

Trends in Metropolitan and Non-Metropolitan Populations in Canada and the United States over Fifty Years

Jordan Fischer

Scholar Intern, Woodrow Wilson International Center for Scholars

Fazley Siddiq

Professor, School of Public Administration, Dalhousie University;
Fellow, John F. Kennedy School of Government, Harvard University; and
Fulbright Visiting Research Chair, Woodrow Wilson International Center for Scholars

May 2013

Manuscript under Review

The authors gratefully acknowledge the financial support and research facilities provided by the Fulbright Program and the Woodrow Wilson International Center for Scholars where the research for this paper was carried out. The authors are particularly thankful to Shira Babins for data collection, but are solely responsible for the contents of this paper and for any errors or shortcomings that remain. Please e-mail all correspondence to Fazley_Siddiq@hks.harvard.edu

Abstract

Population growth in subnational jurisdictions in Canada and the United States has been showing signs of volatility, with metropolitan areas growing much faster than non-metropolitan areas, some of which are even declining. A look at national trends in Canada and the United States from 1960-61 until 2010-11 reveals similar patterns in the two countries, with increasing metropolitan populations. This increase both encourages and is driven by increasing suburbanization. Many Canadians and Americans seek both the convenience of compact cities and the quality of life of the country, leading them to settle in metropolitan suburbs. This, in turn, contributes to a sharp increase in the proportion of national populations living in metropolitan areas, which over fifty years grew from 45 to 70 percent in Canada and from 63 to 84 percent in the United States. These interrelated trends of metropolitanization and suburbanization are dramatically changing the countries' cities, towns and rural areas. Policymakers in Canada and the United States could soon face a choice between boosting their national economies and ensuring that local non-metropolitan economies remain viable. Compromises may be necessary to ease tensions created by the strong trends of metropolitanization in these countries without dampening progress.

Keywords: Metropolitan, Non-metropolitan, Suburbanization

Introduction

Metropolitan areas have experienced high levels of growth in both population and geographic size between 1960-61 and 2010-11 in Canada and the United States.ⁱ Although cities have been attracting migrants since their creation, these recent trends in Canada and the United States have taken place very rapidly, causing stagnant and even shrinking populations in non-metropolitan areas. Furthermore, demographic shifts are changing not only the distribution of population in these two countries, but also the nature of their metropolitan areas. While the metropolitan population increased dramatically, the aggregate metropolitan land area has increased more dramatically still.

In 1961, a slight majority of Canada's population lived in non-metropolitan areas. Just 50 years later, 70 percent of the population was metropolitan. The U.S. population was already made up of 63 percent metropolitan-dwellers in 1960, but that number rose to a substantial 84 percent of the population in 2010. This marks an incredible increase in the metropolitan populations of both countries. These metropolitan areas are expanding in terms of geography as well as population. The aggregate metropolitan land area in Canada rose from 5,068 square miles in 1961 to 35,773 in 2011, more than a seven-fold increase in just 50 years, but still constitutes only one percent of the total land area. In the United States, aggregate metropolitan land area rose less drastically, but still nearly tripled, increasing from 310,233 square miles in 1960 to 912,992 in 2010, approximately a quarter of the total land area.

International Differences and Difficulties in Comparison

When comparing Canada and the United States, it is important to keep in mind not only the similarities but also the dissimilarities between the two countries. While both countries have advanced economies, comparable standards of living and the majority of people speak English as their first language, geography provides a significant and important difference. For one thing, Canada has more land area than the United States: Canada was measured at 3.9 million square miles in 2011 (Statistics Canada, 2013), compared to the United States at 3.5 million square miles in 2010 (United States Census Bureau, 2010). However, a significant portion of Canada's land is virtually uninhabitable with 77 percent of Canada's land area classified as arctic or subarctic (Janelle, Warf & Hansen, 2004). In the Northwestern Territories and Nunavut, the harsh climate keeps the land so sparsely populated that population density is officially zero (Statistics Canada, 2011a). In fact, approximately 75 percent of the Canadian population lives within 100 miles of the United States border (National Geographic, n.d.).

Compared to Canada, the United States' population is much larger – nearly 10 times the size of Canada's – and more evenly distributed over its warmer climates. Even though the United States' total land area is smaller, its temperate land area is much larger than that of Canada. This is reflected in the comparatively higher population density in Canadian metropolitan areas and the comparatively lower population density in Canadian non-metropolitan areas than corresponding areas in the United States. In aggregate, Canadian non-metropolitan areas include largely uninhabitable territories.

Despite geographical differences, the definitions of “metropolitan area” in the United States and Canada line up closely, but not exactly. Both countries require a densely-populated core of at least 50,000 and/or a total population, including the surrounding suburbs and hinterlands, of at least 100,000 (Statistics Canada, 2011b; Office of Management and Budget, 2010). Surrounding areas that are included as part of the metropolitan area have high population density (though not as high as the core), and are economically and socially linked to the core, especially through workers that commute from the hinterland to the core and vice versa. Technical discrepancies remain, but in the comparison of such broad categories as national aggregate metropolitan population, the differences are not substantial.

The non-metropolitan population of each country for each census year was found by subtracting the metropolitan population from the total national population. For the purposes of this study, the threshold for a large metropolitan area relative to “other metropolitan areas,” lies at a population of one million. By this definition of course, there are many more large metropolitan areas in the United States than in Canada.

To facilitate comparison, United States censuses from 1960, 1970, 1980, 1990, 2000 and 2010 were used, while Canadian censuses from 1961, 1971, 1981, 1991, 2001 and 2011 were used to ensure that the data from each country was as closely linked as possible. Due to the long-term nature of the trends revealed, the effects of a one-year difference in data collection on the study’s findings are not significant. The study of these decennial census data from Canada and

the United States, which was specifically focused on reports of population and land area, revealed national trends of metropolitanization and suburbanization in both countries. Supplementary sources provide further evidence of the observed trends as well as potential ramifications.

