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Income Inequality in Canada: The Urban Gap

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Table of Contents

| | |
|---|-----------|
| 1. Highlights | 2 |
| 2. Introduction | 2 |
| 3. Income inequality up since the '70s and '80s, but flat in the last decade | 3 |
| 4. The Gini coefficient doesn't tell the whole story | 5 |
| 5. Canadians living in low income and poverty | 8 |
| 6. What's happening in the cities? Biggest cities seeing largest increases in inequality | 10 |
| 7. Wealth and mobility are equally important | 17 |
| 8. More precision in inequality debate is needed | 19 |

Highlights

- Canada is one of the most urbanized countries in the advanced world. Over 80% of Canadians live in urban areas, and roughly 40% are in just four metro areas: Toronto, Montreal, Vancouver, and Calgary. This rapid pace of urbanization is happening at a time when inequality is rising in our cities.
- However, in this study, we show that the *increase* in income inequality seen in Canada is not only centred in our cities, it is almost exclusive to our cities. Calgary posts an increase in after-tax inequality four times higher than the national average since 1982, while Vancouver and Toronto follow closely behind with increases that are 2.5 and three times higher, respectively.
- The problem of rising inequality is not exclusive to these cities, however. We reconstruct income inequality metrics for Canada, including Gini coefficients and top 1% income shares, excluding each province's largest cities.
- The results show a Canadian population that is surprisingly equal, and one that has remained so over time. After-tax income inequality actually improves, while the increase in the top 1% income share since the early-1980s almost completely disappears. This does not rule out that less-populated communities are also feeling inequality pressures more generally; rather, that the increase in inequality is more concentrated in Canada's larger urban centres.
- The challenge here is that few of the tools that are able to address rising inequality lie with municipalities. The onus then is on federal and provincial governments to recognize that rising inequality is primarily an urban problem. In addition to the broad-based measures in its inclusive growth agenda, government needs to exercise more precision in applying their tools, be it tax policy or affordable housing strategies.

Introduction

Over the last decade or so, a near-unanimous consensus has been built among international policymakers, including the United Nations, the World Bank, the G20 and the OECD, that rising inequality is a serious problem. Indeed, this is an issue that needs addressing if we are to ensure future growth is sustainable. Canada is no stranger to this problem. An extensive body of literature has surfaced in recent years covering both the trends and major causes of rising inequality in a national context.

More recently, there have been growing concerns about the role that increased urbanization has played in the inequality discussion. Canada is one of the most urbanized countries in the advanced world. Over 80% of Canadians live in an urban area, with roughly 40% located in just one of four metro areas: Toronto, Montreal, Vancouver, and Calgary¹. Between 2001 and 2016, population growth in Canada's largest census metropolitan areas (CMAs) was more than four times higher than in the rest of the country.

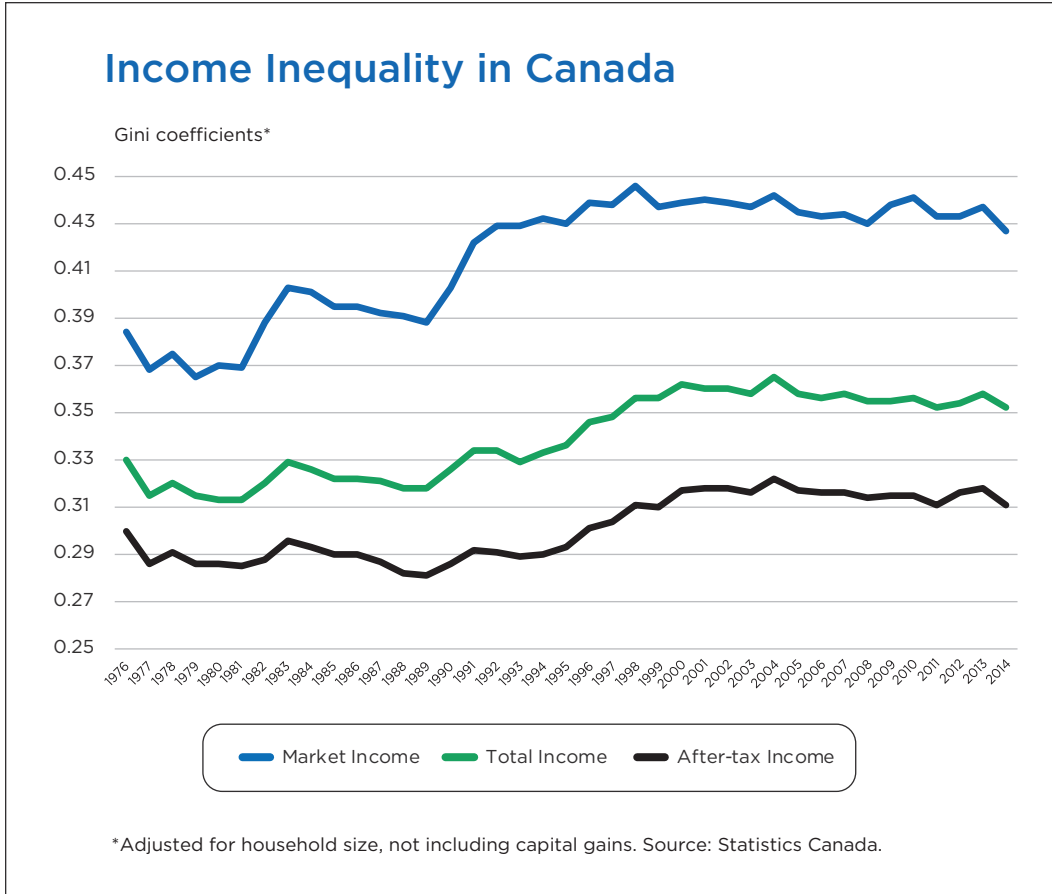
Urban centres tend to reveal wider disparities in incomes for obvious reasons; but what does the evidence actually show? Using Statistics Canada's Canadian Income Survey, we construct first approximations of Gini coefficients for Canada's largest CMAs and show that the national increase in inequality since the mid-1970s and early-1980s is heavily centred in these metro areas. In Canada's larger provinces like Ontario, British Columbia, and Quebec, rising inequality in the largest CMAs explains almost all of the increase in inequality we see at the provincial level. Extracting these CMAs from Canada and recalculating inequality metrics yields a non-urban population that is surprisingly equal and has remained equal over time. This is not to say that less-populated communities across the country do not feel the effects of inequality, but rather that the increase in inequality is more concentrated in urban centres.

In this report, we provide a brief overview of the major themes of the inequality discussion. We then delve into how these trends play out on a city-by-city basis before examining how the country has evolved separately from those major centres.

