

Measuring Ontario's Prosperity Gap at the Metropolitan Area Level

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Summary

- A recent study published by the Fraser Institute found that there exists a “prosperity gap” between Ontario and nearby American states in the Great Lakes region. Specifically, Ontario is an economic laggard with respects to key measures of income, with the relevant gaps widening in recent years.
- This paper provides further analyses of these indicators by examining median employment income in 107 large metropolitan areas in Ontario and Quebec (CMAs) and the Great Lakes region of the United States (MSAs) in 2019.
- We find that for this important indicator of labour market and overall economic health, Ontario's metro areas are clustered near the bottom of the overall rankings. Specifically, out of the 20 bottom-ranked jurisdictions for this indicator, seven are found in Ontario.
- This study also measures growth in median employment earnings during the 2010s. On this indicator, Ontario also fared poorly. Of the just 22 CMAs out of 107 with annualized growth rates below 0.5 percent, seven are found in Ontario. These include some of the largest metropolitan areas such as Toronto (0.4 percent), Ottawa (<0.1 percent), and London (0.4 percent).
- This study also provides a discussion of the large southwestern Ontario CMAs of London and Windsor. These two once-prosperous cities rank 93rd and 99th out of 107 metro areas for median employment income. We specifically show that these two once-prosperous metro areas lag far behind nearby US manufacturing hubs such as Detroit, Milwaukee, Cleveland, and Buffalo.

Introduction

In February 2022, the Fraser Institute published a study comparing the gross domestic product (GDP) and recent GDP growth in Ontario to Quebec and a selection of nearby US states. That paper concluded that there exists a “prosperity gap” between Ontario and most of its neighbours (Eisen and Li, 2022). This means that the province is a regional economic laggard with respect to key measures of income. Further, that report found that the gap between Ontario and its neighbours has generally been growing in recent years.

This paper expands that analysis by zooming in to examine economic performance in large population centers in these same jurisdictions. Specifically, we compare median employment income in all of Ontario and Quebec's Census Metropolitan Areas (CMAs) to large American metro areas, known as Metropolitan Statistical Areas, in the same comparator US states.

Specifically, this paper seeks to measure the prosperity gap between large metropolitan areas in Ontario and those in nearby jurisdictions by comparing median employment income as well as considering the change in this important measure of labour market health and prosperity over time.

Identifying Ontario's Peer Group

This report measures the performance of Ontario's CMAs with respect to median employment income to large metro areas in Quebec and American states bordering one of the great lakes. Specifically, the comparison group consists of:

- Illinois
- Indiana
- Michigan
- Minnesota
- New York
- Ohio
- Pennsylvania
- Quebec
- Wisconsin

Several of these jurisdictions have sectoral similarities to Ontario's economy and have extensive supply chain links between them. Further, Ontario competes with these nearby jurisdictions for talent and capital investment. Of course, there are defensible rationales for choosing other sets of comparators. While recognizing that no comparator group is perfect and that many other choices would be reasonable, focusing on next-door Quebec and nearby US jurisdictions, several of which have large manufacturing sectors, provides a straightforward way to select important trading partners and competitors for investment.

There are rationales for other sets of comparators. For instance, many studies document productivity benefits from urban agglomeration (Ahrend et al., 2017). As such, there may be meaningful ways in which states found further away but that also have large cities may at least in some respects be equally useful comparator jurisdictions. While recognizing no group is perfect and other choices would be reasonable, using the Great Lakes jurisdictions is a straightforward way of selecting important neighbours, trading partners, and competitors for investment.

The Indicator and Methodological Notes

This paper focuses primarily on comparing the median employment income of major metropolitan areas in Ontario to several nearby jurisdictions. Many possible variables could be used to compare the urban areas discussed here. Employment income differs from other measures in that it excludes some forms of income such as government transfers and investment and pension income. We use it to focus on what people earn in the labour market after stripping away the effects of passive income and government transfers. For economy of words and clarity we sometimes use the word “income” to refer to “median employment income” reported in Canada and “median earnings” reported in the United States.

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The choice to focus on median incomes is born out of the objective to analyze the health of labour markets for middle-income residents. Other indicators would shed light on other important dimensions of labour market performance. A focus on median incomes, or the median incomes within the top ten percent, for instance, would shed more light on outcomes for high earners, which is important for attraction of mobile human capital. Here we focus on labour market performance for middle-income individuals, but many other alternatives such as those discussed above are interesting options for future research products.

