

# Local and Regional Labour Market Trends in the Canadian Automotive Manufacturing Industry

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## Introduction

Automotive manufacturing is vital to the Canadian economy. In 2013, automotive assembly and parts manufacturing contributed roughly \$16 billion to Canada's Gross Domestic Product (GDP) (Sweeney, 2014). Representing over eight per cent of Canadian manufacturing GDP, automotive manufacturing is second only to food manufacturing in terms of output. Importantly, Canada's automotive industry is a critical economic and cultural component in many communities and regions, particularly in Southern Ontario, where the majority of the industry is located (Bernard, 2013).

Unfortunately, the automotive industry's contributions to the Canadian economy have declined significantly compared to the years between the late 1990s and mid-2000s when automotive manufacturing accounted for eleven per cent of total manufacturing GDP (Sweeney, 2013). While employment in the automotive industry has decreased since 2000, and production capacity in several segments has declined, the industry is still an important site for employment in Canada, representing 7.7 percent of the country's total manufacturing jobs in 2012 (Statistics Canada, 2013). Notably, the majority of employment in Canada's automotive industry represents full-time, generally well-paying jobs.

This report assesses the importance of the automotive industry in supporting workers and communities in Canada. Evidence suggests that automotive manufacturing is integral to sustaining healthy communities and the economic prosperity of families, particularly in Ontario. To support this claim, the report presents results from a case study of the Windsor Census Metropolitan Area (CMA).<sup>1</sup> Windsor has long been recognized as the prototypical automotive manufacturing city-region in Canada, and best illustrates the effects of the decline of the Canadian automotive sector on the standard of living within automotive-dependent communities in Canada. In addition to the Windsor case study, the report discusses the role that unions play in supporting well-paying automotive manufacturing jobs in Ontario and the additional benefits that a strong automotive industry brings to the national economy.

The study draws primarily upon quantitative data from Statistics Canada. These include tax filer data, the Survey of Employment, Payrolls, and Hours (SEPH), the Labour Force Survey (LFS), and custom CMA-level tabulations requested from Statistics Canada that are not publicly available. The SEPH data establishes the context of the decline of automotive industry employment, while a more disaggregated, refined, and granular picture is presented by examining LFS data at the CMA level. The tax filer data bridges the gap between the local, provincial, and national scale and allows us to compare the various trends in income and living standards occurring at several important geographical levels. Trends in automotive industry employment, average wages, and earnings since 2001 at the provincial and national levels are explored in greater detail below.

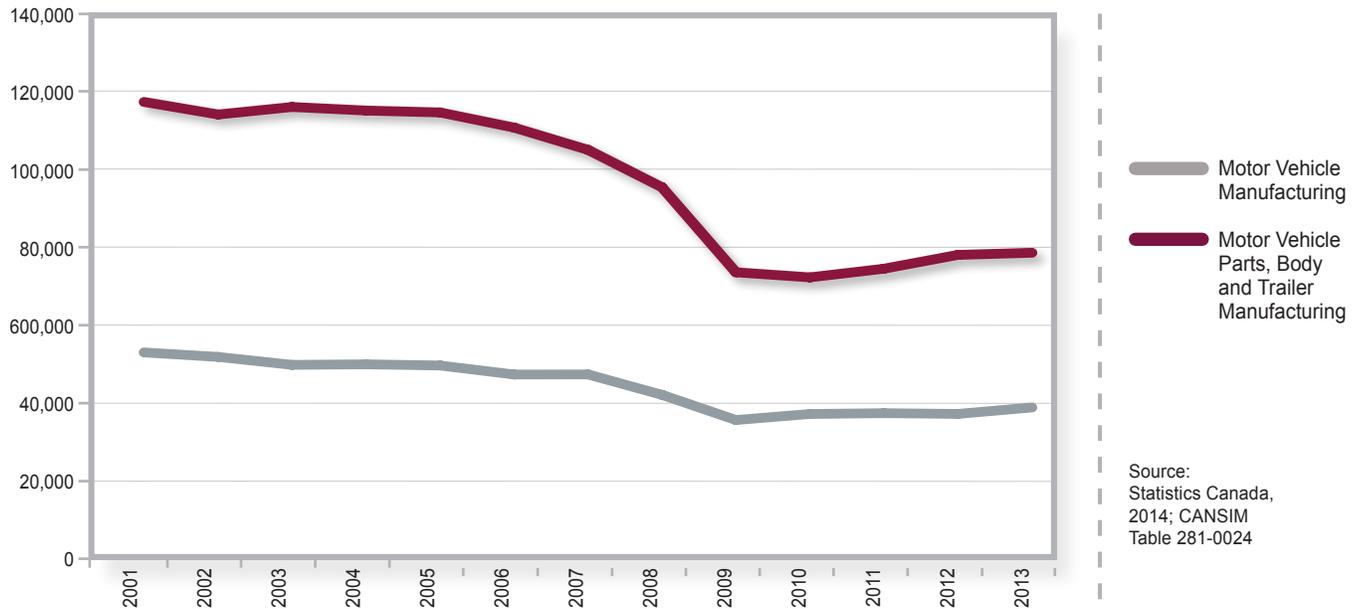
Over 90 percent of automotive manufacturing jobs in Canada are located in Ontario. Since 2001, more than 53,000 automotive jobs have been lost in Canada (Figure 1), 43,000 of which have disappeared from Ontario alone. Table 1 shows the

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1. The Windsor CMA includes the City of Windsor as well as surrounding areas in Essex County, including Amherstburg, LaSalle, Lakeshore, and Tecumseh.

decline in automotive industry employment and number of jobs lost in Canada and Ontario since 2001. The decline in automotive parts manufacturing has been more severe than in assembly over this time. While employment in Canada's automotive industry is still well below pre-2008 crisis levels, a modest recovery in assembly and parts jobs has occurred since 2009.

