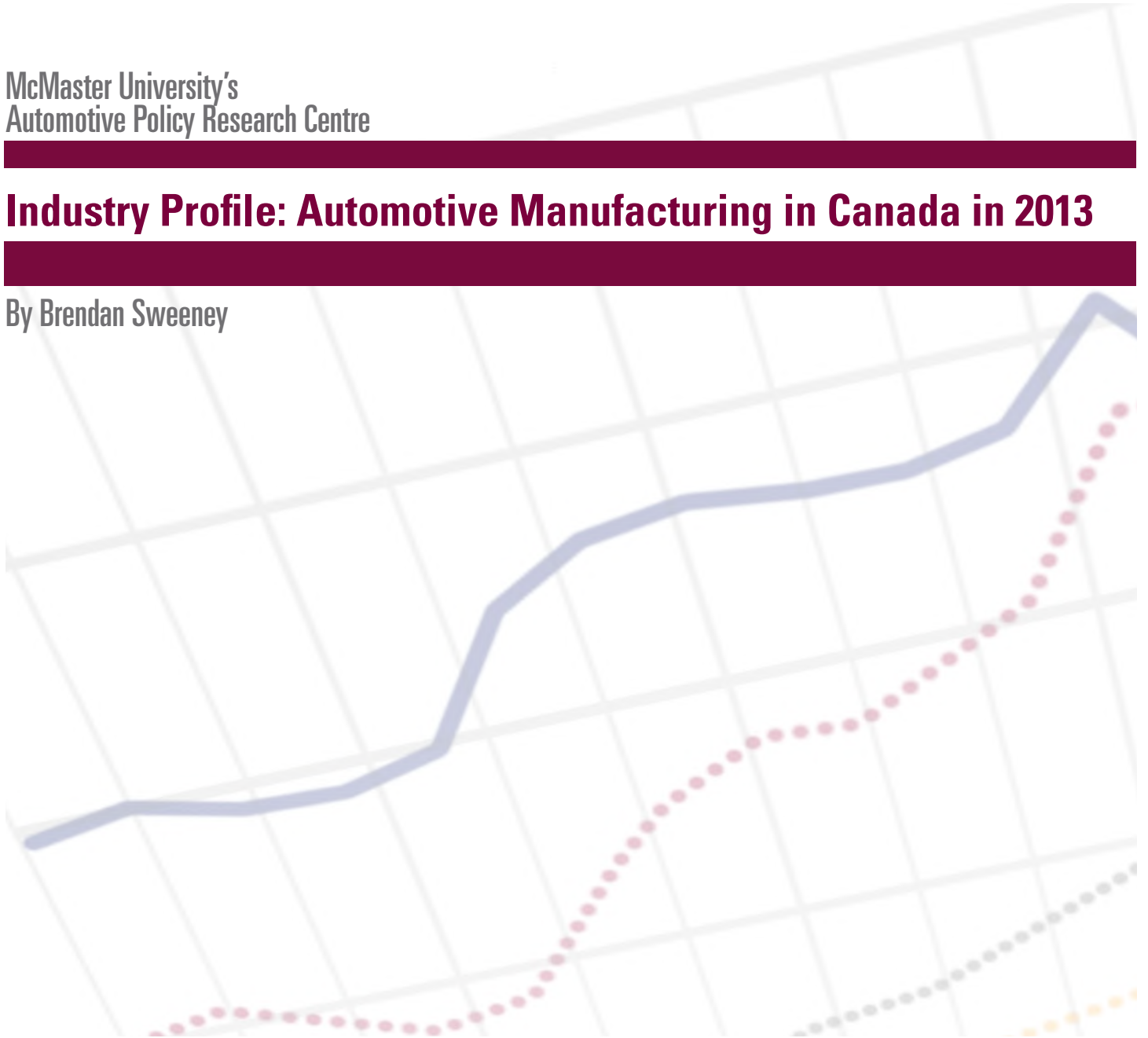


McMaster University's
Automotive Policy Research Centre

Industry Profile: Automotive Manufacturing in Canada in 2013

By Brendan Sweeney



1 – INTRODUCTION

Automotive manufacturing is critical to the Canadian economy. The Canadian automotive manufacturing industry reached record levels of production, employment, and positive trade balance in the late 1990s. These remained high for several years, but began trending downwards in 2007, and decreased sharply during 2008. However, several indicators suggest that automotive manufacturing is experiencing a recovery due to pent-up demand for vehicles, new federal and provincial programs targeted at maximizing investment, the innovative capacities of existing assemblers and parts producers, and a highly-educated workforce.

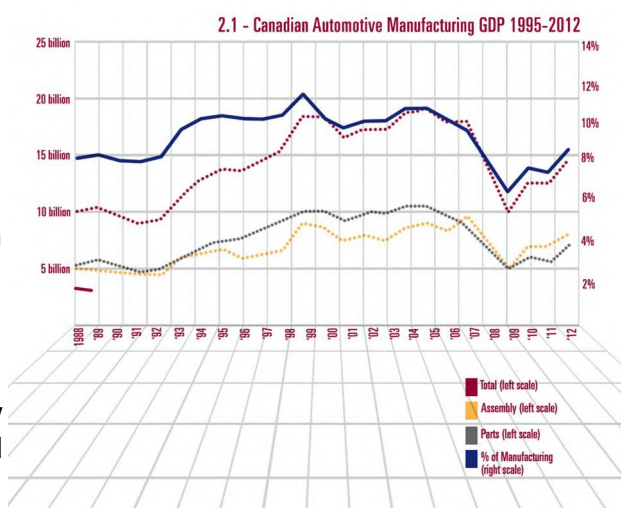
This report provides some insight into the changes to Canada's automotive manufacturing industry since the 1990s. It presents several key metrics, including GDP, employment, sales, and trade balance. The report also illustrates and analyzes the current geography of the industry in Canada. This is based on the APRC's database of Canadian parts and components manufacturing facilities.