We present data for this indicator from the year 2019, as well as data on the rate of change from 2010 to 2019, because 2019 is the last year of comparable data in both jurisdictions that is clearly not distorted by potentially short-term effects of the COVID-19 pandemic and recession. Our analysis of the rate of change can therefore be understood as a comparison of the growth rate in median employment income in the decade from 2010 to 2019.

We focus on large metropolitan areas, which are defined similarly in the United States and Canada. A Canadian CMA must have a population of at least 100,000 people with at least 50,000 residents in the core. Similarly, in the United States, the concept of an MSA is that of a core area containing a large population nucleus together with adjacent communities with a high degree of economic and social integration with that core (US Census Bureau, 2023).

Although the terminology is different in the two countries the focus is the same. More information about the minor differences in definitions as well as our approach to currency comparability (we rely on a Purchasing Power Parity (PPP) exchange rate to convert American jurisdictions to Canadian dollars) is available in Eisen and Emes (2023), where much of this data is first presented and a more detailed methodological section is included.

Results

Reviewing Provincial/State Level Findings

Before moving to examine data at the urban area level, we will quickly discuss results at the provincial/state level. This analysis shows that with respect to GDP per capita, Ontario is a regional laggard. Ontario is only ahead of Quebec for this indicator, and far below the US states examined. **Figure 1** illustrates this fact. We use 2019 data in this report for consistency with the later data presented comparing urban areas, for which 2019 is the most recent year of data availability that is comparable between Canada and the United States.

Figure 1 illustrates a large prosperity gap with all of the US jurisdictions measured. Even the worst US performer for this indicator, Michigan, enjoyed a GDP per capita advantage of \$3,791 over Ontario, which is a gap of 6.2 percent. The gap was much larger for several other states.

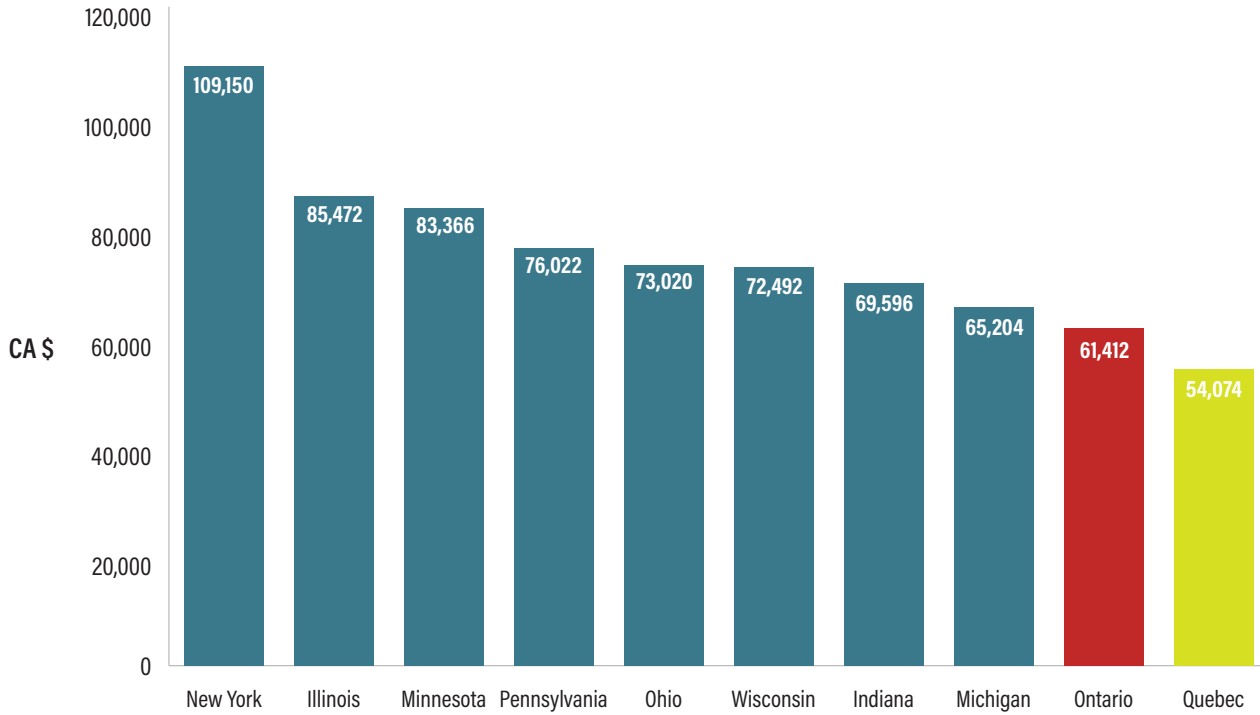
As concerning as the existence of this prosperity gap is, it is of potentially greater concern that this gap has grown over the past two decades. These developments are discussed in greater detail in Eisen and Li (2022).