**Figure 1:** Automotive Industry Employment in Canada, 2001-2013



Source:  
Statistics Canada,  
2014; CANSIM  
Table 281-0024

**Table 1:** Automotive Industry Jobs Lost, 2001-2013

		Jobs Lost	% Change
<b>Canada</b>	Motor Vehicle Manufacturing	14,300	-27%
	Parts, Body, and Trailer Manufacturing	38,900	-33%
	<b>Canada Total</b>	<b>53,200</b>	<b>-31%</b>
<b>Ontario</b>	Motor Vehicle Manufacturing	11,900	-26%
	Parts, Body, and Trailer Manufacturing	31,800	-34%
	<b>Ontario Total</b>	<b>43,700</b>	<b>-31%</b>

Source:  
Statistics Canada,  
2014; CANSIM  
Table 281-0024

Canada's automotive industry is further concentrated in communities in Southern Ontario such as Windsor, Oshawa, London, and the Greater Toronto Area (GTA). The automotive industry is therefore related to the well-being of families living in such communities. Over 90 percent of automotive manufacturing jobs are full-

*Average hourly wages in automotive assembly and parts manufacturing in Canada have declined since 2003 when adjusted for inflation.*

time and generally pay well, with hourly wages that exceed provincial and national averages. For example, automotive assembly workers' wages are higher than the average wage in manufacturing and the broader economy, while automotive parts manufacturing workers' wages are close to the average wage in manufacturing and slightly above the average wage in the broader economy (Sweeney, 2013).

Table 2 shows inflation-adjusted average hourly wages, excluding overtime, in Canada for motor vehicle manufacturing (assembly) and parts manufacturing in 2003 and 2013. While still well above provincial and national minimums, average hourly wages in automotive assembly and parts manufacturing in Canada have declined since 2003 when adjusted for inflation, most notably in parts manufacturing. Table 3 illustrates average weekly earnings for all employees in the automotive industry for Canada and Ontario in 2003 and 2013, excluding overtime. Importantly, average weekly automotive manufacturing earnings in Ontario remain higher than the Canadian average, but have declined in the last decade when adjusted for inflation.

The below findings — particularly trends in weekly earnings in parts manufacturing — are consistent with a recent study by Ruckelshaus and Leberstein (2014), which found that average earnings of US automotive parts workers declined by 14 percent

**Table 2: Average Hourly Wages in the Canadian Automotive Industry, 2003 and 2013 (2013 Dollars)**

	2003	2013	% Change
Motor Vehicle Manufacturing	\$36.36	\$33.76	-7%
Parts, Body, and Trailer Manufacturing	\$26.94	\$21.54	-20%

Source: Statistics Canada, 2014; CANSIM Tables 281-0027 and 281-0033

**Table 3: Average Weekly Wages in the Canadian Automotive Industry, 2003 and 2013 (2013 Dollars)**

		2003	2013	% Change
<b>Canada</b>	Motor Vehicle Manufacturing (Excluding Overtime)	\$1,390.64	\$1,216.67	-13%
	Parts, Body, and Trailer Manufacturing (Excluding Overtime)	\$1,068.15	\$939.67	-12%
<b>Ontario</b>	Motor Vehicle Manufacturing (Excluding Overtime)	\$1,440.47	\$1,248.57	-13%
	Parts, Body, and Trailer Manufacturing (Excluding Overtime)	\$1,107.92	\$950.46	-14%

Source: Statistics Canada, 2014; CANSIM Table 281-0027

Note: Includes salaried and hourly employees. Does not include lump sum payments and other bonuses.

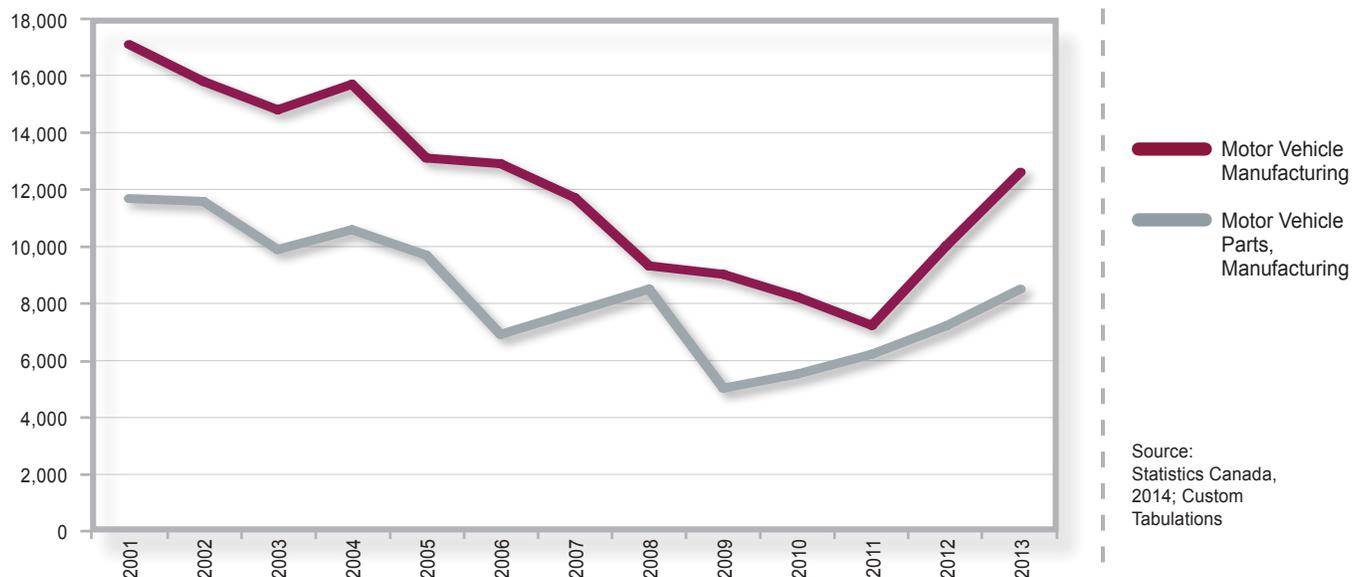
between 2003 to 2013. However, it is important to note that the data presented in Tables 2 and 3 presumably exclude lump-sum payments paid to employees as bonuses which have become prevalent since 2008, and so an observed decline in real terms in hourly wages and weekly earnings may be mitigated by including such payments (for example, unionized workers in the OEM firms represented by Unifor have negotiated lump-sum wage increases totaling \$14,700 per worker over the 2008-2016 period). Furthermore, the decline in average wages represents the experience of a group of individuals and may be influenced by factors such as new automotive workers hired at a lower starting wage, as well as the rise of independent parts suppliers which tend to pay lower wages than OEM parts suppliers and which may not necessarily be unionized (Ruckelshaus and Leberstein, 2014). Additionally, the long-term trend among OEMs to outsource formerly in-house parts operations to independent suppliers has changed the composition of the parts labour force and contributed to the observed decline in average real earnings.

