

**The Economic Contributions of the Japanese-Brand Automotive Industry to the Canadian  
Economy, 2001-2016**

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## **Executive Summary**

The Japanese-brand automotive industry is an increasingly important economic contributor to Canada. It now encompasses most facets of the automotive industry value chain, including vehicle assembly plants, automotive parts and tire manufacturing establishments, new vehicle dealerships, and national and regional sales and administrative offices. In 2001, the Japanese-brand automotive industry in Canada directly employed 50,667 people. By 2016, it directly employed 85,678 people, an increase of 35,011 (69.1%) over 2001. In 2016, the 85,678 people directly employed in the Japanese-brand segment of Canada's automotive industry earned over \$5 billion and generated over \$1.7 billion in Employment Insurance premiums, CPP/QPP contributions, personal income taxes and tariffs.

Direct employment by Japanese-brand vehicle assemblers and dealerships creates substantial intermediate and expenditure-induced (spin-off) jobs. This study estimates that the effect of the direct, intermediate, and spin-off employment related to the Japanese automobile industry in Canada is almost 203,000. The growth and resilience in the Japanese-brand segment of Canada's automotive industry during this period is notable, particularly in light of substantial changes to the economy and labour market.

## **1. Introduction**

This report examines the economic contributions to Canada of Japanese-brand Original Equipment Manufacturers (OEMs) and new vehicle dealerships and of Japanese-owned automotive parts and tire manufacturing establishments between 2001 and 2016. It draws upon production and establishment-level employment data compiled by the authors, official government statistics, and data provided by JAMA Canada. The report is organized into four sections: 1) vehicle production, 2) direct employment, 3) earnings, income taxes, and statutory contributions, and 4) intermediate and expenditure-induced employment. A conclusion follows.

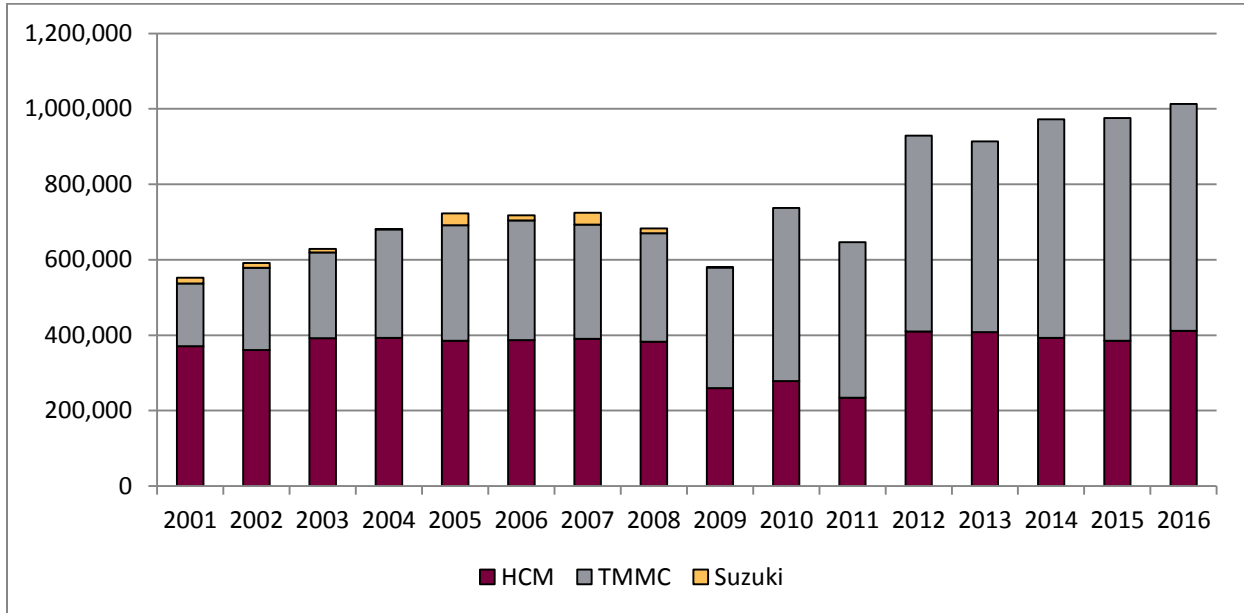
## **2. Vehicle Production**

Annual Japanese-brand light vehicle production in Canada surpassed one million units for the first time in 2016 (Figure 1). Toyota produced over 600,000 units at its assembly plants in Cambridge and Woodstock, Ontario and Honda produced more than 400,000 units at its assembly plants in Alliston, Ontario. Medium-duty truck manufacturer Hino, in operation since 2006, also produced over 2,000 units at its assembly plant in Woodstock. This represents the third straight year in which Japanese-brand vehicle production in Canada increased, and the tenth year-over-year increase since 2001.

Japanese-brand light vehicle production represented 44% of total light vehicle production in Canada in 2016 (Figure 2). This is a nearly twofold increase from 23% in 2001. The proportional increase is the result of increased production capacity at Japanese-brand vehicle assembly plants combined with reduced total production capacity in Canada overall. By the

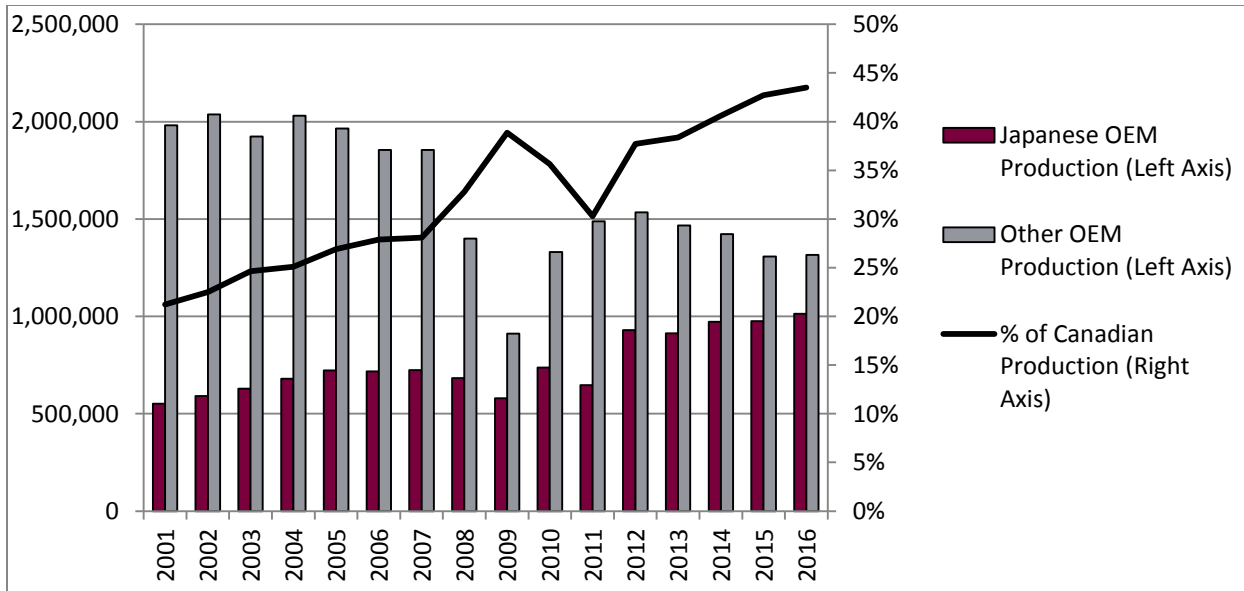
summer of 2017, the five Japanese-brand car and light-duty truck assembly plants will represent half of the ten car and light-duty truck assembly plants operating in Canada.<sup>1</sup>

Figure 1 – Japanese-Brand Vehicle Production (Units) in Canada, 2001-2016



Source: Automotive News, 2017

Figure 2 – Japanese-Brand Vehicle Production as a % of Total Vehicle Production, 2001-2016