2 – GDP

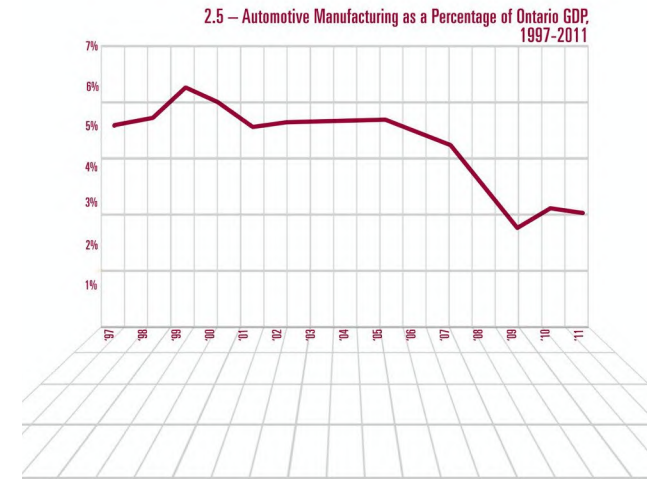
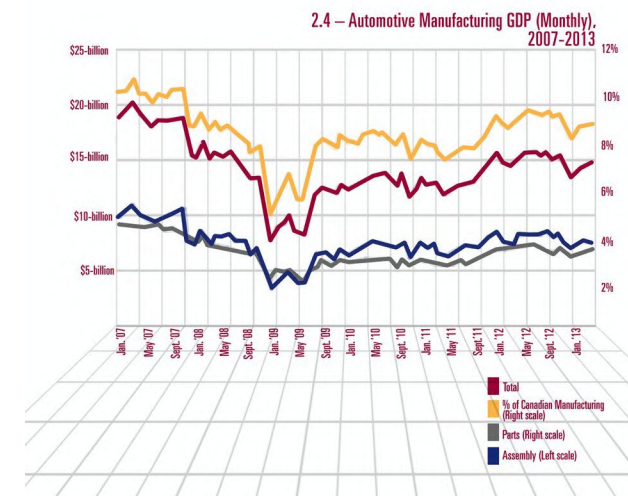
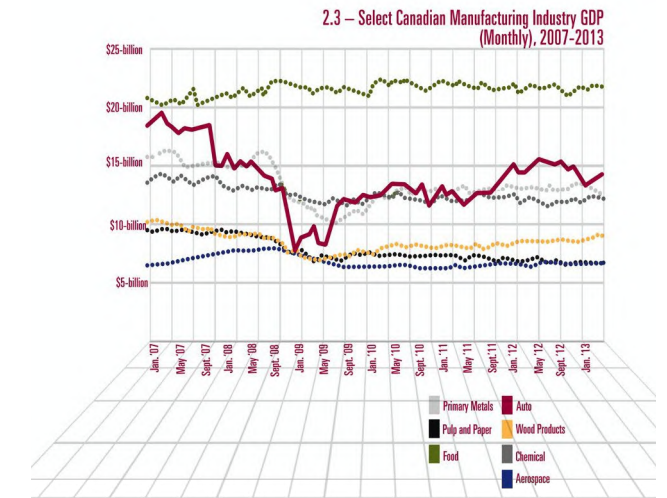
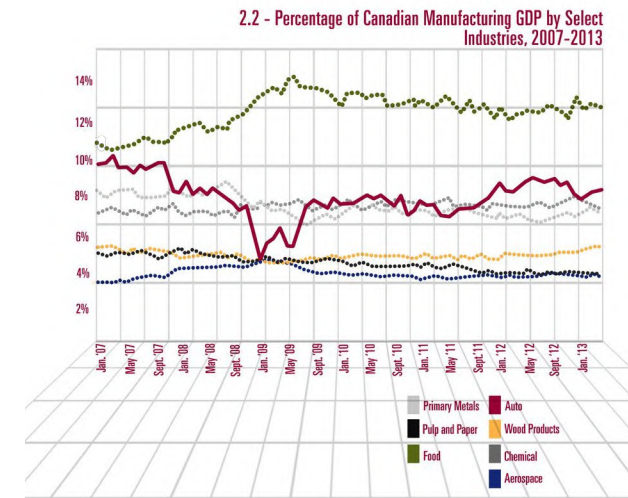
Automotive manufacturing is a significant contributor to Canadian GDP. In 2012, automotive assembly and parts manufacturing contributed nearly \$15 billion to Canada's GDP. The automotive manufacturing industry represents over eight per cent of Canadian manufacturing in terms of GDP (Figure 2.1), and is second only to food manufacturing in terms of the contributions of individual industries (Figure 2.2). However, these contributions remain lower than those in the peak years between the late 1990s and mid-2000s when automotive manufacturing contributed nearly \$19 billion annually to Canada's GDP and accounted for eleven per cent of manufacturing GDP.

Canada's automotive manufacturing industry was severely impacted by the recession beginning in 2008. No other manufacturing industry faced quite so precipitous a drop in their contributions to GDP or employment as automotive (Figure 2.3; 2.4). This was especially the case in the winter of 2009, when Canada's automotive industry fell to around seventh in terms of contributions to Canadian manufacturing GDP by industry, after nearly surpassing food manufacturing for first place two years earlier. In Ontario, automotive manufacturing accounted for nearly six per cent of the province's total GDP in 1999. However, in the years 2009, 2010, and 2011, automotive manufacturing accounted for less than three per cent of Ontario's GDP (Figure 2.5). While automotive manufacturing increased as a proportion of Ontario's GDP in 2012 (and is expected to continue to increase in 2013), the historically low relative contributions to GDP remain a concern for industry stakeholders and policy-makers.