### Case Study: Windsor, Ontario

The impact of the decline in automotive manufacturing is strikingly apparent in Windsor. Despite the loss of several large automotive manufacturing facilities, such as those owned by GM (Windsor Powertrain), Chrysler (Pilette Road Assembly), and Johnson Controls, Windsor remains synonymous with the Canadian automotive industry. This is due to its proximity to the US 'Motor City' of Detroit and the presence of a large Chrysler assembly facility, two Ford engine plants, and a network of over 100 parts supplier plants.

Between 2001 and 2013, Windsor shed 11,900 (net) automotive manufacturing jobs. While automotive assembly and parts manufacturing represented 1 in 5 full-time jobs in 2001, the ratio fell to 1 in 8 by 2013. This has reduced the automotive manufacturing industry's overall presence in the community while still representing a significant proportion of Windsor's labour force. Figure 2 illustrates the declining trend in employment in motor vehicle assembly and parts manufacturing in Windsor from 2001 to 2013. This marked decline—particularly in higher-paying assembly jobs—has had a noticeable impact on the well-being of families in the community.

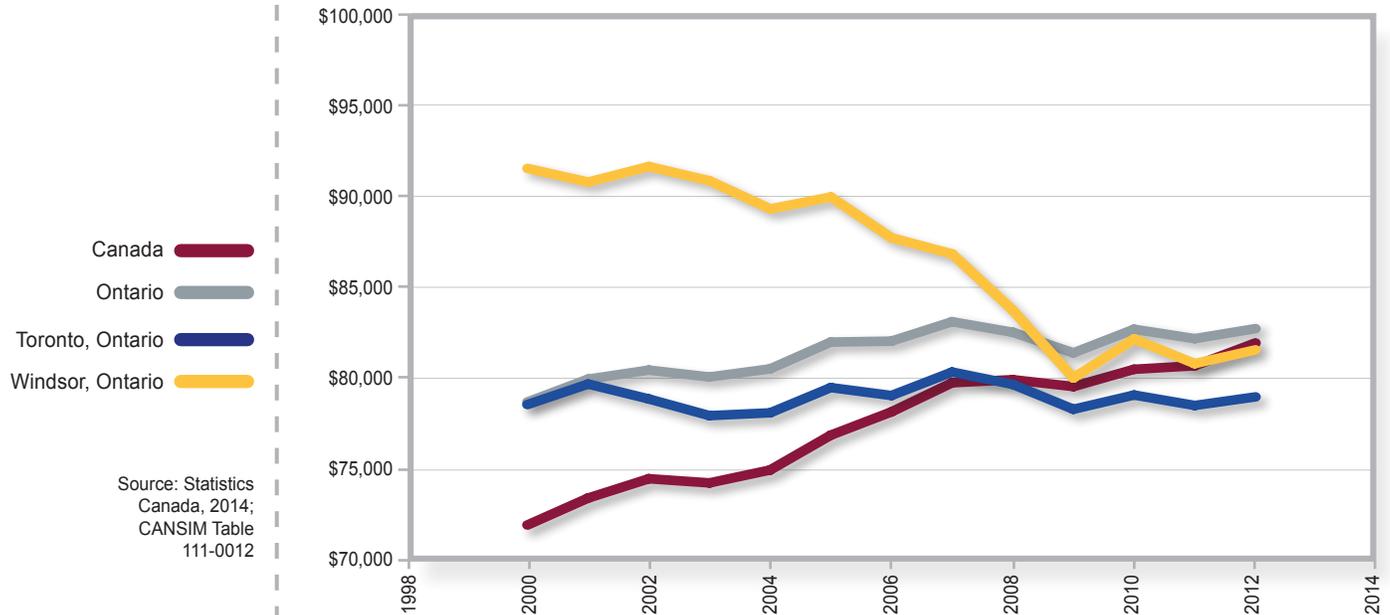
**Figure 2:** Automotive Industry Employment in Windsor, 2001-2013