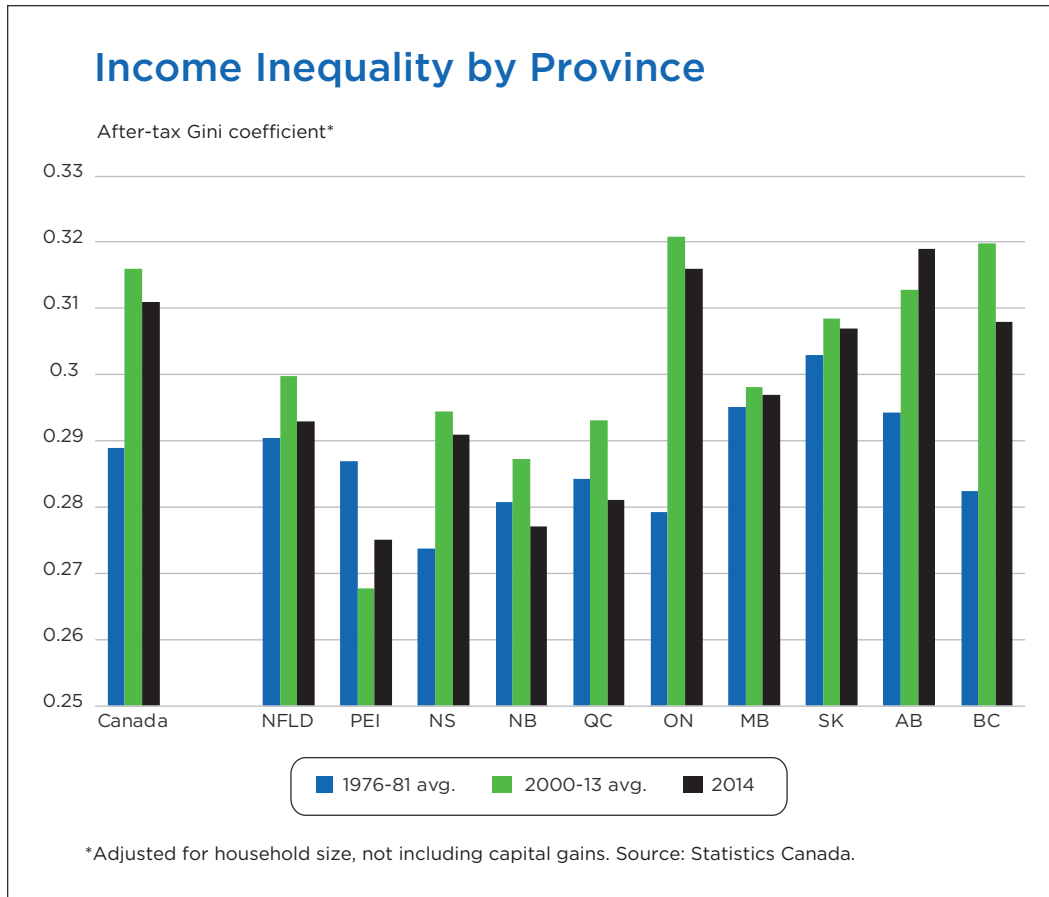
Income inequality up since the '70s and '80s, but flat in the last decade

According to the Gini coefficient, a metric widely used by economists, income inequality has indeed risen in Canada over time. The chart on page 4 shows the Gini coefficients using three different income measures: market income (employment income, interest income, etc), total income (market income plus government transfers), and after-tax income (total income less taxes paid). The largest and most pervasive increase occurred in the wake of the 1990s recession until about 2000. But, interestingly, inequality has been broadly flat across all three income metrics since then.

1 2016 Census of Population



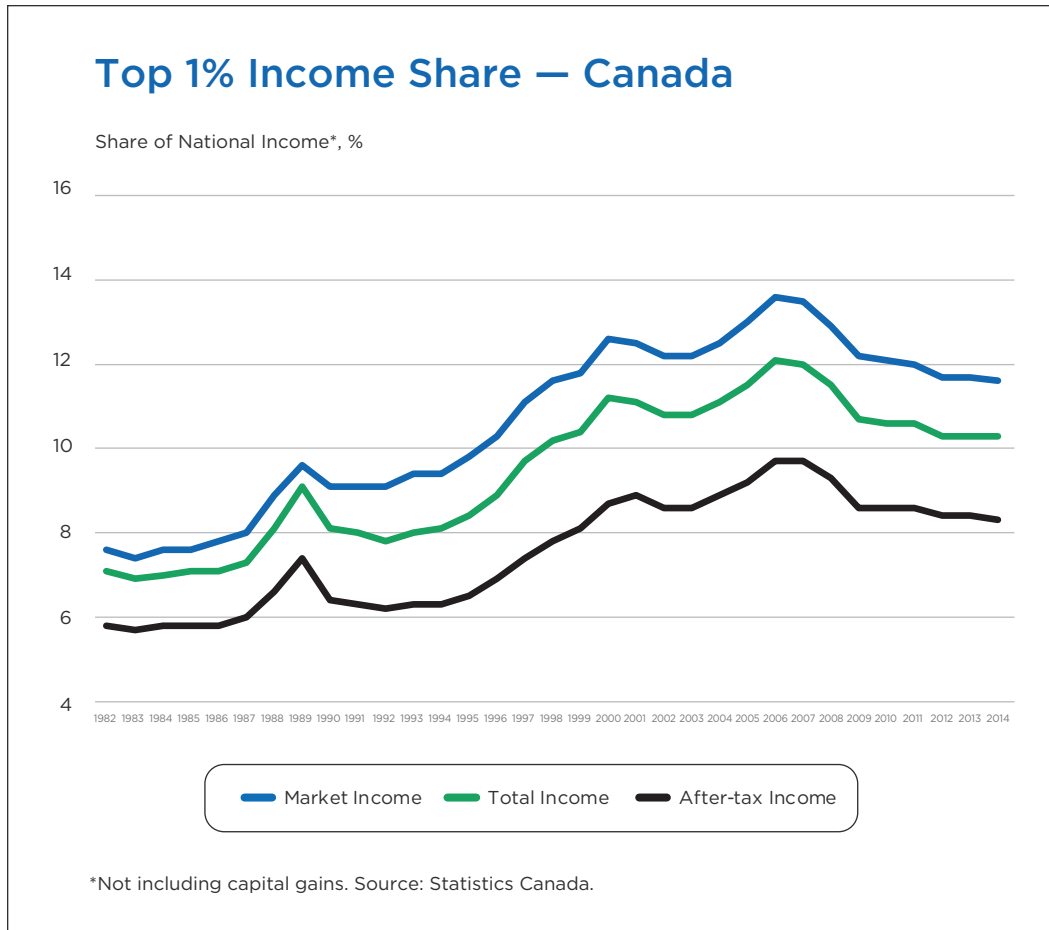
On a provincial basis, the story mostly follows the same contours. In all of the largest provinces, there were marked increases in the Gini coefficients over the course of the 1980s and 1990s. Most provinces then saw stabilization in their income distributions since around 2000. There were a handful of exceptions, with inequality continuing to rise in Alberta, while in Quebec and New Brunswick, inequality reversed course and fell to levels in 2014 that were lower than in the 1970s. Variation across the provinces is quite minimal though, suggesting that largely common forces have been at work across the country driving inequality higher.