While there are obviously differences between the demographic natures of Canada and the United States, the experiences of the two countries in the last half-century have been remarkably similar. Especially in the comparison of aggregate nation-wide trends, Canadian and U.S. populations exhibit similar trends of metropolitanization and suburbanization. These trends have already had an important impact on Canadian and U.S. societies and will continue to have profound implications for these countries' people, economies and societies as a whole should they persist.

Significance of Study

The purpose of this paper is to outline important national trends in the evolution of metropolitan and non-metropolitan areas in Canada and the United States. Comparisons are made between metropolitan and non-metropolitan population and land area, and the changing demographic makeup of the two countries. The paper therefore deals with highly simplified ideas, such as aggregate populations and general, sweeping trends. This keeps the analysis clear and succinct, but of course does not afford the discussion of many interesting sub-national trends, such as the drift of population from one region to another and the growth or

decline of specific jurisdictions. These demographic shifts are discussed elsewhere (Siddiq, 2013a; Siddiq, 2013b; Siddiq & Babins, 2013).

The importance of this study lies not only in its comprehensive identification of strong national trends, but more importantly, the comparative context in which the trends are explained. While it is important to study national trends, international comparisons can be more revealing. This study, therefore, will outline trends in Canada and the United States and compare the situations of the two countries, specifically regarding metropolitan versus non-metropolitan areas.

Changes in the balance of metropolitan and non-metropolitan populations mean more than just changing numbers on a census. Population-dense metropolitan areas feature a number of important attributes. Highly concentrated physical and human capital, superior health-care services, and the vast majority of higher education institutions shine as beacons of metropolitan progress. On the other hand, higher levels of inequality, crime and pollution are also prominent characteristics of metropolitan areas. Non-metropolitan areas exhibit lower levels of capital, health services and education, but also lower levels of economic and social disparity, criminal activity and environmental contamination (Brookings Institution, 2010). As the people of Canada and the United States continue to migrate from non-metropolitan to metropolitan areas, national prosperity masks declining rural jurisdictions. These trends merit profound changes in policy, as was the case for South Dakota, a rural state which in March 2013 passed a law providing an annual subsidy incentivizing lawyers to live in rural areas (Bonner,

2013). This law follows an established model in the United States, and also in Canada, of incentivizing medical professionals to work in rural areas. Both policies reflect the diminishing state of non-metropolitan areas as growing numbers of young professionals seek opportunities in prosperous metropolitan areas.

Following this introduction, the second section of the paper provides a review of the background and literature on Canadian and U.S. metropolitan and non-metropolitan population volatility. The third section compares metropolitan and non-metropolitan areas in Canada and makes the equivalent comparison in the United States. The fourth section discusses changes in land area and population density in the metropolitan areas of both countries. The fifth section explores the ramifications and implications of these findings. The sixth and final section is a conclusion.

Background and Literature Review

Canada and the United States both display core-periphery relationships, a pattern that emphasizes the disparity between metropolitan and non-metropolitan areas (Henrie and Plane, 2008; Slack et al, 2003a). With the notable exception of a few large cities like Chicago and Houston, most large metropolitan areas in the United States are located on the east and west coasts. In Canada, the core is very defined, located in metropolitan areas in Central and Western Canada, especially in the major cities of Montreal, Toronto, Calgary and Vancouver.

Growth in these major metropolitan areas is further driven by immigration (Slack et al, 2003a; Bourne and Simmons, 2004). In both Canada and the United States, immigration flows are highly concentrated geographically (Henrie and Plane, 2008; Slack et al, 2003a; Wulff and Vineberg, 2008). This is especially problematic in Canada, where the natural rate of reproduction (births minus deaths) is not high enough to maintain a stable population (Edmonston, 2009). The population distribution disparity is exacerbated by internal migration, which redistributes population to a handful of large cities from non-metropolitan and smaller metropolitan areas (Newbold, 2011). In the United States, on the other hand, while internal migrants still choose to settle in metropolitan areas, a majority of interstate migrants between 1965 and 1990 resettled in newer metropolitan areas, rather than older ones (Elliot & Perry, 1996), lessening the gap between core and periphery communities.

Internal migration is largely age-dependent in both countries. Migration is more common among young adults than other age groups (Audas & McDonald, 2004; Rothwell et al, 2002; Bernard et al, 2008; Coulombe, 2006). This is because young adults are often more flexible and frequently compelled to migrate in search of economic opportunities (Malenfant et al, 2007; Polese and Denis-Jacobs, 2010). Especially in the case of younger people seeking to advance their careers, migration redistributes people from less affluent communities to richer metropolitan areas, thereby increasing human capital inequalities (Bernard et al, 2008; Coulombe, 2006).

Metropolitan growth in both Canada and the United States has been fueled in large part by suburban growth. Suburban areas are generally more attractive to migrants than metropolitan centers due to the higher quality of life they offer. Between 1971 and 2001, growth was concentrated in the outer suburbs of Canada's largest metropolitan areas (Malenfant, 2007). In the United States as well, outer suburbs grew faster than metropolitan cores and even inner suburbs (Brookings Institution, 2010). This trend has been sustained over the long run. From 1910 to 2000, suburbs accounted for most of the population growth of metropolitan areas across the country (US Census Bureau, 2002).

While suburbanization reflects a desire for improved quality of life, the phenomenon may have the opposite effect for some metropolitan residents. A 2011 study of growth patterns and levels of inequality in the United States indicated that compact metropolitan areas exhibited lower levels of socio-economic disparity, while those metropolitan areas with higher levels of suburban sprawl displayed higher levels of socio-economic disparity (Lee, 2011). Over the past decade, and especially in the aftermath of the 2007-2009 housing crash, the suburban poor population has grown at five times the rate of the poor population residing in the metropolitan core (Brookings Institution, 2010).