Source: Authors' Calculations; Automotive News Canada, 2017

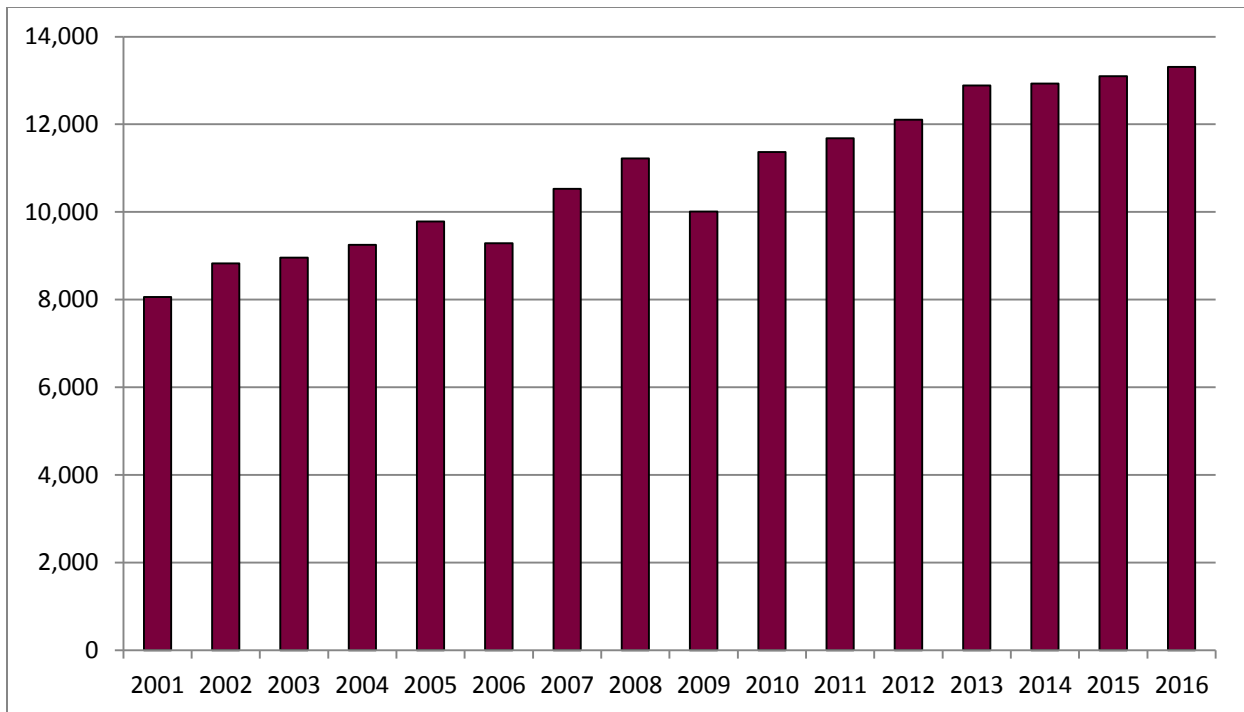
<sup>1</sup> Other Canadian vehicle assembly plants include FCA operations in Windsor and Brampton, Ontario, GM operations in Ingersoll and Oshawa, Ontario, and Ford operations in Oakville, Ontario.

## Direct Employment

### *a. OEM Manufacturing Employment*

Japanese-brand OEMs employed 13,308 people in their car and light duty vehicle assembly and parts manufacturing facilities in Canada in 2016 (Figure 3).<sup>2</sup> This represents an increase of 5,246 (65.1%) compared to 2001. Japanese-brand OEM employment increased in thirteen out of fifteen years between 2001 and 2016, and in every year since 2009. These increases came as a result of increased production capacity within existing assembly plants in Cambridge and Alliston, Ontario and the additions of a new Toyota vehicle assembly facility in Woodstock and a new engine production line within Honda's assembly complex in Alliston.

Figure 3 – Japanese-Brand OEM Manufacturing Employment, 2001-2016

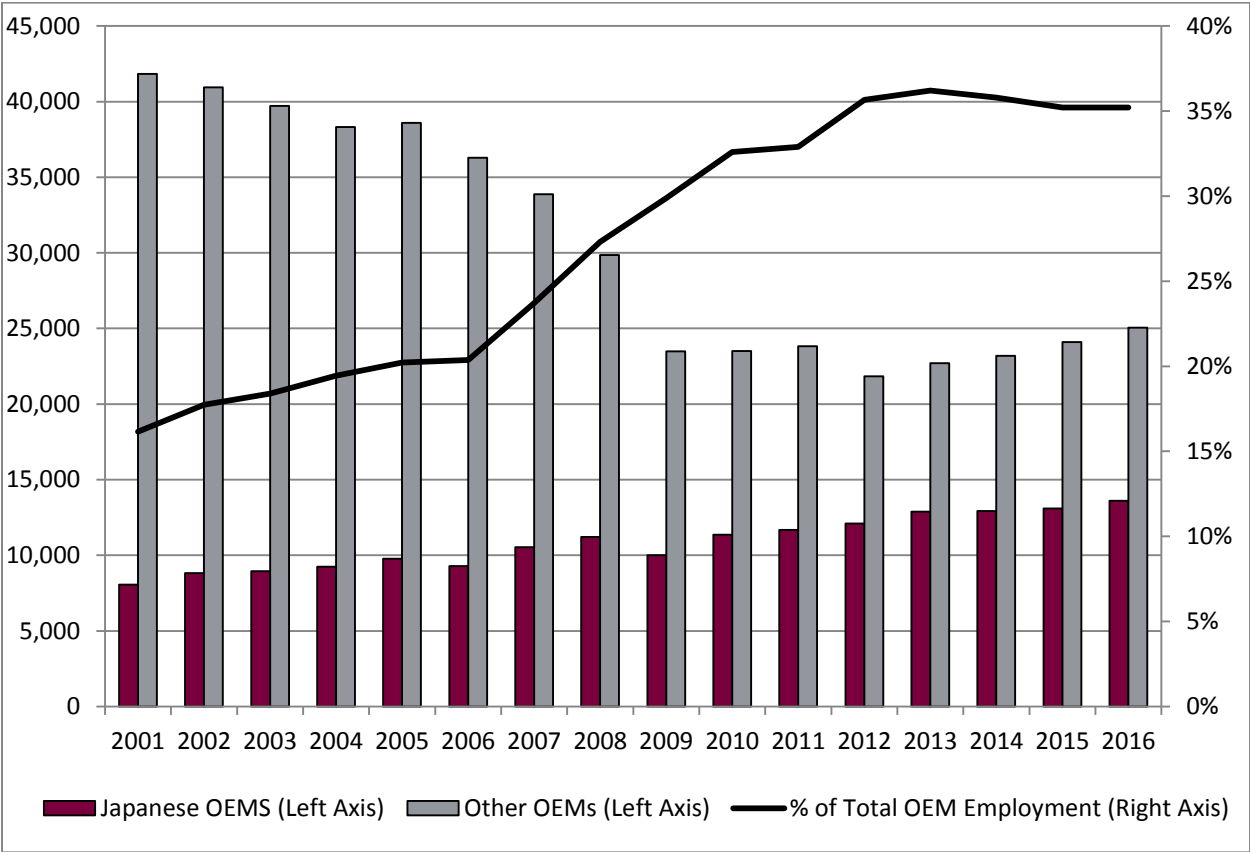


Source: Authors' Calculations of Establishment-Level Data

<sup>2</sup> These operations consisted of Toyota's vehicle assembly plants in Woodstock and Cambridge, Ontario; Honda's vehicle assembly plant in Alliston, Ontario; and Toyota's aluminum wheel manufacturing operation in Delta, British Columbia.