Automotive assembly is extremely capital intensive. Canadian assembly plants have long been among some of the most productive in the world. Currently, the average annual GDP produced per employee in Canadian assembly plants is nearly \$200,000 (Figure 2.6). This is second only to primary metal production in terms of GDP per employee (and much of the value of primary metal production – which is not a finished product – is locked into the resource itself). The average annual GDP produced per employee in Canada's automotive parts industry is just over \$100,000. This is low relative to other manufacturing industries and roughly equivalent to food manufacturing. Canada remains productive in some segments of automotive parts production, such as engines and engine parts, steering and suspension, and metal stamping. However, employment and production capacity in several segments, such as electrical and electronic equipment and brake systems is diminished compared to a decade ago (Figure 2.7; Figure 2.8). This is largely a result of the 'offshoring' of lower value parts and components and the willingness of assemblers to source parts and components from abroad.

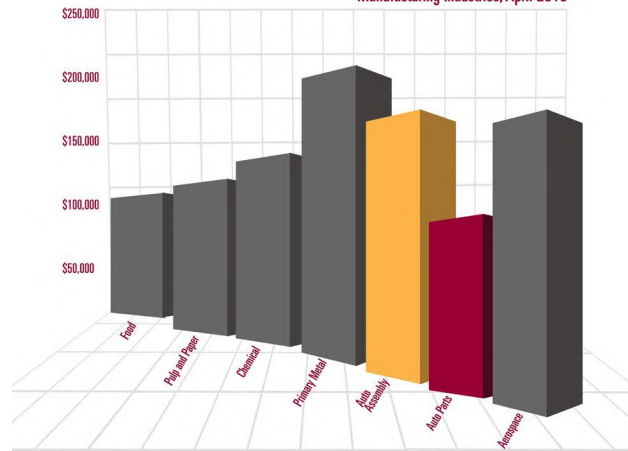


2 - GDP GRAPHS

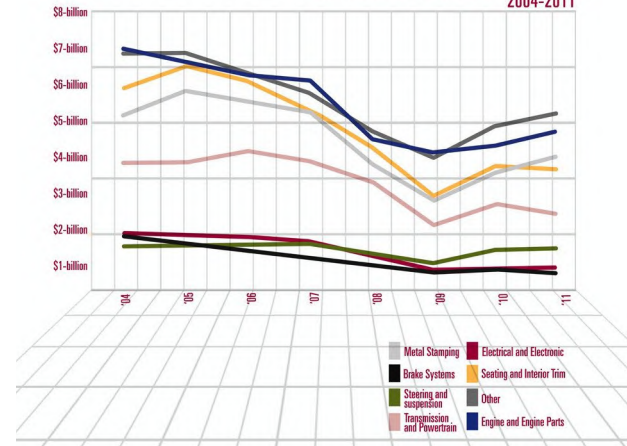


2 - GDP GRAPHS CONT'D

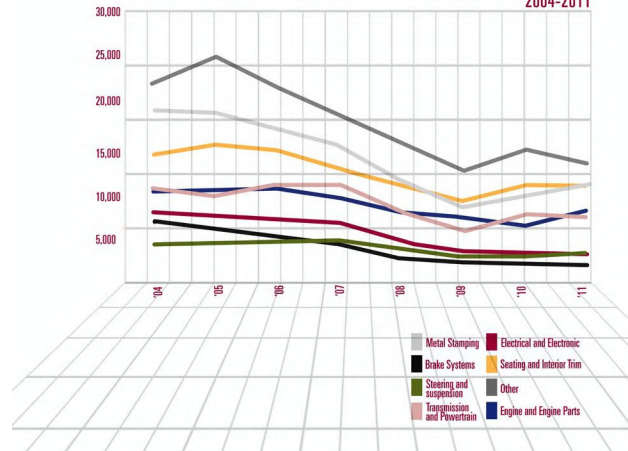
2.6 - GDP per Employee in Select Canadian Manufacturing Industries, April 2013



