (Schildt, 2013; Murphy, 2007; Lichter et al, 2012).

Areas of high concentration of affluence or poverty can also create power imbalances

within a city, making it more difficult for poor residents to participate democratically in their city and avoid the kind of high-stakes political decisions that result in unwanted or unhealthy land uses being located disproportionately in poorer areas (Ross et al, 2001; Ross et al, 2004).

Services intended to ease the burden of the poor, such as publicly owned affordable housing and income assistance, are often offered by levels of government other than the municipality. For example, in Canada, the responsibility for most programs that assist residents with lower income are funded and operated at the provincial level. However, studies have shown that there are significant "spill over" costs associated with having a concentrated area of lower income or poverty that municipalities must address. For example, the cost of policing and waste and recycling removal have all been found to be higher in areas with a high concentration of lower income residents. Low income residents are also less able to recover from economically traumatic events, such as sudden illness, which makes them more likely to require emergency financial assistance. Since many municipalities rely on property tax revenue, having a high proportion of low-income residents is doubly challenging; not only do low-income residents need more help, they also typically live in less valuable housing and, therefore, pay less tax. Municipalities often have an incentive to encourage lower income residents to move out of the municipality, or to try to attract more affluent residents to increase revenue from property taxes. This is a particular concern in areas where suburban or satellite communities are operated under a separate municipal government structure than the inner city (Joassart-Marcelli et al, 2005; Rose, 2004; Rose et al, 2013).

While intense racial segregation was an important determinant of city and suburban

structure in the United States throughout history, a phenomenon not seen to the same degree in Canada, the suburbanization of Canadian cities can nevertheless be compared to the American experience (Walks, 2004).

## What causes suburbanization of poverty?

The argument about what is causing this increasing suburbanization of poverty is not settled. Various authors have, however, attempted to explain when suburbanization of poverty is most likely to occur.

### *Gentrification*

As concerns over climate change and the effects of sprawl on the natural environment mount, many cities are trying to attract residents downtown to increase their city's overall sustainability. This is not a bad idea; city dwellers use less energy and produce less waste than suburban and rural dwellers, and are often happier, healthier and more creative (Florida, 2012). There is a good financial reason to increase density in downtowns, too; higher densities mean more tax dollars per square foot, a double bonus since it also costs less to provide services to dense cities than to less dense suburbs. Cities are investing in high quality housing, parks and public art in an attempt to draw residents "back" to their downtowns. Where municipalities are dependent on property tax revenue, there is added incentive to focus on attracting middle and upper class residents (who own more valuable homes), and to support home ownership (Rose, 2004; Lichter, 2012). However, when cities pay attention to making downtowns great places to live, the free markets forces of supply and demand take over. As more people decide to move downtown, demand for downtown housing increases, which drives up prices. Without careful and thoughtful

policies to maintain sufficient affordable housing, inner city gentrification can end up pushing lower income residents to the periphery (Murphy, 2007; Walks, 2008; Ley & Dobson, 2008). In this sense, then, suburbanization of poverty can be seen as, at least partially, a side effect of inner city gentrification (Hulchanski, 2007).

However, would-be gentrifiers are selective. Gentrification generally occurs where housing has some architectural elements that are attractive to middle and higher income residents, or has proximity to desirable amenities, such as a waterfront, attractive parkland, high quality public transit or existing affluent or socially elite areas (Hulchanski, 2007; Walks, 2008). Areas that lack these style and convenience features, sometimes called "landscapes of distinction", are less likely to be gentrified.


*Potential Reinvestment in Dartmouth*

While some inner cities are seeing renewal and gentrification, it is often the case that older, more dense suburbs located close to the city centre suffer from the same aging housing and amenities that city centres are struggling with, but without the surge of new investment from gentrifiers. If this housing is close to the kinds of amenities gentrifiers look for, it may get its turn for reinvestment; however, since these inner and middle ring suburbs are by definition less close to most workplaces, a key thing gentrifiers seem to look for, gentrification in these area is less pervasive. Older suburbs located closer to the city centre often provide less expensive housing that attracts less affluent residents (Hulchanski, 2007; Randolph, 2002).

### *Other Causes of Suburban Poverty*

While some scholars argue that lower income residents moving there are making suburbs poor, others have noticed that some suburban poor households have fallen from the middle class; they have *become* poor while living in the suburbs. This happens when *capital* leaves the suburbs, for example when banks and other kinds of investors focus on new areas of growth, and their willingness to lend money for housing and improvements on housing in older suburbs declines (Smith & Wyly, 2001; Murphy, 2007). Some studies have concluded that capital investment declines when a neighbourhood is no longer able to attract more affluent residents because of deficiencies in its physical or social environment (Fong & Shibuya, 2003; Smith & Wyly, 2001).

In many cities, the loss of high paying manufacturing jobs meant that many middle income residents had to replace their lost manufacturing jobs with lower paying jobs in the service sector (Dreier, 2004; Garr & Kneebone, 2010), which drove their income down and made them more vulnerable to poverty. This phenomenon was aggravated when those new service jobs were located in decentralized suburban areas, which made it even more difficult for poor workers to live and work in a downtown (Lee, 2011). Because many suburbs are physically isolated from large employment centres, with poor public transit connections that require the use of a private vehicle, especially for families and workers with non-standard work hours, it is especially difficult for vulnerable suburban residents to recover from an economically traumatic event such as lost employment. Jones et al (2007) concluded that deficiencies in the schedules and routes of public transportation have a negative impact on the employment options and success of

poor and chronically unemployed residents by making it difficult to rely on public transportation to get to work. This effect was magnified for residents who must maintain complex travel schedules by chaining multiple trip segments to, for example, attend more than one job or pick up children from school or child care (Jones et al, 2007).

## Deficiencies in the studies

Suburbanization of poverty happens in different cities in different ways. In some cases, the trend toward suburbanization of poverty is subtle; in others, it is dramatic. Since every city has a unique income distribution pattern, it is critical to examine actual income distribution data specific to individual cities. It is not possible to extrapolate that suburbanization of poverty is or is not happening in a particular city based on data from a different city. Similarly, whether suburbanization of poverty occurs in any given city is a result of a distinctive mixture of triggers. Researchers need to examine local income distribution data to attempt to identify causes on a local level.

Several studies have concluded that the trend toward suburbanization of poverty is accelerating; in the United States, data from the 1990 and 2000 censuses showed marked increases in suburban poverty, particularly in middle ring suburbs. However, any of the studies discussed above (e.g. Madden, 2003) did not use the most recent census data. This decreases the reliability of their conclusions and leaves unanswered questions about whether the trends the studies identified continue. These studies need to be updated with current data.

This study uses the most recent available Census data to understand whether suburbanization of poverty is happening in the Halifax Census Metropolitan Area. The

Halifax Census Metropolitan Area includes the downtown areas of Halifax and Dartmouth, and also a large area of suburban, exurban and rural territory (see map in the attached Appendix).

## Halifax Census Metropolitan Area

Halifax is the largest city in Atlantic Canada, with a population reported in the 2011 National Housing Survey of 384, 540 (University of Toronto, 2013). The entire province of Nova Scotia includes a population of 906, 175 (University of Toronto, 2013), so the Halifax CMA represents 42.4% of the population of the Province of Nova Scotia. This characterizes Halifax as a mid-size city, comparable in size to Victoria, British Columbia (population 344, 615 (Wikipedia, 2013).

However, Halifax acts not only as a provincial capital, but also as a regional capital, and has a high rate of public-sector employment. As Table 1., below, shows, of the top ten employers in Halifax, seven are public-sector employers.

**Table 1 Largest Employers in the Halifax CMA (Greater Halifax Partnership, n.d.)**

| **Name of Employer** | **Number of Employees** |
|---|---|
| Department of National Defence | 9000+ |
| Other Federal Government | 9000+ |
| Provincial Government | 3000+ |

| **Name of Employer** | **Number of Employees** |
|---|---|
| Municipal Government | 3000+ |
| QEII Health Science Centre | 6000-7000 |
| Dalhousie University | 3000-4000 |
| IWK/Grace Health Centre | 2500-4000 |
| Atlantic Wholesalers Inc. | 2000-3000 |
| Bell Aliant | 2000-3000 |
| Casino Nova Scotia | 1000-1500 |

During the Second World War, Halifax functioned as an important transportation hub; goods arrived by ship and train to join the convoys across the Atlantic Ocean to supply Canadian and Allied troops in Europe. This meant a significant increase in Halifax's population as military and civilian support workers were posted to Halifax, which required a significant amount of new housing to be built on short order. The response was to build small, detached houses on relatively large lots in less expensive suburban areas of the city. Since the war, these smaller houses have provided important housing stock for working class families. Significant pockets of wartime housing remain in Halifax's and

Dartmouth's North Ends.

Historically, the City of Dartmouth had its own downtown, and a popular ferry transported Dartmouth residents to the Halifax side of the Halifax Harbour. In the 1950s, the Macdonald Bridge was built, which connected the two sides of the Harbour by car for the first time. This meant that it was easier and faster for Dartmouth residents to get into Halifax for employment, and also meant that Dartmouth suburbs grew rapidly to accommodate Halifax workers. In 1996, the cities of Dartmouth, Bedford and Halifax and the County of Halifax (which included many smaller towns adjacent to these cities) were amalgamated into the Halifax Regional Municipality (HRM) (Statistics Canada, 2008).

## *Methods*

This study analyzed Statistics Canada Census and National Housing Survey data using descriptive statistical techniques to determine whether suburbanization of poverty is occurring in Halifax, Nova Scotia.

### Identifying "Suburban" neighbourhoods

The study used previously collected housing and population data to establish zones or rings of similar development throughout Halifax, similar to the method employed by Lee (2011). In Lee (2011), researchers divided the city of Atlanta, Georgia, into rings or zones of similar development based on the age of the dominant housing and physical continuity (Lee, 2011). This system of classification is based on an Urban Tier System and the assumption that cities develop in more or less concentric rings around an older

inner city, with the newest development characteristically occurring in the outermost ring.

For the current study, common zones were assigned one of five designations based on housing density, dominant housing age, land use and proximity to the Halifax downtown. Therefore, for example, housing in type A suburbs is both older and more dense than housing in suburb types B-D, and less old and dense than housing in the Downtown. Since the suburban types were defined using several variables, and because the resulting categories do not take the precise concentric form Lee identified in her research, for the purposes of this study the suburban categories are described as "Downtown" and suburb types A-D. Suburb type A is the suburban area located most closely to the Halifax downtown. Suburb type D is the largely rural area that surrounds the Halifax CMA.

**Table 2 Description of Suburban Categories**

| **Label** | **Descriptor 1** | **Descriptor 2** |
|---|---|---|
| Downtown | Downtown | Oldest housing (prewar and some immediately postwar) and highest population density. Some newer development and land use typical of a downtown. Highest commercial, business and multifamily residential uses. |
| Suburb A | Inner Suburb | Postwar housing. High population density. Largely continuous with Downtown. Higher percentage of detached housing. Moderate commercial use. |

| | | |
|---|---|---|
| Suburb B | Middle suburb | Newer housing (1960s-1970s). Moderate population density. More distant from Downtown. High percentage of single detached housing. Less commercial use. |
| Suburb C | Outer suburb | Newest housing (1980s-2000s). Lower population density. Very high percentage of single detached housing. Less commercial use. |
| Suburb D | Rural suburb | Older rural housing mixed with newer exurban development. Very low population density. Very high percentage of single detached housing. Most distant from Downtown. |

As there were some changes to census tract boundaries between the 1981 and 2011 study time frame, the study placed each piece of land in the same suburban category in each of the seven census years in the study period. Changes to census tract boundaries typically occurred when Statistics Canada split a census tract, so ensuring this consistency was accomplished by including the original census tract and its subsequent splits in the same suburban category. A map of the suburban categories is provided as Figure 4, below.