In 2016, Japanese-brand OEMs employed 35% of all OEM manufacturing employees in Canada (Figure 4). Japanese-brand OEM employment increased as a proportion of total OEM employment in Canada in thirteen out of fifteen years between 2001 and 2016. At 35%, Japanese OEM employment is proportionally smaller than their 44% share in assembled vehicles. This gap exists because Japanese OEMs do not have as much casting, engine, and powertrain production capacity in Canada as other OEMs.

**Figure 4 – Japanese-Brand OEM Manufacturing Employment as a % of Total OEM Manufacturing Employment, 2001-2016**

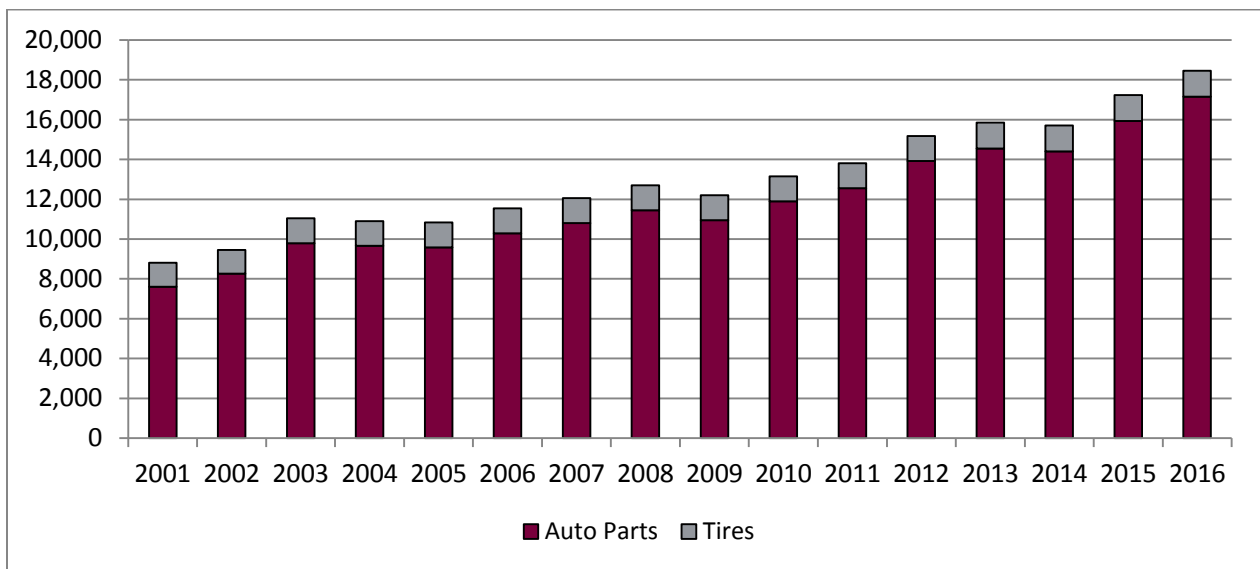


Source: Authors’ Calculations of Establishment-Level Data

***b. Automotive Parts and Tire Manufacturing***

Japanese-owned independent automotive parts manufacturers employed 17,155 people at 54 establishments in Canada in 2016. This represents an increase of 9,465 (124%) compared to 2001 (Figure 5).<sup>3</sup> All but three of these establishments were located in southern Ontario (the rest are in Québec). Furthermore, one Japanese-owned tire manufacturer employed 1,300 people at its plant in Québec.

Figure 5 - Japanese-Owned Automotive Parts and Tire Manufacturing Employment, 2001-2016



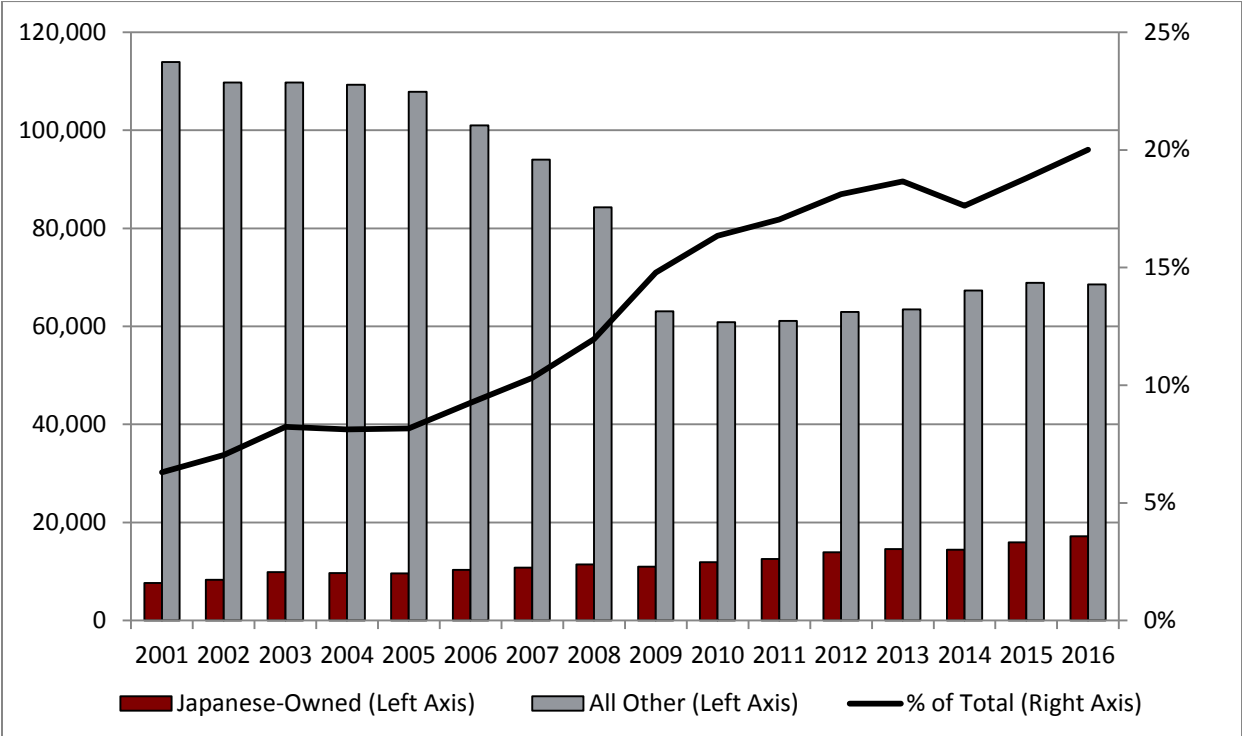
Source: Authors' Calculations of Establishment-Level Data

Both Japanese-owned automotive parts and tire manufacturing employment increased as a proportion of total automotive parts and tire manufacturing employment in Canada since 2001. Japanese-owned automotive parts manufacturing employment increased from 6% of total automotive parts manufacturing employment in 2001 to 20% in 2016 (Figure 6). This came as the result of organic growth in establishments that existed prior to 2001, new investments by

<sup>3</sup> There are a number of additional Japanese-owned manufacturing establishments that provide materials, machine tools, or transportation and logistics services to automotive OEMs and parts suppliers. Together, they employ over 1,000 people.