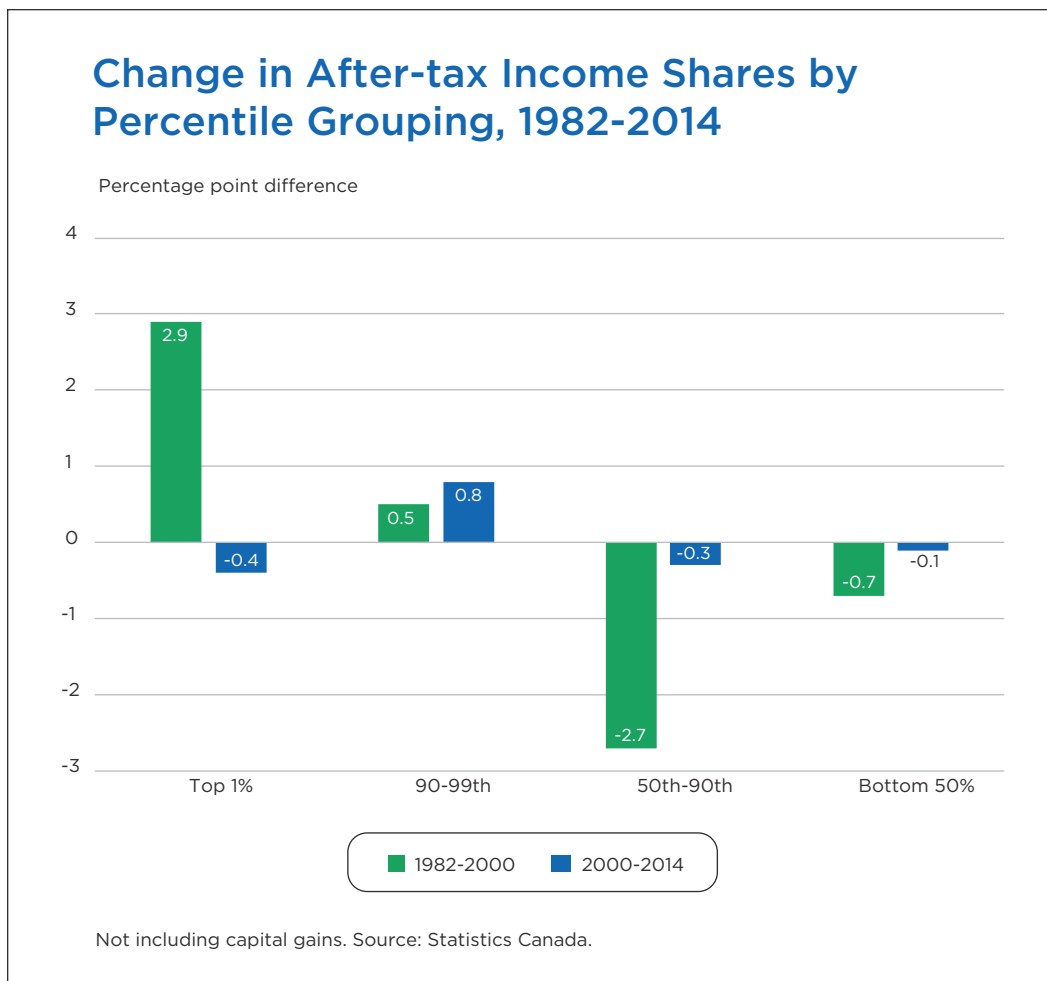
The Gini coefficient doesn't tell the whole story

The limited movement in Canada's Gini coefficient since 2000 perhaps runs counter to the narrative that inequality has worsened more recently, especially given a heightened level of public attention. But the Gini coefficient is just one element of the story. While useful for cross-country comparisons and looking at inequality over time, the Gini coefficient provides only a high-level overview and is infamous for saying little about key underlying details.

Notably, the Gini tends to miss the increasing share of income going to the top 1% of earners. While the profiles of the top 1% income shares look roughly similar to their respective Gini coefficients – increases over the 1980s and 1990s, flat since around 2000 – the shares themselves were markedly higher in 2014 than in 1976.



In addition, Gini coefficients provide little insight as to who the top 1% are gaining from. It is notably not Canadians from the bottom half of the income distribution - their share of after-tax income fell only slightly between 1982 and 2014. It follows then that the increase in both the top 1% and top 10% income shares has come mainly at the expense of the 40% of Canadians in the middle and upper-middle portions of the income distribution.



The reasons for these shifts are twofold.

Structurally, the most commonly cited driver behind longer-term increases in inequality is the theory that skill-biased technological change has led to the polarization of the labour market. Technological advancements through the 1980s and 1990s were largely able to automate many middle-skilled, middle-income occupations, leading to little, if not negative, growth in industries like traditional manufacturing. Technology has not been able to likewise replace workers on either end of the spectrum; that being high-skilled, cognitive-based occupations that tend to be higher paying and lower-skilled occupations that tend to be lower paying. Job growth has then concentrated in these polar ends of the income/skill spectrum, leading to higher inequality over time.

This phenomenon came to prominence through the work of Autor, Katz, and Kearney (2006) for the U.S. labour market, but has since been shown to have been true in Canada, as well, (albeit to a lesser degree than in the U.S.) through the work of Green and Sand (2013).

But, there are also significant transitory factors at play in the evolution of income inequality. The period of time with the largest increases in both the 1% income share and the Gini coefficient coincides with the period following the 1990s recession. The economic recovery was well documented as being particularly weak and the paltry job growth recorded at that time led many economists to label that period, “the jobless recovery”. Inequality tends to worsen during recessionary periods. Unemployment concentrates in more vulnerable sectors that tend to impact middle and lower-skilled workers, whereas high-skilled, high-income jobs are less affected. However, a weak pace of job growth during the recovery period only exacerbates this divergence in economic outcomes further.

The mid-90s were also characterized by a period of fiscal belt-tightening in order to combat the structural deficits that plagued the federal government. Government transfers as a share of household income fell significantly during this time, likely contributing to the decline in after-tax income of large swathes of the Canadian population, as seen in the chart on page 5. Only after 2000 do we see broad-based growth across the income spectrum, which ultimately drives the flat-lining of the Gini following the tumultuous 1990s.

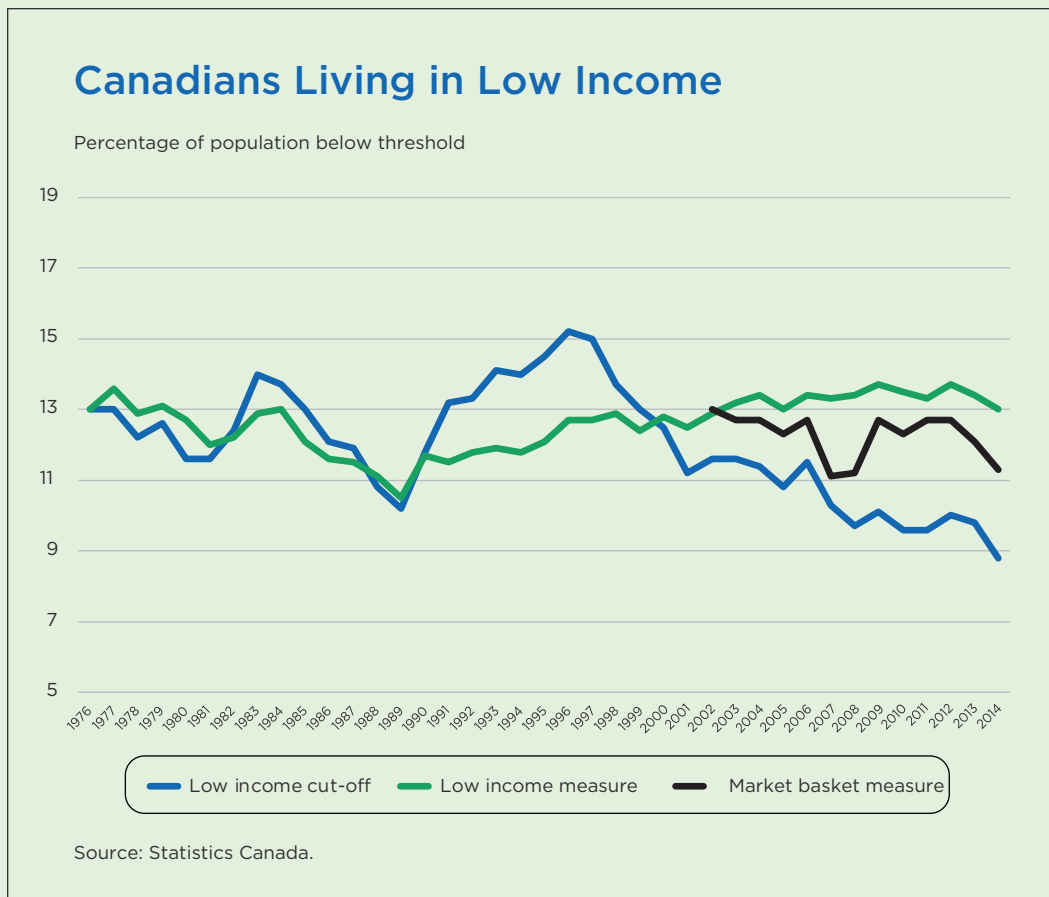
Canadians living in low income and poverty

A related problem to the broader income inequality debate is the persistent proportion of Canadians living in low income status. Canada does not have an official definition of the poverty line. Instead, three different low income measures are used as a substitute which establish thresholds for the cost of a family’s basic necessities.