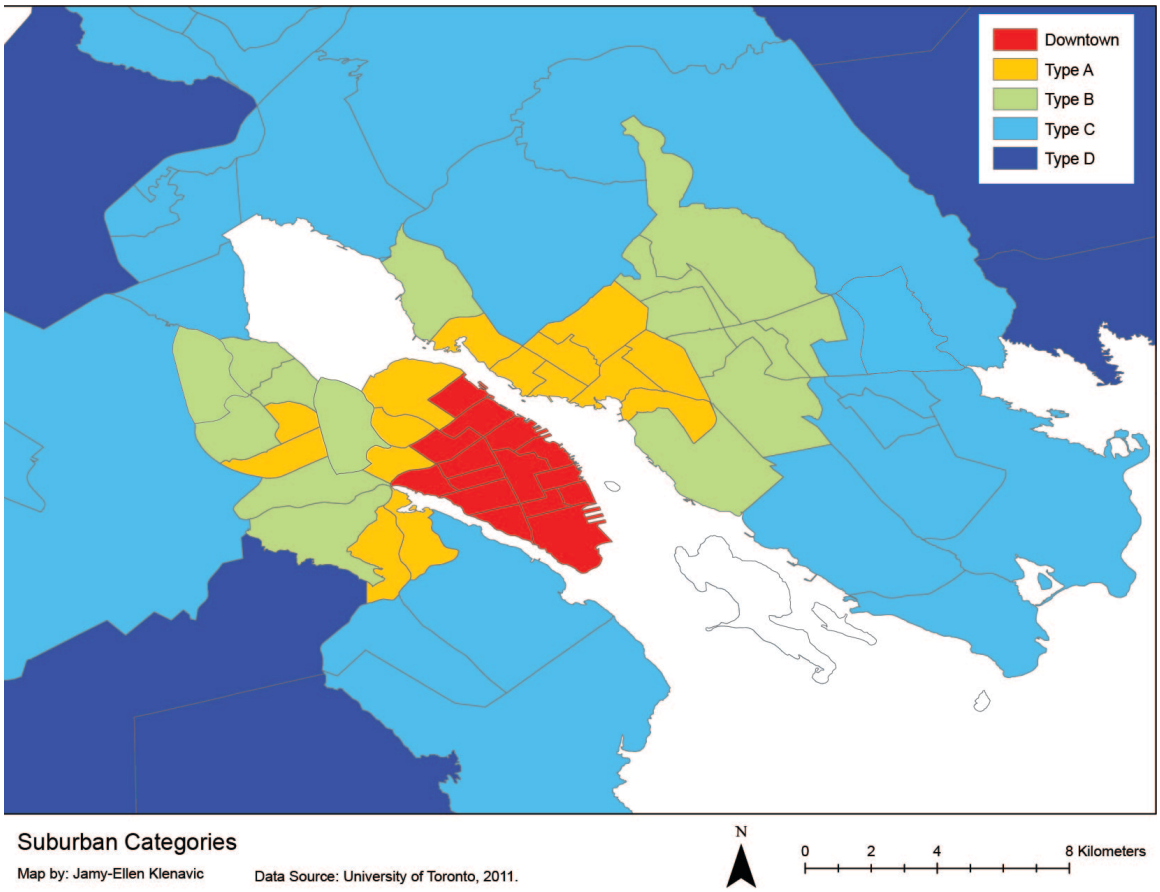


**Figure 4 Map of Suburban Categories**

## Working definition of Poverty

Living in poverty means having an income that falls below a level that makes it possible for individuals and families to reliably meet their needs. Poverty also has social costs; living with an income that does not allow individuals and families to meet socially accepted norms can cause stress, embarrassment and an inability to fully participate in civil society. Living in neighbourhoods with high rates of poverty has been shown to have an effect on children's mental health and their ability to take advantage of available educational opportunities (Ross, 2001).

In Canada, poverty is typically measured using one or more of three methods: the Low

Income Cut-Off (LICO), which is described in either before tax or after tax terms, the Low Income Measure (LIM), or the Market Basket measure. All of these are relative poverty measures; they describe poverty in relation to the spending power of other, more affluent Canadians. However, for the purposes of this study, the LICO and LIM are taken as absolute measures of poverty by describing Canadians with incomes below these levels as "living in poverty".[1]

### *Low Income Cut-Off*

The LICO is established every four years by Statistics Canada, and updated every year with inflation information from the Consumer Price Index. It defines a level of income below which a family is considered to be in "straightened" circumstances because it has to spend a higher proportion of its income on basic housing, clothing and nutritional needs compared to an average Canadian family of similar size living in a similarly sized community (Canadian Encyclopedia, 2012).

Statistics Canada describes a before and after tax LICO for seven different kinds of families (from unattached individuals up to families of 7 or more people) and five sizes of community (Province of Nova Scotia, n.d.).

### *Low Income Measure*

The LIM is defined as half the national median income for an equivalently sized household; the LIM does not vary based on where the individual or family is living and is scaled to family size. Statistics Canada uses annual data from the Survey of Income and

[1] The Market Basket Measure is not used in this study.

Labour Dynamics to calculate the Low Income Measure (Statistics Canada, 2013). The LIM is the most common measure used for international comparisons of poverty levels.

### *Market Basket Measure*

The Market Basket measure considers the social exclusion that can result from poverty, and describes household poverty as not being able to afford a market basket of goods that would allow an individual or family to afford a lifestyle that approaches "creditable community norms." Therefore, the market basket method provides for more than a bare physical subsistence (Province of Nova Scotia, n.d.).

### *Data Inconsistencies*

In the census and National Household Survey, Statistics Canada collects data on the number of Canadians living below a defined poverty level. In 1981, 1986, 1991, 1996, 2001 and 2006 Statistics Canada measured poverty based on the Low Income Cut Off (after tax). In 2011, Statistics Canada changed the way it defined poverty, and started to use the Low Income Measure. The change in poverty definitions is a problem, and makes it difficult to make comparisons between data from the 2011 National Housing Survey and pre-2011 Census data. This is particularly true since real median income has decreased in Canada over the past decade, which means that using the LIM method should report a lower percentage of Canadians living in poverty compared to the LICO. To get around this problem and allow for longitudinal comparisons, this study used a Prevalence of Low Income Location Quotient (POLI LQ) measure, which is described more fully below.

## Income Analysis

### *Prevalence of low income comparison*

Prevalence of low income (POLI) is a calculation performed by Statistics Canada and included in reported Census and NHS data. POLI refers to the number of individuals living below an established poverty line (either the Low Income Cutoff (before 2011) or the Low Income Measure (after 2011) divided by the total number of people in a census tract, multiplied by 100 to obtain a percentage of people living in low income in a specific census tract. This study calculated the average individual prevalence of low income using census tract level data in each suburban category, and compared this number to the average prevalence of low income values to average individual POLI values in other suburban categories. Because Statistics Canada changed its definition of "low income" in 2011, it is not possible to use the raw Prevalence of Low Income data to show historical trends of low income distribution in each of the categories over time.

### *Prevalence of low income location quotient*

Because the overall Prevalence of Low Income in the Halifax CMA changes over time, and to reduce any discrepancies caused by Statistics Canada's decision to change how it defines "low income" in 2011, this study calculated a Location Quotient Prevalence of Low Income by using the following formula, taken from Séguin, Apparicio & Riva, 2012:

$LQ= (x_i/t_i)/(X/T)$

Where:

$x_i$ = low-income population in the census tract;

$t_i$= total population in the census tract;

X= low-income population in the CMA;

T = total population in the CMA

The LQ formula can also be expressed as:

POLI Census Tract (%)/POLI Halifax CMA (%)

LQ therefore compares the percentage of people in a given census tract living in low income to the percentage of people in the entire Halifax CMA living in low income in each specific census year. A higher POLI LQ value indicates a higher prevalence of low income in that category, compared to the CMA average POLI LQ. For example, a POLI LQ value of 2.0 indicates a POLI rate of twice the CMA average.

### *GIS average POLI data mapping at the census tract level through time*

Calculated average individual Prevalence of Low Income at the Census Tract level in 2006 and 2011 were mapped using GIS (Geographic Information Systems) to provide a spatial understanding of how POLI varied throughout Halifax between 2006 and 2011.

## Indicators of Poverty

Seven established indicators of poverty were also tracked at the suburban category level using census tract level data. These indicators were:

- Percentage of lone parent families related to total population in the census tract;

- Percentage of individuals with secondary school graduation level of education or less;
- Rate of unemployment;
- Percentage renters;
- Percentage visible minorities;
- Percentage of housing in the census tract needing major repairs;
- Value of housing

The first five indicators frequently coincide with higher levels of poverty (Séguin, Apparicio & Riva, 2012; Walks 2006). High levels of lone parents, residents with low educational attainment, unemployment, visible minorities or renters can signal that higher levels of poverty may develop in the future, even in areas where that trend is not evident from income data alone.

Proportion of housing needing major repairs and value of housing were studied because these factors can help explain any income distribution trends identified in the other data. Lower income individuals and families will typically migrate to areas with cheaper housing. That housing in a specific census tract is frequently in need of repair can help explain why it is more affordable than comparable housing in other parts of the CMA.

Since housing age and population density were two of the factors used to establish the suburban categories used in this study, they are not examined in the context of explaining or analyzing suburbanization of poverty in Halifax.

## Problems with the data[2]

In 2011, the Parliament of Canada changed how Statistics Canada administered the Census by replacing the long-form mandatory census with a voluntary National Housing Survey (NHS). Until 2011, individuals selected to fill in the long form census were required to do so. In 2011, Statistics Canada began offering the voluntary National Housing Survey in the place of the previous mandatory census. This had significant consequences for the reliability of the data reported from the 2011 NHS. Since the survey was voluntary, the data are not random and, therefore, biased.

Statistics Canada tracks the NHS response rate, and reports the Global Non-Response Rate (GNR) for each Census Metropolitan Area. The Global Non-Response Rate includes full non response at the household level and partial non response at the individual question level. For the Halifax CMA, Statistics Canada reported a GNR of 24.9% (Statistics Canada (2), 2013). To put that number into context, Statistics Canada suppresses the data resulting from an area with a 50% or higher GNR. This indicates that the Halifax CMA showed a moderate level of non-response to the NHS, which correlates to a moderate risk of non-response bias in the data collected from the National Housing Survey.

Unfortunately, since current research indicates that the trend toward increasing poverty in

[2] Note: The 2011 definition of "low income" uses the Low Income Measure, which is calculated at the national level from data independent of the NHS. Therefore, the definition of "low income" applied to the income data is accurate and not skewed because of the likely higher non-response rate in the Downtown category. However, the risk of non-response bias skewing the income analysis in all categories remains substantial.

American suburbs is very recent, it is critical that this study use the most recent data. It is not possible to rely only on 2006 Census data since most studies identify the trend toward suburbanization of poverty as having strengthened after 2006. To mitigate the effects of the biased 2011 NSH data, this study compared Average Individual Income from 2011 income tax data to Average Individual Income reported in the 2011 NHS, to obtain a baseline understanding of the NHS data's bias.

The result of this comparison, reported in Figure 5 below, show that the difference between income tax and NHS data was greatest in the Downtown category, with the NHS reporting Average Individual Income as only 89.8% of the Average Individual Income reported in the income tax data.

**Table 3 Comparison of Income Reported by Income Tax and National Household Survey Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **Percent**[3] | 97.51 | 99.13 | 96.06 | 97.22 | 89.84 | 95.95 |
| **Difference**[4] | 1160.08 | 267.38 | 1565.72 | 997.12 | 6051.84 | 2008.43 |

In the Downtown category, Census Tract 9 reported NHS income that was the highest in relation to Income Tax income (see Figure 6, below). In Census Tract 9, data from the NHS indicate average total household income as 122% of average Income Tax income, or more that $25,000 a year higher. In contrast, Census Tract 3 (see Figure 7, below) reported NHS average total income that was only 59% of Income Tax data, or more that $16,000 a year less than average income as reported by Income Tax data. This suggests that in Census Tract 9, individuals with *lower* income were *less* likely to complete the National Household Survey than were individuals with higher income. This trend was

[3] ((NHS Income/CRA Income) x 100)
[4] (CRA Income – NHS Income)

reversed in Census Tract 3, where individuals with *higher* income were *less* likely to complete the National Household Survey than were individuals with lower income. These differences illustrate the high degree of unpredictability and, therefore, unreliability of data collected from the voluntary National Household Survey.

For the purposes of this study, this comparison illustrates that NHS income data relating to the Downtown category are less reliable than data relating to any of the suburban categories. Actual average income in the Downtown category is probably higher than what was reported by NHS data, while NHS income data relating to the suburban categories are more accurate. Since this study requires a comparison of average income between suburban different categories and the Downtown, these inconsistencies make it difficult to correctly understand how income distribution is changing over time.