In Canada, there is less indication of suburban poverty; instead, the most concerning poverty is in non-metropolitan areas. Outside major metropolitan regions and their suburbs, most populations and economies are declining (Malenfant, 2007; Slack, Bourne & Gertler, 2003b).

Generally, the more remote and isolated the community, the worse its economic performance in terms of small business generation (Slack, Bourne & Gertler, 2003b).

A review of the literature shows a number of similarities between population volatility in Canada and the United States and some differences. However, very little literature exists that actively compares the two neighbors. This work will, at least in part, bridge that gap by directly comparing data from the two countries' metropolitan and non-metropolitan populations.

Patterns of Subnational Migration in Canada and the United States

Metropolitanization in Canada

Canadian society underwent significant shifts during the period studied, from 1961 to 2011. In 1961, approximately eight million Canadians lived in metropolitan areas (Census Metropolitan Areas, or CMAs), while approximately 10 million Canadians lived in non-metropolitan areas. By 2011, the number of Canadians living in non-metropolitan areas remained approximately 10 million, but the number of metropolitan Canadians had nearly tripled, to 23 million. In just 50 years, the population became overwhelmingly metropolitan. Table 1 details Canada's transition from a minority-metropolitan to large majority-metropolitan nation.

[Table 1 about here]

Over the course of the six decennial censuses studied – 1961, 1971, 1981, 1991, 2001 and 2011 – the rate of total population growth in Canada decreased steadily. Between 1961 and 1971, growth was 20 percent; in the following decades it was 13 percent, 13 percent, 11 percent and eight percent respectively. Figure 1, below, shows the changes in Canadian population growth rates over time.

[Figure 1 here]

The aggregate population of all metropolitan areas in Canada increased most drastically during the 1960s (between 1961 and 1971) by 45 percent. At the same time, the population in non-metropolitan Canada remained approximately the same over the course of the decade. In the 1970s, metropolitan growth dropped to the teens, while growth in non-metropolitan Canada rose to its highest level over the period studied: 11 percent. Growth in metropolitan areas – especially large CMAs – rose again in the 1980s, reaching 22 percent for the aggregate of all metropolitan areas. Accordingly, non-metropolitan growth dropped to two percent in the same time period. In the 1990s, the aggregate population of Canadian CMAs grew 16 percent, while non-metropolitan areas grew at a rate of three percent. A comparison of the 2001 and 2011 censuses shows that total Canadian metropolitan growth of 20 percent during the 2000s was partially offset by a contraction of 12 percent in non-metropolitan Canada.

Unsurprisingly, the growth rate of non-metropolitan areas was lower than that of metropolitan areas in every decade, often by a large margin. In fact, non-metropolitan growth was, as can be

seen in Figure 1, the only category whose population growth rate was, at any point, negative. Despite a brief peak in the 1970s, the Canadian non-metropolitan population growth dropped to almost nothing in the 1980s, and decreased significantly between 2001 and 2011. As Figure 2 shows, non-metropolitan Canada experienced a negligible amount of net growth between 1961 and 2011.

[Figure 2 here]

Absolute growth was relatively steady and positive in large and small metropolitan areas as well as the total population of Canada. The stagnant and even declining growth trend of non-metropolitan Canada is especially evident in comparison to the stronger upward trends of metropolitan Canada. Table 2, below, shows the increasingly metropolitan makeup of the Canadian population.

[Table 2 here]

Metropolitanization in the United States

Society in the United States also experienced considerable metropolitanization over the period studied. In 1960, approximately 113 million Americans (63 percent of the population) lived in metropolitan areas, while 66 million lived in non-metropolitan areas. By 2010, the population of non-metropolitan Americans had shrunk to just 50 million, a mere 16 percent of the population, while the population of metropolitan America had swollen to 258 million, a

whopping 84 percent of the population. Table 3, below, shows the full extent of metropolitanization in the United States.

[Table 3 here]

During the 50-year period studied, the total population growth of the United States remained relatively steady, between 10 and 13 percent each decade. Metropolitan areas experienced significant but decelerating growth, reaching 24 percent in the 1960s, 22 percent in the 1970s, 20 percent in the 1980s, 14 percent in the 1990s, and 11 percent in the 2000s. Non-metropolitan areas, on the other hand, experienced a more volatile trend: from population losses of four percent, 11 percent and an incredible 22 percent in the 1960s, 1970s and 1980s, non-metropolitan areas experienced a slight recovery of nine percent growth in the 1990s and three percent growth in the 2000s. Figure 3 provides a visual representation of the volatility of growth rates in U.S. metropolitan and non-metropolitan areas.

[Figure 3 here]

The rate of aggregate growth of all metropolitan areas in the United States was largest in the 1960s, at 24 percent. The smooth deceleration of overall metropolitan growth masks a considerable level of volatility in smaller metropolitan growth over the period studied. While growth in large metropolitan areas remained relatively steady, between 12 and 21 percent from decade to decade, smaller metropolitan areas in the United States ("Other U.S. Metro

Areas”) experienced high variation in growth: from a peak of 44 percent growth in the 1970s, growth rate plummeted to just five percent in the 1990s. While smaller metropolitan areas experienced extremely high growth rates during the first half of the study, these rates dropped significantly – below even that of non-metropolitan areas in the 1990s – in the latter half of the study.

One of the most profound trends found in the United States lies in the country’s absolute growth trends, shown in Figure 4 below. As was the case in Canada, “non-metropolitan areas” was the only category whose absolute growth was negative at any point during the course of the study. That is to say, the aggregate population of non-metropolitan areas was the only aggregate population that decreased between decennial studies. In fact, all categories in the United States experienced absolute net growth from 1960 to 2010, except for non-metropolitan areas. From 66.4 million in 1960, the population dropped to just 44.8 million in 1990, recovering only partially to 50.4 million in 2010. This absolute net decrease contrasts sharply with the growth exhibited in metropolitan areas and the overall United States population.