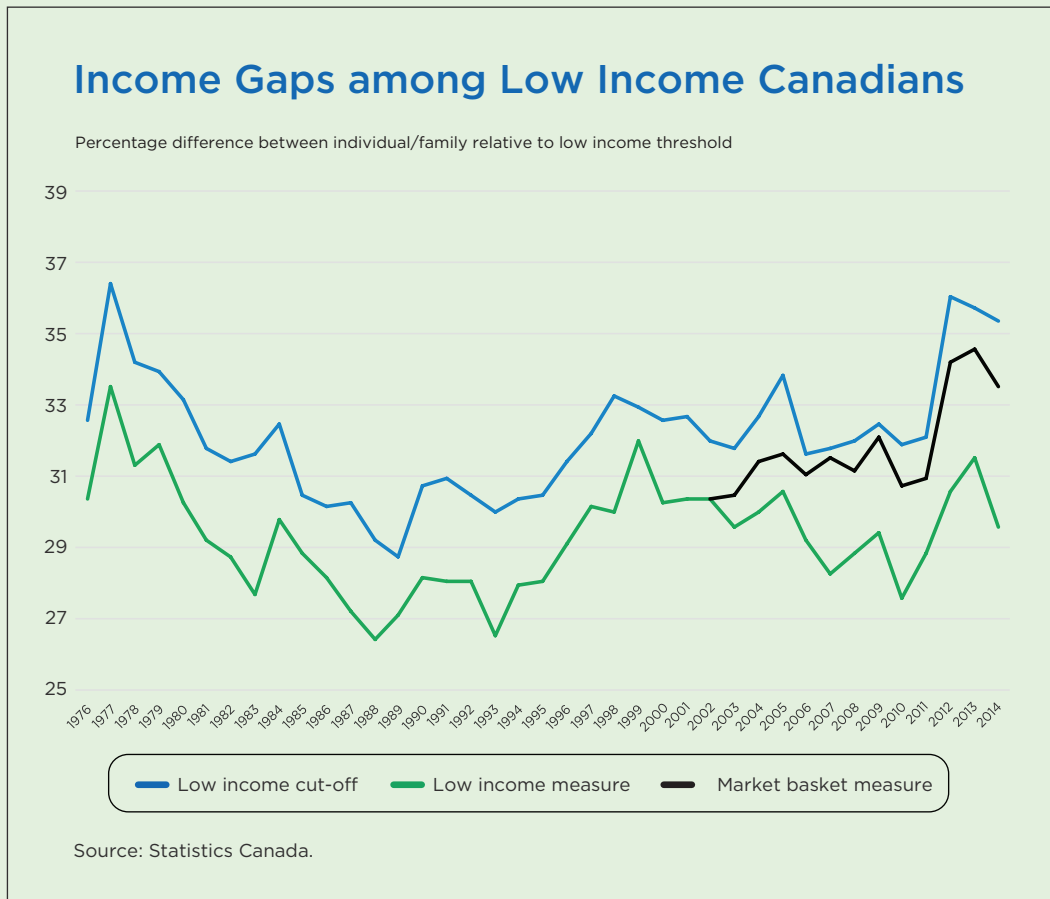
Low income cut-offs (LICOs) represent the threshold under which a family will spend 20% more of its income on food, clothing and shelter than the average family. The low income measure (LIM) is simply 50% of the median household income, adjusted for family size. The newest measure, the market basket measure (MBM), is more subjective and estimates the dollar cost of a basket of goods and services that would constitute a basic standard of living. LICOs differentiate between cities of different population sizes, while MBMs are estimated specifically for specific cities to account for differences in the cost of living.

The data show some recent divergence between the three measures when looking at the portion of the population living below each threshold. The share of Canadians living below the LICO has been steadily improving since 1996

and recently fell to its lowest level on record. Meanwhile, the proportion living under the LIM has steadily increased since the early-1990s. Both are relative measures, however, and are impacted by the evolution of the average and median family incomes, respectively. The market basket measure, notably, has remained steady over the last decade.



Statistics Canada also provides data on the average gap for each individual or family living in low income relative to the threshold, and in this regard there has been little improvement. Across all three measures, the average gap has remained stubbornly persistent. The data ultimately suggest that there is a significant minority of Canadians stuck in a quasi-permanent state of low income and that policies implemented to combat poverty face significant challenges in raising the floor for Canada's most vulnerable.



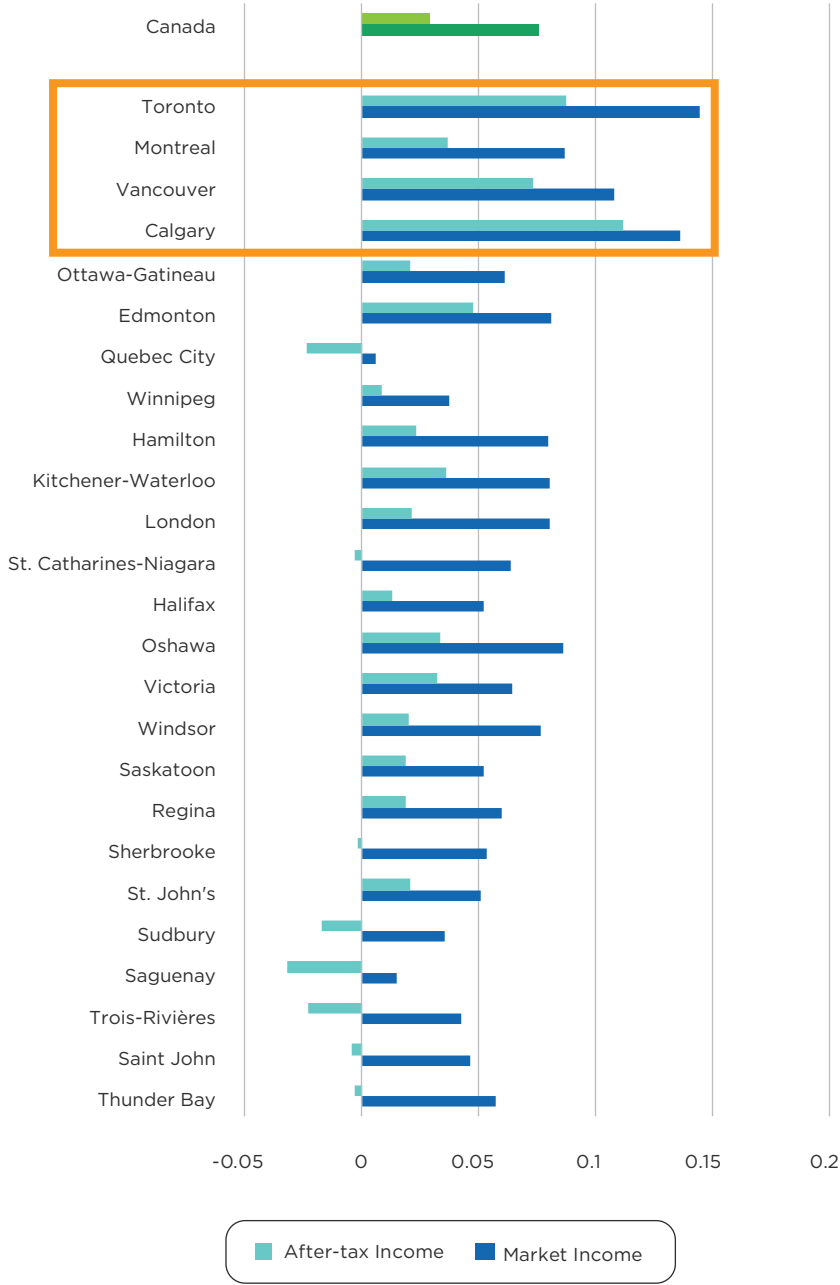
What's happening in the cities? Biggest cities seeing largest increases in inequality

In order to get a perspective on how these national inequality trends have played out in the country's largest cities, we use Statistics Canada's Canadian Income Survey (CIS) to construct Gini coefficients for each of the available census metropolitan areas (CMAs)².