2.7 - Automotive Parts Sub-Sector Revenue, 2004-2011



2.8 - Automotive Parts Manufacturing Employment by Sub-Sector, 2004-2011

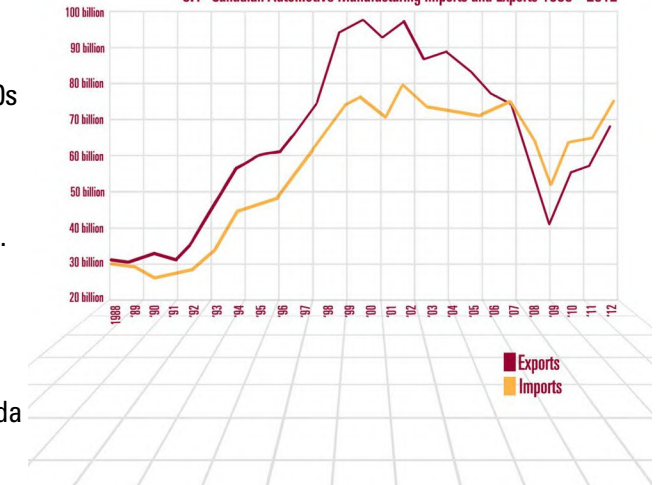


3 - BALANCE OF TRADE

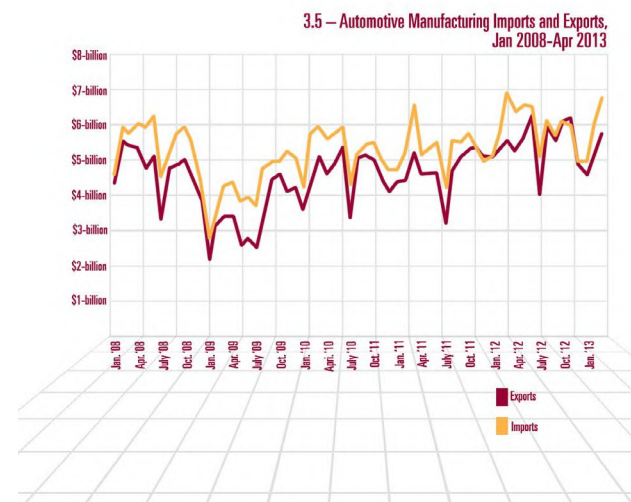
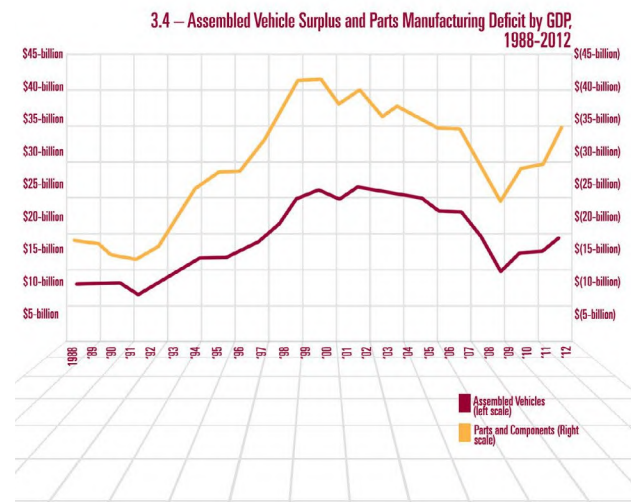
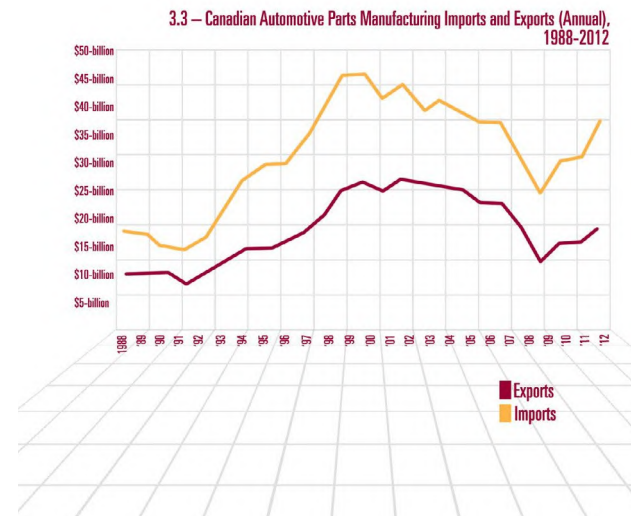
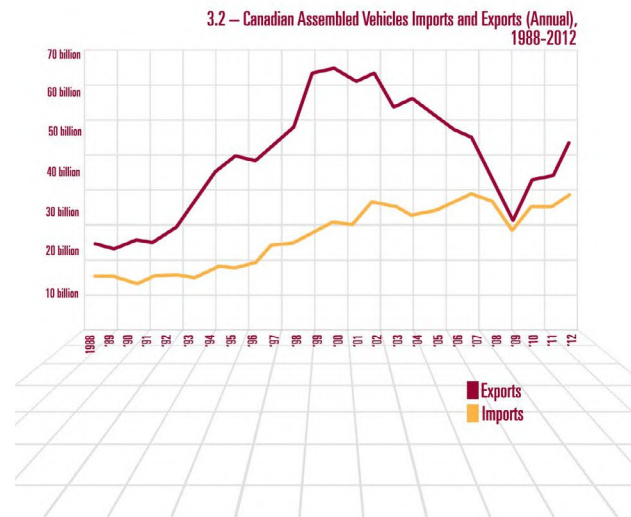
Canada held a modest positive balance of trade in the automotive industry throughout the 1970s and 1980s. This grew throughout the 1990s and first half of the 2000s, bolstered by Canada's exports of assembled vehicles (Figure 3.1). Canada's trade surplus in automotive products exceeded \$20 billion in 1999 and 2000. Canada has held a trade surplus in assembled vehicles in every year between 1988 and 2012 (Figure 3.2). These surpluses exceeded \$40 billion in 1999 and 2000. This surplus dwindled to \$1.9 billion in 2009, but has since recovered significantly. In 2012, Canada held a \$12.9 billion surplus in assembled vehicles. The positive balance of trade in assembled vehicles is offset by a persistent negative balance of trade in automotive parts (Figure 3.3). Canada has never held a surplus in automotive parts trade since the inception of the modern automotive industry in the 1950s. The automotive parts trade deficit reached a peak in 1999, when Canada imported over \$20.5 billion more than it exported. However, a significant portion of the value of assembled vehicles is related to both the imported and domestically-produced parts and components contained within.

Canada's automotive parts deficit exceeded its assembled vehicles surplus in 2007 (Figure 3.4). This deficit has persisted since. This is due primarily to the negative balance of trade in automotive parts, which reached \$10.1 billion in 2009, and decreased to \$6.4 billion in 2012. Canada held a positive balance of trade in the months of December 2011, October 2012, and November 2012; the first monthly surpluses since 2007 (Figure 3.5). However, and despite modest month-over-month increases to automotive parts exports, the first five months have yielded a negative trade balance of over \$4.1 billion for automotive products. This is nearly \$500 million larger than the negative balance of trade for the first five months of 2012. Addressing this historically anomalous trade deficit has emerged as a priority for industry stakeholders and policy-makers.