[Figure 4 here]

While a majority of the country’s population (63 percent) was living in metropolitan areas in 1960, a large minority of Americans still lived in a non-metropolitan environment. By 2010, however, only about one-sixth of the population lived in non-metropolitan areas. Although the

United States began the period 1960-2010 with a slight majority metropolitan population, the metropolitanization of the country over the 50-years studied was a strong and rapid trend. Table 4 below shows the increasingly metropolitan makeup of the population of the United States.

[Table 4 here]

Metropolitanization in Canada and the United States

Strong trends of metropolitanization changed both the United States and Canada significantly between 1960-61 and 2010-11. The change in Canada was in many ways more striking: a 53 percent increase in metropolitanization took Canada from a majority non-metropolitan to a majority metropolitan nation, while in the United States, a 33 percent increase in metropolitanization made an already majority metropolitan nation into an almost entirely metropolitan nation.

Although it declined from 55 to 31 percent of the national population, the non-metropolitan population in Canada actually experienced very slight absolute growth over the 50 years studied. The non-metropolitan population of the United States decreased substantially in absolute terms, a contraction of 24 percent. In both countries, the rates of population growth have exhibited a downward trend in all categories (though more in some than others). This reflects the deceleration of overall population growth in these demographically advanced societies.

The pattern of increasing metropolitan populations – and perhaps more importantly, decreasing non-metropolitan populations – demonstrates a changing way of life in Canada and the United States. In a democracy, where one person has one vote, the non-metropolitan population sees not only its economic power diminishing, but also its political power. Not only are non-metropolitan tax bases drying up, regional and national resources are flowing increasingly towards the countries' thriving metropolitan areas, with little remaining for non-metropolitan areas. Furthermore, at least in the United States, fewer non-metropolitan residents each year make the non-metropolitan lifestyle effectively a dying way of life. Both nations' metropolitan areas, on the other hand, foster economic and intellectual gains, and house the vast majority of social movements and political events. Steady decline in non-metropolitan areas coupled with distinctive rise in many metropolitan areas warrants careful consideration by policymakers.

While the shift is substantial, it is arguable that the increasing metropolitanization of Canada and the United States is a trait typical of countries with advanced economies in late stages of demographic transition, as is declining population growth. Another strong trend sweeping these countries' metropolitan areas is slightly more unique in an international framework: suburbanization.

Population Density and Suburban Sprawl

As more population moved to metropolitan areas over the course of the 50 years considered, these metropolitan areas expanded geographically, even more rapidly than their population increased. This meant that while the metropolitan population was rising with every decade, metropolitan population density was simultaneously decreasing. This phenomenon stems from a strong trend of suburbanization in Canadian and U.S. metropolitan areas.

Suburbanization in Canada

Despite a constantly rising aggregate metropolitan population, the total metropolitan land area increased faster than the total metropolitan population over the course of the study. In Canada, in 1961, the aggregate metropolitan population of 8.1 million lived in a total land area of 5,068 square miles. This meant a high metropolitan population density of 1,611 per square mile. By 2011, the metropolitan population had increased nearly three-fold, to 23.1 million, while the land area had increased more than seven-fold, to 35,773 square miles. This cut population density by more than half, to 646 residents per square mile. Table 5.1 details the changing land areas and population densities in Canadian metropolitan and non-metropolitan areas.

[Table 5.1 here]

The aggregate land area of Canadian metropolitan areas more than tripled between 1961 and 1971 (from approximately 5,000 to 15,500 square miles), causing a significant drop in

metropolitan population density – from 1,611 to just 760. From 1971 to 1981, official land area increased only marginally, allowing population growth to bolster population density from 760 to 854 residents per square mile. By 1991, however, aggregate metropolitan land area had once again increased significantly, from approximately 16,000 to 26,000 square miles, causing population density to drop to a new low of 648. Five thousand square miles were added to Canada's aggregate metropolitan land area by 2001, causing population density to decrease still lower to 632 residents per square mile, despite an increase of over 2.6 million in aggregate metropolitan population. By 2011, another 5,000-square mile increase in metropolitan land area was not enough to keep population density from rising in the face of another decade's worth of metropolitan population increase, and aggregate metropolitan population density increased marginally to 646 residents per square mile. Canadian non-metropolitan population density remained essentially unchanged in every decade of the study.

Suburbanization in the United States

Compared to Canadian CMAs, there are many more metropolitan areas in the United States, and many of these metropolitan areas are much bigger. Accordingly, aggregate metropolitan population and land area are much larger the United States. Nonetheless, trends exhibited in the two countries are very similar. United States aggregate metropolitan population increased steadily, and over the course of the period studied, aggregate metropolitan land area increased even more, leading to an overall drop in metropolitan population density in the United States, just as it did in Canada.

In the United States in 1960, the aggregate metropolitan population was 112.9 million, and lived within an aggregate metropolitan land area of 310,233 square miles, resulting in a population density of 364. The trend of suburbanization in the United States was not as strong as it was in Canada – partly because U.S. metropolitan areas had a much lower population density to begin with in 1960 – but by 2010, population density had dropped by about 25 percent, to 283 residents per square mile. A metropolitan population of 258.3 million lived on an aggregate land area of 912,992 square miles. Details of the United States' changing metropolitan and non-metropolitan land areas and population densities are displayed in Table 5.2 below.