² The CIS segments the Canadian population into broad income brackets which are generally fine enough for first approximations of Gini coefficients. However, the calculations presented below are relatively blunt due to the lack of a full rank-ordering of individual Canadians by income, and have limitations as a result. First, the figures presented are unadjusted for household size, meaning one could not compare Gini coefficients with those presented in the chart on page 4. Gini coefficients are also not easily comparable across geography sizes – constructed Ginis of smaller geographies are not precisely comparable to Ginis of larger geographies in level terms (e.g. a population-weighted provincial Gini would be slightly different than the national Gini). As a result, we focus on changes in Gini coefficients over time and across CMAs.

Gini Coefficients by Census Metropolitan Area

Change in Gini coefficient*, 1982-2014



*Unadjusted for household size, not including capital gains. Source: Statistics Canada, calculations by CPA Canada.

The results do indeed show that the largest increases in income inequality are occurring in Canada's most populous cities. This conclusion is likely a surprise to no one. But what is interesting is just how large those increases have been compared with the national average.

The chart on page 11 shows changes in market and after-tax Gini coefficients between 1982 and 2014 for all available CMAs ranked by population. What clearly stands out are the four largest cities, highlighted in orange. Vancouver, Montreal, Toronto, and Calgary all posted increases in their market income Gini coefficients significantly larger than the national average, with the latter two reporting increases nearly twice as large. On an after-tax basis, the results worsen still. Calgary posts an increase in its Gini coefficient that is nearly **four times as high** as the national average. Vancouver and Toronto follow closely behind with increases 2.5 and three times larger, respectively.

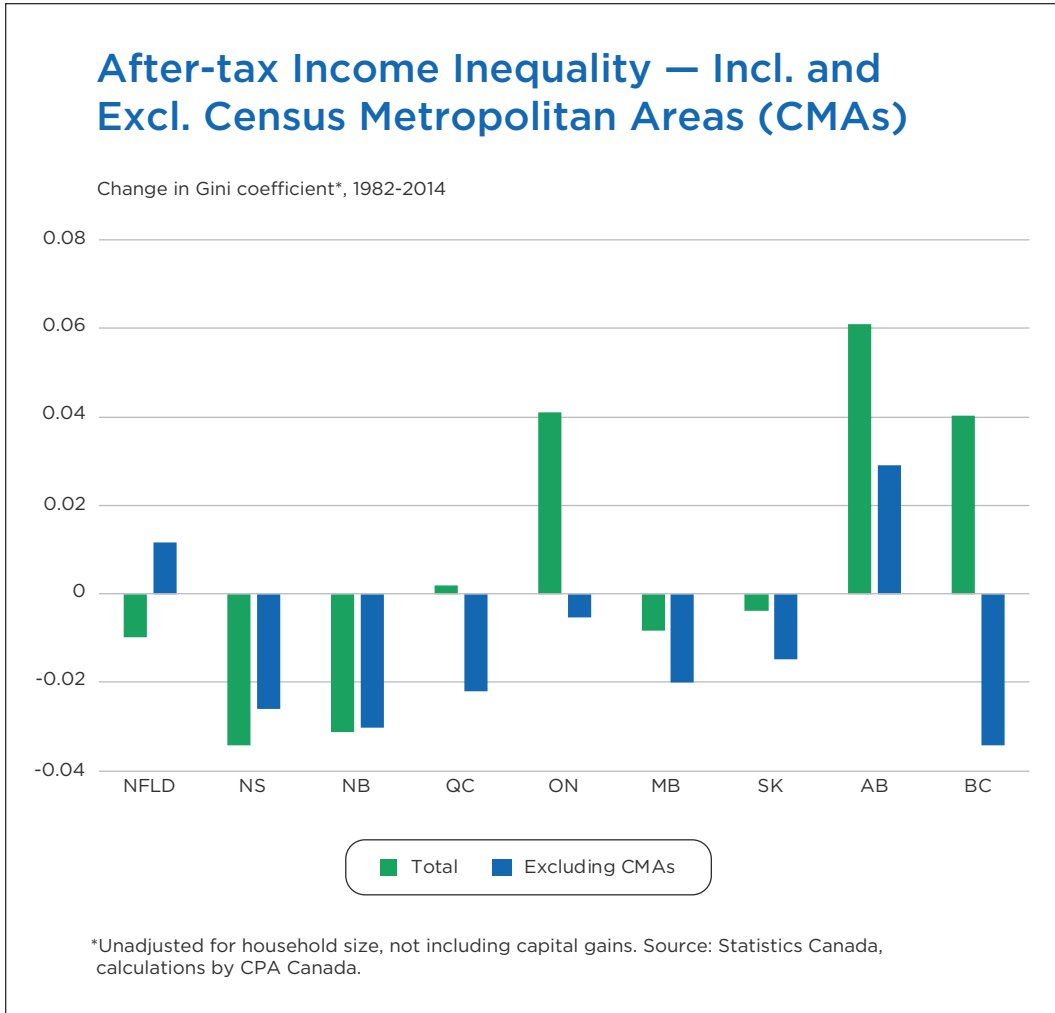
These results are particularly concerning when considered against the fact that Canada's population is heavily concentrated in these exact cities. As mentioned earlier, two out of five Canadians live in one of these cities – the national average should, to that precise extent, reflect what is happening in these places. If the gap between the two is so large, to what extent is national income inequality really just city-level inequality?

To answer this question, we reconstruct the provincial and national Gini coefficients excluding each of the provinces' largest CMAs³. On an after-tax basis, the results are striking. The chart on page 13 shows that, outside of Atlantic Canada, every province is categorically more equal after excluding their largest CMAs. In fact, Ontario, Quebec, and British Columbia all move from seeing an increase in inequality between 1982 and 2014 to a flat-out decline. The shift in British Columbia is particularly noteworthy as its position moves from having the third largest increase to the largest decrease.