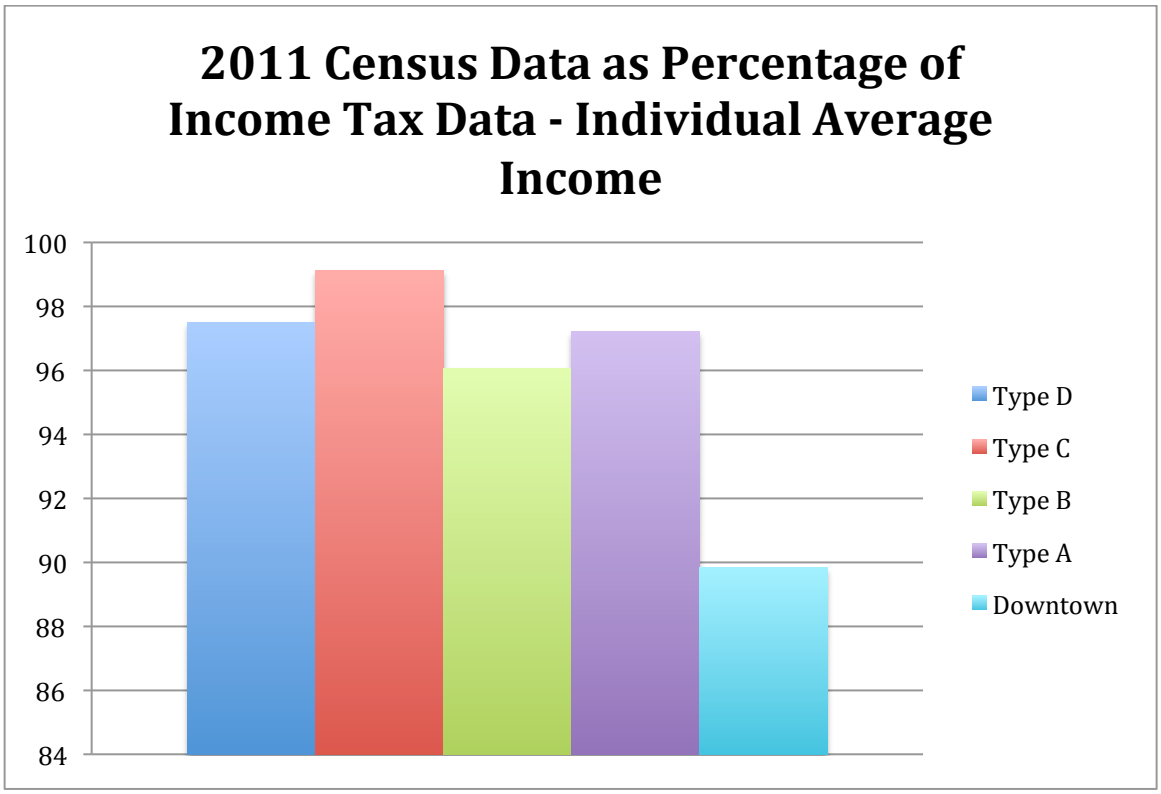


**Figure 5 Comparison of Income Data from Canada Revenue Agency and Income Data from National Household Survey**

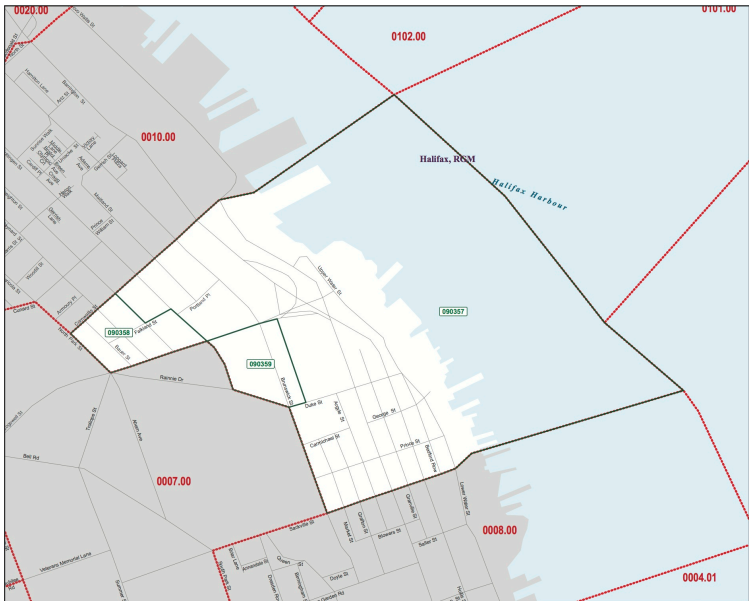


**Figure 6 Map Census Tract 9 (Statistics Canada (2), 2006)**

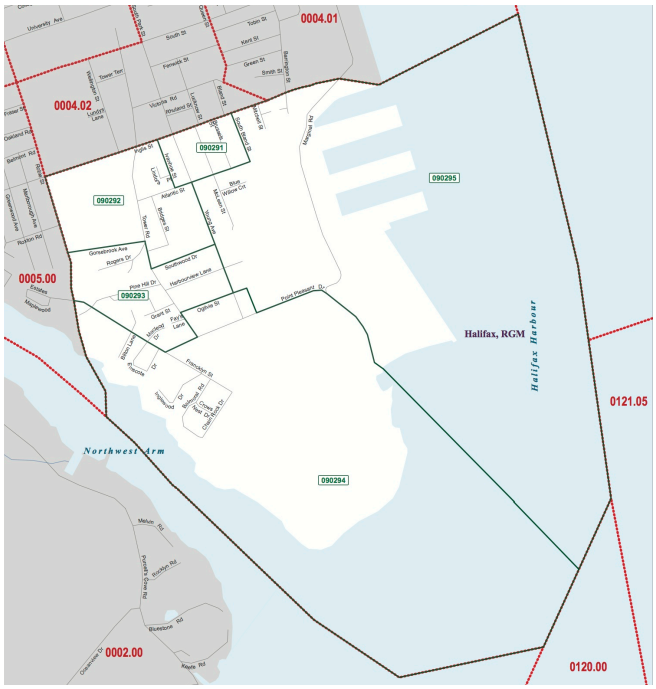


**Figure 7 Map Census Tract 3 (Statistics Canada (2), 2006)**

## *Results*

### Prevalence of Low Income

The data indicate that suburbanization of poverty is occurring in Halifax.

**Table 4 Raw Average Prevalence of Low Income (%) - Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 13.7 | 14.79 | 12.18 | 21.43 | 25.48 | 17.516 |
| **1986** | 10.23 | 12.11 | 9.82 | 17.88 | 19.23 | 13.854 |
| **1991** | 8.04 | 10.85 | 11.18 | 19.01 | 21.37 | 14.09 |
| **1996** | 9.81 | 14.57 | 16.66 | 26.18 | 25.63 | 18.57 |
| **2001** | 9.7 | 11.13 | 16.3 | 23.72 | 25.04 | 17.178 |
| **2006** | 4.9 | 7.86 | 12.31 | 16.26 | 21.39 | 12.544 |
| **2011** | 11.81 | 11.35 | 15.05 | 21.73 | 19.67 | 15.922 |

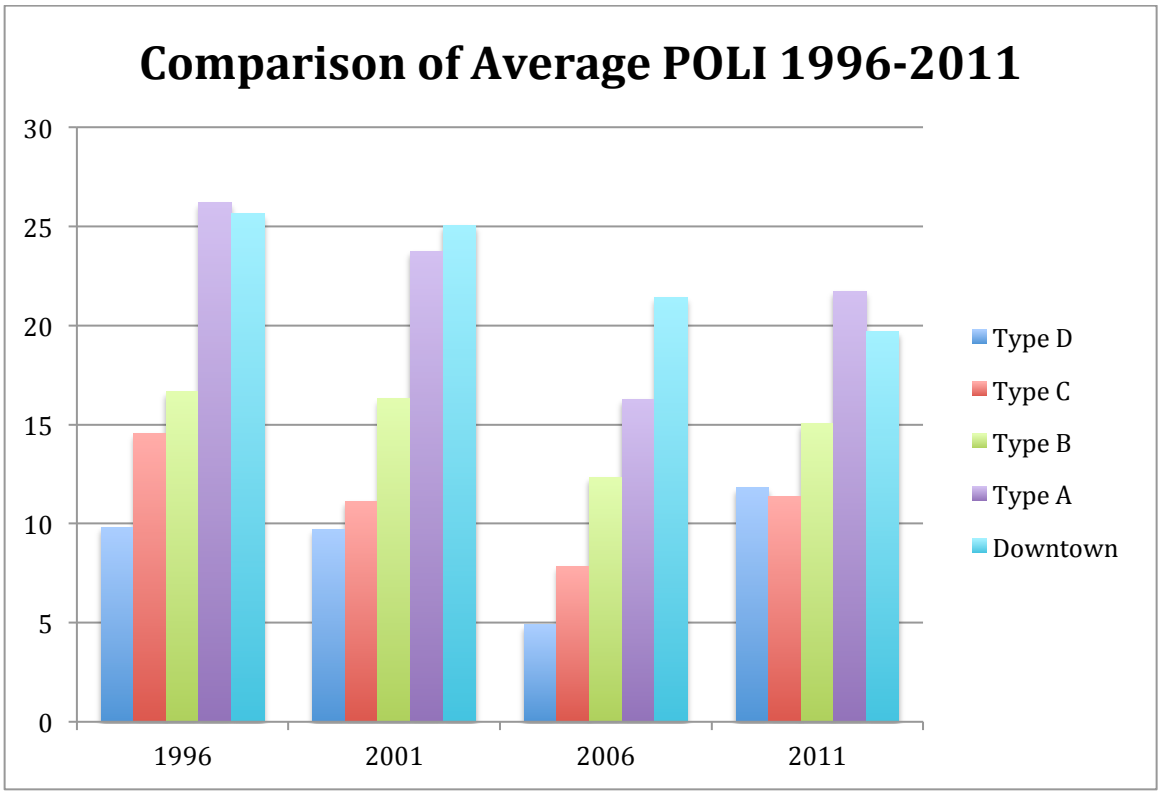


**Figure 8 Comparison of Raw Prevalence of Low Income**

In 2011, raw Prevalence of Low Income data show the average percentage of low income residents in a suburban category (Type A) overtaking the average percentage of low income residents in the Downtown category for the first time since 1996.

## Prevalence of Low Income Location Quotient

The Location Quotient analysis of Prevalence of Low Income data from 2011 shows a big decrease in POLI LQ in the Downtown category relative to the CMA average value after several years of increase. [5]

[5] The reported 2011 National Housing Survey data exclude POLI values for Census Tracts 8.00 and 4.01, both in the Downtown category. Since these CTs recorded comparatively high POLI LQ values in 2006 (2.64 and 2.74 respectively) the average POLI LQ value for the Downtown category may be reported as lower than the actual value.