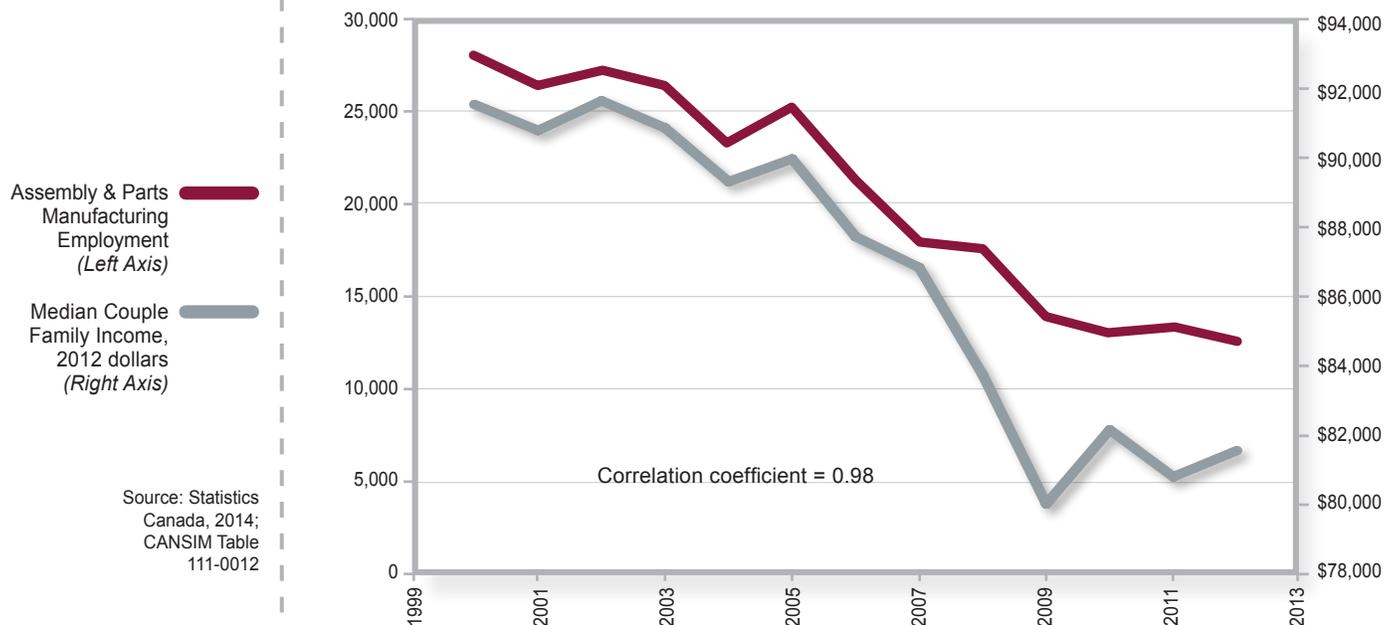
*Despite the loss of several large automotive manufacturing facilities, Windsor remains synonymous with the Canadian automotive industry.*

Figure 3 shows median income trends for couple families between 2000 and 2012 in Canada, Ontario, Windsor, and Toronto. Importantly, median family income in Windsor in the year 2000 was over \$91,500 (2012 constant dollars). This is higher than the Toronto CMA, and well above the national and provincial average. However, median family income in Windsor declined over the past decade, falling below Ontario in 2009 and Canada in 2012, to roughly \$81,550 in 2012 (the most recent year for which data on family income in Windsor was available).

**Figure 3: Median Income for Couple Families, 2000-2012**



**Figure 4: Automotive Industry Employment and Family Income (in 2012 Dollars) in Windsor, 2000-2012**



Automotive industry employment and median family income in Windsor are compared in Figure 4. After combining assembly and parts manufacturing employment between 2000 and 2012 and comparing them to the downward trend in family income over the same period, a correlation coefficient of 0.98 was observed, providing further evidence of a strong relationship between the health of the automotive industry and the economic well-being of families in Windsor. As Figure 4 makes clear, the negative effects of a downturn in the automotive industry are felt by the majority of families in the community and not simply those with members directly employed in the industry.

Table 4 presents a more detailed breakdown of median family income by age group (age of oldest family member). Importantly, while all families of working age in Windsor saw a decline in median income between 2000 and 2012, younger families between the ages of 25 to 34 saw the largest dollar decline of approximately \$18,000 over the same period, and those below the age of 25 saw the largest percent decline of roughly one third in annual income. This suggests that younger families in the community — typically those just starting out that might require childcare or are potential first-time homeowners — are disproportionately impacted by the downturn in the automotive industry.

*The number of couple families in Windsor with annual income over \$100,000 fell by 19% between 2002 and 2012, representing roughly 1 in 5 families.*

**Table 4:** Median Family Income in Windsor by Age of Oldest Family Member, 2000 and 2012 (2012 Dollars)

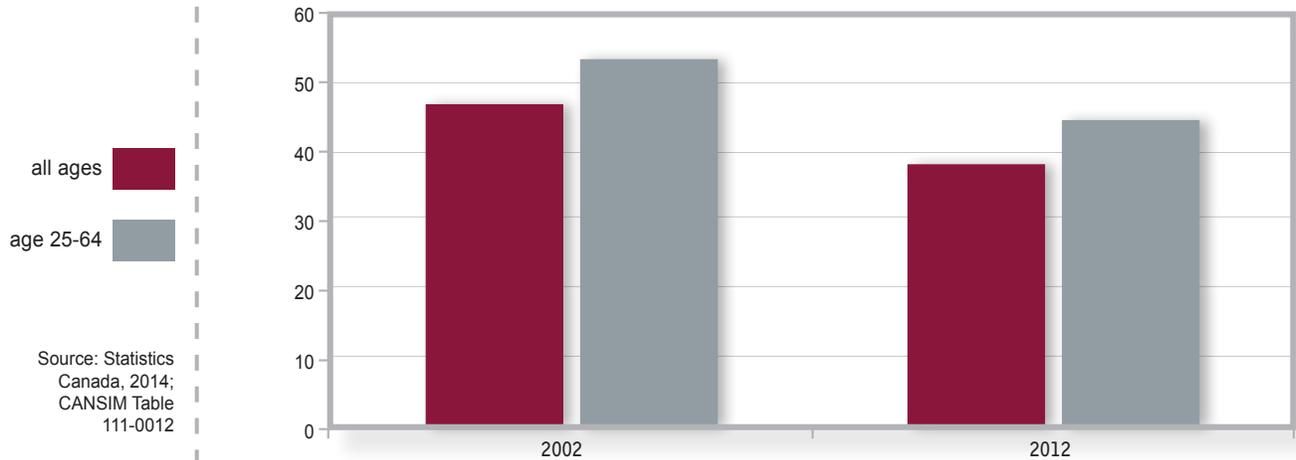
Age Group	2000	2010	% Change
0 to 24 Years	\$ 41,000	\$ 27,340	-33%
25 to 34 Years	\$ 83,783	\$ 67,400	-20%
35 to 44 Years	\$ 99,445	\$ 93,520	-6%
45 to 54 Years	\$121,345	\$103,620	-15%
55 to 64 Years	\$ 99,572	\$ 90,510	-9%
65 Years and Over	\$ 59,208	\$ 62,620	6%
<b>Total All Years</b>	<b>\$ 91,550</b>	<b>\$ 81,550</b>	<b>-11%</b>