On a market income basis, the three largest provinces, Ontario, British Columbia, and Quebec, all see dramatic reductions in how much inequality has risen over time. In both B.C. and Quebec, almost all of the increase since 1982 disappears, while the increase in Ontario is roughly halved. In Alberta, the decline is somewhat less, likely reflecting the fact that economic development in the energy sector has benefited numerous cities beyond the

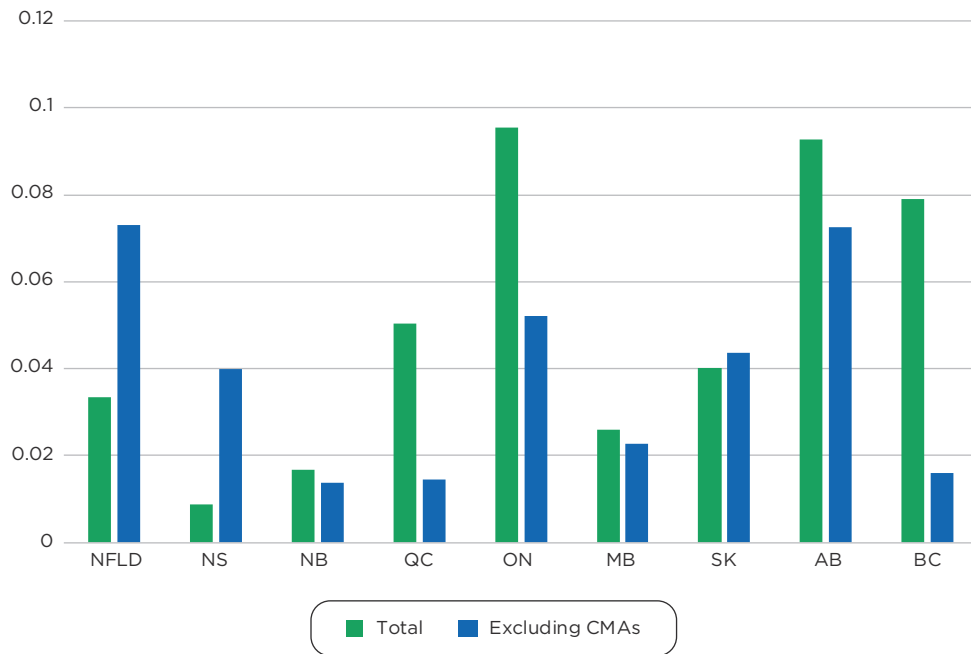
3 We restrict the CMAs excluded to each province's largest cities for which data is available. For Ontario and Quebec, we restrict exclusions to those cities with >500,000 population to delineate small and mid-sized cities from larger cities which face a different set of economic challenges. Cities excluded: St. John's, Halifax, Saint John, Montreal, Quebec, Hamilton, Kitchener-Waterloo, Ottawa-Gatineau, Toronto, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria. PEI is excluded entirely as no data is available for Charlottetown.

two excluded (Calgary and Edmonton), leading to much broader inequality pressures across the province. Meanwhile, in Canada’s smaller provinces, the effect of excluding the cities is either negligible or, in fact, counter to what one might expect in the case of both Newfoundland & Labrador and Nova Scotia.



Market Income Inequality – Incl. and Excl. Census Metropolitan Areas (CMAs)

Change in Gini coefficient*, 1982-2014

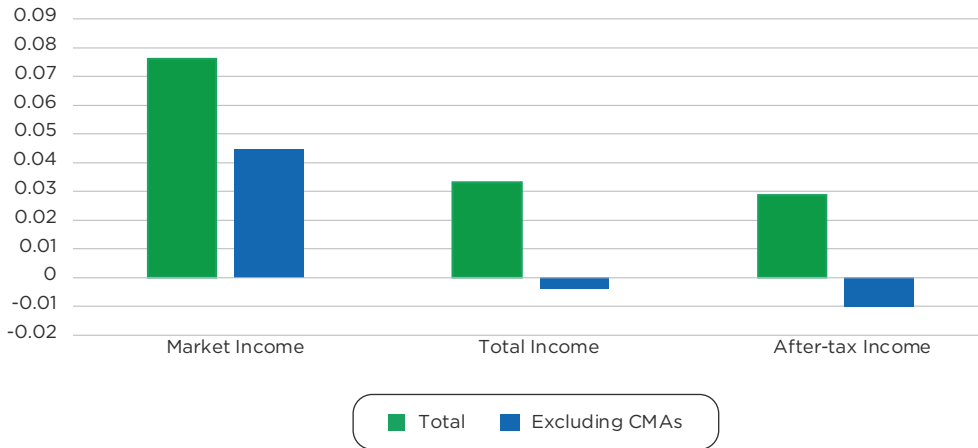


*Unadjusted for household size, not including capital gains. Source: Statistics Canada, calculations by CPA Canada.

The results on a national basis are equally striking. After excluding the CMAs, the increase in market income inequality is roughly halved, while on a total and after-tax income basis, inequality actually improves slightly. Unsurprisingly, these results are mirrored when looking at movements in the top 1% income share. Those same four cities are the only ones to record increases significantly higher than the national average. Excluding these cities results in a near disappearance of the increase in the top 1% income share on an after-tax basis. This does not preclude rising inequality pressures between smaller communities and larger cities. However, within any given community, after-tax income inequality is no more of an issue today than it was in the early-1980s, on average, *unless you live in a city*.

Income Inequality in Canada — Excluding Largest CMAs

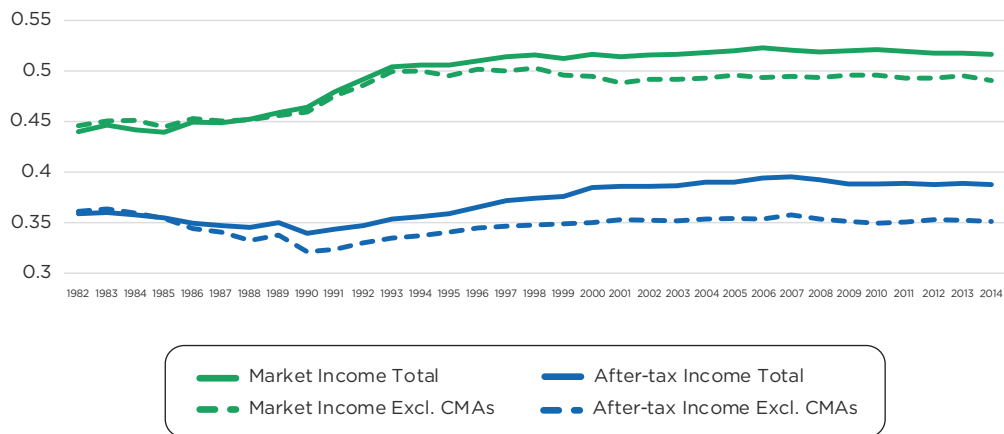
Change in Gini coefficient*, 1982-2014



Cities excluded: St. John's, Halifax, Saint John, Montreal, Quebec, Hamilton, Kitchener-Waterloo, Ottawa-Gatineau, Toronto, Calgary, Edmonton, Winnipeg, Regina, Saskatoon, Vancouver, Victoria
 *Unadjusted for household size, not including capital gains. Source: Statistics Canada, calculations by CPA Canada.