[Table 5.2 here]

Between 1960 and 1970, the aggregate land area of metropolitan areas in the United States increased by nearly 80,000 square miles, just enough to counter the 24 percent growth in the country's metropolitan population – aggregate population density in metropolitan areas decreased from 364 in 1960 to 360 residents per square mile in 1970. In the 1970s, aggregate metropolitan land area in the United States increased by almost 179,000 square miles, leading to a substantial drop in population density, from 360 to 299 residents per square mile. Only 16,000 square miles were added to U.S. metropolitan land area in the 1980s, while population continued to increase, resulting in a substantial rise in population density to 350 residents per square mile. By 2000, aggregate metropolitan land area in the United States had increased by an additional 124,000 square miles, decreasing population density to 330. By the 2010 census,

207,000 more square miles decreased population density still further, so that in 2010 aggregate metropolitan population density had reached a new low of 283 residents per square mile.

Population Density in Canada versus the United States

In both countries, non-metropolitan areas experienced much different trends than did metropolitan areas. In Canada, the non-metropolitan land area is made up in large part of Arctic and Subarctic territory in the north, where population density is essentially zero. This prevented changes in temperate (southern) non-metropolitan areas from registering in the overall data: aggregate non-metropolitan population density remained 3 residents per square mile from 1961 to 2011, as shown in Table 5.1, above. That said, it is important to note that the total non-metropolitan population in Canada remained virtually unchanged over the course of this study: from 10,074,014 in 1961 to 10,353,247 in 2011. This means that virtually all of Canada's 84 percent population growth over the 50-year period took place in metropolitan areas, while non-metropolitan areas remained stagnant and land area decreased slightly.

In the United States, non-metropolitan areas not only failed to gain population, but they experienced varying degrees of decline. Aggregate non-metropolitan population decreased by 24 percent, from 66.4 million in 1960 to just 50.4 million in 2010. As shown in Tables 1 and 2, "U.S. non-metropolitan areas" is the only category that experienced a negative growth rate in either country. This highlights the significance of their decline – non-metropolitan areas in the United States experienced a contraction of their populations *in spite* of the fact that the population of the country as a whole was growing. Table 5.2 shows that, although non-

metropolitan land area decreased, it only decreased by 19 percent, meaning that the aggregate non-metropolitan population density also decreased slightly, from 21 residents per square mile in 1960 to 19 in 2010.

On one hand, the stagnant or shrinking non-metropolitan populations of Canada and the United States are affected minimally or not at all by the slight decrease in their aggregate land area; on the other, growing land area in United States and Canadian metropolitan areas has drastically affected their makeup. Suburbanization is changing the nature of metropolitan areas, their economies and the countries as a whole.

Suburbanization had a stronger effect in Canada's metropolitan areas, which were initially very dense – aggregate metropolitan population density in Canada in 1961 was 4.5 times the aggregate metropolitan population density in the United States in 1960. Canada's aggregate metropolitan population density remained higher than that of the United States throughout the period, though proportionately less so. Canadian aggregate metropolitan population density was 646 in 2011, still more than double the equivalent population density of 283 in the United States in 2010. Aggregate United States metropolitan land area nearly tripled, a substantial change in and of itself, but Canadian metropolitan land area expanded to over seven times its 1961 boundaries. The enormous increase in metropolitan land area in Canada reflects the widespread effects of suburbanization on the country's metropolitan areas.

Policy Implications

The changing shape of Canadian and U.S. societies has different implications on national and local levels. National economies can benefit greatly from increasing metropolitan populations and expanding metropolitan areas. In fact, Global Urban Development's Marc Weiss found that in 2006, in every country in the world, metropolitan areas generated more than half of national income, from an average of 55 percent in less developed countries to 85 percent in highly developed ones, such as the United States and Canada (Weiss, 2006). In the United States in 2001, Weiss estimated that the population was approximately 80 percent "urbanized," but that metropolitan areas accounted for over 90 percent of national employment, income, output, exports, and innovation (Weiss, 2001). In fact, the U.S. Patent and Trademark Office's Patent Technology Monitoring Team (2013) found that over 95 percent of patents filed between 2000 and 2011 were filed in metropolitan areas.

In contrast, many local non-metropolitan communities face a hollowing out and even collapse, as residents and workers desert them in favor of booming metropolitan economies. Non-metropolitan political structures also face profound changes as a result of these trends. A number of scholars and economists have begun to study the increasingly dire situation in non-metropolitan areas in the United States and especially Canada, finding struggling economies and the increasing call for consolidation of local governments (OECD, 2002; Felix & Henderson, 2010; Vijnovic, 2000).

After legislation was passed between 1995 and 2001 in Nova Scotia, Ontario and Quebec, previously autonomous political bodies were consolidated into single municipal governments to compensate for shrinking tax bases, falling revenues and other economic woes (Sancton, 2003; Slack, Bourne & Gertler, 2003a; Vijnovic, 2000). Even in municipalities where official consolidations have not taken place in the United States, many smaller local governments are collaborating with neighbors to cut costs and take advantage of economies of scale (Felix & Henderson, 2010).

Non-metropolitan agglomerations, whether they are official or unofficial, reflect the shrinking population and influence of non-metropolitan North America, which has lost population and power to metropolitan areas, and continues to do so. While this causes political and financial troubles for both local and provincial- or state-level, this trend can have positive effects on a national level. Growth in metropolitan areas should result in a corresponding and disproportionately larger growth in national income (Weiss, 2006). This means that countries undergoing metropolitanization are also seeing their economies prosper over the long term.

What can be highly beneficial for a national economy can have difficult and even destructive implications for the local economies in non-metropolitan areas. While it would be unwise and probably futile to attempt to reverse the metropolitanization of the Canadian and U.S. populations, careful management and stewardship on the part of local and provincial- or state-level policymakers can help ease the often harsh transitions created by the rapid changes that have swept Canada and the United States from 1960-61 to 2010-11.