In this study, we also consider a narrower definition of income which is median employment income, the definition of which is discussed above. **Figure 2** presents median employment income in Canadian dollars for Ontario, Quebec, and the comparator US states.

On this indicator as well, Ontario is a regional laggard. Figure 2 shows that Ontario was only narrowly ahead of Quebec for this indicator in 2019, and far behind all 8 comparator US states. Again, the smallest gap of any state in the analysis was with Michigan, and still stood at \$3,711 (9.9 percent). The gap with several other comparator states was substantially larger. The largest gap was with New York State, at \$13,791 (36.8 percent).

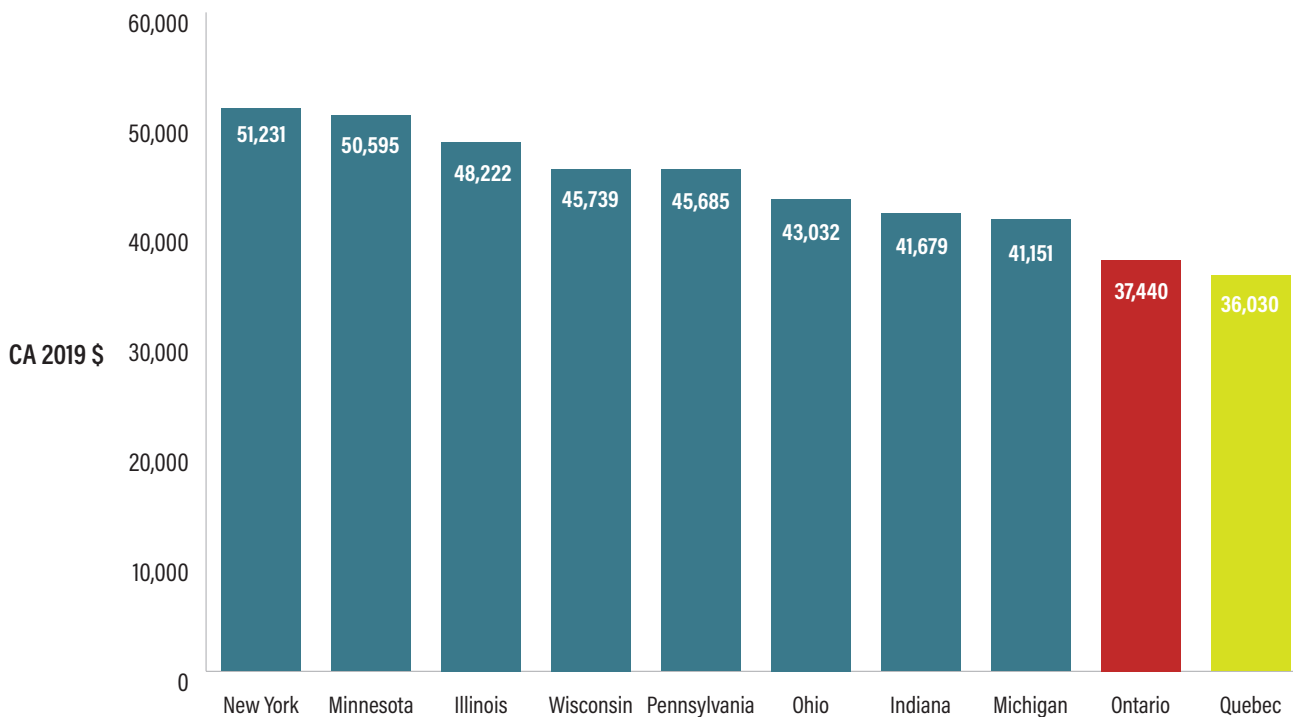
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Figure 1: GDP Per Capita for Selected States and Provinces, 2019 (CA \$)



Note: US data is converted to Canadian dollars using the PPP conversion rate.
Sources: Statistics Canada, 2023a, 2023b; US Bureau of Economic Analysis, 2023; OECD, 2023; calculations by authors.