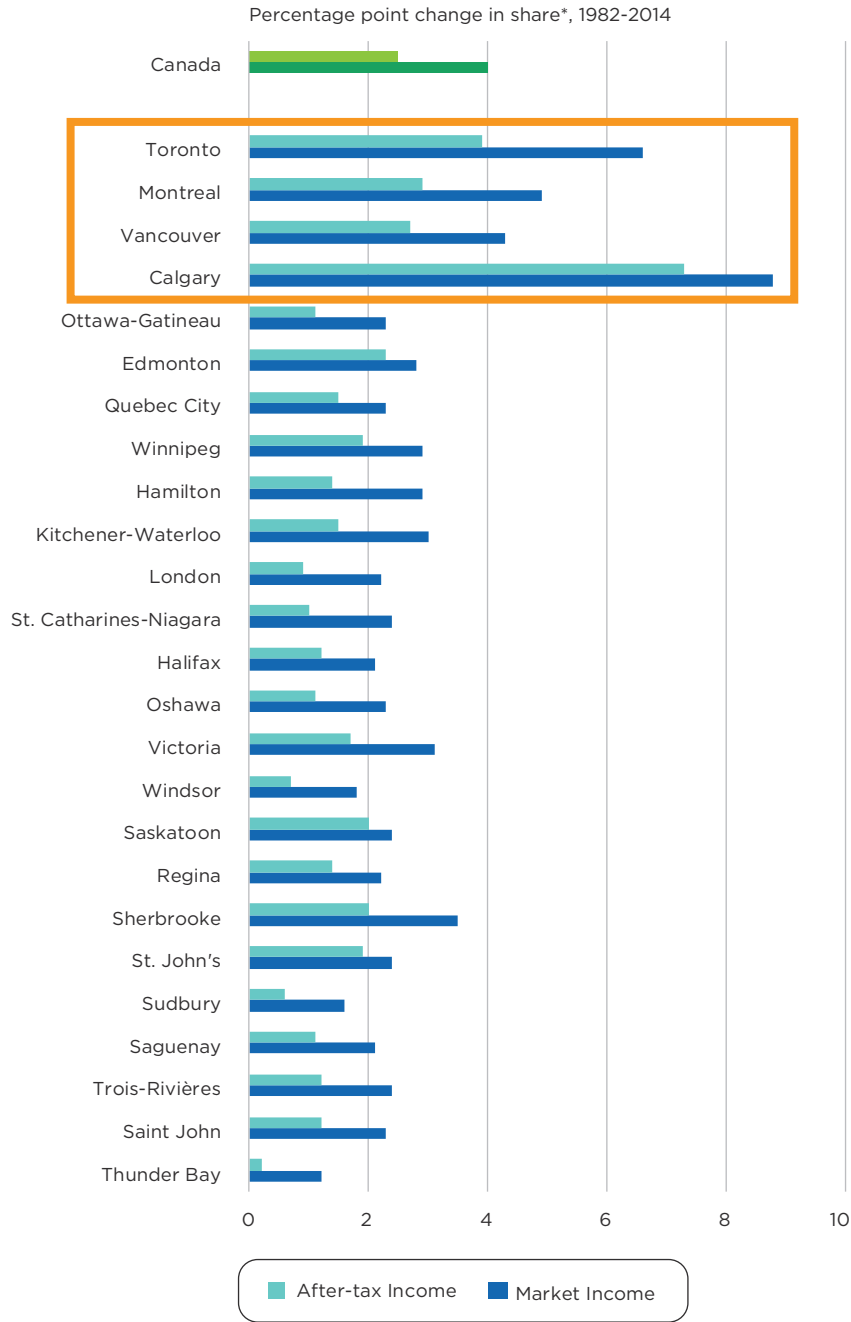
Income Inequality in Canada — Excluding Largest CMAs

Gini coefficient*

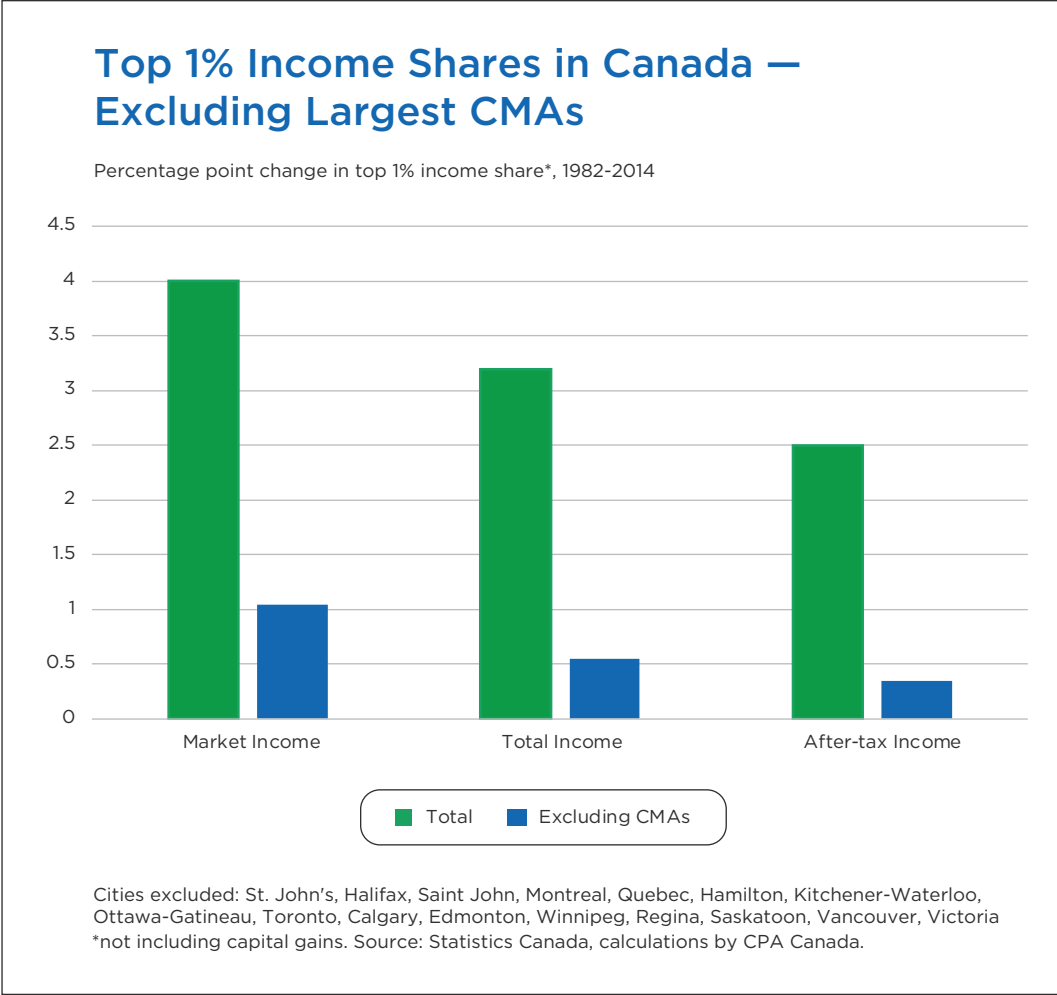


Cities excluded: St. John's, Halifax, Saint John, Montreal, Quebec, Hamilton, Kitchener-Waterloo, Ottawa-Gatineau, Toronto, Calgary, Edmonton, Winnipeg, Regina, Saskatoon, Vancouver, Victoria
 *Unadjusted for household size, not including capital gains. Source: Statistics Canada, calculations by CPA Canada.

Top 1% Income Shares by Census Metropolitan Area



*Unadjusted for household size, not including capital gains. Source: Statistics Canada, calculations by CPA Canada.