Conclusion

From 1960-61 to 2010-11, aggregate metropolitan populations in both the United States and Canada increased significantly, both in absolute terms and as a percentage of the total national populations. The total U.S. metropolitan population increased by 129 percent, from approximately 113 million (63 percent of the total population) in 1960 to 258 million (84 percent of the total population) in 2010. At the same time, the non-metropolitan population actually decreased 24 percent, from approximately 66 million (37 percent of the total population) in 1960 to 50 million (16 percent of the population) in 2010. The Canadian metropolitan population increased by 183 percent, nearly tripling, from eight million (44 percent of the total population) in 1961 to 23 million (70 percent of the total population) by 2011. Non-metropolitan Canada remained stagnant at 10 million, shrinking from 56 percent to just 30 percent of the total national population in relative terms.

As metropolitan populations have grown in both countries, aggregate metropolitan land area has grown even more, revealing a strong trend of suburbanization in these North American countries. While the aggregate population grew steadily in Canadian and U.S. metropolitan areas between 1960-61 and 2010-11, aggregate population density generally decreased in these same metropolitan areas. These trends reflect the changing nature of society in Canada and the United States.

Increasing metropolitanization reveals an increasing desire or willingness of Canadian and U.S. residents to live in close proximity to one other for reasons of economic opportunity or personal convenience. Nonetheless, the increasingly suburban nature of U.S. and Canadian metropolitan areas also indicates that, while metropolitan-dwellers seek the convenience of population-dense cities, they also seek the higher quality of life associated with less densely populated areas. Furthermore, the high quality of life associated with suburban living encourages more migrants to settle in suburbanized metropolitan areas, reinforcing the trend of metropolitanization.

While many metropolitan areas grow and thrive – the national economies in Canada and the United States did well overall from 1960-61 to 2010-11 – many non-metropolitan areas in the two countries suffered population decline and economic deterioration. As the national economies become more dependent on metropolitan areas, non-metropolitan areas increasingly lose economic, political, and even social influence. Official and *de facto* municipal consolidations are proof of this trend.

Policymakers in Canada, the United States and other developed countries could soon face a choice between boosting their national economies and ensuring that local non-metropolitan economies remain viable. Compromises such as increased municipal amalgamations may help ease tensions created by the strong trends of metropolitanization in these countries without dampening the progress achieved in metropolitan areas.

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Tables

Table 1: Population growth in Canadian metropolitan (CMAs) and non-metropolitan areas (1961 – 2011)

Geographic Area	Population						Growth rate (%)					
	1961	1971	1981	1991	2001	2011	1961 - 1971	1971 - 1981	1981 - 1991	1991 - 2001	2001 - 2011	1961 - 2011
Large Canadian CMAs	5,770,535	7,955,134	9,062,600	11,475,348	13,508,515	15,331,645	38	14	27	18	13	166
Other Canadian CMAs	2,393,451	3,919,619	4,596,344	5,190,012	5,788,411	7,791,796	64	17	13	12	35	226
Total Canadian CMAs	8,163,986	11,874,753	13,658,944	16,665,360	19,296,926	23,123,441	45	15	22	16	20	183
Nonmetropolitan Canada	10,074,014	10,087,246	11,161,449	11,366,034	11,724,325	10,353,247	0	11	2	3	-12	3
Total Canada	18,238,000	21,961,999	24,820,393	28,031,394	31,021,251	33,476,688	20	13	13	11	8	84

Source: Statistics Canada, 1961 Census, 1971 Census, 1981 Census, 1991 Census, 2001 Census, 2011 Census

Table 2: Canadian aggregate metropolitan and non-metropolitan populations as a percent of total Canadian population

	1961	1971	1981	1991	2001	2011
Large Canadian Metro Areas	32	36	37	41	44	46
Other Canadian Metro Areas	13	18	19	19	19	23
Total Canadian Metro Areas	45	54	55	59	62	69
Nonmetropolitan Canada	55	46	45	41	38	31
Total Canada	100	100	100	100	100	100

Source: Statistics Canada, 1961 Census, 1971 Census, 1981 Census, 1991 Census, 2001 Census, 2011 Census

Table 3: Population growth in U.S. metropolitan and non-metropolitan areas (1960 – 2010)

Geographic Area	Population						Growth rate (%)					
	1960	1970	1980	1990	2000	2010	1960 - 1970	1970 - 1980	1980 - 1990	1990 - 2000	2000 - 2010	1960 - 2010
Large U.S. Metro Areas	80,090,988	96,974,493	108,280,045	123,838,700	148,651,440	168,585,376	21	12	14	20	13	110
Other U.S. Metro Areas	32,794,190	42,444,318	61,150,578	80,101,998	83,928,500	89,732,387	29	44	31	5	7	174
Total U.S. Metro Areas	112,885,178	139,418,811	169,430,623	203,940,698	232,579,940	258,317,763	24	22	20	14	11	129
Non-metropolitan U.S.	66,437,997	63,816,487	57,115,182	44,769,175	48,841,966	50,427,775	-4	-11	-22	9	3	-24
Total United States	179,323,175	203,235,298	226,545,805	248,709,873	281,421,906	308,745,538	13	11	10	13	10	72

Source: US Census Bureau, 1960 Census, 1970 Census, 1980 Census, 1990 Census, 2000 Census, 2010 Census

Table 4: U.S. aggregate metropolitan and non-metropolitan populations as a percent of total Canadian population

	1960	1970	1980	1990	2000	2010
Large U.S. Metro Areas	45	48	48	50	53	55
Other U.S. Metro Areas	18	21	27	32	30	29
Total U.S. Metro Areas	63	69	75	82	83	84
Nonmetropolitan U.S.	37	31	25	18	17	16
Total United States	100	100	100	100	100	100

Source: US Census Bureau, 1960 Census, 1970 Census, 1980 Census, 1990 Census, 2000 Census, 2010 Census

