Suburban Growth and Downtown Decline in Ontario’s Mid-Sized Cities

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Introduction

Ontario’s mid-sized metropolitan areas\(^1\) are mainly composed of suburban neighbourhoods\(^2\). Only about 12% of the 2011 population in Ontario’s mid-sized metro areas lived in dense, walkable active core neighbourhoods (such as downtowns), while the rest lived in some form of suburb, as defined in the sections below. Suburban sprawl is considered to be an unsustainable form of development, and can have negative impacts on economic, environmental, and public health indicators.

The pattern of population growth in Ontario’s mid-sized metropolitan areas is strongly focused in the suburbs, where almost all population growth happened in Automobile Suburbs and Exurbs. In contrast, the total population in Active Core neighbourhoods in the downtowns and inner cities declined across the province. These inner city neighbourhoods are the historic hearts of their metropolitan areas, and their declines can have both symbolic and economic consequences.

The combination of rapidly expanding suburbs and declining downtown population is particularly expensive in Ontario’s mid-sized cities. These cities lack the fiscal capacity to deal with the expense of extending infrastructure to low density suburbs on the urban fringe and to reverse the decline of downtown neighbourhoods.

Left unchecked, these trends can lead to costly development on the edges of a mid-sized city, combined with inner-city school closures and the decline of downtown business districts. In the worst cases, there can even be vacant downtown stores and abandoned inner-city housing, similar to recent problems in Saint John NB.

This paper will place the structure and growth of Ontario’s mid-sized cities in a national context. It will also briefly discuss policy implications of downtown decline combined with suburban development and growth.

Analysis

Research Questions:

1. What proportion of the population of Ontario mid-sized cities live in suburbs?
2. How are the distribution of suburbs in Ontario’s mid-sized metropolitan areas different from other Canadian mid-sized metropolitan areas\(^3\) and from major cities such as Toronto, Montreal and Vancouver?

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1. This paper uses Statistics Canada’s Census Metropolitan Areas (CMAs) as units of analysis. There are 13 Ontario mid-sized CMAs (from smallest to largest): Peterborough, Thunder Bay, Brantford, Guelph, Kingston, Sudbury, Barrie, Windsor, Oshawa, St. Catherines, Niagara, Kitchener-Waterloo, London and Hamilton.

2. Statistics Canada Census Tracts (CTs) are used to define neighbourhoods. Census tracts vary from 3000 to 9000 people, with an average of about 5000. Their boundaries are set by expert panels of geographers and planners, and do not change with time, although CTs may be split if their population growth pushes them over 10,000.

3. For this paper, Canada’s mid-sized census metropolitan areas are defined with Hamilton as the upper limit, to match the MSC selection.
Methodology

This paper is based on techniques tested in an earlier research study that classified the suburbs of all 34 Canadian metropolitan areas using a common method (Gordon & Janzen 2013). This method allows the structure and growth of Ontario’s 13 mid-sized metropolitan areas to be compared with mid-sized cities in other provinces and with larger cities.

Analysis of 2006 and 2011 census data from all 34 Canadian Census Metropolitan Areas (CMAs) was conducted at the neighbourhood level, using census tracts. The 2016 census data needed to complete the latest analysis will be released in November 2017. Gross density and journey to work data was used to classify all census tracts, using existing methods (Gordon et al. 2015; Gordon & Shirokoff 2014; Gordon & Janzen 2013; Forsyth 2012).

We identified and mapped three types of suburbs for every Census Metropolitan Area, shown in the Canada: A Country of Suburbs digital atlas.

Exurbs

Very low density, rural areas where more than half the workers commute to the central core. The commuters come from low-density rural estate subdivisions or houses scattered along rural roads. In 2011, about 12% of the population of Ontario mid-sized metro areas lived in Exurbs, compared to 8% in all Canadian CMAs and 3% in the Toronto region. The mid-sized metro areas had much higher proportions of Exurban residents, presumably because commuting into downtown is easier from their rural areas compared to Toronto’s exurban residents, who must contend with another hour of congestion after they reach the edge of the built-up area.

Auto suburbs

Neighbourhoods where almost all people commute by automobile; there is negligible transit, walking or cycling to work. These are the classic suburban neighbourhoods. In 2011, about 68% of the population of Ontario mid-sized metro areas lived in Auto Suburbs, varying from 44% (Peterborough & Kingston) to 77% (Oshawa and Kitchener). Nation-wide, about 69% of the metropolitan population live in Automobile Suburbs, but some larger metro areas had higher proportions of residents in Auto Suburbs, with Toronto at 84%.