Table 5 Average Prevalence of Low Income Location Quotient (%) - Data

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 0.75 | 0.80 | 0.66 | 1.17 | 1.39 | 0.95 |
| **1986** | 0.72 | 0.85 | 0.69 | 1.22 | 1.35 | 0.97 |
| **1991** | 0.56 | 0.75 | 0.77 | 1.31 | 1.48 | 0.97 |
| **1996** | 0.52 | 0.77 | 0.88 | 1.38 | 1.35 | 0.98 |
| **2001** | 0.59 | 0.68 | 0.99 | 1.44 | 1.52 | 1.04 |
| **2006** | 0.41 | 0.65 | 1.02 | 1.35 | 1.78 | 1.04 |
| **2011** | 0.77 | 0.74 | 0.98 | 1.42 | 1.29 | 1.04 |

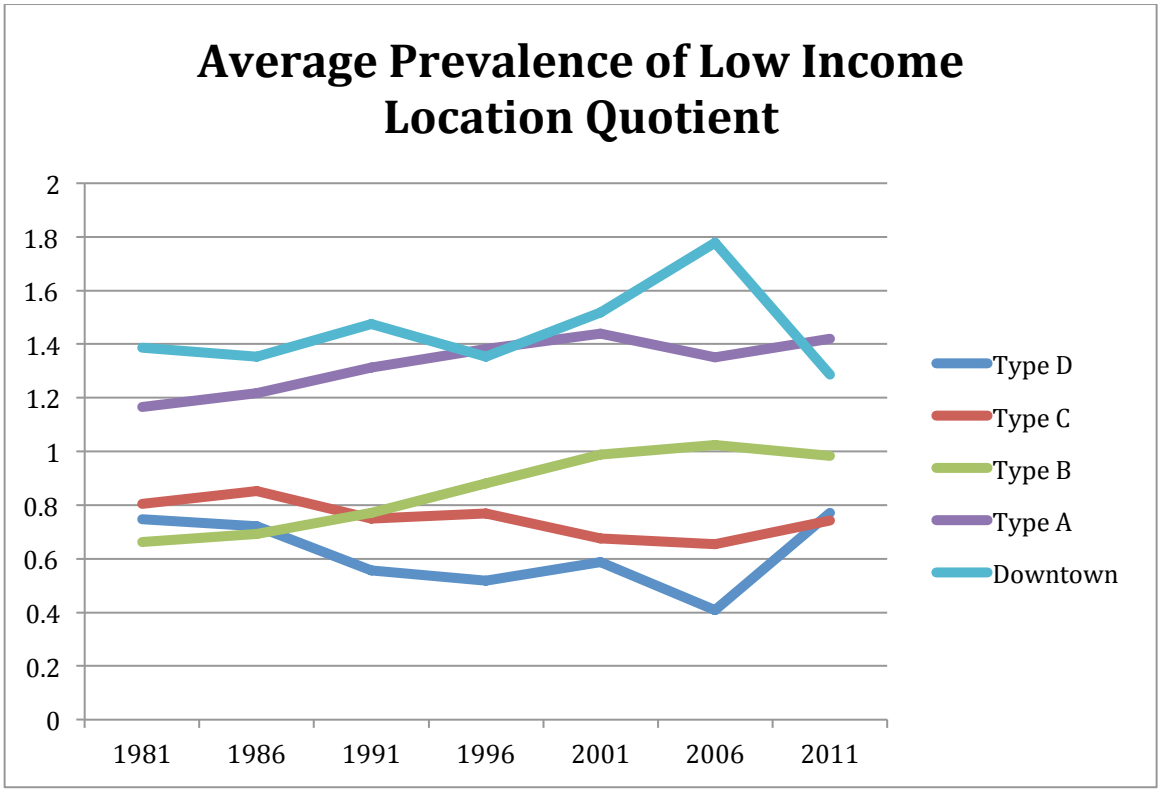


Figure 9 Comparison of Prevalence of Low Income Location Quotient

Note that the type B suburb showed a small decrease in its POLI LQ value indicating a decreasing average POLI value relative to the average POLI value for the Halifax CMA. Average POLI LQ increased in every other suburb category (types A, C and D) between 2006 and 2011.

The following maps show how the distribution of poverty in the Halifax CMA has changed between 2006 and 2011, at the census tract level. The maps show the trend of increasing POLI LQ in the suburban categories, but also show a higher number of Downtown census tracts reporting a moderate level of POLI LQ. To put these numbers into context, the average raw POLI value for all census tracts in the Halifax CMA is 15.29%. Therefore, to fit into the category with the highest Prevalence of Low Income (the five census tracts in the darkest blue on the 2011 map), the census tract would have to report a raw POLI value of between 30.73% and 41.74%. To fit into the category with the lowest Prevalence of Low Income (the darkest green on the map), the census tract would have to report a raw POLI value of between 0% and 5.35%. The differences between these two extreme represent significant income polarization and concentration of poverty in the Halifax CMA.

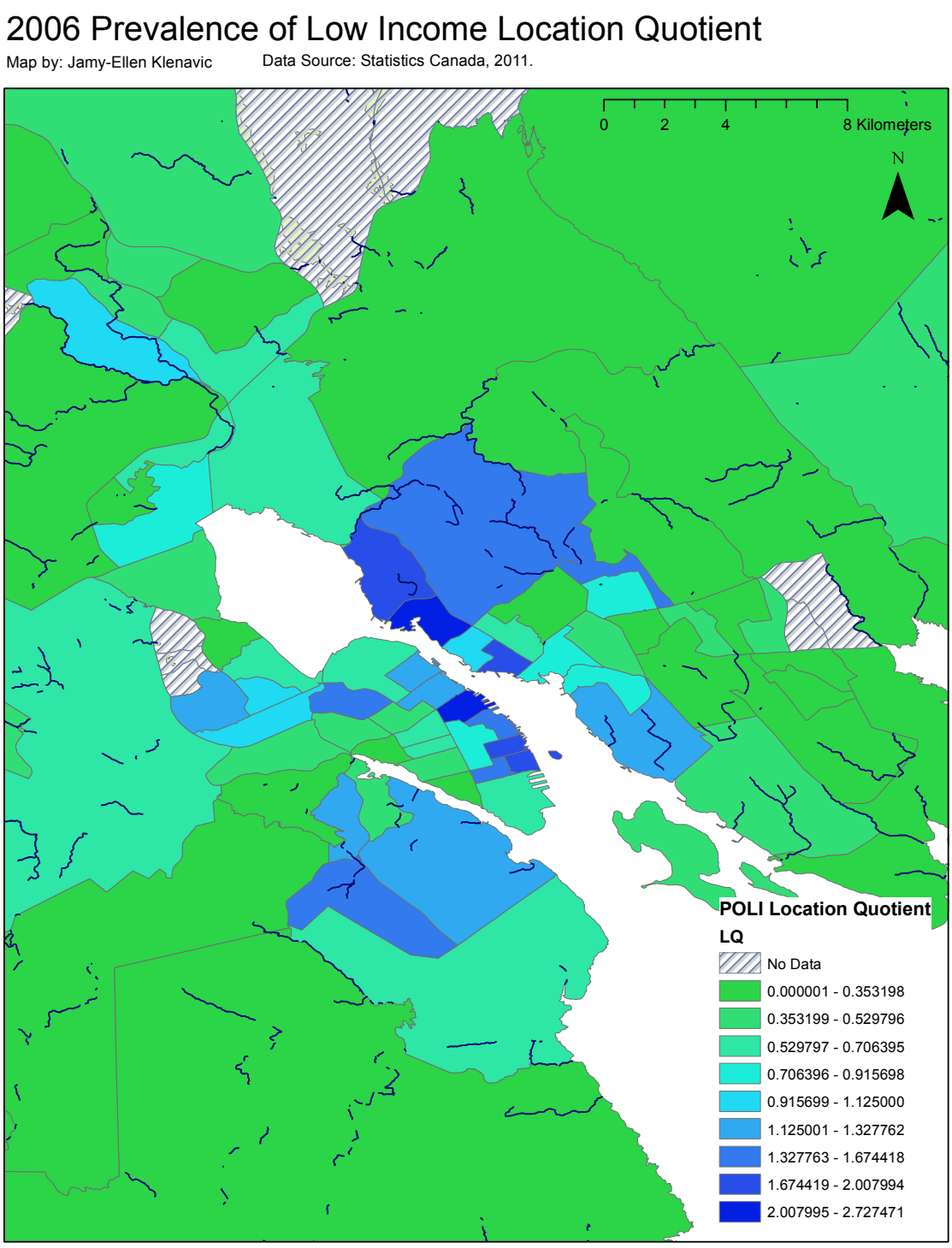


**Figure 10 Map of Prevalence of Low Income Location Quotient, 2006**

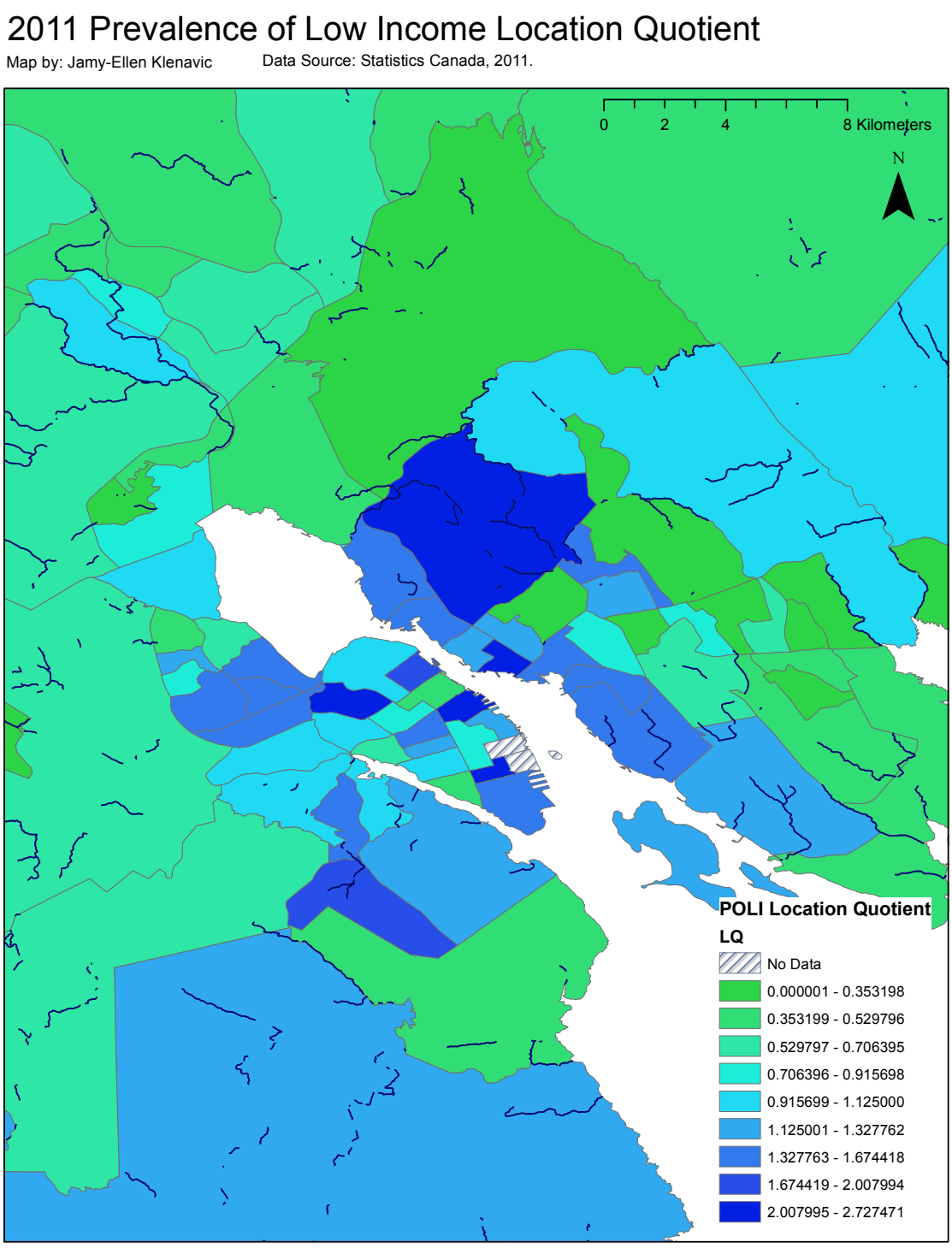


**Figure 11 Map of Prevalence of Low Income Location Quotient, 2011**

## *What is causing suburbanization of poverty in Halifax?*

### Dominant Housing Age

Starting in 2011, Statistics Canada data indicate that Housing in type A suburbs is the least expensive housing in the Halifax CMA. This no doubt attracts lower income residents looking for affordable housing to the type A suburbs.