Figure 2: Median Employment Income for Selected States and Provinces, 2019 (CA \$)



Note: US data is converted to Canadian dollars using the PPP conversion rate.
Sources: Statistics Canada, 2023d; US Census Bureau, multiple years; OECD, 2023; calculations by authors.

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As is the case for GDP per capita, the prosperity gap between Ontario and its neighbours is generally growing rather than shrinking over time. **Figure 3** illustrates this fact by showing the evolution of this metric from 2010 to 2019. It shows Ontario falling behind rather than catching up to its US comparator jurisdictions. In fact, Ontario had the slowest rate of annualized median employment income growth over this period, at just 0.60 percent (inflation adjusted) in the Great Lakes region during this analysis period. The second slowest rate of growth was in Pennsylvania at 0.81 percent. The fastest growing state for this metric was Minnesota at 1.34 percent.

These data confirm that at the provincial level, Ontario faces a prosperity gap compared to nearby US States with respect to GDP per capita as well as median employment income.

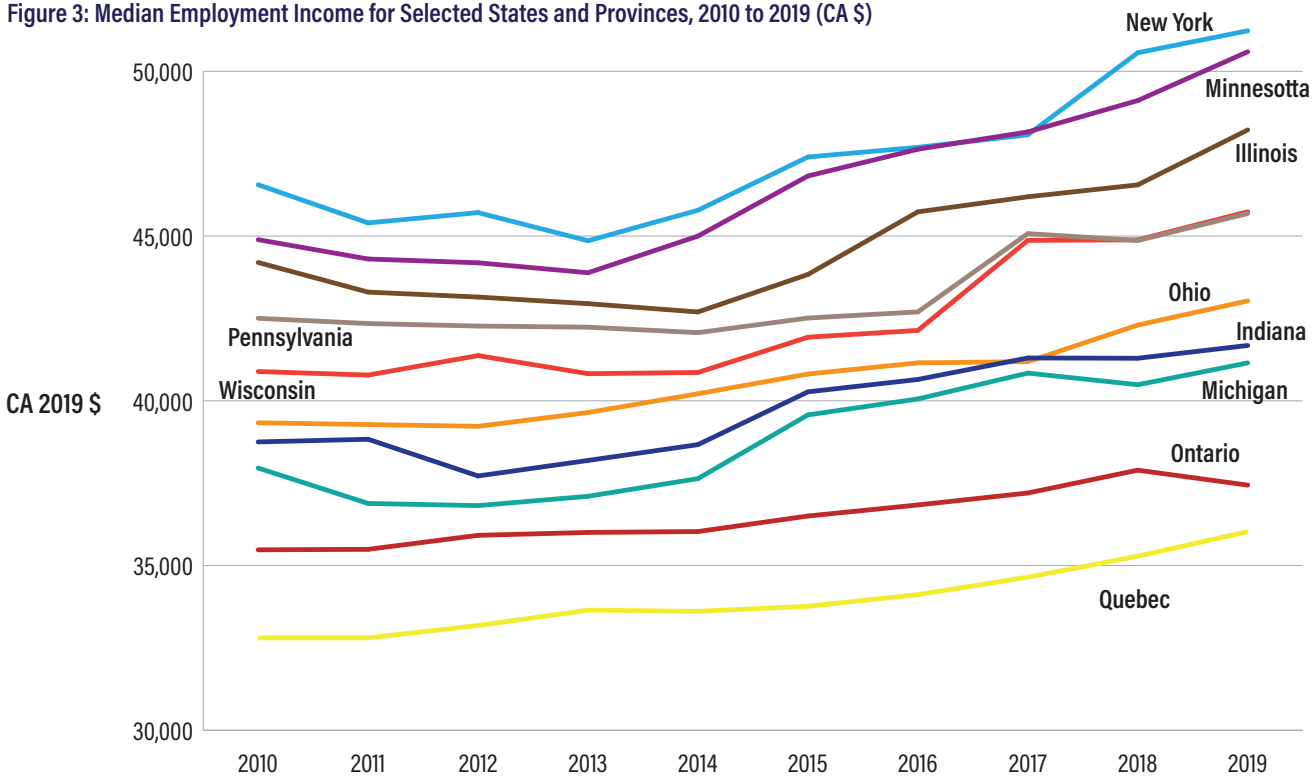
Comparing Employment Income at the CMA/MSA Level

This section presents the key results of our study, comparing median employment income in the CMAs and MSAs located in the nine jurisdictions that were studied at the provincial/state level in the previous section.