Japanese-owned automotive parts manufacturers since 2001 (several of which are related to Toyota’s new assembly plant in Woodstock, Ontario), and acquisitions by Japanese-owned firms of Canadian-, US-, and German-owned automotive parts manufacturing establishments. The proportional increase also occurred due to a low number of plant closures by Japanese-owned firms relative to others prior to, during, and following the 2008-2009 recession.<sup>4</sup> Japanese-owned automotive parts manufacturing employment continues to increase, and has done so in every year but one since 2009.<sup>5</sup>

**Figure 6 – Japanese-Owned Automotive Parts Manufacturing Employment as a % of Total Automotive Parts Manufacturing Employment, 2001-2016**



Source: Authors’ Calculations of Establishment-Level Data; Statistics Canada, 2017a; Statistics Canada, 2017b

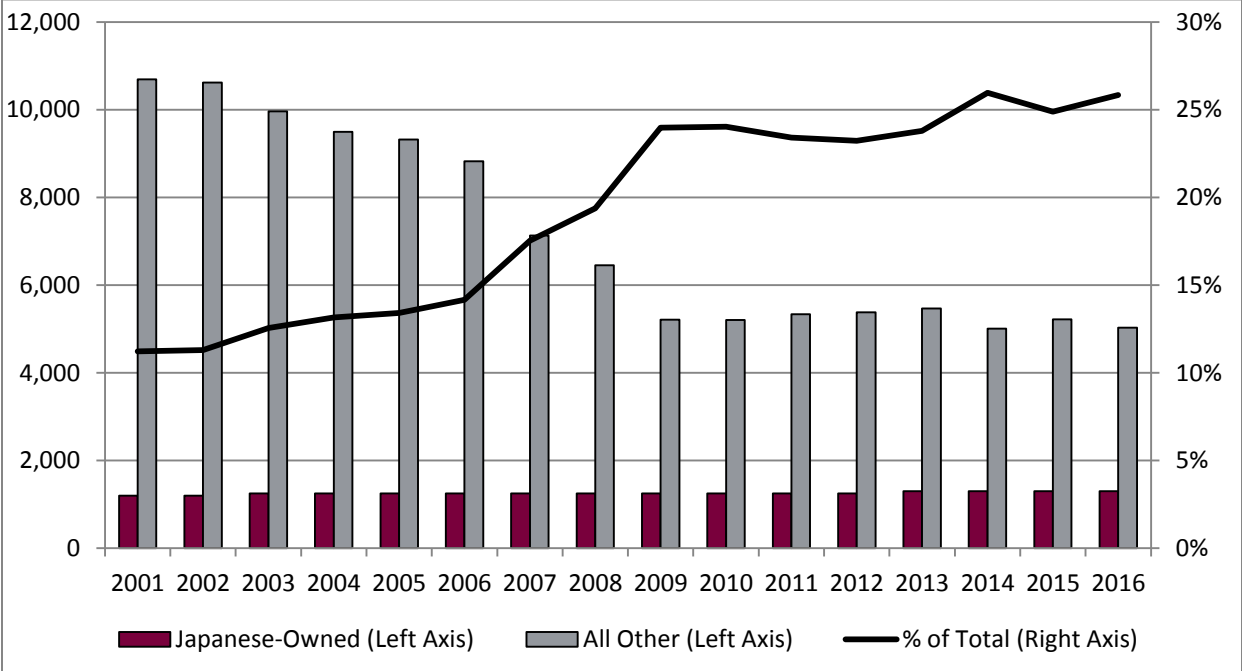
<sup>4</sup> Between 2005 and 2010 over 200 Canadian automotive parts manufacturing establishments closed in Canada. Since 2010, over 50 additional facilities have closed. Those that closed were disproportionately large, US-owned, and unionized. Over the same time, only 12 Japanese-owned automotive parts manufacturing establishments closed. For more information see Sweeney and Mordue, 2017.

<sup>5</sup> Japanese-owned automotive parts manufacturing employment decreased in 2014 as a result of the acquisition of Yachiyo of Ontario Manufacturing, a supplier to Honda, by the Canadian-owned firm Matcor-Matsu. Matcor-Matsu continues to operate the plant as a supplier to Honda.



Japanese-owned tire manufacturing employment increased from 11% of total tire manufacturing employment in Canada in 2001 to 26% in 2016 (Figure 7). This occurred due to the combination of an increase in employment at Bridgestone’s Joliette, Québec plant and a decrease in employment in the remainder of Canada’s tire manufacturing industry.

**Figure 7 – Japanese-Owned Tire Manufacturing Employment as a % of Total Tire Manufacturing Employment in Canada, 2001-2016**

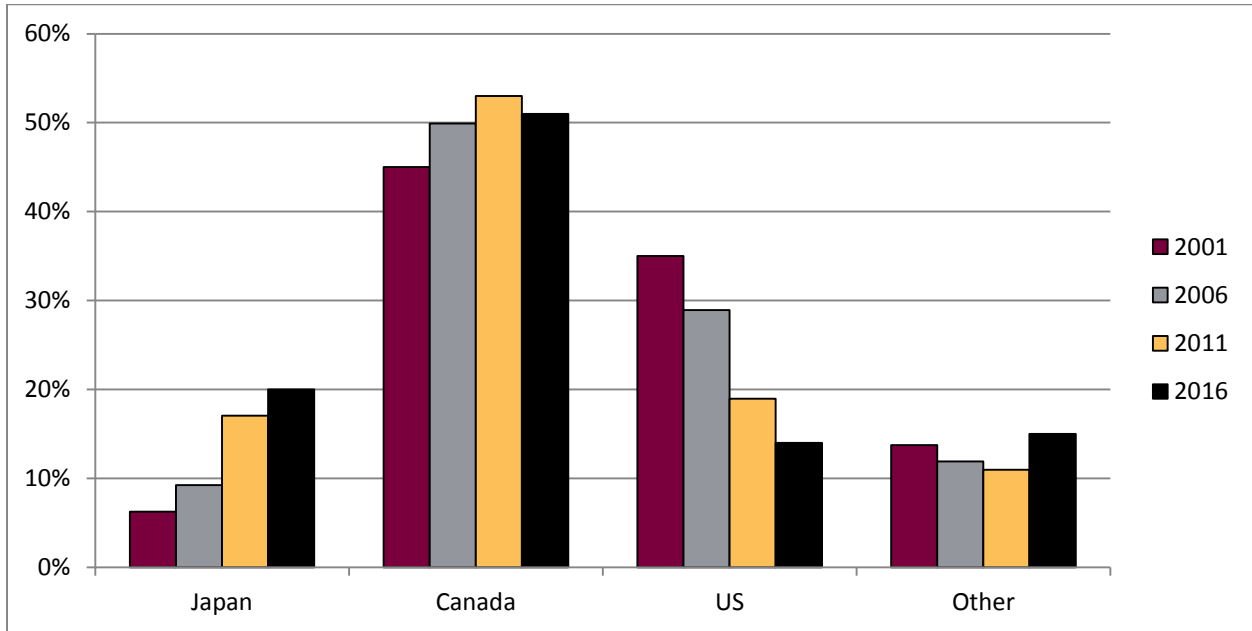


Source: Authors’ Calculations of Establishment-Level Data; Statistics Canada, 2017a; Statistics Canada, 2017b

The increase of Japanese-owned automotive parts and tire manufacturers in both nominal and proportional terms reflects broader trends in the restructuring of Canada’s automotive industry. Figure 8 illustrates the proportion of Canada’s automotive parts manufacturing workforce employed by Japanese-, Canadian-, and US-owned firms in 2001, 2006, 2011, and 2016. Canadian-owned firms employed more people than firms of any other nationality in each instance. Most notable, however, is that employment in Japanese-owned establishments recently

surpassed employment in US-owned establishments. This reflects the growing importance of Japanese-brand and Japanese-owned firms to Canada’s automotive industry.