Table 5.1: Land area and population density in Canadaⁱⁱ

Geographic Area	1961			1971		
	Land area (sq. mile)	Population	Density	Land area (sq. mile)	Population	Density
Total Canada	3,560,238	18,238,000	5	3,559,127	21,961,999	6
All Metropolitan Areas	5,068	8,163,986	1,611	15,619	11,874,753	760
Non-Metropolitan Areas	3,555,170	10,074,014	3	3,543,508	10,087,246	3
Geographic Area	1981			1991		
	Land area (sq. mile)	Population	Density	Land area (sq. mile)	Population	Density
Total Canada	3,553,442	24,820,393	7	3,553,442	28,031,394	8
All Metropolitan Areas	15,991	13,658,944	854	25,706	16,665,360	648
Non-Metropolitan Areas	3,537,452	11,161,449	3	3,527,737	11,366,034	3
Geographic Area	2001			2011		
	Land area (sq. mile)	Population	Density	Land area (sq. mile)	Population	Density
Total Canada	3,479,658	31,021,251	9	3,461,514	33,476,688	10
All Metropolitan Areas	30,554	19,296,926	632	35,773	23,123,441	646
Non-Metropolitan Areas	3,449,104	11,724,325	3	3,425,741	10,353,247	3

Source: Statistics Canada, 1961 Census, 1971 Census, 1981 Census, 1991 Census, 2001 Census, 2011 Census

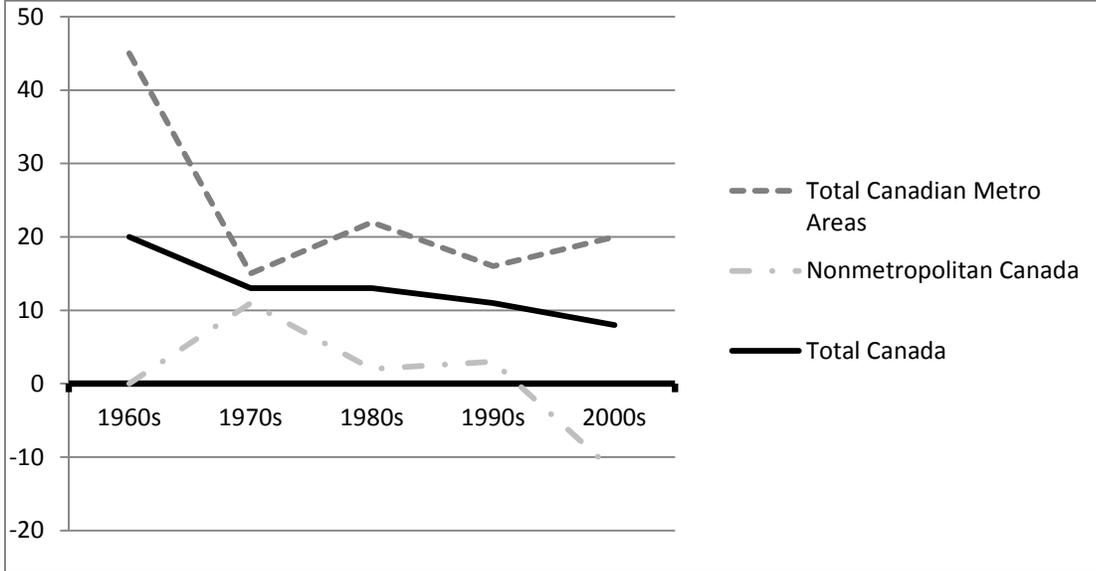
Table 5.2: Land area and population density in the United States

Geographic Area	1960			1970		
	Land area (sq. mile)	Population	Density	Land area (sq. mile)	Population	Density
Total United States	3,548,974	179,323,175	51	3,536,855	203,235,298	57
Metro areas	310,233	112,885,178	364	387,616	139,418,811	360
Non-metro areas	3,238,741	66,437,997	21	3,149,239	63,816,487	20
Geographic Area	1980			1990		
	Land area (sq. mile)	Population	Density	Land area (sq. mile)	Population	Density
Total United States	3,539,289	226,545,805	64	3,536,338	248,709,873	70
Metro areas	566,148	169,430,623	299	581,931	203,940,698	350
Non-metro areas	2,973,141	57,115,182	19	2,954,408	44,769,175	15
Geographic Area	2000			2010		
	Land area (sq. mile)	Population	Density	Land area (sq. mile)	Population	Density
Total United States	3,537,438	281,421,906	80	3,531,905	308,745,538	87
Metro areas	705,790	232,579,940	330	912,992	258,317,763	283
Non-metro areas	2,831,649	48,841,966	17	2,618,913	50,427,775	19

Source: US Census Bureau, 1960 Census, 1970 Census, 1980 Census, 1990 Census, 2000 Census, 2010 Census

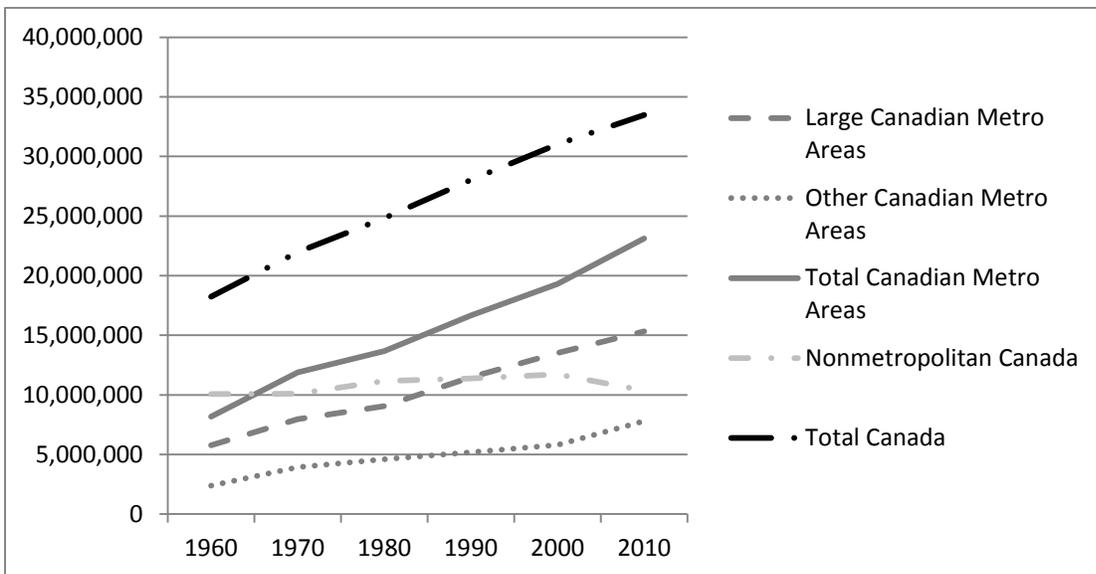
Figures

Figure 1: Percent population change of Canadian metropolitan (CMAs) and non-metropolitan areas (1961 – 2011)