Figure 4 presents one of the two main results of the study, comparing median incomes in Ontario CMAs to Quebec CMAs and MSAs in nearby US states. It shows that the fact of a provincial/state level prosperity gap is borne out at the metropolitan area level, as Ontario's metros are clustered near the bottom of the rankings and entirely absent from the top.

In total, we consider 107 large urban areas in this study. Of these, 16 are found in Ontario. Out of the 20 bottom-ranked jurisdictions for this indicator, seven are

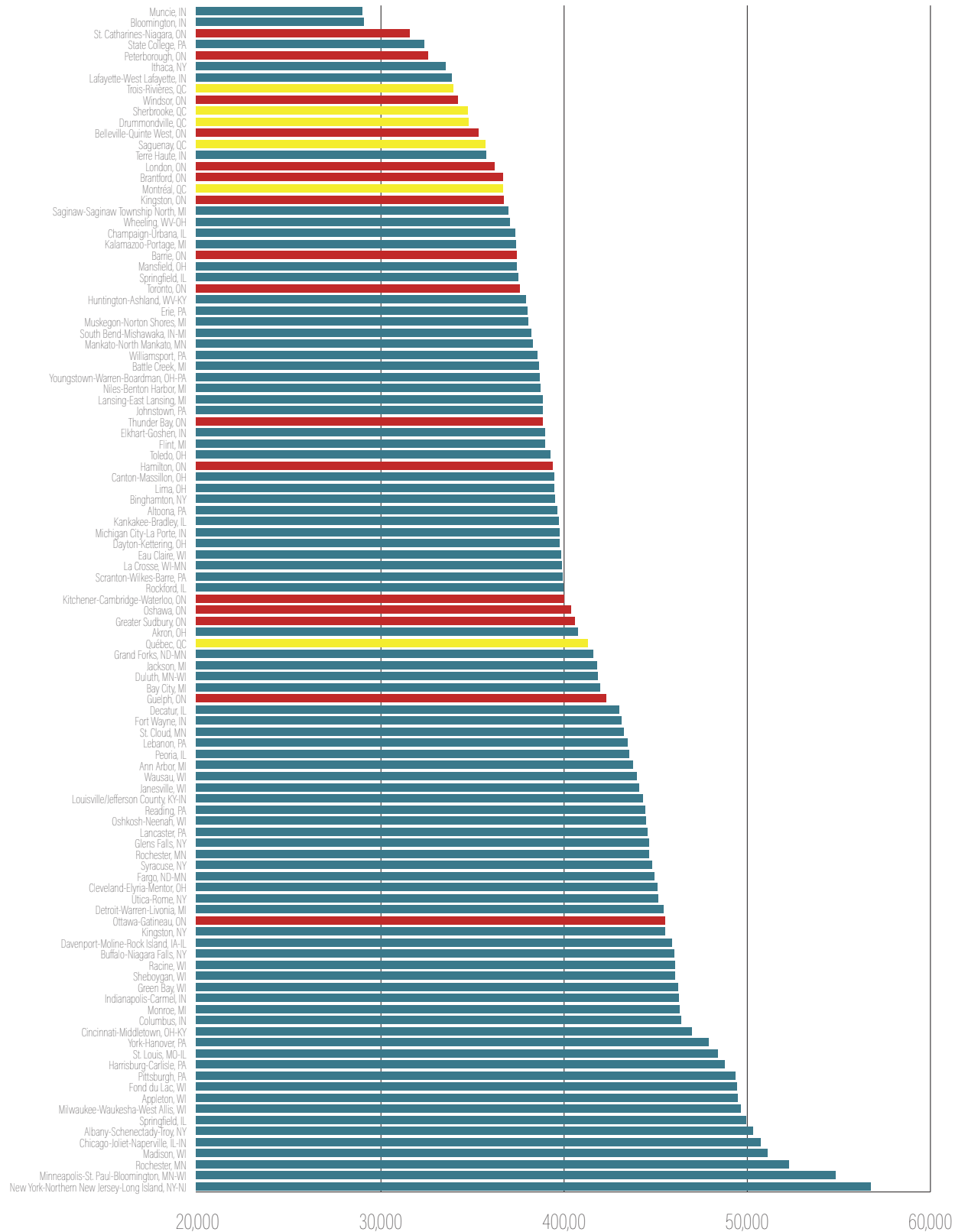
Figure 3: Median Employment Income for Selected States and Provinces, 2010 to 2019 (CA \$)



Note: US data is converted to Canadian dollars using the PPP conversion rate.
Sources: Statistics Canada, 2023d 2023e; US Census Bureau, multiple years; OECD, 2023; calculations by authors.