**Figure 8 – Automotive Parts Employment by Nationality of Firm Ownership as a % of Total Automotive Parts Employment, 2001, 2006, 2011, and 2016**

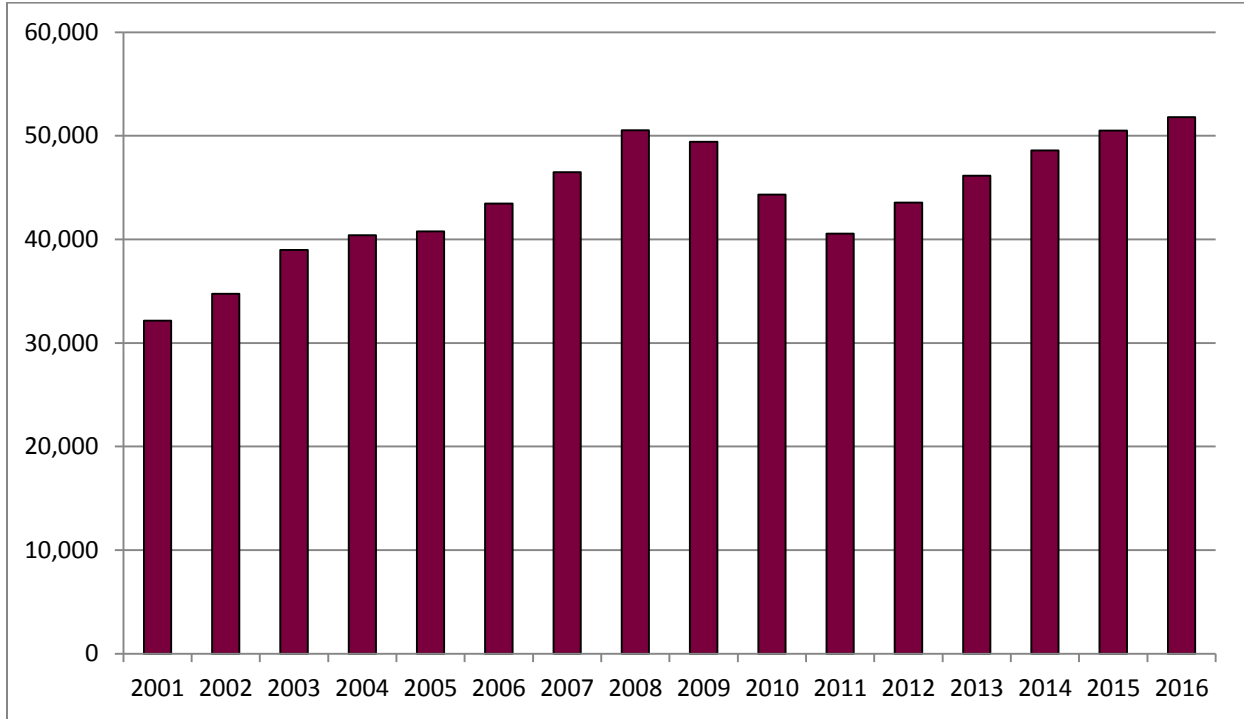


Source: Authors’ Calculations of Establishment-Level Data; Sweeney and Mordue, 2017

**c. New Vehicle Dealerships**

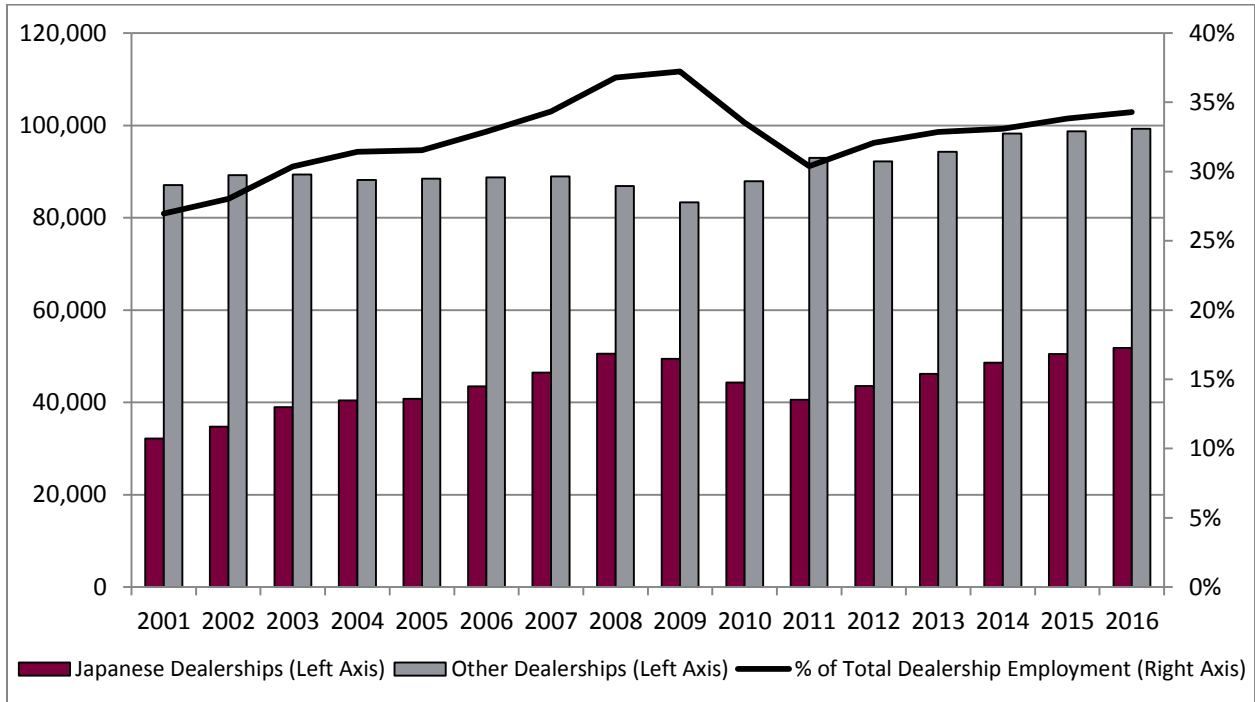
Japanese-brand new vehicle dealerships employed 51,799 people in 2016. Employment in Japanese-brand new vehicle dealerships increased by 19,654 (37.9%) between 2001 and 2016 (Figure 9). Moreover, employment increased in twelve of fifteen years between 2001 and 2016. The number of persons employed in Japanese-brand new vehicle dealerships is closely related to Japanese-brand automakers’ share of the new vehicle market in Canada. Japanese-brand new vehicle dealership as a proportion of total dealership employment increased from 28% in 2001 to 37% in 2009 (Figure 10). The proportion decreased to 30% by 2011, but climbed to 34% by 2016.

Figure 9 – Japanese-Brand New Vehicle Dealership Employment, 2001-2016



Source: JAMA Canada; Statistics Canada, 2017a

Figure 10 – Japanese-Brand New Vehicle Dealership Employment as a % of Total New Vehicle Dealership Employment, 2001-2016