Transit suburbs

Neighbourhoods where a higher proportion of people commute by transit. Transit Suburbs have transit use greater than 150% of the metro average for journey to work; active transit less than 150% of the metro average and transit use must be greater than 50% of the national average.

In 2011, only 8% of the population in Ontario mid-sized metro areas lived in Transit Suburbs, compared to 11% nationwide. The big cities with sophisticated transit systems such as Toronto (16%) have higher shares while most mid-sized metro areas had lower proportions of residents in Transit Suburbs, since far fewer people commute by transit in mid-sized cities. However, the mid-sized cities had much more variation in transit use in the historic dense inner suburbs that are well-served by bus transit. London (14%), Kingston (16%) and Halifax (18%) have relatively high proportions of transit suburbs, while some smaller communities such as Peterborough, Thunder Bay and Moncton have none.

5. Technical definition: Auto Suburbs have a gross population density that is greater than 150 people per square kilometre; transit use less than 150% of the metro average and active transit less than 150% of the metro average.

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Active Cores

In addition to the suburbs, Active Cores were found in most metropolitan areas. These neighbourhoods are where a higher proportion of people use active transportation (walk or cycle) to get to work. Active Cores are defined when active transportation (walk/cycle) is greater than 150% of the metro average for the journey to work and greater than 50% of the national average.

All of the Active Core areas are in the inner city of Ontario’s mid-sized CMAs, but in the largest cities, a few are suburban transit nodes such as the North York city centre or towns such as Oakville or St. Jerome, which have been inundated by the tidal wave of metropolitan expansion. In 2011, 12% of the population of Ontario’s mid-sized metro areas lived in Active Core neighbourhoods, the same proportion as nationwide. However, the mid-sized cities generally had a much greater range: Peterborough had the country’s highest proportion at over 19%, thanks to walkable neighbourhoods near historic downtown employers such as General Electric. On the other hand, Oshawa (3%) and Abbotsford BC (0%) had few active core neighbourhoods. In contrast, the largest metro areas varied only from 11% (Toronto) to 16% (Vancouver) active core neighbourhoods.

National context

Canada is a suburban nation. Two thirds of the country’s total population lives in some form of suburb (Gordon & Shirokoff 2014; Gordon & Janzen 2013). Even in the largest metropolitan areas, the portion of suburban residents is over 80%, including the Vancouver, Toronto and Montreal regions. So larger cities must also deal with the difficulties caused by low density, auto-dependant suburban growth, using techniques similar to the ones that are discussed below.
Implications of suburban sprawl

Suburban sprawl is considered to be unsustainable from economic, environmental, public health and infrastructure efficiency perspectives. There are substantial economic costs involved with suburban sprawl. Greenfield development on a city's periphery requires significant new infrastructure investments, which are difficult to accurately forecast and recover through development charges because of the physical degradation of the infrastructure over many decades (CSCE 2016). The municipality is then burdened with the maintenance and capital repairs of the infrastructure providing service to the low-density development (Thompson 2013; Blais 2010).

Growth trends

The population growth patterns of Ontario’s mid-sized metropolitan areas are quite different from the biggest cities. The total population in Active Core neighbourhoods declined by 3% across the province’s mid-sized metropolitan areas. Every Ontario mid-sized metro area’s Active Core declined in population from 2006-2011 except for Barrie and Kingston, which grew by 0.2% and 2.8% respectively. In contrast, the Active Cores in Canada’s eight biggest CMAs grew by 5%, with all cities showing positive growth. Toronto (10%) and Vancouver (8%) had the highest population growth in their active cores, due to their well-publicised booms in condo apartments. However, they were the only metro areas where the Active Core population grew faster than the national average of 7% over 2006-11.

The population of Ontario’s mid-sized metro areas grew by 4% from 2006-2011, while their Auto Suburbs and Exurbs grew by 5%. So low density, auto-dependent suburban sprawl increased at the same time that downtown populations decreased in most mid-sized Ontario regions. That is not a healthy pattern. These communities can expect increases in infrastructure costs due to suburban expansions at the edge of the metropolitan area, while inner-city schools will close due to declining enrollment (Irwin and Seasons 2012). Downtown businesses will be stressed by lower populations in adjacent neighbourhoods.

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Highway 401. Photo by Floydian (CC BY-SA 3.0)
Sprawling suburban areas are witness to higher rates of automobile use and vehicle ownership (Ewing et al. 2002). In such areas, people own more cars, drive longer hours, and commute less by public transit. Extensive automobile use leads to more air pollution and greenhouse gas emissions compared to commuting by transit, walking, or cycling (Newman and Kenworthy 2015). The suburban dependence on automobiles contributes more to climate change emissions and contributes to making transportation Canada’s highest sector for GHG emissions (Environment Canada 2013).