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Figure 4: Median Employment Income, Selected Canadian CMAs and American MSAs, 2019 (CA \$)



Note: US data is converted to Canadian dollars using the PPP conversion rate. Metropolitan statistical areas (MSAs) with a population of less than 100,000 people (in 2020) were excluded from the analysis. Sources: Statistics Canada, 2023d; US Census Bureau, multiple years, 2023; OECD, 2023; calculations by authors.

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found in Ontario. An additional five are found in Quebec. Most of the remaining Ontario CMAs are found in the bottom half of the league table presented in figure 4. In total, 12 of Ontario's 16 CMAs are in the bottom half of the rankings.

Of particular importance, the metropolis of Toronto, home to nearly half of Ontario's population, ranks 82nd on the list. Meanwhile, London and Windsor, once economic powerhouses in Southwestern Ontario, ranked 93rd and 99th respectively in 2019.

While Ontario is overrepresented at the bottom of this ranking, its CMAs are absent from the top. The highest ranked Canadian CMA, Ottawa-Gatineau¹, ranks 25th out of 107 CMAs and MSAs studied here. The next highest ranked is Guelph, at 45th. Greater Sudbury and Oshawa are the two remaining CMAs in the top half of the rankings.

The three highest-ranked urban areas for median incomes are New York (\$56,715)², Minneapolis (\$54,797), and Rochester (\$52,246).

Comparing Median Employment Growth Rates in Ontario CMAs to Other Great Lakes Metros

These data show that as of 2019 a large prosperity gap existed between Ontario CMAs and the vast majority of MSAs in the Quebec and the Great Lakes States. **Figure 5** presents the second main finding of this report, comparing annualized growth rates for the same 107 metro areas studied here from 2010 to 2019. Although some of Ontario's CMAs perform relatively well on this indicator of growth, the majority are found in the bottom

half of the league table and Ontario CMAs are clustered amongst the metro areas with the slowest rates of growth.

Figure 5 shows that Ontario CMAs are heavily clustered near the bottom of the group with respect to growth rates. Of the just 22 CMAs out of 107 with annualized growth rates below 0.5 percent, seven are found in Ontario. These include some of the largest metropolitan areas including Toronto (0.4 percent), Ottawa (<0.1 percent), and London (0.4 percent). In total, 12 of Ontario's 16 CMAs are found in the bottom half of the league table.

Just as Ontario's CMAs are overrepresented at the bottom of the table, they are mostly absent from the top. Just four are found in the top half—St. Catherines-Niagara (1.0 percent), Windsor (1.1 percent), Greater Sudbury (1.5 percent), and Belleville-Quinte West (1.5 percent).

Additional Notes on London and Windsor

Several past studies published by the Fraser Institute have paid particular attention to economic conditions and changes in London and Windsor, Ontario. These studies have shown that these two major hubs of Canadian manufacturing have lagged the national and provincial average in the rate of job creation throughout most of the past two decades.³

The data presented in this study shed additional light on the labour market performance of these large southwestern Ontario CMAs. **Table 1** compares median employment income and growth in median employment income from 2010 to 2019 in London and Windsor to seven other large manufacturing hubs in the