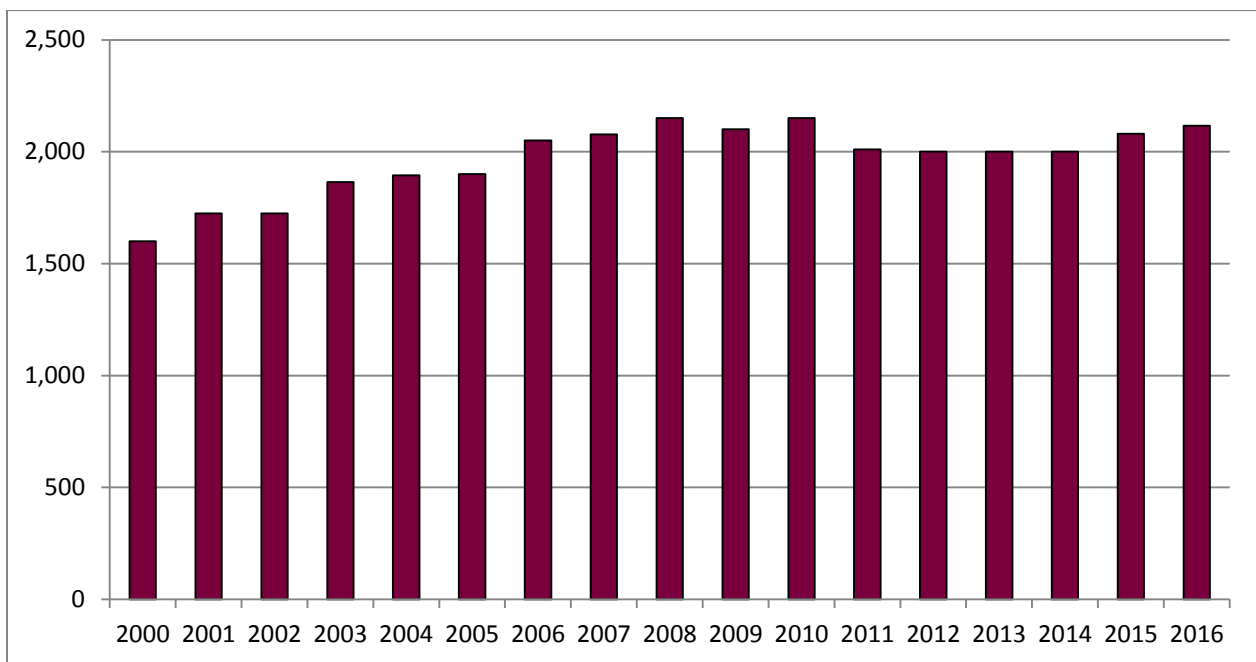


Source: JAMA Canada; Statistics Canada, 2017a

***d. National and Regional Office and Administrative Employment***

The national and regional offices of seven Japanese-brand automakers (Honda, Toyota, Hino, Nissan, Subaru, Mitsubishi, and Mazda) employed 2,116 in 2016 (Figure 11). Those employed in national and regional offices are involved in positions related to administration, marketing, finance, the distribution of vehicles and parts, and other related activities. The number of persons employed in national and regional offices increased by 516 (32.3%) since 2001.

Figure 11 – Japanese-Brand Automakers’ National and Regional Office Employment, 2001-2016



Source: JAMA Canada

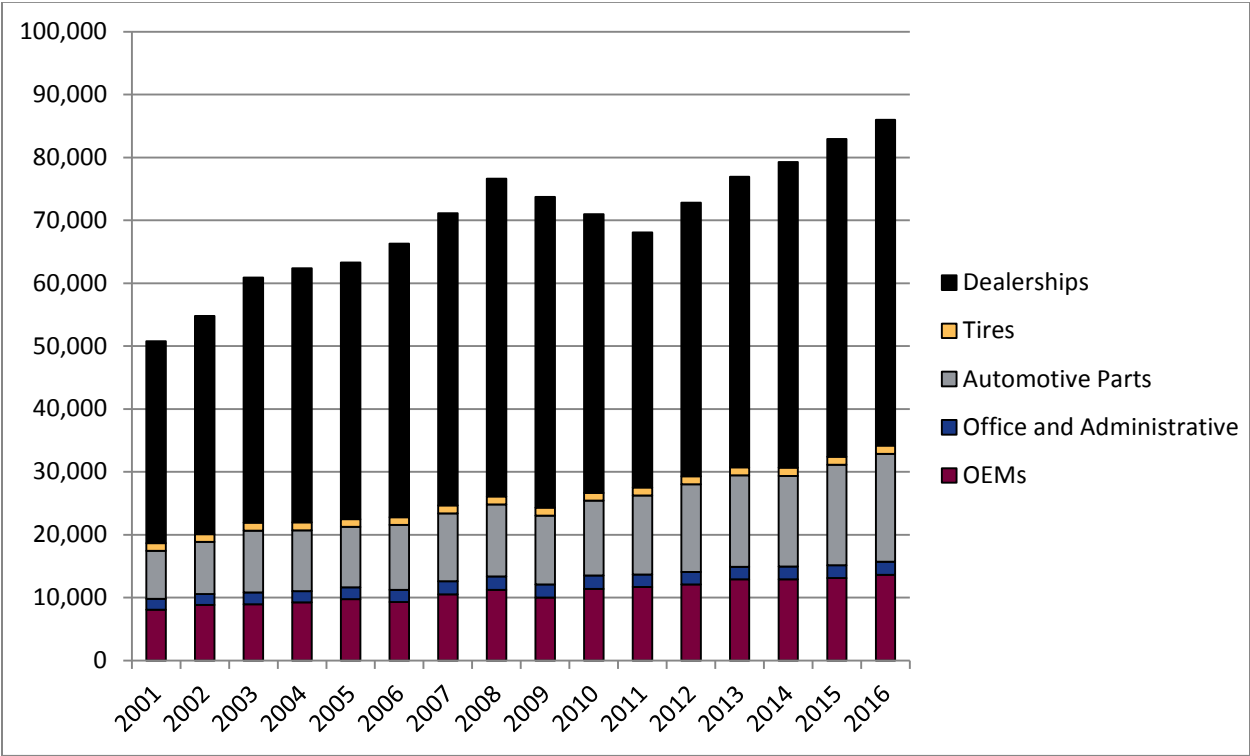
Note: Suzuki Canada closed their automotive operations in 2014

***e. Total Japanese-Brand and Japanese-Owned Automotive Employment***

Japanese-brand OEM automakers, new vehicle dealerships, and Japanese-owned automotive parts and tire manufacturers directly employed 85,678 people in Canada in 2016

(Figure 12). This represents a 69.1% increase over 2001, when they employed 50,667 people. New vehicle dealerships are responsible for the largest nominal increase, while automotive parts manufacturers are responsible for the largest proportional increase (Table 1). In proportional terms, Japanese-brand and Japanese-owned automotive industry employment grew from 17% of total automotive industry employment in Canada in 2001 to 30% in 2016 (Figure 13).

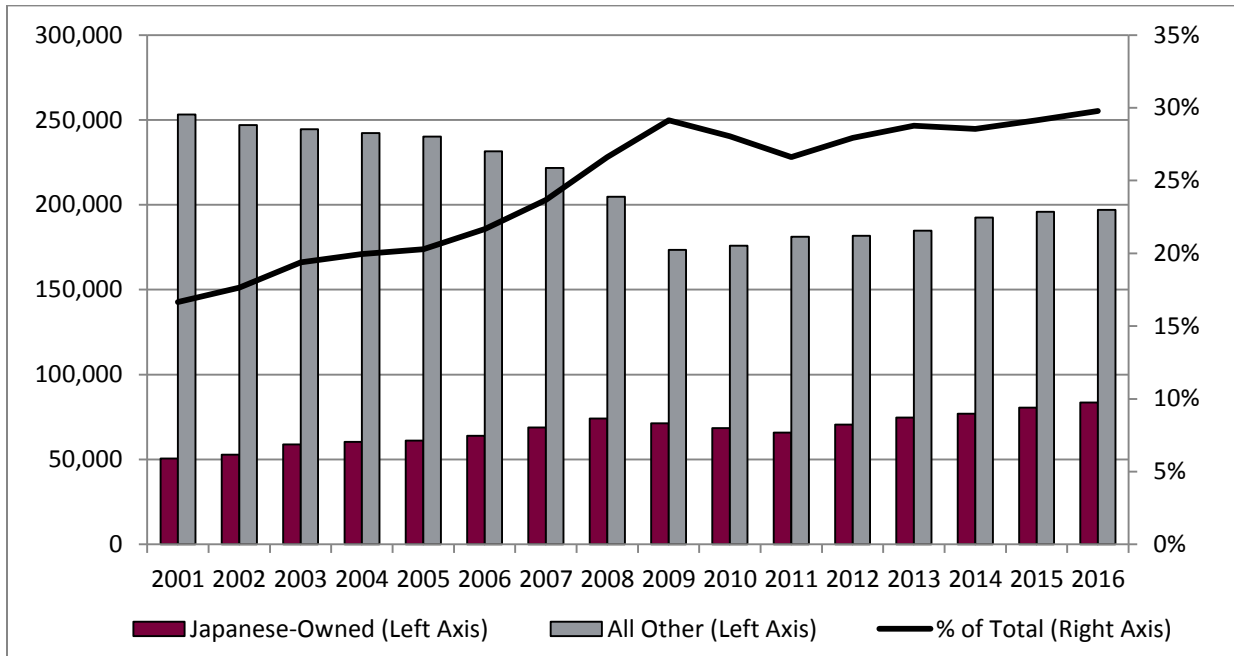
**Figure 12 – Total Japanese-Brand and Japanese-Owned Automotive Employment, 2001-2016**