3.1- Canadian Automotive Manufacturing Imports and Exports 1988 - 2012

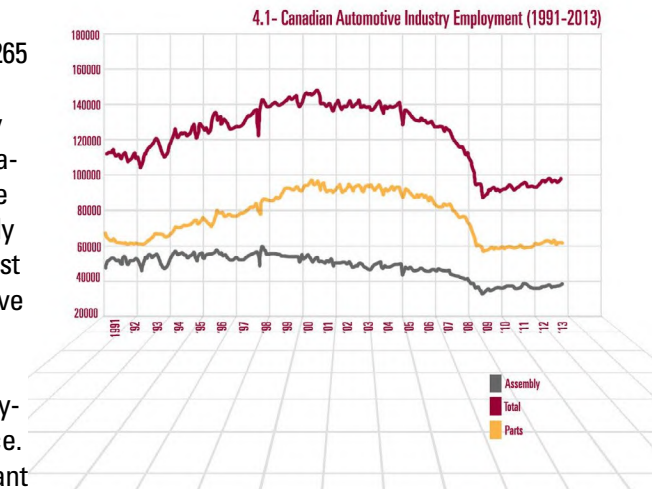


3 - BALANCE OF TRADE GRAPHS



4 – EMPLOYMENT AND WAGES

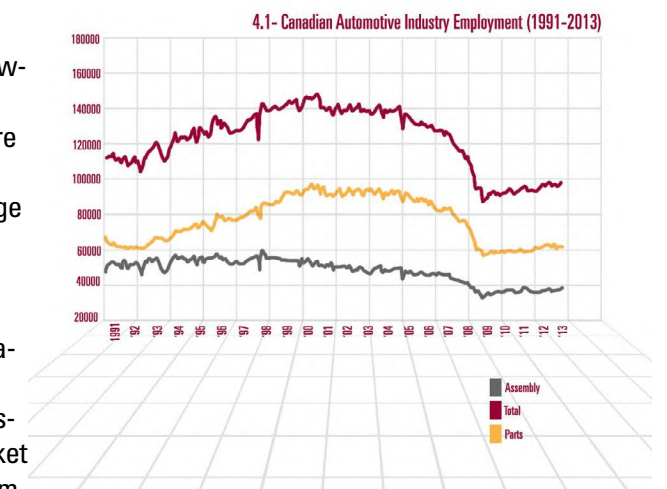
Canadian automotive industry employment peaked in May 2001 at 158,265 persons. Automotive assembly employment peaked in September 1998 at 61,589 persons and automotive parts employment peaked in January 2001 at 102,641 persons (Figure 4.1). Employment remained relatively stable in automotive parts manufacturing throughout the early 2000s, while assembly employment decreased slightly. Employment in both assembly and parts manufacturing fell sharply in the latter part of 2008 and the first half of 2009. Total automotive manufacturing employment and automotive assembly employment reached their lowest levels since free trade in June 2009 (90,673 and 32,090, respectively). Automotive parts manufacturing employment reached its lowest point in July 2009 (57,746). Employment began recovering later in 2009 and stabilized to some degree since. The commencement of production at Toyota’s Woodstock assembly plant and its affiliated suppliers in 2008 and 2009 were especially important in mitigating overall job loss. However, employment remains well below pre-recession levels and has not increased at the same pace as production or GDP. This is a reflection of both lost capacity (particularly in automotive parts manufacturing) and more capital intensive production systems and facilities.



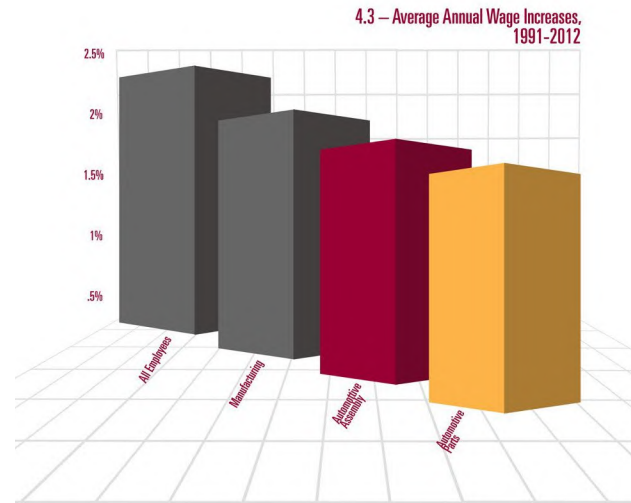
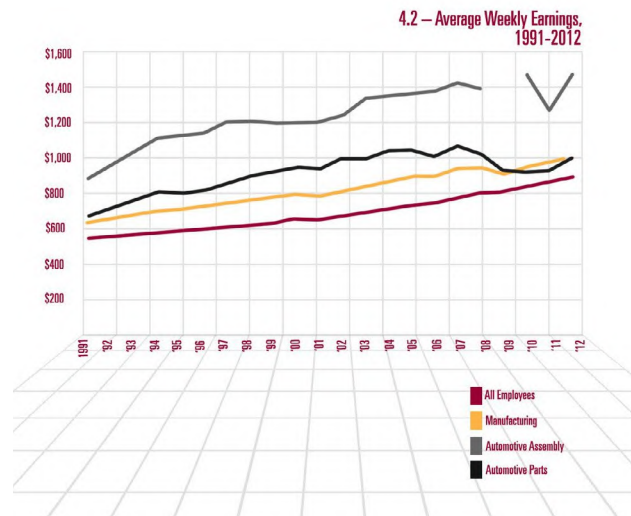
Automotive assembly workers earn approximately \$1,400 a week on average (Figure 4.2). Automotive parts manufacturing workers earn approximately \$1,000 a week on average. The variation in the wages of assembly workers is fairly low (e.g. the wages of Chrysler, Honda, and GM workers with similar experience and qualifications does not vary significantly), while the wages of automotive parts manufacturing workers varies considerably based on sub-sector, employer, and unionization. Automotive assembly workers’ wages are higher than the average wages in manufacturing and the broader economy. Automotive parts manufacturing workers’ wages are close to the average wage for manufacturing workers, and slightly higher than the average wage in the broader economy. However, the average annual increase for automotive assembly (1.96 per cent) and parts manufacturing (1.8 per cent) workers over the past two decades is slightly lower than the average for all manufacturing workers (2.11 per cent) and for all Canadian employees (2.27 per cent) (Figure 4.3).