**Table 6 Average Value of Housing - Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 47332.00 | 55557.07 | 67657.62 | 58016.07 | 80893.00 | 61891.15 |
| **1986** | 70952.89 | 83876.64 | 99639.21 | 87521.71 | 137242.40 | 95846.57 |
| **1991** | 92290.44 | 103450.00 | 116143.64 | 106793.57 | 166146.67 | 116964.87 |
| **1996** | 103710.22 | 110133.57 | 116021.93 | 109210.71 | 162581.53 | 120331.59 |
| **2001** | 115928.15 | 129182.41 | 139284.56 | 120727.50 | 214981.67 | 144020.86 |
| **2006** | 194018.27 | 201271.74 | 215907.20 | 195741.07 | 343852.20 | 230158.10 |
| **2011** | 256320.88 | 254004.07 | 265289.35 | 242998.07 | 436159.69 | 290954.41 |

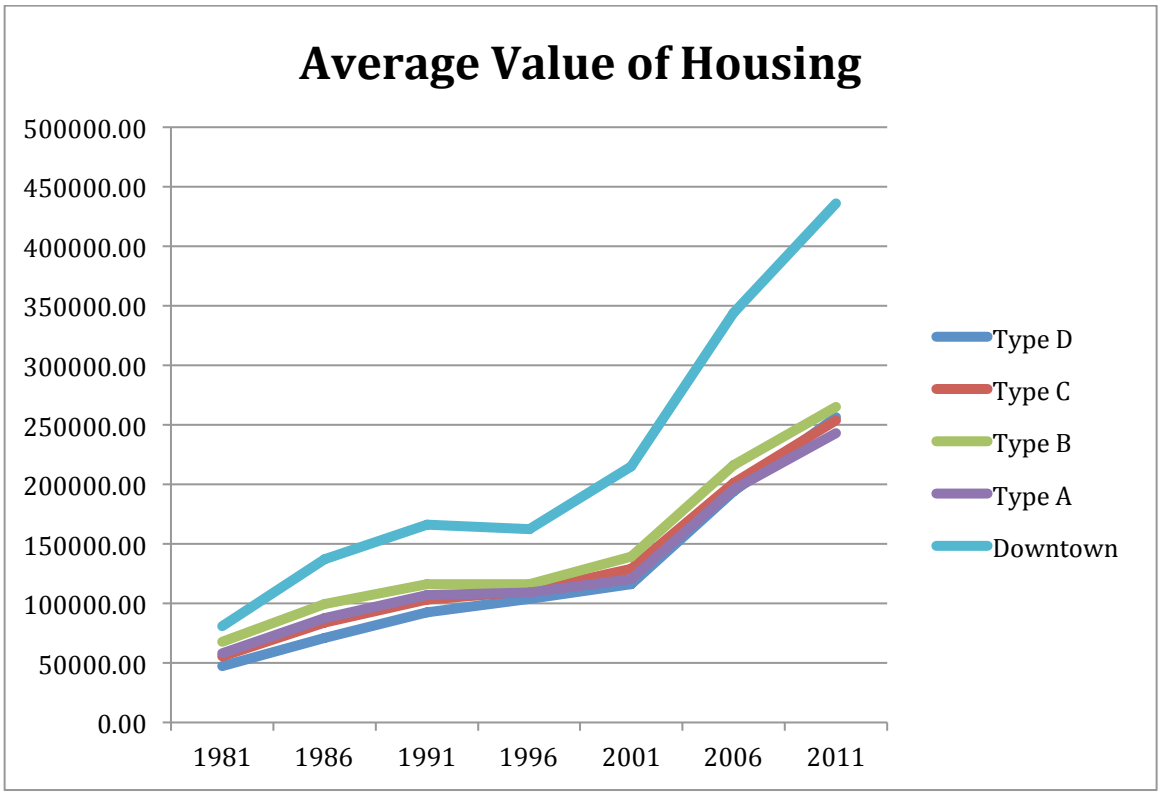


**Figure 12 Comparison of Average Value of Housing**

Average housing in the Downtown category costs 127% more than average housing in the type A category; the cost of housing in the Downtown category is also increasing at a rate that is much faster than in any other category.

Notably, the price of housing is increasing faster in type A than in type B, which could mean that type B suburbs will soon include the cheapest housing in the Halifax CMA, pushing poor residents even further from the Downtown.

The prominent housing vernacular in the type A suburb includes low-rise apartment buildings and small, architecturally simple single post-war detached houses. This is not typically the type of housing that attracts investment from more affluent residents, who tend to prefer larger homes with some architectural interest. Larger lot sizes common in

the type A suburbs generate a sufficiently low density that amenities are too far away to be much of an attraction to would-be gentrifiers (Ley & Dobson, 2008).

*Low rise apartment in Suburb Type A*

Neighbourhoods cycle through predictable periods of decline and renewal based largely on their dominant housing age (Rosenthal 2007). Higher income families tend to move away from neighbourhoods with lots of older housing, which decreases demand and improves affordability. Less affluent families can then move in. Generally, housing prices decline with the age of the housing until it is old enough to attract redevelopment (Rosenthal, 2007).

*Detached Housing, Suburb Type A*

Studies have shown that more affluent families are attracted to newer or redeveloped housing (Rosenthal 2007), which is decidedly lacking in the type A suburbs. This may explain why more affluent families choosing not to live downtown choose instead to live in higher order suburbs (e.g. types B-D), where the dominant housing age is lower and newer houses are more prevalent. This choice reduces demand for housing in the type A suburbs and drives housing prices down.

As shown in the map below, the dominant housing age in type A suburbs is middle aged: older than housing in other kinds of suburbs, but newer than most of the housing in the Downtown. Much of the housing in type A suburbs and the Downtown is over 40 years old; housing of that age is often in poor repair and of poor quality (Rosenthal 2007). Much of the housing in type A suburbs is old enough to require major repairs or renovations, but not old enough to attract the kind of redevelopment investment that could spark gentrification (Rosenthal, 2007). Housing that is older than middle aged is actually more likely to experience redevelopment and re-investment (Rosenthal 2007).

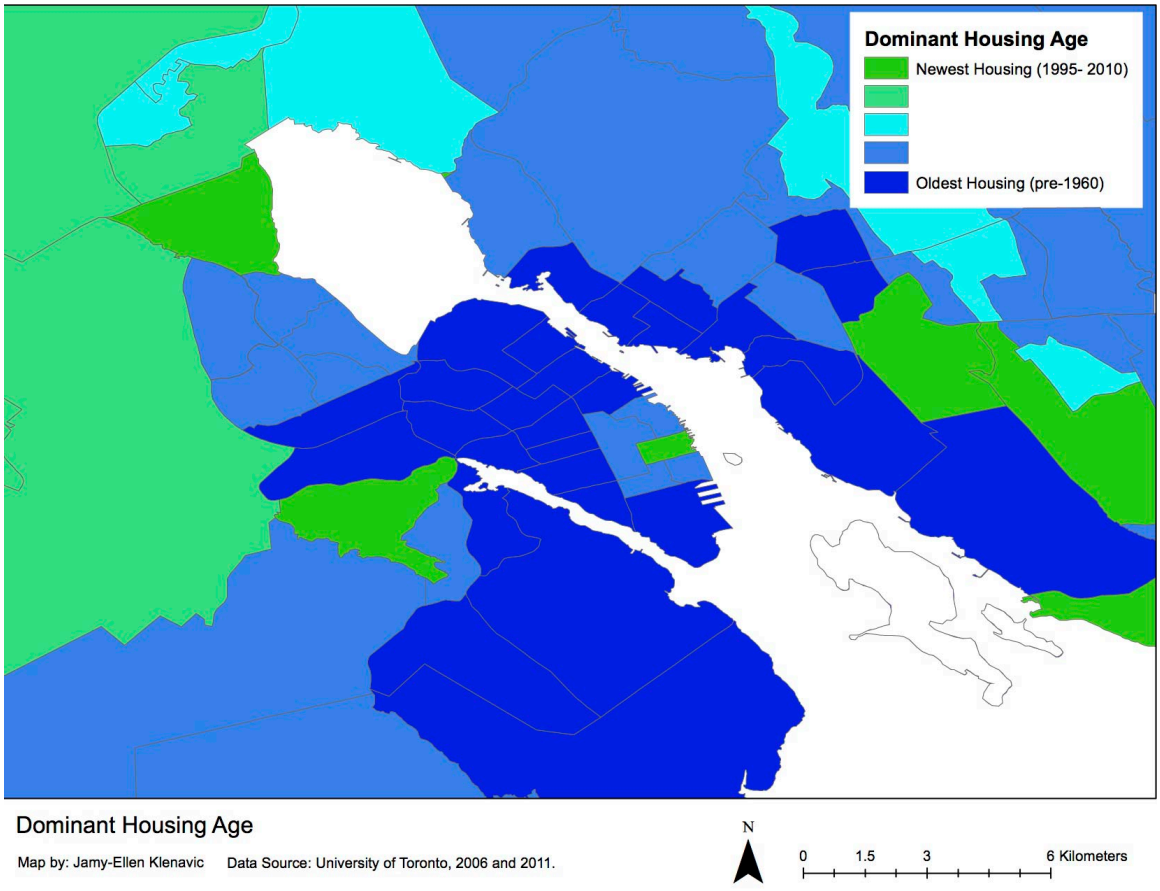


**Figure 13 Map of Dominant Housing Age**

However, Census and NHS data indicate that the percentage of housing in need of major

repair is slightly higher in the Downtown, where housing is, in general, the oldest in the city, than in the type A suburbs. Nevertheless, the rate of housing in need of major repairs in the type A suburbs is comparable to and only slightly less than the rate of housing in need of major repair in the Downtown. Both the Downtown and type A suburbs showed a significant increase in the percentage of housing in need of major repair between 2006 and 2011, which is not altogether unexpected considering the general increase in the rate of low income in those two categories between 2006 and 2011.

**Table 7 Percentage of Total Housing in Need of Major Repair - Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 9.16 | 4.65 | 4.14 | 6.46 | 7.01 | 6.28 |
| **1991** | 9.15 | 6.25 | 5.88 | 8.41 | 7.46 | 7.43 |
| **1996** | 9.59 | 6.67 | 5.87 | 6.68 | 7.75 | 7.31 |
| **2001** | 9.75 | 6.34 | 7.14 | 8.29 | 9.11 | 8.12 |
| **2006** | 7.49 | 5.73 | 6.86 | 7.85 | 7.80 | 7.15 |
| **2011** | 7.57 | 6.53 | 4.77 | 10.03 | 10.34 | 7.85 |

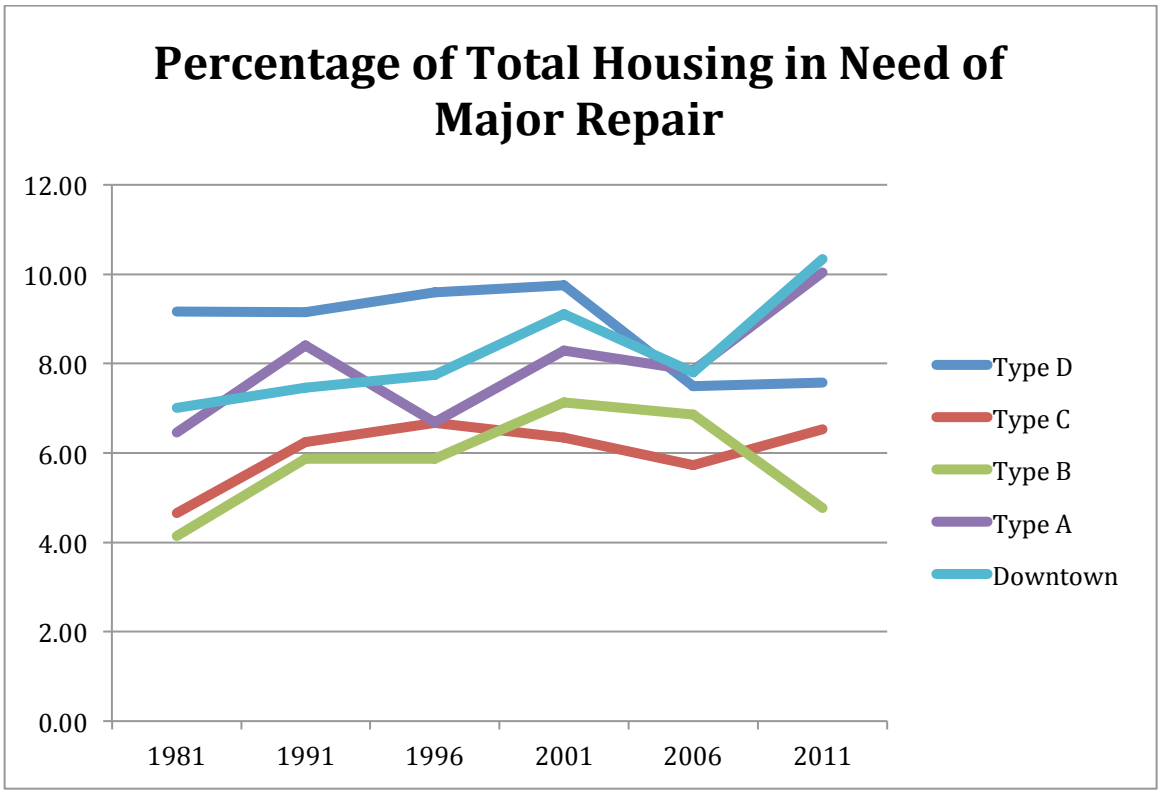


**Figure 14 Comparison of Percentage of Total Housing in Need of Major Repair**

## Rental housing

High availability of rental housing generally co-occurs with higher levels of poverty (Walks 2006). In 1999, Ontario homeowners enjoyed a median income that was more than twice that of renters. The wealth gap was even larger; in 1999, Ontario homeowners enjoyed median net worth *70 times* that of renters (Hulchanski, 2002).