**Table 1 – Change in Employment by Activity, 2001 & 2016**

	2001	2016	Change	% Change
Vehicle Assembly	8,062	13,308	+5,246	+65.1%
Automotive Parts Manufacturing	7,660	17,155	+9,495	+124%
Tire Manufacturing	1,200	1,300	+100	+7.7%
New Vehicle Dealerships	32,145	51,799	+19,654	+37.9%
Head and Regional Offices	1,600	2,116	+516	+32.3%
<b>TOTAL</b>	<b>50,667</b>	<b>85,678</b>	<b>35,011</b>	<b>+69.1%</b>

Figure 13 – Japanese-Brand and Japanese-Owned Automotive Employment as a % of Total Automotive Employment, 2001-2016



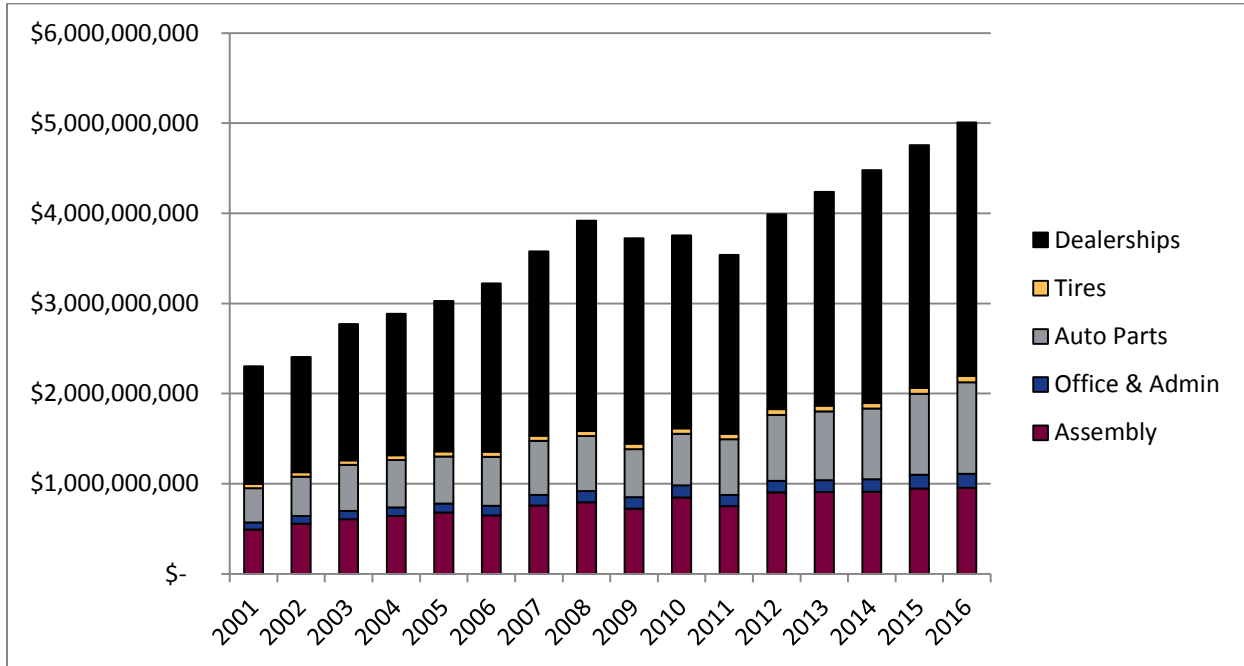
Source: Authors' Calculations; JAMA Canada; Statistics Canada, 2017a

### Earnings, Income Taxes, and Statutory Contributions

The gross earnings of the 85,678 direct employees of Japanese-brand vehicle assembly plants, new vehicle dealerships, national and regional offices and of Japanese-owned automotive parts and tire manufacturing establishments exceeded \$5 billion in 2016 (Figure 14). These 85,678 employees generated over \$910 million in personal income taxes, over \$216 million in CPP/QPP contributions, and over \$82 million in employment insurance premiums. Their employers contributed an additional \$215 million to CPP/QPP and \$114 million to EI (Figure 15).<sup>6</sup> As a result, employees' disposable income was approximately \$3.8 billion (Figure 16). This is an increase of 41.6% compared to 2011 and 117.3% compared to 2001. The year 2016 also marked the first time that the gross earnings of the employees of Japanese-owned automotive parts manufacturing establishments in Canada exceeded \$1 billion.

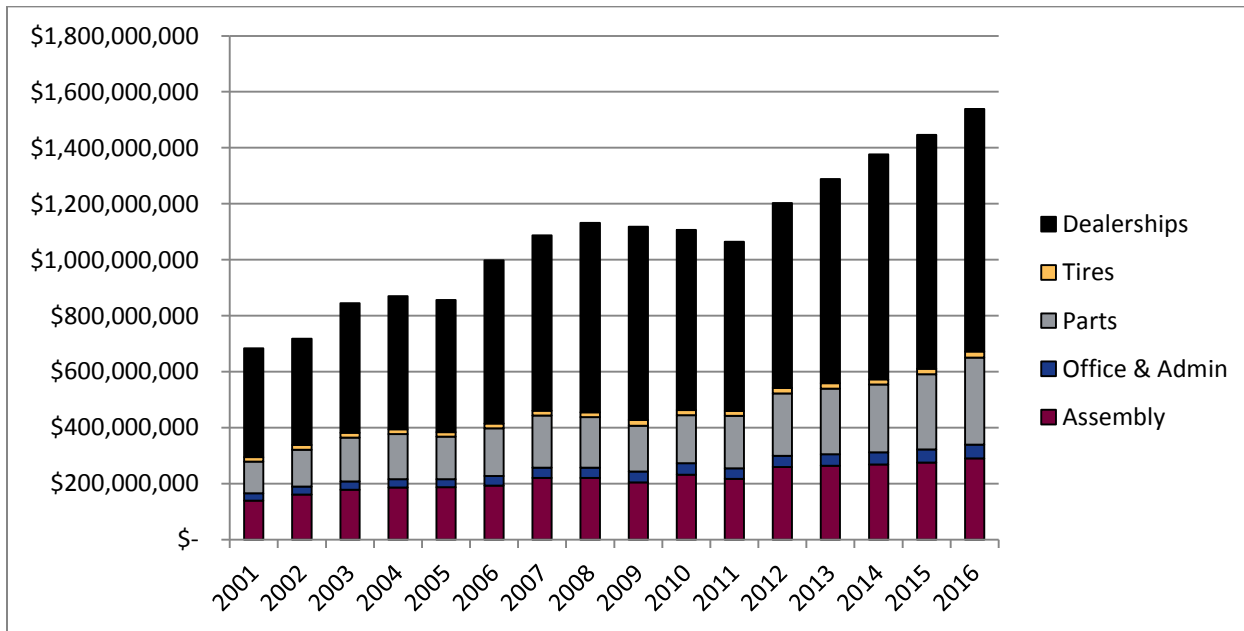
<sup>6</sup> In addition to personal income taxes and statutory contributions, Japanese automakers paid import tariffs of approximately \$223 million in 2016