5 – NEW VEHICLE SALES

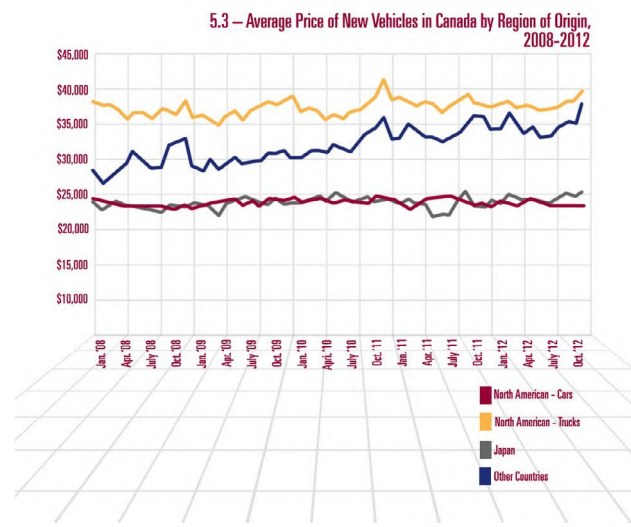
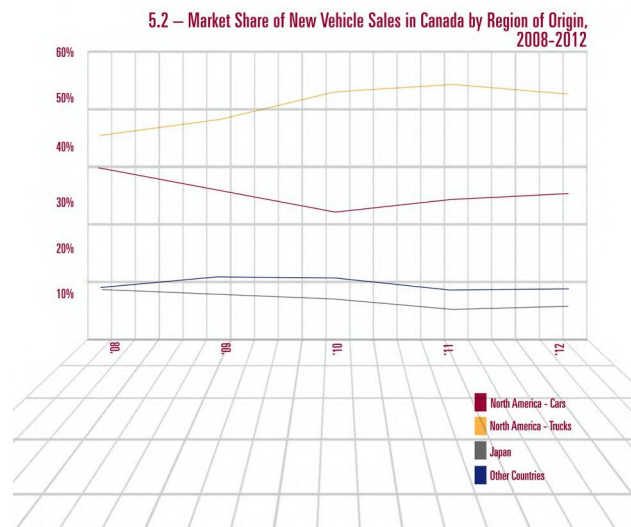
Total new vehicle sales in Canada increased every year since 2009. However, they remain lower than pre-recession levels (Figure 5.1). Despite bullish predictions by some analysts, sales in the first quarter of 2013 are slightly lower than those in the first quarter of 2012. Over this five year period, the market share of North American-built pickup trucks and large SUVs increased from forty-three per cent to fifty-one per cent (Figure 5.2). The average price of North American-built pickup trucks (including Honda, Toyota, and Nissan models) and large SUVs increased from \$38,670 to \$40,404 over the same period (Figure 5.3). This indicates Canadian consumers’ preference and willingness to pay for larger vehicles. It is also somewhat troubling considering that there are no Canadian assembly facilities that produce pickup trucks. At the same time, the market share of North American-built cars and crossover SUVs decreased from thirty-six per cent to thirty-one per cent, and the average price fell from \$24,225 to \$23,729. The market share of Japanese vehicles decreased from eleven per cent to seven per cent, while the average price per unit increased from \$24,074 to \$25,914. One possible explanation for this is that Japanese firms are producing more vehicles through their North American-based subsidiaries. The market share of vehicles produced in all other jurisdictions – namely Germany and South Korea – remained stable at eleven per cent. However, the average price per unit increased from \$28,713 to \$38,913. This may be the combined result of an increase in the production of economy and standard vehicle models in North American by South Korean and German firms alongside an increased demand for high-end and specialty automobiles from Germany and elsewhere in the EU.



4 – EMPLOYMENT AND WAGES GRAPHS



5 - NEW VEHICLE SALES GRAPHS



6 – GEOGRAPHY AND PRODUCTION LOCATION

The APRC established and maintains a comprehensive database of automotive assembly and parts manufacturing facilities in Canada. Interactive maps are also available on our website (socialsciences.mcmaster.ca/APRC). Eleven automotive assembly plants were operational at the time of publication (Figure 6.1). All are located in Ontario. Chrysler operates plants in Windsor and Brampton. Toyota operates two plants in Cambridge and one in Woodstock. Honda operates two plants in Alliston. Ford operates one plant in Oakville. General Motors operates one plant in Ingersoll and two in Oshawa, although one of the Oshawa facilities is expected to close.

Nearly five hundred automotive parts and sub-assembly plants were operational in Canada at the time of publication (Figure 6.2). The majority are located in southern Ontario, although several plants are located in the Vancouver area (where a large Toyota wheel plant is located) and in southern Québec. However, production capacity outside of southern Ontario has diminished greatly since the 1990s.

Assembly plants in Nova Scotia and Québec close (well) over a decade ago, as did many nearby parts plants. Several firms in Winnipeg closed or reoriented production to the bus, heavy truck, or aerospace industries. Some of this was done in anticipation of the closure of Ford's Twin Cities assembly plant in St. Paul, Minnesota. A number of smaller parts plants that were legacies of federal regional economic development and expansion programs also closed in the past decade. Notable among these is Magna's former powertrain facility in Cape Breton.



FIG. 6.1



FIG. 6.2

6 – GEOGRAPHY AND PRODUCTION LOCATION CONT'D

Within Ontario, the automotive industry is increasingly concentrated in the province's southwest. Production capacity east of Toronto has diminished, and most new investments are concentrated closer to London and Kitchener-Waterloo. Four production regions have emerged within the province. The first is centered on Windsor, and includes Tilbury, Leamington, and Chatham. The second is based around London. It includes Woodstock, Ingersoll, Tillsonburg, St. Thomas, and Strathroy. London's proximity to the 401 (providing access to Toronto, Windsor, and Detroit) and the 402 (providing access to Flint via Sarnia/Port Huron) offers a distinct locational advantage. Woodstock and Stratford rest on the border of the London production region and a third 'Tri-City' region. The 'Tri-City' region includes Kitchener-Waterloo, Cambridge, and Guelph. In addition to Toyota's assembly plants, nearly two dozen Linamar plants are located in Guelph and several large Tier 1 suppliers are located in Kitchener-Waterloo. The fourth production region is located in and around the Golden Horseshoe, and includes the Greater Toronto Area, Hamilton, and Niagara. Much of the Golden Horseshoe region's automotive parts production capacity is located in the communities of Brampton, Vaughan, Newmarket, Mississauga, and Rexdale. And while a number of Tier 1 suppliers continue to operate in Ajax-Pickering, Oshawa, and Whitby, production capacity east of the City of Toronto has diminished.