Therefore, increasing access to home ownership can, in some cases, reduce poverty by facilitating the accumulation of wealth. In Canada, housing falls under the jurisdiction of provincial legislatures; however, the federal government has historically applied policies that favour home ownership and suburbanization, including mortgage subsidies and the construction of highways to facilitate transportation by private vehicles (Walks, 2004).

Reliance on rental housing can also make a household more vulnerable to rising housing values if rent controls are not in place, since landlords can quickly increase rents to take advantage of increased housing demand. However, many poor residents are not in a financial position to qualify for a traditional mortgage; therefore, maintaining a sufficient level of rental housing is one way to support housing affordability, particularly if rent control by-laws help regulate how quickly the cost of rental housing can increase.

In the Halifax CMA, the highest percentage of renters is located in the Downtown category, but the type A suburbs also include a high percentage of renters. There is a downward trend in the percentage of renters in the Downtown category, compared with an upward trend in the type A category, which may indicate that the type A suburbs will show the highest percentage of renters in the future. There is also an increase in the percentage of renters in the type B category, which could again foreshadow an increasing rate of poverty in that suburb type.

**Table 8 Renters as Percentage of Total Households- Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 10.68 | 29.07 | 39.60 | 55.35 | 64.21 | 39.78 |
| **1986** | 9.34 | 24.52 | 40.66 | 56.00 | 62.66 | 38.64 |
| **1991** | 9.48 | 25.13 | 43.45 | 58.13 | 63.96 | 40.03 |
| **1996** | 9.60 | 25.18 | 42.84 | 57.33 | 63.57 | 39.71 |
| **2001** | 8.93 | 23.54 | 42.23 | 56.14 | 61.92 | 38.55 |
| **2006** | 7.45 | 20.59 | 41.40 | 54.35 | 61.71 | 37.10 |
| **2011** | 6.80 | 21.91 | 43.76 | 56.83 | 59.39 | 37.74 |

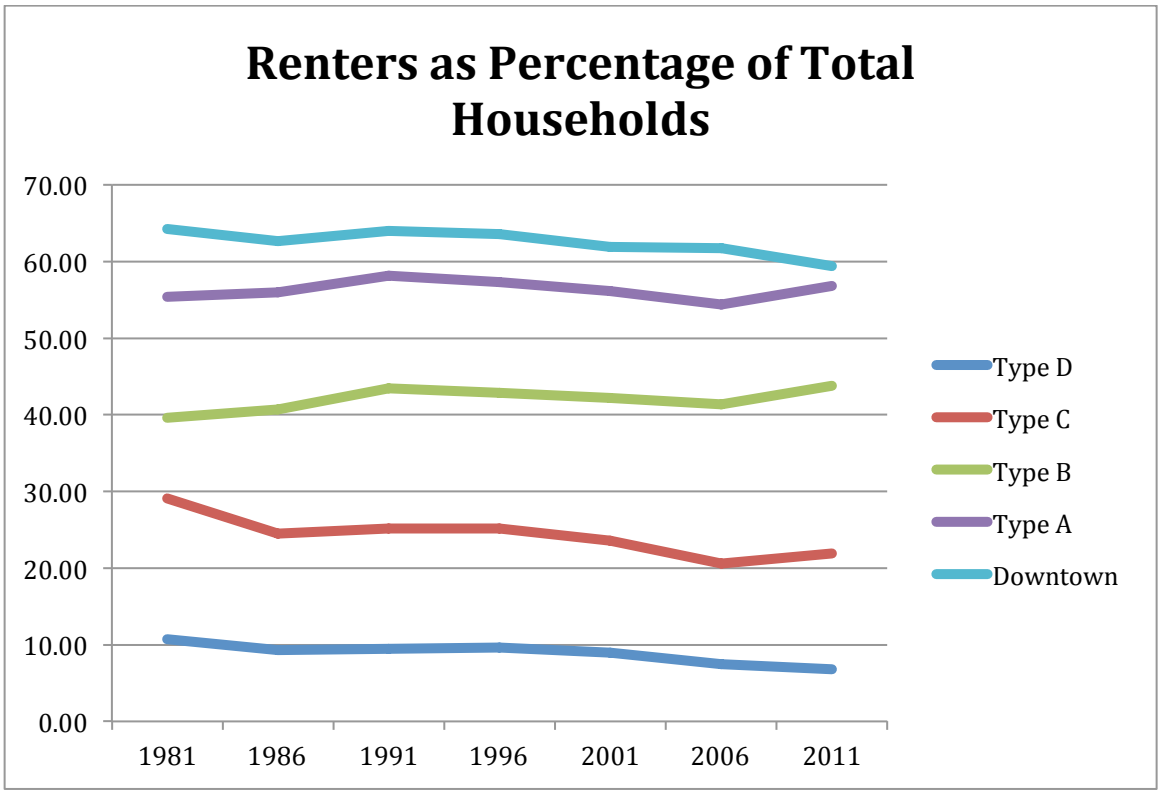


**Figure 15 Comparison of Renters as Percentage of Total Household**s

## Lack of Amenity

There are comparatively few of the kinds of amenities that gentrifiers look for in the type A suburbs. Specifically, gentrifiers are attracted to areas proximate to cultural, recreational and natural amenities. The largest park in the type A suburbs is the Dartmouth Common, otherwise known as the Leighton Dillman Park, shown the picture below. It is located in the Dartmouth urban core, and includes 300 acres of landscaped parkland (Wikipedia (2), 2013). The park is the subject of some redevelopment focus, but any attempt to improve the park is limited by the *Halifax Regional Municipality Act*, which limits how the Dartmouth Common can be re-developed. Other parks in the type A suburbs are small local parks, which would provide no significant attraction to more affluent residents. Contrast this with the significant natural and recreational amenities

provided by the Halifax Commons, the Halifax Public Gardens, both in the centre of the Downtown category, and Point Pleasant Park in the south end of the Halifax Peninsula.

*The Dartmouth Commons*

The suburb types B and C also include greater natural and recreational amenity, with the large Sir Sanford Fleming Park on the Northwest Arm to the southwest of the Downtown, and the Shubie Canal system north of Dartmouth, in Westfall, encouraging more affluent residents into higher order suburbs.

Natural and cultural amenities provide important occasions for physical activity and social connection. That lower income residents have poor access to these opportunities is concerning. However, improving the supply of natural and recreational amenities in areas with high Prevalence of Low Income could have the unintended consequence of increasing housing demand in those areas, and thereby triggering a decline in housing affordability. The balance between improving conditions in areas with high levels of poverty and maintaining housing affordability must be approached with care and attention.

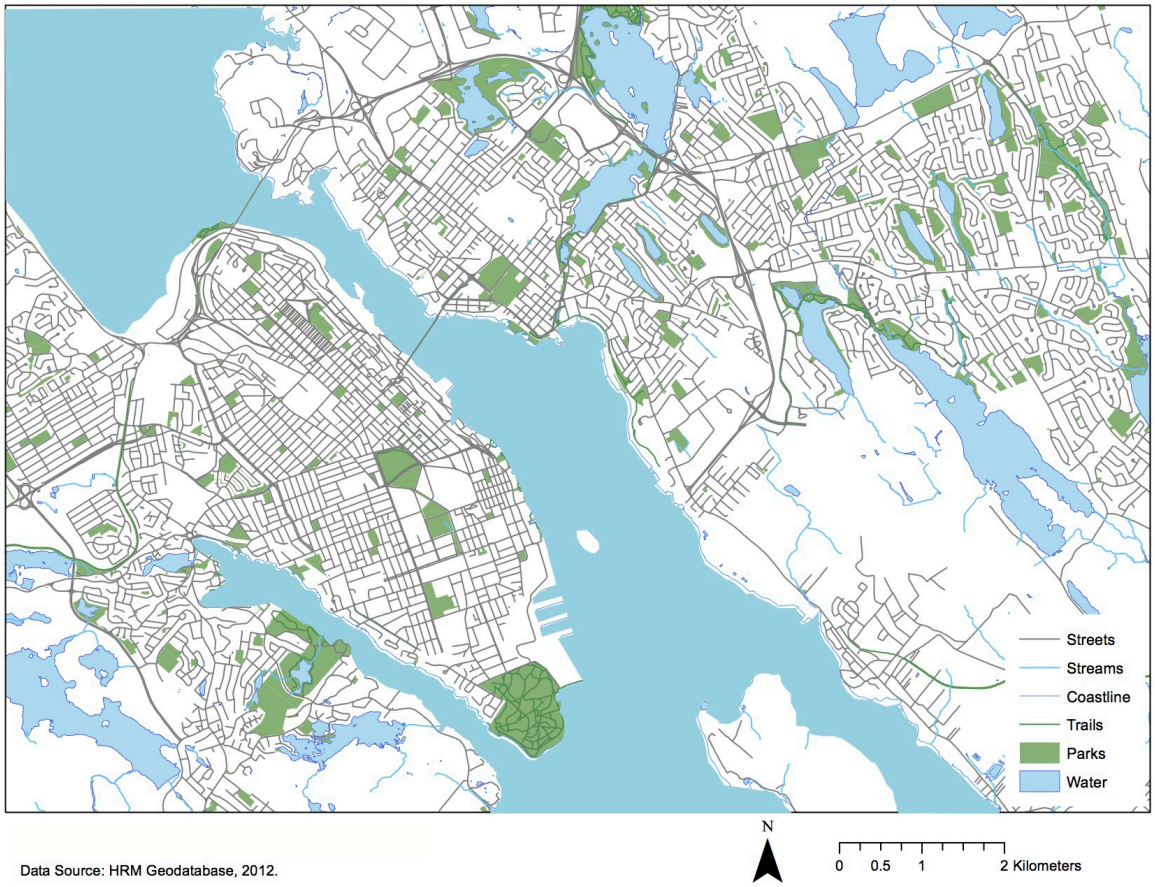


**Figure 16 Map of Parks in Downtown and Suburb Type A**

There are also few cultural amenities in the suburban categories, which is probably not surprising given Halifax's moderate size. One significant exception is the Alderney Landing complex located at the foot of the Macdonald Bridge, in the Dartmouth part of the type A suburbs. Alderney Landing includes a large library, theatre and a popular outdoor summer concert venue. Significant cultural amenities in the Downtown category include the Rebecca Cohn Auditorium, home of the Nova Scotia Symphony, the Neptune Theatre; a new Central Library in the Downtown category will also provide significant cultural amenity when it is completed in 2014.

## Unemployment

High levels of unemployment tend to co-occur with high levels of poverty. Unemployment rates only consider those people who are part of the labour force and are actively looking for work. Those residents who are not part of the labour force but still not working at paid employment are not included in the unemployment rate. Therefore, for example, areas with high concentrations of retired residents or those unable to work because of family or disability limitations will not show higher rates of unemployment. Unemployment is highest in the Downtown category; the second highest level of unemployment was observed in the type A suburbs.