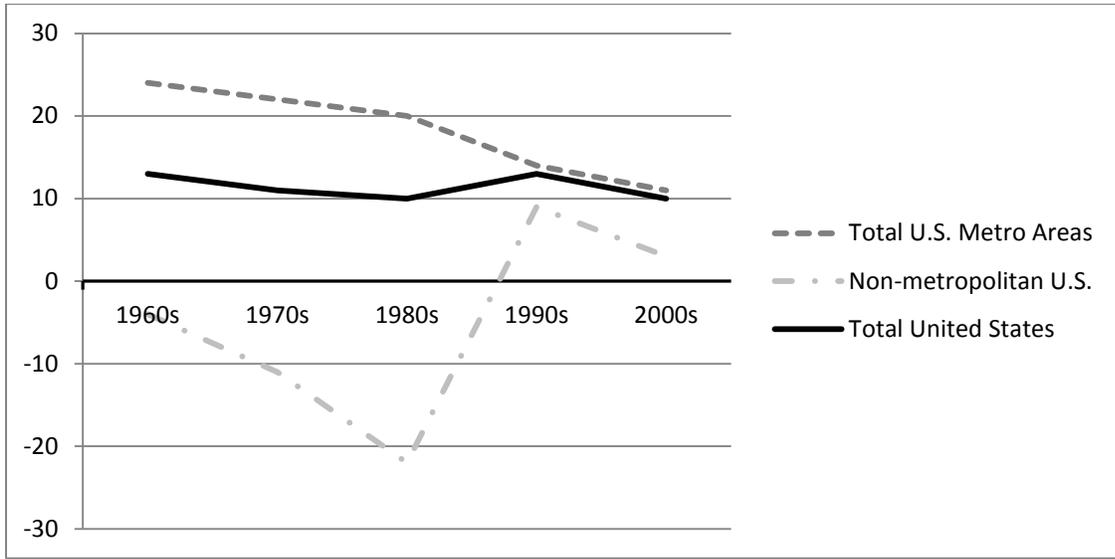
Source: Table 3

Figure 2: Absolute population change in Canadian metropolitan (CMAs) and non-metropolitan areas (1961 – 2011)



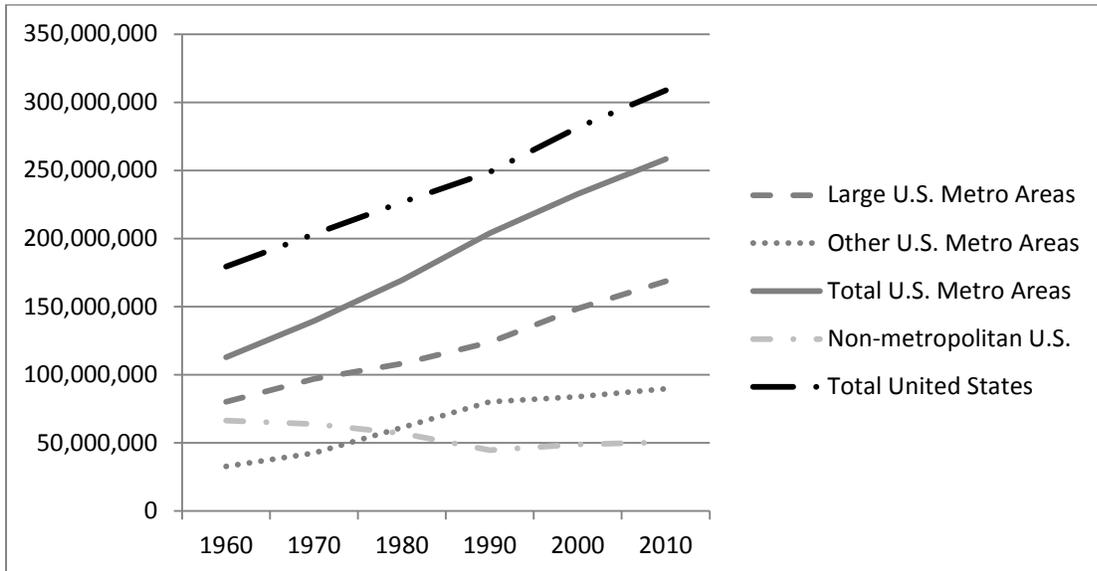
Source: Table 3

Figure 3: Percent population change in U.S. metropolitan and non-metropolitan areas (1960 – 2010)



Source: Table 4

Figure 4: Absolute population change in U.S. metropolitan and non-metropolitan areas (1960 – 2010)



Source: Table 4

Endnotes

ⁱ Census years in the two countries did not match perfectly, thus comparisons are made between decennial censuses in 1960 in the United States and 1961 in Canada; 1970 in the U.S. and 1971 in Canada, and so on.

ⁱⁱ Canadian land area is widely accepted as being larger than the United States; however Statistics Canada lists its land area as smaller than that listed by the US Census Bureau. This is due to discrepancies in measurement of “land area,” the definitions of which vary to include or exclude rivers, lakes, and even coastal waters.