Some interesting observations are also evident based on the nationality of ownership of automotive parts firms. Perhaps the most striking is the tendency for Canadian- and US-owned firms (indicated by red and blue dots, respectively) to locate in close proximity to assembly plants or large Tier 1 suppliers (Figure 6.3). Conversely, Canada's Japanese-owned automotive parts manufacturing firms (green dots) are more geographically dispersed and often located in smaller and more rural communities (e.g. Simcoe, Palmerston, Arthur, Listowel, and Shelburne), none of which are located on 400 series highways (Figure 6.4).

[Click here to see a searchable map of manufacturing locations across Canada.](#)



Fig. 6.3 Windsor - Chatham

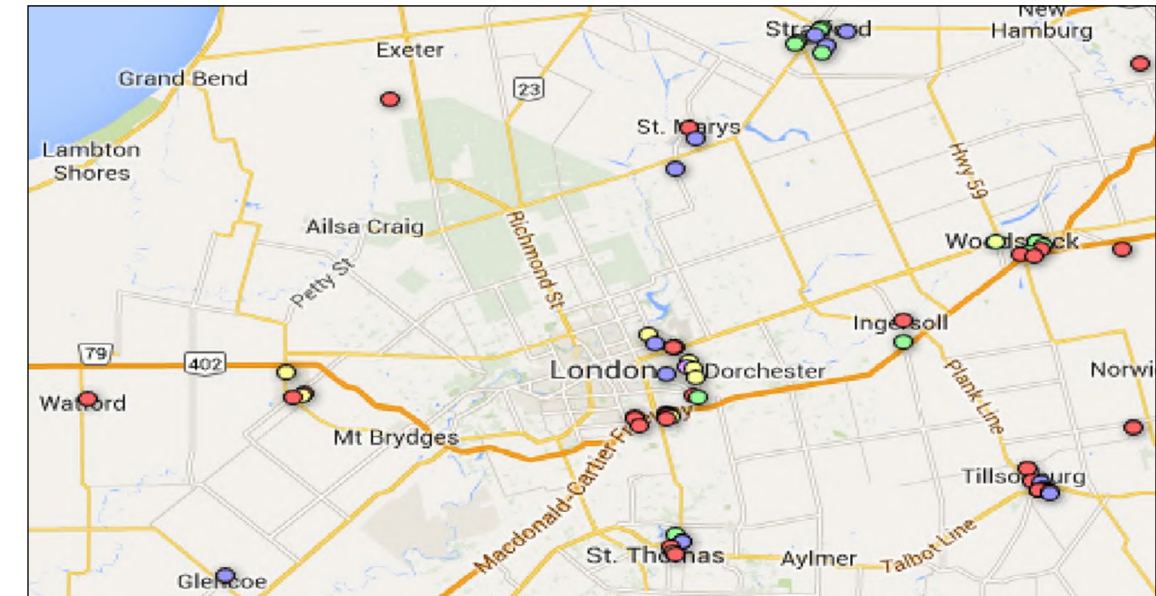


Fig. 6.4 Greater London

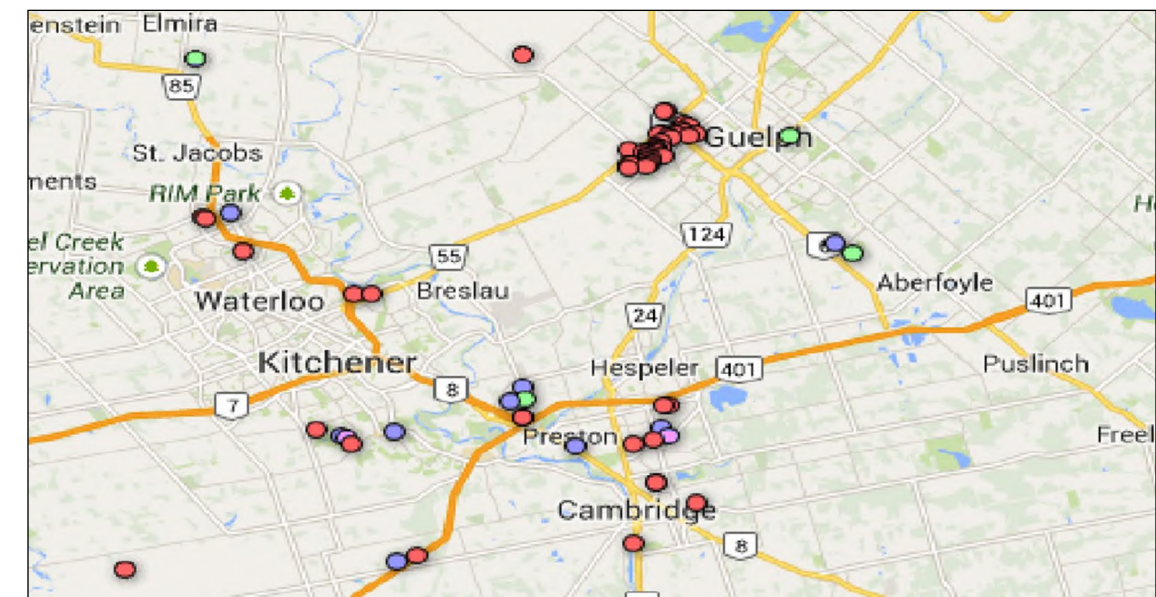


Fig. 6.5 Tri-Cities

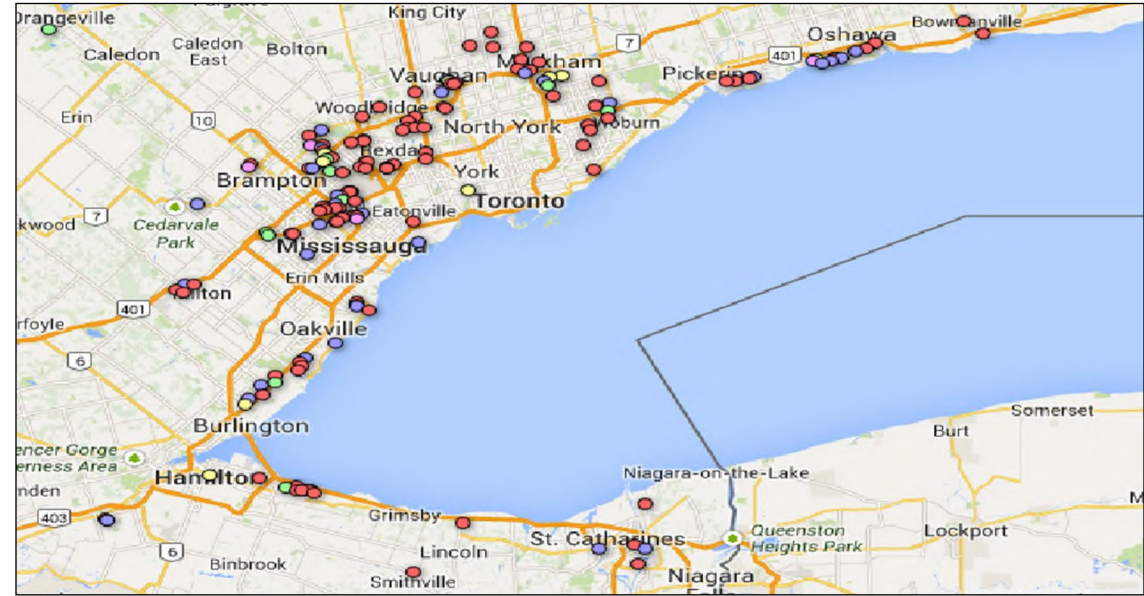


Fig. 6.6
Golden
Horseshoe



Fig. 6.7
Canada and
U.S. Parts
Firms

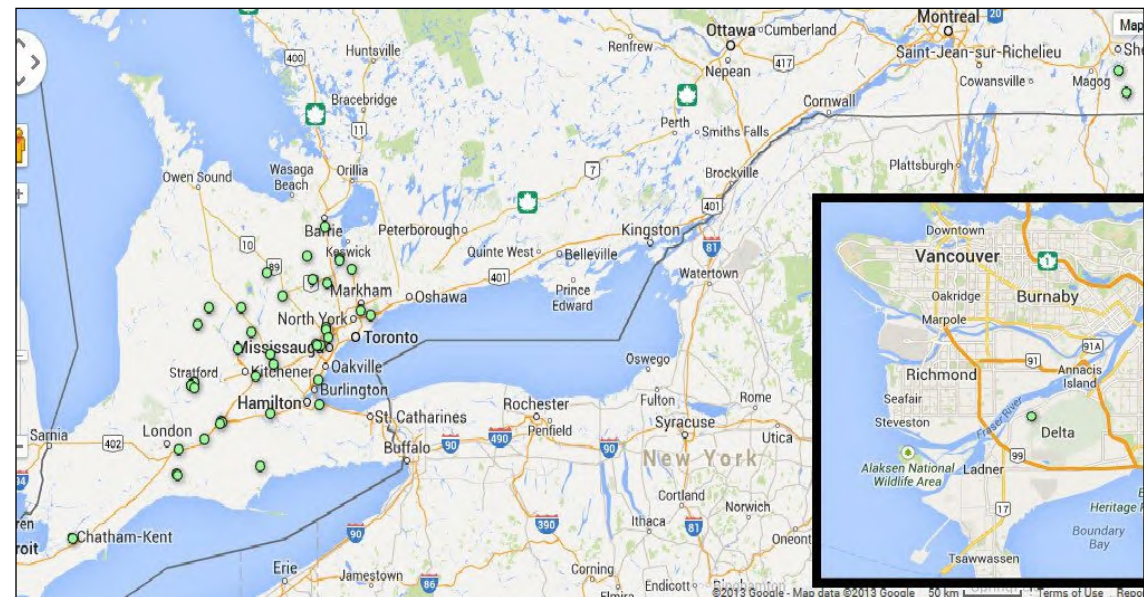


Fig. 6.8
Japanese
Parts Plants

7 – CONCLUSION

A number of conclusions are drawn from this report. The first and foremost is that automotive manufacturing remains an important part of Canada's economy. Moreover, it constitutes a critical economic and cultural component in many communities and regions, particularly in Ontario and Québec. Second, while automotive manufacturing has regained some of the ground lost during the recent economic downturn, production and employment remain well below those of the decade between 1996 and 2006. Production capacity in several automotive parts sub-sectors is decimated and Canada's balance of trade has been negative since 2007. These are particular causes for concern. Third, there has been a geographic shift in the location of production. This is evidenced by the increasing concentration of assembly and automotive parts plants between Windsor and Toronto and away from the eastern GTA, Eastern Ontario, and Québec.

For more information:

Dr. Brendan Sweeney
Project Manager
Togo Salmon Hall 111D
McMaster University
1280 Main Street West
Hamilton, ON
CANADA
L8S 4M4

905-525-9140 ext. 20993

bsween@mcmaster.ca