Finally, there is a growing body of evidence that suburban lifestyles are correlated with higher obesity rates in children and adults. The lack of a built environment that promotes physical activity has shown to be a contributing factor to obese and overweight children and parents (Saelens, et al. 2012; Papas, et al. 2007). Furthermore, there is evidence that shows a positive association between the frequency of commuting by transit and physical activity. It was found that frequent and infrequent transit users partake in more physical activity through active transportation to and from transit stops (Lachapelle et al. 2011).

Based on this analysis, it appears that planning policies that encourage a more compact metropolitan form were under-performing in Ontario mid-sized cities from 2006-2011, similar to difficulties identified with the Greater Toronto Area (Burchfield & Kramer 2015). If these trends continue, Ontario’s mid-sized metropolitan areas will become even more suburban in the future, with an increase in the problems caused by declining downtown populations (Seasons & Warkentin 2017) and low-density auto-dependent neighbourhoods.
To begin an analysis of urban structure and growth in mid-sized cities, policy makers and citizens can use the data, maps and publications that form the basis for this research in order to make their own maps and Google Earth displays of the extent of suburban sprawl in their area. These resources are available at no charge for public use from our research web site CanadianSuburbs and our digital atlas of metropolitan area maps.

For action on downtown revitalization in mid-sized cities, see the Canadian Urban Institute’s Value of investing in Canadian downtowns (2013) and Michael Van Hausen’s Small Is Big (2017) for many useful case studies and planning ideas. Arts centres, arenas and colleges are becoming standard parts of downtown development tool-kits (Filion et al 2004). Arts, sports and culture can keep a downtown busy on evenings and weekends, while students provide winter activity that complements the summer tourist trade. Student housing can make good use of vacant space in the upper floors of downtown buildings (Lewington 2012).

For tools to address sprawl and retrofitting suburbs, see the Sprawl Repair Manual (Tachieva 2010) and Retrofitting Suburbia (Dunham-Jones & Williamson 2011). For reducing auto-dependence, see The end of automobile dependence: How cities are moving beyond car-based planning (Newman & Kenworthy 2015). Toolkits for building sustainable neighbourhoods are available from the Canada Green Building Council, which offers LEED for Neighbourhood Development (Stone, Joseph & Leeming 2012) and the Sustainable Communities Toolkit (CaGBC 2012). Finally, the public health impacts of suburban sprawl can be mitigated using the tools in the Canadian Institute of Planners’ Healthy Communities Practice Guide (Craig and van Hemert 2014).

Any city that is building a new arts centre, arena or college on its greenfield suburban edge is missing an opportunity to revitalize its downtown.
Conclusions and next steps

Compared to bigger metro areas, Ontario’s mid-sized cities have higher proportions of people living in Exurbs (12% vs. 5%) and lower proportions of people living in Transit Suburbs (8% vs. 12%). It is easier to drive in from the rural areas into the cores of Ontario’s mid-sized cities than in the GTA, and larger cities have more developed transit systems, so more neighbourhoods are served by higher quality transit.

But the decline in Active Core areas will require careful attention to downtown districts in mid-sized cities, which is a difficult planning task (CUI 2013; Filion et al 2004). Provincial, regional and municipal governments will need to monitor their intensification and sprawl policies closely.

The first danger is that provincial and federal governments should not conflate the experiences of Toronto and Vancouver with Ontario’s mid-sized cities. The highly-visible condo apartment construction booms in these two cities are national exceptions, not the rule. In contrast to Toronto, every Ontario mid-sized metropolitan area is struggling to maintain the population in their downtowns. These cities need more investment in their inner city neighbourhoods, not investment controls. However, mid-sized city downtowns may need to focus on different types of development than the service retail of the past, transforming into regional tourism, entertainment and educational districts (Filion et al 2004). Any city that is building a new arts centre, arena or college on its greenfield suburban edge is missing an opportunity to revitalize its downtown.

The second danger is that mid-sized cities become so eager for downtown development that they damage the characteristics that lead to a high quality of life compared to larger cities. A string of high rise buildings marching across downtown can reduce access to the waterfront, destroy historic fabric and damage

the human scale of a city such as Kingston (Osborne & Swainson 2014).

Finally, the analysis in this paper is based on 1996-2011 census data so we must repeat the analysis when the 2016 long form census data becomes available in November 2017 to see if the planning policies of the past decade have had an effect on suburban growth patterns. An assessment of recent policies can then be conducted in order to evaluate their effectiveness.
References


Canada Green Building Council (2012), Sustainable Communities Toolkit; Ottawa ON: CaGBC. Available at: https://www.cagbc.org/CAGBC/Store/storeCategories/GBPublications.aspx