Source:  
Statistics Canada,  
2014; CANSIM  
Table 111-0012

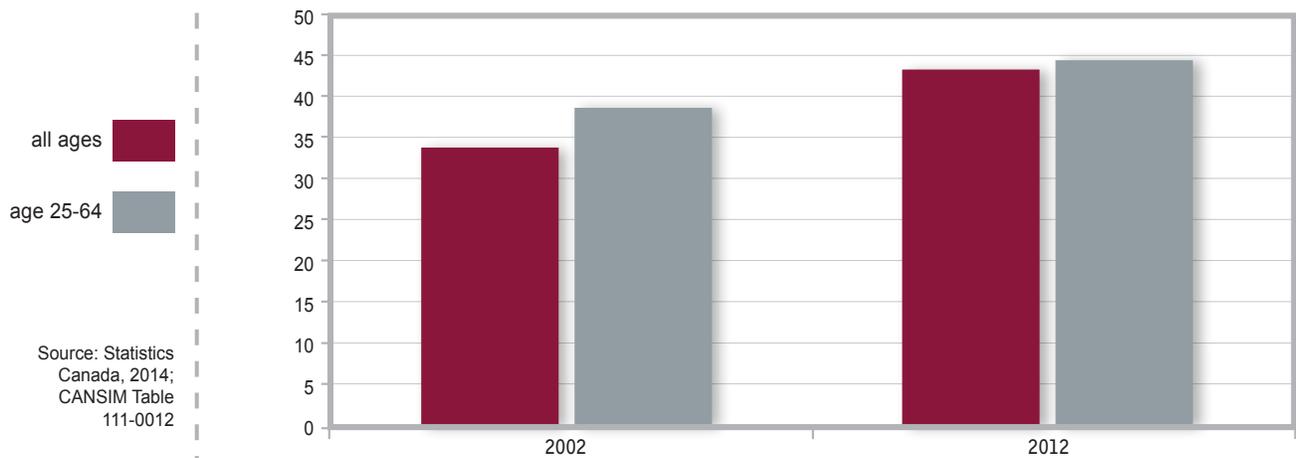
Over the same period, a noticeable decline in the proportion of families with income over \$100,000 (2012 dollars) occurred in Windsor. Figures 5, 6, and 7 show the percentage of couple families with after-tax income of \$100,000 and above in 2002 and 2012 in Windsor, Canada, and Ontario, respectively. While the proportion of couple families with income over \$100,000 increased in both Canada and Ontario between 2002 and 2012, it declined in Windsor. Notably, the number of couple families in Windsor with annual income over \$100,000 fell by 19 percent between 2002 and 2012, representing roughly 1 in 5 families. In the following section, the

broader implications of the loss of well-paying automotive jobs and the decline in living standards for families are examined further.

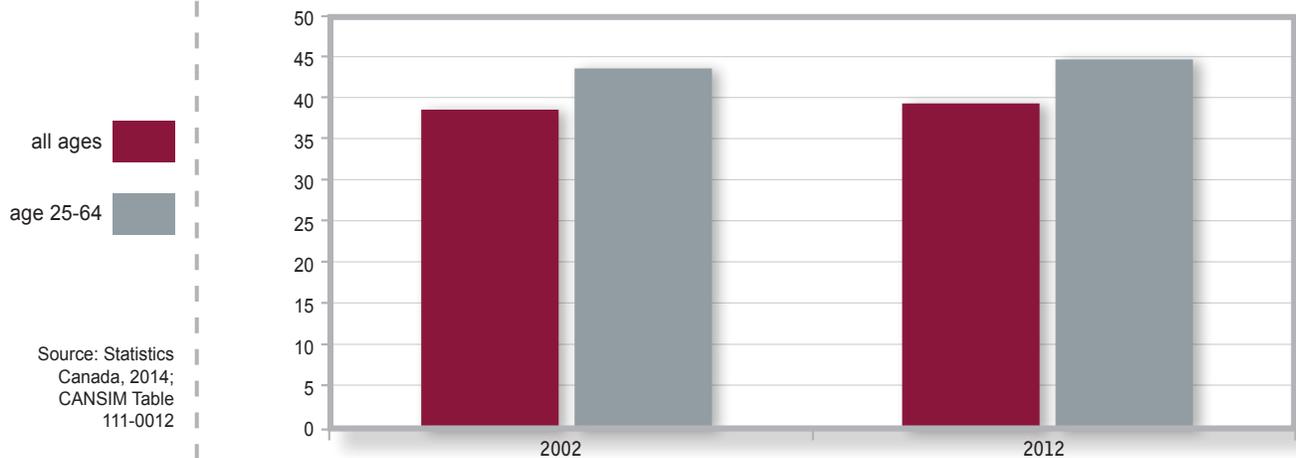
**Figure 5:** Proportion of Families with After Tax Income > \$100,000 (2012 Dollars) in Windsor, 2002 and 2012