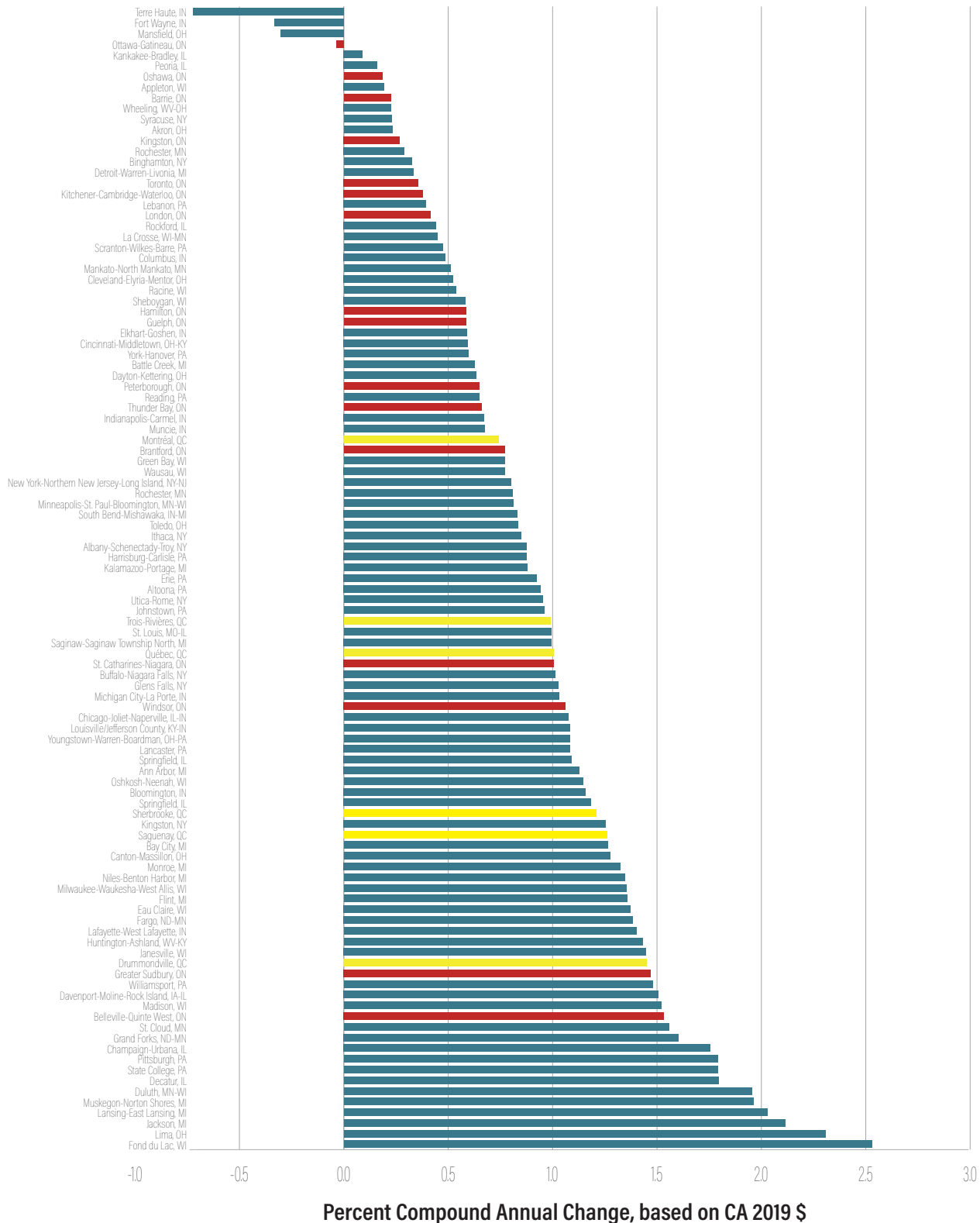
1 This report draws on a dataset that compared Canadian and American CMA/MSAs. For that national-level dataset, the Ottawa-Gatineau CMA was not divided into an Ontario and Quebec component. For this reason and consistency between reports, we have continued to include the Ottawa-Gatineau CMA as one entity for this analysis of Ontario CMAs though we recognize that a portion of its population resides in Quebec.

2 To improve readability, the text refers to American MSAs simply by naming the city at the core of each MSA. The MSAs full names are provided in the charts and tables.

3 For example, see Eisen and Emes (2020).

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Figure 5: Compound Annual Percent Change in Median Employment Income, Selected Canadian CMAs and American MSAs, 2010 to 2019



Note: US data is converted to Canadian dollars using the PPP conversion rate. Metropolitan statistical areas (MSAs) with a population of less than 100,000 people (in 2020) were excluded from the analysis. Sources: Statistics Canada, 2023d, 2023e; US Census Bureau, multiple years, 2023; US Bureau of Labor Statistics, 2023; OECD, 2023; calculations by authors.