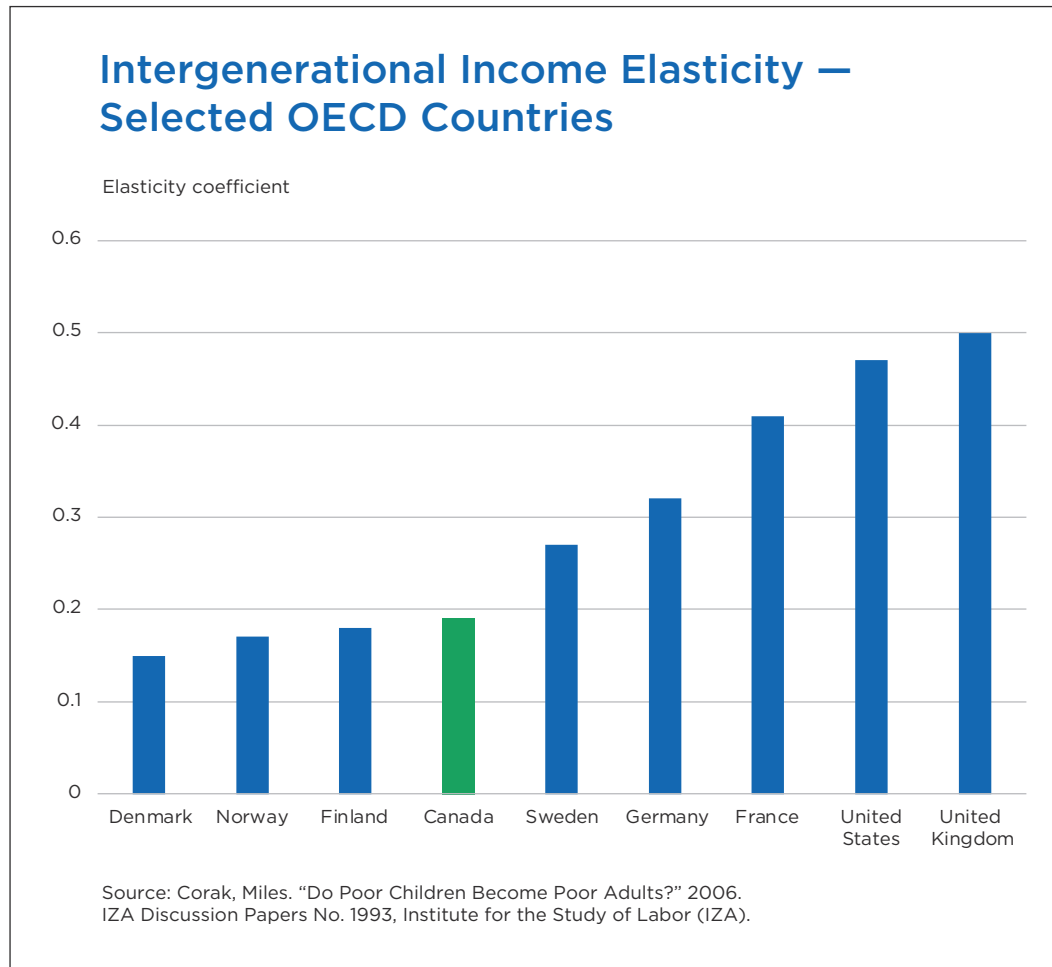


Wealth and mobility are equally important

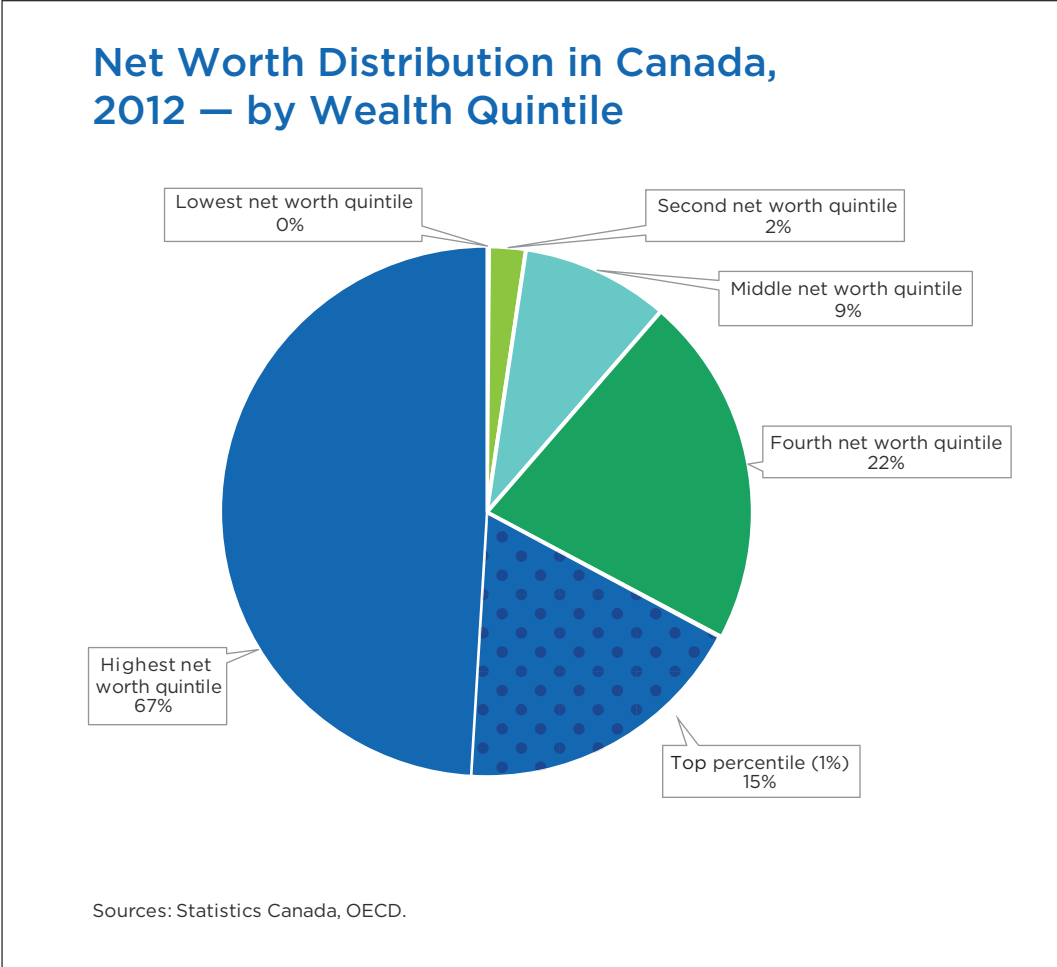
It is important to keep in mind that income inequality is just one part of a multi-faceted debate. A reasonable level of inequality may always exist to incentivize Canadians to work, save, and invest. Concern arises when inequality is severe enough that it becomes a barrier to those trying to get ahead. Fortunately, Canada fares well on this front.

The main measure used to examine income mobility is the intergenerational income elasticity (IGE) coefficient. A country's IGE measures the degree to which the gap between a parent's income relative to the average is passed on to their children - a high IGE coefficient suggests poor mobility as the income gap faced in one generation persists to the next. An extensive body of literature details how Canada's IGE is fairly low relative to other advanced countries. Recent research that uses a more comprehensive dataset, such as Chen, Ostrovsky, and Piraino (2016), suggest that earlier estimates likely

understate Canada's IGE by nearly 50%. However, this does not change Canada's relatively high ranking, falling behind only the Nordic countries by a small margin.



The elephant in the room, however, arguably bigger than both income inequality and mobility, is the notion of wealth inequality. According to Statistics Canada's Survey of Financial Security, the richest 20% of Canadian households held more than two-thirds of the country's net worth in 2012. Recent OECD data peg the top 1% as holding more than a 15% share of overall wealth. A stronger concentration of wealth is likely a more tangible notion of inequality, as higher net worth positions typically translates into higher consumption of luxury goods and ownership of physical assets like real estate. Such differences in standards of living are far more visible when looking at differences in wealth relative to differences in income.



More precision in inequality debate is needed

The results of this study show that the increase in income inequality we have seen over time has been heavily concentrated in Canada's most populous cities. That much is clear. However, these results ought not to be taken as an indication that inequality pressures do not exist in smaller communities, or that increased urbanization is undesirable, or that cities are inherently bad places to live. Quite the opposite is true. Urban centres are dynamic, innovative engines of economic growth. And the success of our cities is entirely dependent on the diversity of people who choose to live there, from entrepreneurs to artists of varying ages, ethnicities, and backgrounds.

What this study does suggest is that rising inequality is often a byproduct of that success.

Unfortunately, none of the tools needed to combat this problem sit with municipal governments. Large cities are thus very ill-equipped to address what is increasingly and disproportionately an urban problem.

The onus is on the federal and provincial governments to recognize this fact and act accordingly. This is not to diminish the challenges of our small or mid-sized cities or rural areas. In fact, skill-biased technological change and the polarizing labour market disproportionately affects less densely populated areas. But if we know where the pressure points are growing in the inequality debate, this allows for more precision when leveraging the tools we do have at our disposal, be it tax policy, funding for affordable housing, or poverty reduction strategies.

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