**Figure 6:** Proportion of Families with After Tax Income > \$100,000 (2012 Dollars) in Canada, 2002 and 2012



**Figure 7:** Proportion of Families with After Tax Income > \$100,000 (2012 Dollars) in Ontario, 2002 and 2012



## Discussion

The consequences of the loss of automotive manufacturing jobs in Canada are extensive. Table 5 shows government tax revenues that have been lost due to the decline in automotive industry employment in Windsor and several other automotive-dependent communities in Ontario including Oshawa, Toronto, St. Catharines-Niagara, Kitchener-Cambridge-Waterloo, and London. Since 2001, roughly \$7 billion dollars in potential revenue has been forgone due to the loss of automotive industry jobs in six important automotive-dependent communities in Southern Ontario, amounting to roughly \$174,000 per job lost. Assuming that most unemployed automotive workers are forced

**Table 5:** Government Revenue ‘Lost’ Since 2001

<b>Total Federal Tax ‘Lost’ Since 2001 (Including Income and Federal Sales Taxes, 2013 Dollars)</b>	
CMA	Federal Tax ‘Lost’
Oshawa	\$ 811,653,289
Toronto	\$ 782,224,847
St. Catharines-Niagara	\$ 369,628,605
Kitchener-Cambridge-Waterloo	\$ 137,023,257
London	\$ 181,426,658
Windsor	\$ 1,286,084,761
<b>Total Above CMAs</b>	<b>\$ 3,568,041,417</b>
<b>Total Provincial Tax ‘Lost’ Since 2001 (Including Income and Provincial Sales Taxes, 2013 Dollars)</b>	
CMA	Provincial Tax ‘Lost’
Oshawa	\$ 422,323,848
Toronto	\$ 455,039,607
St. Catharines-Niagara	\$ 216,319,121
Kitchener-Cambridge-Waterloo	\$ 105,630,295
London	\$ 111,744,196
Windsor	\$ 675,649,138
<b>Total Above CMAs</b>	<b>\$ 1,986,706,205</b>
<b>Total CPP ‘Lost’ Since 2001 (2013 Dollars)</b>	
CMA	CPP ‘Lost’
Oshawa	\$ 201,683,008
Toronto	\$ 221,772,712
St. Catharines-Niagara	\$ 139,330,970
Kitchener-Cambridge-Waterloo	\$ 96,010,231
London	\$ 62,771,920
Windsor	\$ 324,471,661
<b>Total Above CMAs</b>	<b>\$ 1,046,040,502</b>
<b>Total EI ‘Lost’ Since 2001 (2013 Dollars)</b>	
CMA	EI ‘Lost’
Oshawa	\$ 77,926,957
Toronto	\$ 74,438,791
St. Catharines-Niagara	\$ 54,762,280
Kitchener-Cambridge-Waterloo	\$ 38,342,771
London	\$ 20,859,545
Windsor	\$ 125,208,075
<b>Total Above CMAs</b>	<b>\$ 391,538,419</b>

*Since 2001, roughly \$7 billion dollars in potential revenue has been forgone due to the loss of automotive industry jobs in six important automotive-dependent communities in Southern Ontario.*

Note: See Appendix for details on methodology.

*Without the decline in automotive employment since 2001 in Southern Ontario, enough revenue would have been generated at the federal and provincial level to invest in up to 39 additional assembly operations.*

into minimum wage jobs indefinitely in order to survive (Vrankulj, 2012), this strikingly large figure represents the additional revenue generated by automotive jobs over-and-above minimum wage jobs, and includes federal and provincial income and sales taxes, as well as forgone contributions to the Canada Pension Plan (CPP) and Employment Insurance (EI)<sup>2</sup>. Thus, Table 5 reflects what is already commonly known; that higher paying jobs — rather than low-paying minimum wage jobs — provide governments with greater resources to cover budget deficits and to fund important social programs. Importantly, Table 5 presents forgone government revenue due to direct losses in employment in the automotive industry and underestimate potential contributions due to additional ‘spin-off’ jobs created by the industry (see below for further discussion). After accounting for additional spin-off jobs, the total loss in revenue could be a multiple of the direct costs. A potential increase of billions of dollars in revenue is a benefit that should not be overlooked when considering policies related to the future of Canada’s automotive industry.