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Table 1: Median Employment Income in London and Windsor CMAs and a Selection of American MSAs, 2019 (CA \$)

NAME	2019 (CA \$)	Relative to Ontario (ON = 100)	Rank (of 107)	2020 Total Population
London, ON	36,180	97	93	523,010
Windsor, ON	34,190	91	99	343,290
Chicago-Joliet-Naperville, IL-IN	50,735	136	5	9,510,390
Pittsburgh, PA	49,333	132	11	2,353,538
Buffalo-Niagara Falls, NY	46,003	123	22	1,162,336
Cleveland-Elyria-Mentor, OH	45,096	120	28	2,075,662
Milwaukee-Waukesha-West Allis, WI	49,636	133	8	1,566,487
Indianapolis-Carmel, IN	46,236	123	18	2,129,479
Detroit-Warren-Livonia, MI	45,419	121	26	4,365,205

Note: US data is converted to Canadian dollars using the PPP conversion rate.

Sources: Statistics Canada, 2023d, 2023e; US Census Bureau, multiple years; OECD, 2023; US Bureau of Labor Statistics, 2023; calculations by authors.

Great Lakes Region. The selection includes the MSAs surrounding the cities of Chicago, Pittsburgh, Buffalo, Cleveland, Milwaukee, Indianapolis, and Detroit.

Table 1 shows that London and Windsor have substantially lower employment income than all of the American MSAs in this sample. London and Windsor have the 93rd and 99th highest median employment income out of the 107 metros in the Great Lakes region. The lowest ranked US Metro in this sample has employment income that is 24.6 percent higher than London's. The "prosperity gap" in terms of median employment income between Cleveland and London is \$8,916. The gap between Cleveland and Windsor is slightly larger at \$10,906 per year.

Table 1 also compares the growth rates for median employment income from 2010 to 2019 in London and Windsor to each other and the same group of American CMAs.

Table 1 shows that London's growth performance is among the weakest in this sample of CMAs and MSAs

and, indeed, amongst the weakest in all of the metro regions considered in this report. With annual median employment income growth of 0.4 percent, London had the 88th highest growth rate out of the 107 CMAs and MSAs in this report. Within the sample we consider in this subsection, London's growth rate was faster than just one manufacturing MSA centered around Detroit.

Windsor's growth performance during this period was substantially better than London's. Windsor's median employment income grew at an average compounded annual rate of 1.1 percent. This placed Windsor in the top half of the metro areas considered in this report, ranking as the 42nd highest of the 107 MSAs considered. Within the subsample examined here, Windsor ranks in a tie for third place with Chicago out of 9 metro areas, behind Pittsburgh (1.8 percent) and Milwaukee (1.4 percent).

This analysis shows that London, Ontario faces a large prosperity gap with respect to median employment incomes compared to nearby US MSAs and that

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this gap generally grew over the course of the 2010s. This is true with respect to the broad group of all US CMAs examined in this study, as well as to the sample of major manufacturing hubs examined in this subsection. Windsor also faces a large prosperity gap, but this gap shrank relative to some MSAs while growing relative to others over the course of the 2010s. Windsor's growth rate was near the middle of the pack both compared to the large group of all Great Lakes MSAs as well as to the large manufacturing hubs examined in this subsection.

Conclusion

Past research has shown that with respect to a very broad measure of income—GDP per capita—Ontario faces a significant “prosperity gap” relative to neighbouring Great Lakes jurisdictions in the United States. Further, it has shown the gap to be growing rather than shrinking over time.

This analysis zooms into the level of major urban areas to assess the extent of variation with respect to the

prosperity gap across Ontario's large metropolitan areas compared to large jurisdictions in Quebec and nearby US states. Rather than GDP per capita, this analysis focused primarily on median employment incomes in order to shed additional light on labour market performance and to focus on outcomes for middle-income individuals.

Although there is some variation both with respect to median employment income levels and the rate of growth, the data presented here shows that the problem of a prosperity gap is widespread across Ontario metros. Ontario's CMAs are generally clustered near the bottom of the regional rankings in both indicators and are unrepresented near the top. A substantial majority of Ontario CMAs are in the bottom half of the rankings for both indicators. This shows that most of Ontario's large metro areas face a prosperity gap relative to large metros with respect to this important indicator in nearby US states, and that these prosperity gaps generally grew rather than shrank over the course of the 2010s.

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