**Table 9 Total Unemployment - Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 10.32 | 9.38 | 6.86 | 7.86 | 7.17 | 8.32 |
| **1986** | 10.64 | 8.56 | 8.27 | 9.66 | 8.92 | 9.21 |
| **1991** | 9.72 | 8.84 | 8.64 | 9.14 | 9.25 | 9.12 |
| **1996** | 8.34 | 8.35 | 8.17 | 9.79 | 9.33 | 8.80 |
| **2001** | 7.35 | 6.73 | 6.91 | 8.16 | 7.36 | 7.30 |
| **2006** | 5.85 | 6.02 | 5.53 | 6.90 | 7.47 | 6.35 |
| **2011** | 6.58 | 6.20 | 7.46 | 7.94 | 8.75 | 7.39 |

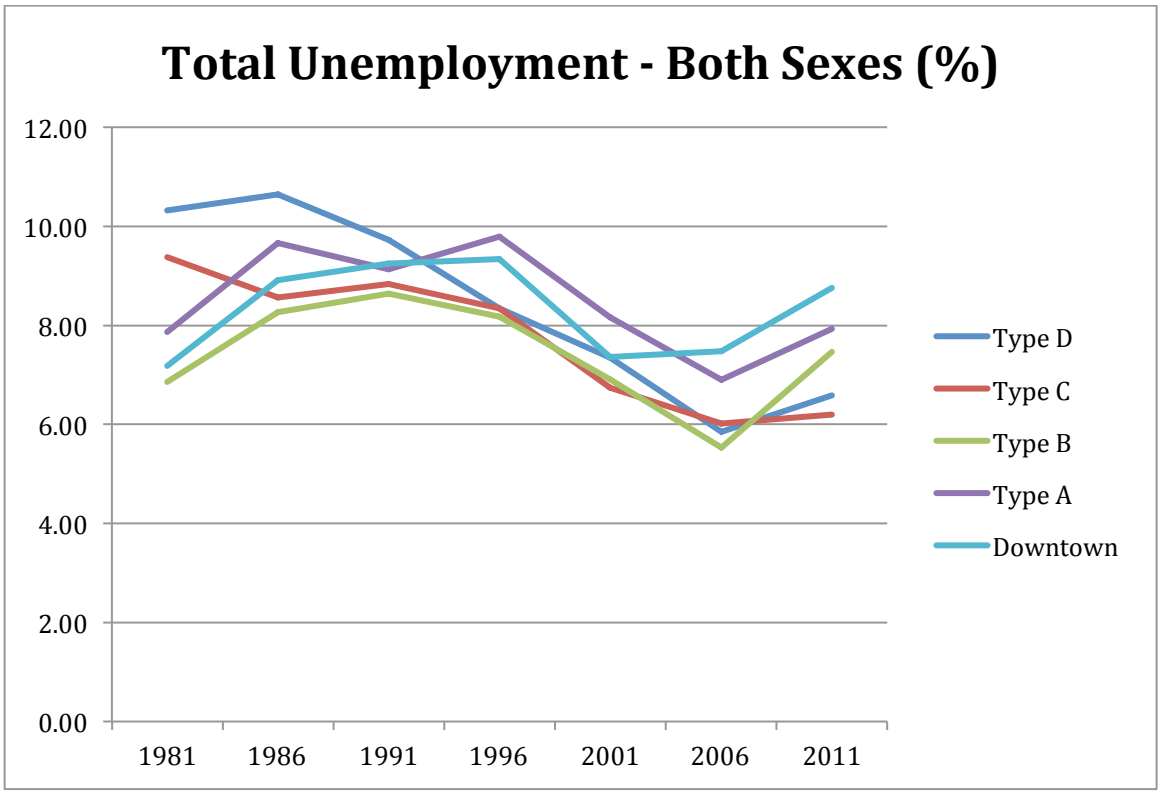


**Figure 17 Comparison of Unemployment Rates**

## Lone Parents

Lone parenthood creates significant financial stress by requiring a single earner to support a family. Not surprisingly, a high percentage of lone parent families also often co-occurs with high levels of poverty. The type A suburbs consistently showed the highest levels of lone parent families (both male and female-headed) from the beginning of the study period in 1981 to 2011. However, the proportion of lone parent families is decreasing in the type A suburbs and the Downtown, while the proportion of lone parents is increasing in the type B and C suburbs. This is another trend to watch, as it could indicate a trend toward increasing poverty in the type B and C suburbs.

Table 10 Total Lone Parents (%) - Data

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 2.21 | 3.10 | 2.86 | 4.41 | 3.77 | 3.27 |
| **1986** | 2.47 | 3.01 | 3.19 | 4.71 | 3.59 | 3.39 |
| **1991** | 2.52 | 3.33 | 3.83 | 5.20 | 3.33 | 3.64 |
| **1996** | 2.80 | 4.11 | 4.58 | 6.22 | 3.53 | 4.25 |
| **2001** | 3.55 | 4.50 | 5.28 | 6.96 | 3.18 | 4.69 |
| **2006** | 3.61 | 4.87 | 5.25 | 6.36 | 3.42 | 4.70 |
| **2011** | 3.85 | 5.02 | 5.47 | 6.22 | 2.87 | 4.69 |

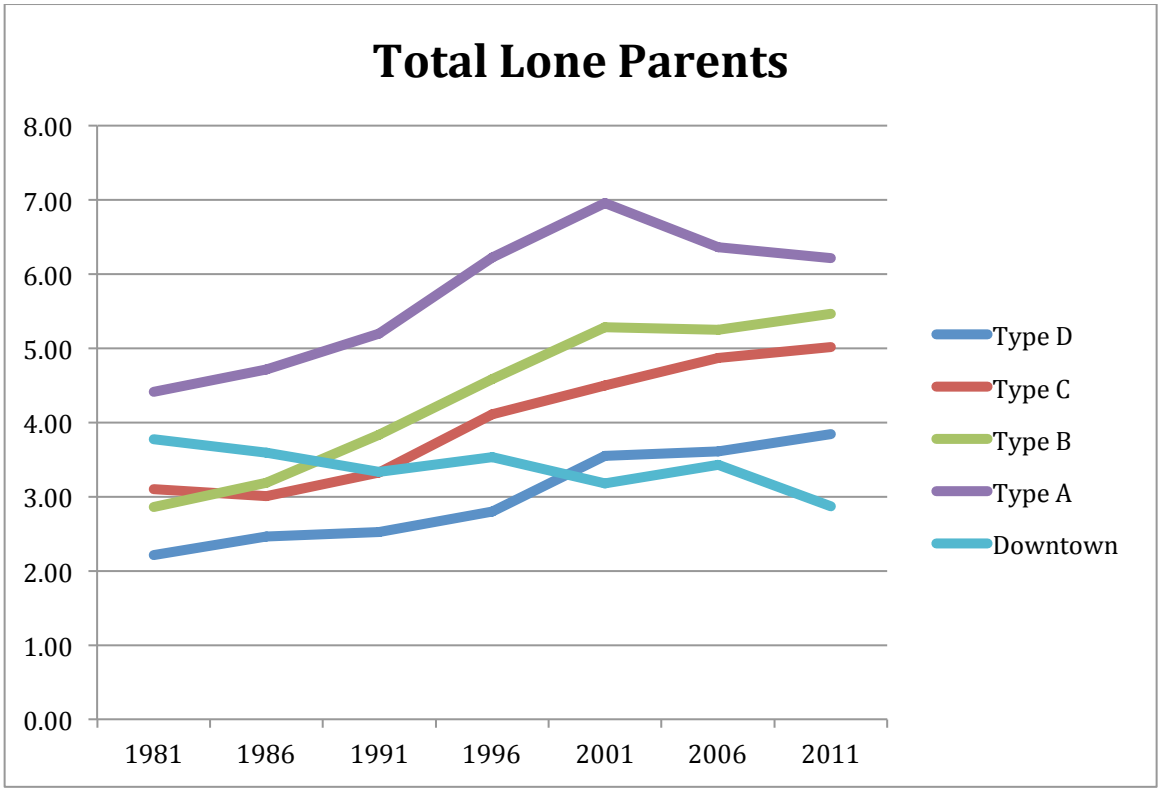


Figure 18 Comparison of Lone Parents as Percent of Total Popuation

## Visible minorities

In many cities, visible minorities comprise a disproportionate population in poor neighbourhoods (Walks 2006). In the Halifax CMA generally, the proportion of visible

minority residents is increasing. The proportion of visible minorities is also increasing in every category except type D. However, the rate of increase is fastest on the Downtown and type B categories, not the type A category. Therefore, these data do not appear to support an association between percentage of visible minority residents and prevalence of low income.

**Table 11 Percent Visible Minorities - Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1996** | 5.25 | 4.63 | 6.94 | 7.80 | 10.95 | 7.11 |
| **2001** | 3.96 | 4.92 | 7.88 | 8.28 | 11.08 | 7.22 |
| **2006** | 4.38 | 5.71 | 8.12 | 8.23 | 11.81 | 7.65 |
| **2011** | 4.37 | 6.58 | 11.94 | 10.47 | 13.55 | 9.38 |

## Low Educational Attainment

A high percentage of neighbourhood residents with low educational attainment also frequently co-occurs with a high rate of poverty. Low educational attainment affects the rate of poverty in two important ways. First, low-skill workers are generally less employable and earn a lower wage, making them more likely to be poor and more vulnerable to economic shocks like unexpected unemployment. Second, university-educated residents in a neighbourhood attract more affluent neighbours, even if higher education levels are not coincident with higher income. These "middle gentrifiers" – those residents who attract gentrifiers even though they do not themselves have a higher income – have a larger impact on communities with a high rate of poverty than on more affluent communities (Rosenthal 2007).

In the Halifax CMA, the type A suburbs are home to the highest percentage of residents with a low level of educational attainment, here described as residents with a high school graduation diploma or less. Residents of the Downtown category are the least likely to report low educational attainment. Since the available census and NHS data used different age standards to report educational attainment, this study again used the Location Quotient technique to standardize educational attainment data over time by dividing percentage of low educational attainment at the census tract level by the average level of low educational attainment in the Halifax CMA in each study year.

**Table 12 High School Graduation or Less (Location Quotient) - Data**

| | Type D | Type C | Type B | Type A | Downtown | Halifax CMA |
|---|---|---|---|---|---|---|
| **1981** | 1.2 | 1.05 | 0.95 | 1.05 | 0.84 | 1.018 |
| **1986** | 1.21 | 1.08 | 0.94 | 1.06 | 0.75 | 1.008 |
| **1991** | 1.19 | 1.07 | 0.98 | 1.11 | 0.7 | 1.01 |
| **1996** | 1.19 | 1.07 | 0.97 | 1.13 | 0.68 | 1.008 |
| **2001** | 1.29 | 1.04 | 0.95 | 1.17 | 0.57 | 1.004 |
| **2006** | 1.09 | 1.05 | 0.97 | 1.09 | 0.78 | 0.996 |
| **2011** | 1.04 | 1.05 | 0.98 | 1.09 | 0.76 | 0.984 |

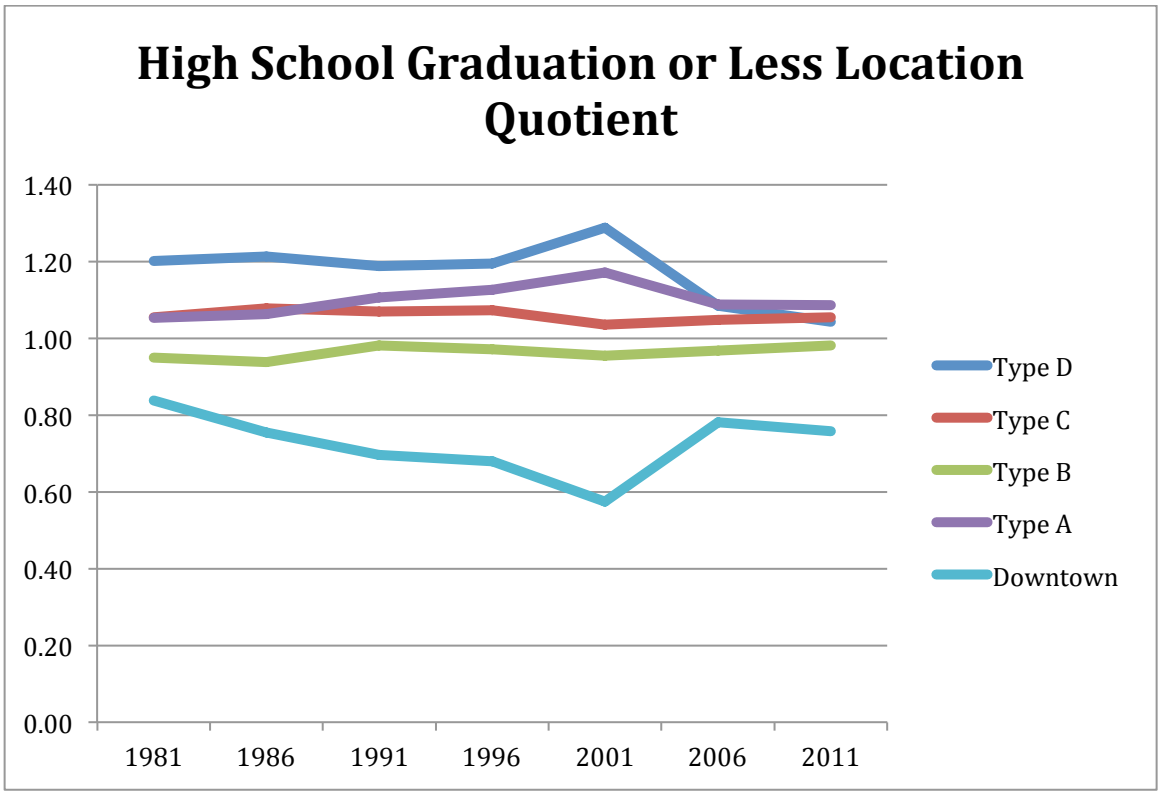


**Figure 19 Comparison of Percentage of Residents with Low Educational Attainment**

The trend is reasonably static, with few significant changes in the rate of low education attainment. However, the rate has shown steady decrease in the type A and type D suburbs since 2001, while the rate decreased slightly in the Downtown category in 2011 after a significant increase between 2001 and 2006.