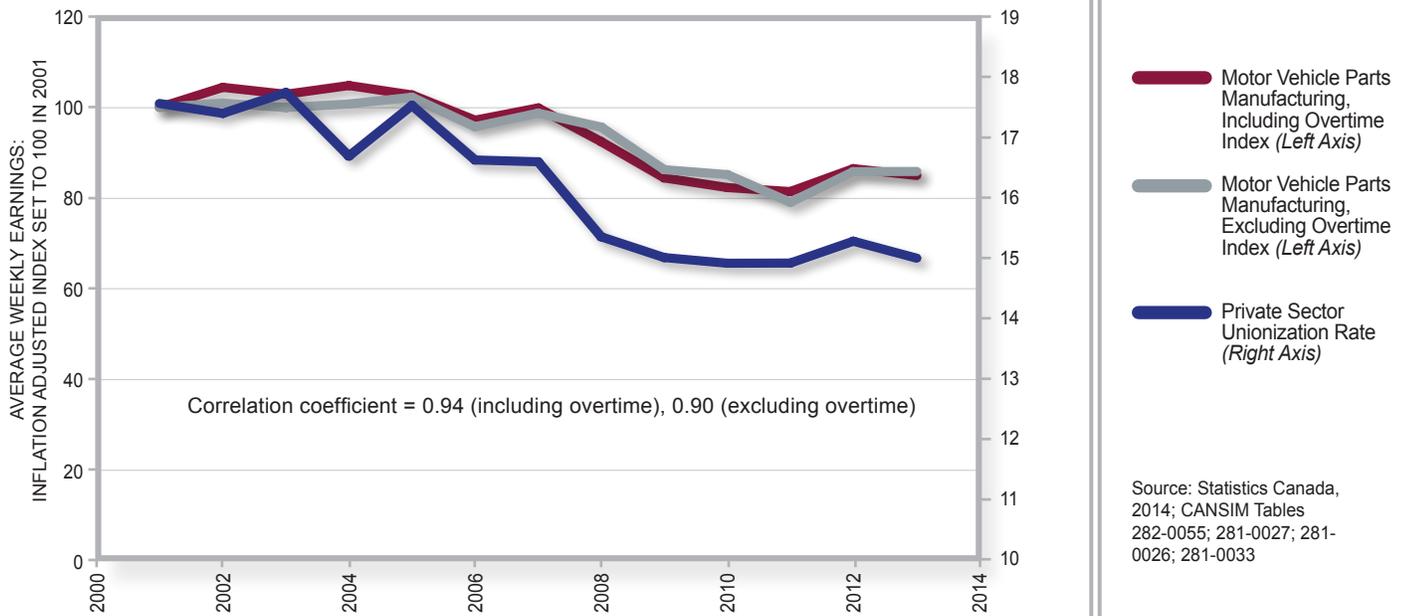
The revenue generated at the federal and provincial level from well-paying automotive manufacturing jobs could also serve as capital investment incentives for automakers to expand assembly operations in Canada. For example, the federal and provincial government recently contributed \$142 million to a \$700 million total investment to incentivize Ford to assemble its new crossover utility vehicle, the 2015 Ford Edge, in Oakville, Ontario (Stastna, 2013, September 13). Without the decline in automotive employment since 2001 in Southern Ontario, enough revenue would have been generated at the federal and provincial level to invest in up to 39 additional assembly operations like the recent Oakville example, employing tens of thousands more with direct jobs in the industry.

There is evidence that unions are responsible for increasing wages and earnings for workers (Brennan, 2014). Figures 8 and 9 illustrate the link between declining union coverage in both the private and manufacturing sectors, and average weekly earnings for parts manufacturing in Ontario between 2001 and 2013. In both cases, after adjusting for inflation and including and excluding overtime, correlation coefficients between 0.90 and 0.94 were observed, indicating a strong correlation between a declining overall union presence and lower worker earnings in automotive parts manufacturing. This finding is consistent with what is to be expected given that the variation in wages in assembly is fairly low, while wages in automotive parts manufacturing vary based on unionization, sub-sector, and employer (Sweeney, 2013). It also suggests that union coverage in both the manufacturing and private sectors are linked to the average earnings of workers in automotive parts manufacturing. Importantly, wages and earnings data do not include a measure of the changes in benefits such as cuts to pensions, dental, and drug plans that may accompany a decrease in the rate of unionization.

Declining union coverage affects not only workers — through a reduction in remuneration — but also governments, as revenue to cover budget shortfalls at all levels are simultaneously reduced. Moreover, the combination of a reduction in unionization rates and the loss of well paying automotive manufacturing jobs erodes crucial social protections such as EI and the Canada Pension Plan (CPP). As EI ‘surpluses’ have been used since the late 1990s for general government revenue purposes (Nesbitt,

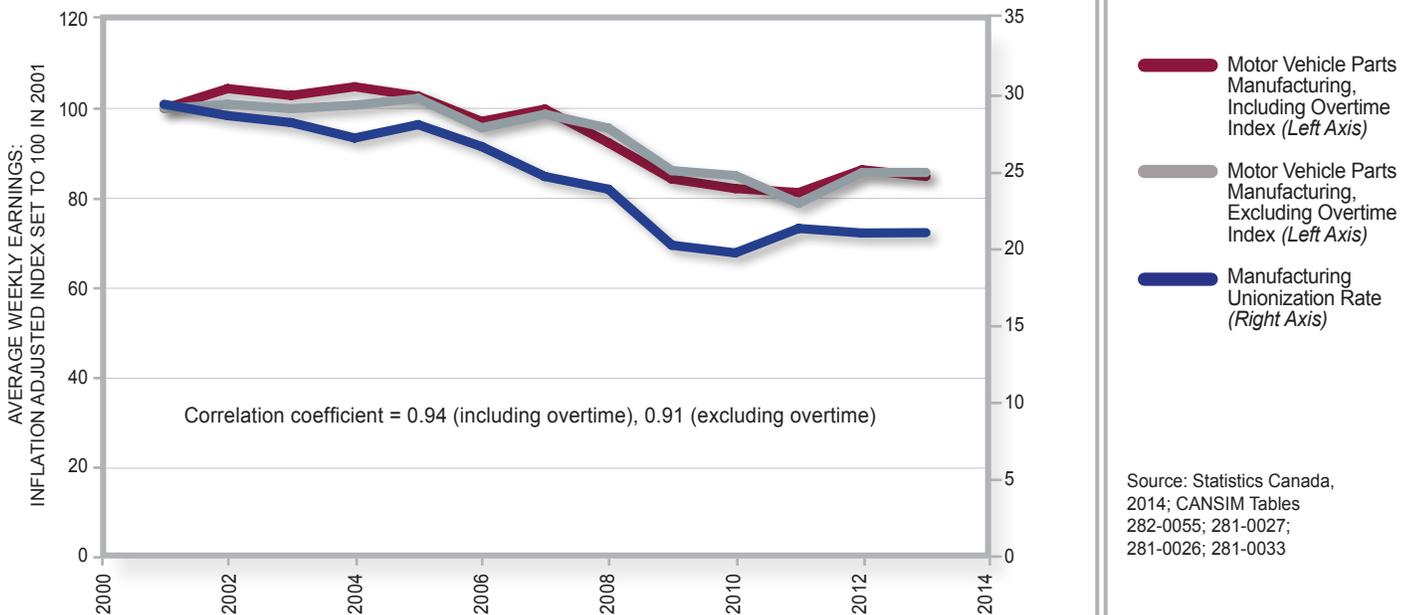
2. See appendix for further details on loss of revenue estimations.