## Few employment generators

A key attraction for gentrifiers is proximity to places of work. With a few notable exceptions, major employment generators in the Halifax CMA are located in the Downtown or type B or C suburbs, not in type A suburbs.

The Halifax CMA enjoys considerable employment density of 25,754.4 employees/km$^2$, which makes the Halifax Central Business District the 7$^{th}$ densest out of 33 Canadian

CMAs (Stantec, 2013). As shown in Figure 9 below, employment density in the Halifax CMA is greater than residential population density; residents living outside the downtown are generally required to commute to their employment.

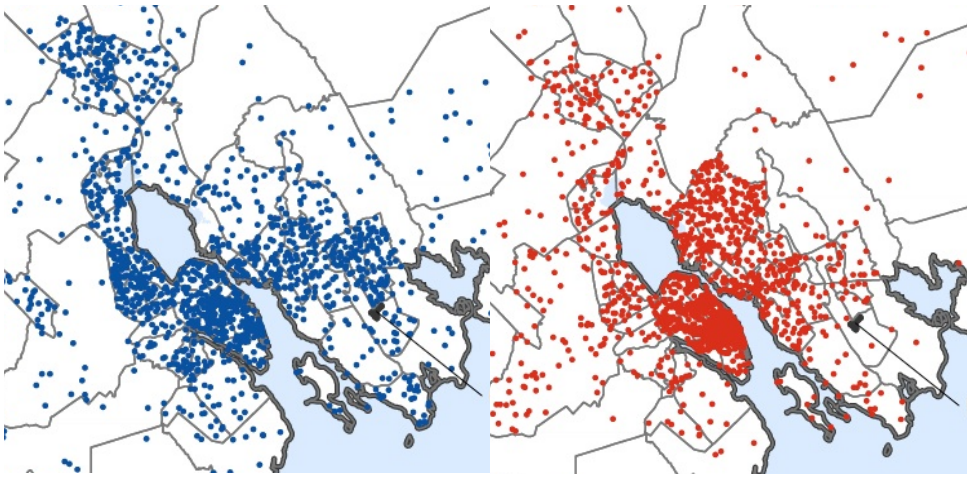

**Figure 20 Residential and Employment Density in the Halifax CMA (Statistics Canada (1), 2006)**

In these figures, each blue dot represents 100 residents; each red dot represents 100 jobs.

Employment density is highest in the Downtown category (on the Halifax Peninsula), and lower in all suburban categories.

## Transportation

The Macdonald and MacKay Bridges (the "Harbour Bridges") connect Dartmouth with the Halifax Downtown, and are notorious traffic pinch points. Over 100,000 vehicles cross the Harbour Bridges every day, plus a considerable number of pedestrians and cyclists (Stantec, 2013). There is also a $1 toll to cross either of the Harbour Bridges, in both directions. While the type A Suburbs in Dartmouth might not be very far from the

Downtown, they are functionally distant due to problematic transit and personal vehicle transportation options, which would further dissuade investment from affluent residents. Similarly, the Armdale Rotary to the west of the Downtown creates traffic congestion *en route* to the type A suburbs to the south of the Halifax peninsula.

*New Metro Transit Terminal in Suburb Type A*

In Dartmouth, the Metro Transit Bridge Terminal provides access to many transit routes, but bus routes themselves provide poor connection to areas of the Halifax CMA that are outside the Downtown. Frequent noisy bus traffic in the Dartmouth type A suburbs is another disincentive to more affluent would-be residents.

## Other factors

### *Unused land at Shannon Park (Census Tract 112)*

A significant portion of census tract 112 in the type A suburbs, east of the Downtown, is comprised of vacant land that is part of CFB Halifax. The 42.5 hectare Shannon Park site was built in the 1950s to house military personnel, but has been vacant since 2004 (CBC News, 2011). Plans to redevelop the land have encountered difficulties arising from environmental contamination and claims on the land from aboriginal communities. While this vacant land is functioning as an inert, empty space in what should be a dense urban area, it holds significant potential for redevelopment as a high quality community in the

near future. When this parcel is developed, the Halifax municipal government should take care to ensure continued access to affordable housing, improved transit connection to the downtown and other suburban areas, and recreational amenity. This may require strict panning controls on housing mix to promote genuine social and income diversity to protect access to affordable housing from low income residents.

### *Crime*

Areas of high crime, both perceived and actual, deter gentrifiers (Ley& Dobson, 2008). Parts of the type A suburbs, in particular downtown Dartmouth to the northeast of the Downtown, are infamous areas of high crime. As Figure 10, below, shows, violent crime is concentrated in the Downtown and Dartmouth parts of the type A suburbs, with another high crime node located in Spryfield, in a type C suburb. Higher rates of crime in the Dartmouth area help explain why more affluent residents seem to choose housing in the higher order suburbs, instead of in a type A suburb.

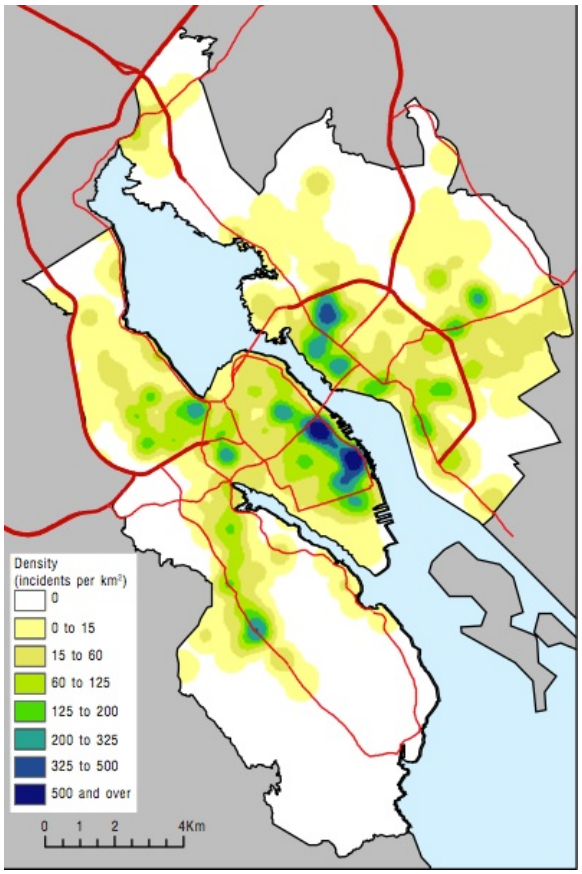


**Figure 21 Density of Violent Crime in Halifax (Statistics Canada, 2008)**

## *Conclusion*

While a trend toward suburbanization of poverty in the Halifax CMA is apparent from the available data, the trend is both moderate and recent. Considering the deficiencies in the data, it is not appropriate to make a definitive conclusion that suburbanization of poverty is happening in Halifax. Instead, this study concludes that there is an emerging trend toward suburbanization of poverty that should be followed in the future. Important trends observed from the data include the following:

- Rapidly increasing average value of housing in the Downtown category;

- Average value of housing in the type A suburbs increasing at a faster rate that in type B suburbs – this may push lower income residents toward type B suburbs;

- Increasing proportion of rental housing in type A suburbs relative to Downtown may further degrade housing affordability in the Downtown in concentrate poverty in the type A suburbs.

The Halifax Regional Municipality Regional Plan includes large areas of the Dartmouth type A suburbs in the "urban core", and promises to accelerate development in that area. The current plan calls for 25% of new residential development in urban areas, 50% in suburban areas and 25% in rural areas. Recent development patterns, however, result in a higher percentage of new residential development in suburban areas than what is called for in the Regional Plan. Actual development patterns since the adoption of the Regional Plan show 16% of new residential development in urban areas, 56% in suburban areas and 28% in rural areas (Stantec, 2013). Focusing development pressure on the type A part of Dartmouth could increase housing demand in that area, which would also increase housing prices. Several trends noted in the data already indicate pressure on low income residents to move to type B suburbs; gentrification of the type A part of Dartmouth could have serious consequences for the suburbanization of poverty in Halifax and is, therefore, an important trend to watch.

The suburbanization of poverty is still a relatively new trend, a fact that has consequences on the availability and accessibility of poverty support services. Since the historical trend was for poorer people and families to concentrate in inner city and urban areas, poverty support services tend to be concentrated in those areas as well. Because public housing

initiatives are also typically concentrated in inner city areas, poor individuals and families living in the suburbs are more likely to spend a disproportionately high percentage of their income on housing; since public transportation within and to the suburbs is often inefficient or nonexistent, poor suburban residents are also often burdened with high costs for transportation.

These realities pose important questions for urban planners. Since the suburbanization of poverty is often the side-effect of inner city gentrification, which prices urban housing out of reach of many poor families and individuals, planners and municipal officials should be careful to reserve sufficient affordable housing in downtown areas, despite the consequences this could have on property tax revenue.

Many planners resist improving the efficiency of public transportation to the suburbs on the argument that improving public transportation will encourage sprawl. Unfortunately, this could be true. Reducing traffic congestion and decreasing commuting time from outlying, exurban areas could encourage more affluent residents to move even further from the urban core. However, it is critical that poor suburban residents be provided with efficient, affordable transportation choices, to facilitate their employment and social connections.

> It is common to say that people "choose" their neighbourhood, but it is money that buys choice. … Those who have money and many choices can outbid those without resources for the highest-quality housing, the most desirable neighbourhoods, and the best access to services (Hulchanski, 2007).

While increasing the density of a city often results in a more sustainable city,

undoubtedly an important goal, planners must be careful to not further marginalize poor residents, who are already experiencing decreased housing choice and increased vulnerability.

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## *Appendix*

### Census Tracts in each Category

| Type D | Type C | Type B | Type A | Downtown |
|---|---|---|---|---|
| 2050132.03 | 2050001.00 | 2050016.00 | 2050014.00 | 2050003.00 |
| 2050132.04 | 2050002.00 | 2050017.00 | 2050015.00 | 2050004.01 |
| 2050132.05 | 2050027.00 | 2050025.02 | 2050018.00 | 2050004.02 |
| 2050132.06 | 2050114.00 | 2050025.03 | 2050022.00 | 2050005.00 |
| 2050140.00 | 2050120.00 | 2050026.01 | 2050023.00 | 2050006.00 |
| 2050141.00 | 2050121.02 | 2050026.02 | 2050024.00 | 2050007.00 |
| 2050143.01 | 2050121.03 | 2050100.00 | 2050025.01 | 2050008.00 |
| 2050143.02 | 2050121.05 | 2050104.01 | 2050101.00 | 2050009.00 |
| 2050150.01 | 2050121.06 | 2050104.02 | 2050102.00 | 2050010.00 |
| 2050150.02 | 2050121.07 | 2050105.01 | 2050103.00 | 2050011.00 |
| 2050151.00 | 2050121.08 | 2050105.02 | 2050108.00 | 2050012.00 |
| 2050152.00 | 2050122.01 | 2050106.01 | 2050109.00 | 2050013.00 |
| 2050153.00 | 2050122.02 | 2050106.02 | 2050110.00 | 2050019.00 |
| 2050154.00 | 2050122.03 | 2050107.00 | 2050111.00 | 2050020.00 |
| | 2050123.01 | 2050113.00 | 2050112.00 | 2050021.00 |
| | 2050123.02 | | | |
| | 2050123.04 | | | |
| | 2050123.05 | | | |
| | 2050123.06 | | | |
| | 2050130.01 | | | |
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| | 2050131.03 | | | |
| | 2050131.04 | | | |
| | 2050131.05 | | | |
| | 2050142.01 | | | |
| | 2050142.02 | | | |