**Figure 8:** Index of Average Weekly Automotive Industry Earnings and Private Sector Union Coverage as a Percentage of Private Sector Labour Force



Source: Statistics Canada, 2014; CANSIM Tables 282-0055; 281-0027; 281-0026; 281-0033

**Figure 9:** Index of Average Weekly Automotive Industry Earnings in Ontario and Manufacturing Sector Union Coverage as a Percentage of Manufacturing Labour Force



Source: Statistics Canada, 2014; CANSIM Tables 282-0055; 281-0027; 281-0026; 281-0033

*A thriving Canadian automotive industry reinforces the existence of economically healthy families and establishes the conditions for further job creation and greater general prosperity in the community overall.*

2014, October 2), by generating both higher general government revenue as well as EI contributions from well-paying (and typically unionized) automotive manufacturing jobs, EI could be used for its intended purpose—protecting workers in an increasingly precarious job market.

While the loss of automotive jobs represents a transition from well-paying to low-paying jobs, it also represents a transition to jobs with fewer or no benefits, amplifying the effects on individuals and families accompanied by unemployment and lower wages (Vrankulj, 2012). As recent studies show, unemployment, low income, and job insecurity negatively impact household well-being and community participation (Lewchuk, 2013; Vrankulj, 2012). Recently unemployed automotive workers have reported experiencing a decline in overall health, an increase in stress, deteriorating family relationships, sleep disorders, and feelings of depression related to their layoff (Vrankulj, 2012). This suggests that workers lose benefits for themselves and their families at a time when they are needed the most. The ‘one-two punch’ experienced by workers transitioning from well-paying automotive jobs with benefits to low-paying precarious jobs with little or no benefits should not be overlooked or underestimated.

Not only do well-paying, unionized automotive industry jobs boost general government revenue, family income, and social protection programs, as well as provide workers with access to benefits, they also create additional employment by stimulating local economies. According to the Center for Automotive Research (CAR), a total of approximately 10 direct, intermediate, and ‘spin-off’ jobs are created for every motor vehicle manufacturing job in various industries such as plastics and rubber, administration and services, and retail trade (CAR, 2010; Stanford, 2014). Thus, a thriving Canadian automotive industry reinforces the existence of economically healthy families and establishes the conditions for further job creation and greater general prosperity in the community overall.

## Conclusion

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As the Windsor case study illustrates, automotive manufacturing is critical to sustaining healthy and prosperous communities, particularly in Southern Ontario. Moreover, full-time, well-paying automotive manufacturing jobs contribute to federal and provincial government budgets significantly more than part-time, minimum wage jobs. The large increase in government revenue that automotive industry jobs generate can be used to fund important programs and investments which provide security for the less fortunate and help create additional well-paying jobs in the community. Finally, overall union coverage in the private and manufacturing sector plays an important role in maintaining the quality of the majority of automotive industry jobs; namely, the average remuneration of those working in automotive parts manufacturing.

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Statistics Canada (2014) CANSIM Table 111-0012. *Family characteristics, by family type, age of older adult, and family income, annual (number unless otherwise noted)*.

Statistics Canada (2014) CANSIM Table 281-0024. *Employment (SEPH), unadjusted for seasonal variation, by type of employee for selected industries classified using the North American Industry Classification System (NAICS), annual (persons)*.

Statistics Canada (2014) CANSIM Table 281-0026. *Average weekly earnings (SEPH), by type of employee for selected industries classified using the North American Industry Classification System (NAICS), monthly (current dollars)*.

Statistics Canada (2014) CANSIM Table 281-0027. *Average weekly earnings (SEPH), by type of employee for selected industries classified using the North American Industry Classification System (NAICS), annual (current dollars).*

Statistics Canada (2014) CANSIM Table 281-0033. *Average weekly hours for employees paid by the hour (SEPH), unadjusted for seasonal variation, for selected industries classified using the North American Industry Classification System (NAICS), annual (hours).*

Statistics Canada (2014) CANSIM Table 282-0055. *Labour force survey (LFS), by provinces, territories and economic regions based on 2006 Census boundaries, annual.*

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## Appendix

Estimated forgone government revenues presented in Table 5 were calculated using the following assumptions and methods:

- A full-time automotive employee works 52 weeks per year; average weekly earnings for assembly and parts manufacturing in Ontario were multiplied by 52 to obtain annual income for each current year (earnings data source: CANSIM table 281-0027).
- A full-time minimum wage earner works 2000 hours annually; minimum wage in Ontario for the specific (current) year was multiplied by 2000 to obtain annual income for minimum wage workers for each current year.
- The basic income deduction for each current year was the only deduction used for taxable income in calculation.
- Specific (current) year tax rates and income cut offs were used. For example, in 2013, the Federal tax rate was 15% on the first \$43,561 and 22% up to \$87,123. Provincial tax was 5.05% on income to \$39,723 and 9.15% on income up to \$79,448.
- GST, PST, or HST (after 2009) was estimated using specific (current) year rates on 50% of a person's after tax income.
- Specific (current) year rates were used to calculate forgone EI and CPP contributions.
- A full-time unemployed automotive worker becomes a full-time minimum wage earner for the remainder of the period of interest (i.e. year of 'layoff' up to 2013).
- Differences in tax contributions between a full-time automotive worker and a full-time minimum wage earner were obtained for each specific (current) year.
- 'Roll-up' effects for each consecutive year following a workers transition from an automotive job to a full-time minimum wage job were included in the calculations; new employment in the automotive industry was accounted for in each current year in the same way.
- Annual changes in employment for each CMA were calculated from custom employment data obtained from Statistics Canada
- Current year totals were converted to 2013 constant dollars and summed over the period 2001 to 2013 to obtain the final totals presented in Table 5.