**Figure 14 – Gross Annual Earnings of Japanese-Brand and Japanese-Owned Automotive Industry Employees, 2001-2016**



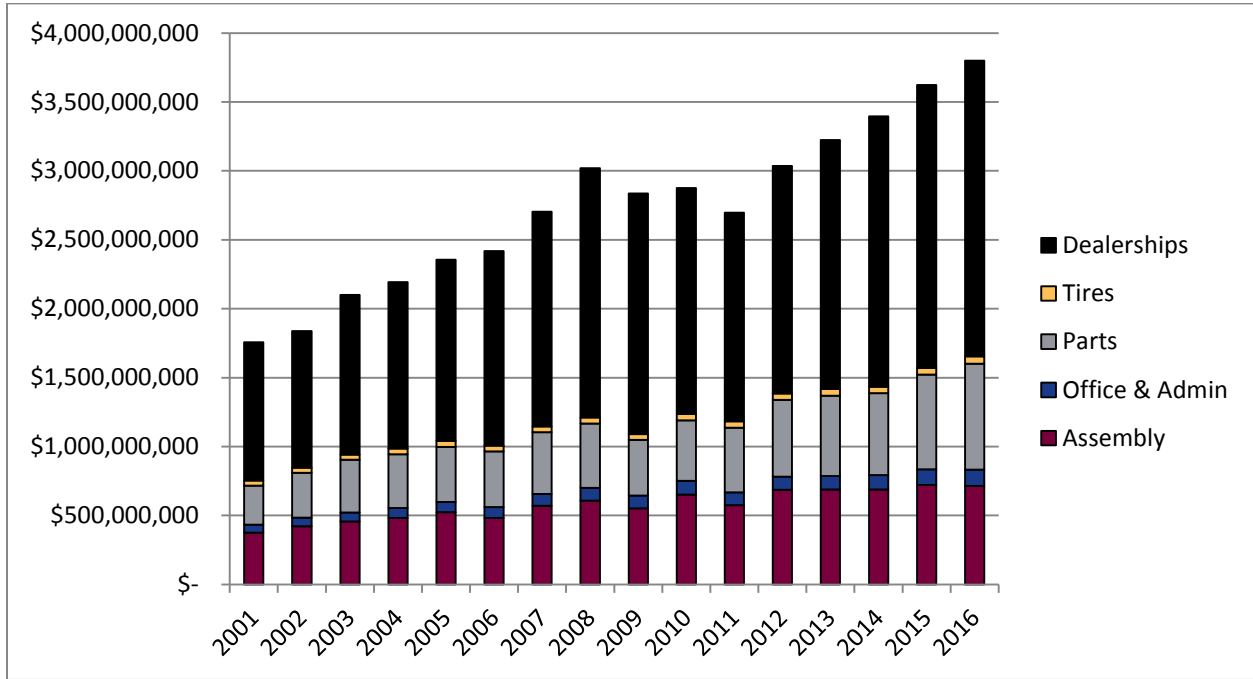
Source: Authors' Calculations; Statistics Canada, 2017c

**Figure 15 – Personal Income Taxes and Employer and Employee EI and CPP Contributions of Japanese-Brand and Japanese-Owned Automotive Industry Employees, 2001-2016**



Source: Authors' Calculations

**Figure 16 – Disposable Personal Income of Japanese-Brand and Japanese-Owned Automotive Industry Employees, 2001-2016**



Source: Authors' Calculations

### 3. Intermediate and Expenditure-Induced Employment

In addition to direct employment, Japanese-brand vehicle assembly plants and new vehicle dealerships support a significant number of jobs in intermediate upstream and downstream activities and through expenditures induced by these activities. The analysis in this section demonstrates that seemingly small expenditures by automakers – especially in vehicle assembly plants – have substantial economic impacts. This section reviews those impacts in three parts: a) Japanese-brand Vehicle Assembly Impacts, b) Japanese-brand New Vehicle Dealership Impacts, and c) Total Japanese-brand Assembly and New Vehicle Dealership Impacts.

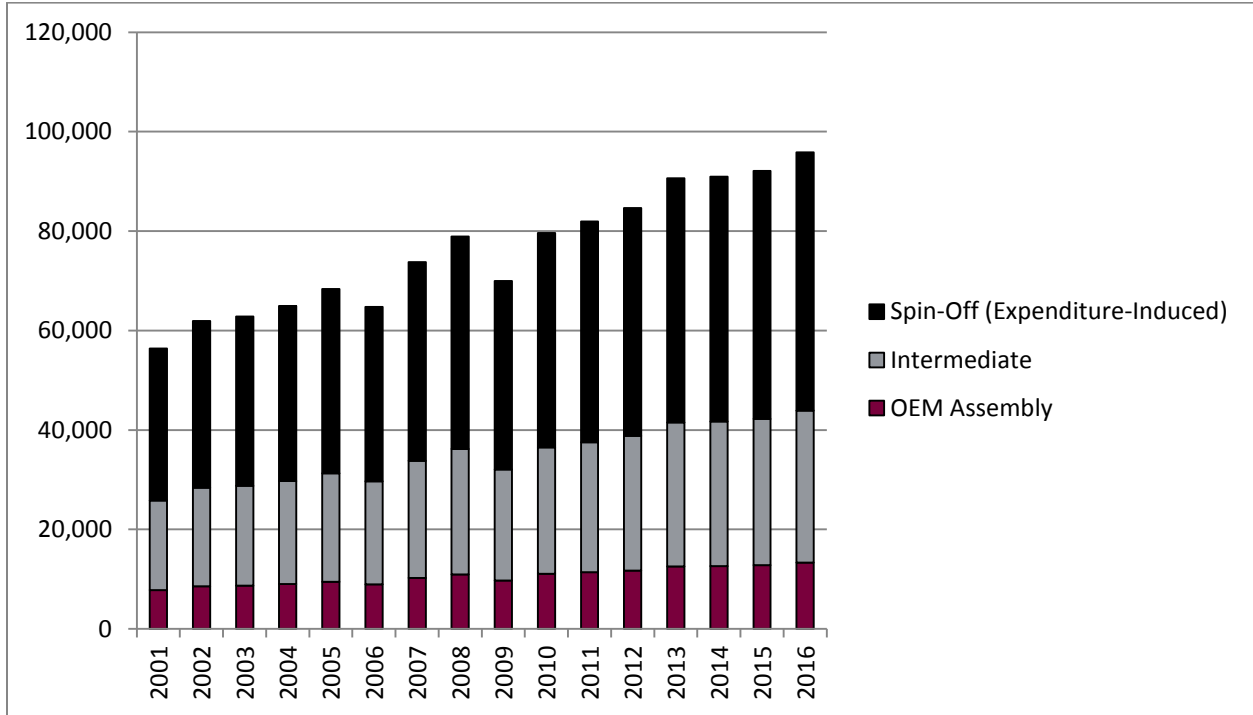


### *a) Japanese-Brand Vehicle Assembly Impacts*

To estimate the number of intermediate and expenditure-induced jobs created by Japanese-brand vehicle assembly activities, we employ a similar model to that used in Prusa's (2016) analysis of the economic impacts of the Japanese-brand automotive industry in the United States. However, we adapt Prusa's model to reflect the lower proportion of automotive parts manufacturing jobs relative to vehicle assembly jobs in Canada when compared to the US. Although we adapted Prusa's model independently, our intermediate and expenditure-induced multipliers for vehicle assembly are very similar to those in a report commissioned recently by Unifor to measure the economic impact of General Motors' assembly plant in Oshawa, Ontario (C4SE, 2015).

Japanese-brand vehicle assembly plants employed 13,308 people in 2016. We estimate that the economic activity in these assembly plants created an additional 30,608 jobs in intermediate upstream and downstream activities. The largest categories of upstream and downstream activities included associated manufacturing (of which Japanese-owned automotive parts manufacturing employment account for a substantial proportion) and transportation and logistics activities. The economic activity in these assembly plants also created 51,901 jobs induced by expenditures related to vehicle assembly. The total number of direct, intermediate, and expenditure-induced jobs created by Japanese-brand vehicle assembly was 95,816 in 2016 (a total employment multiplier of 7.2). This is an increase of 39,455 (70%) compared to 2001 (Figure 17).

Figure 17 – Employment Impact of Japanese-Brand Vehicle Assembly Plants, 2001-2016

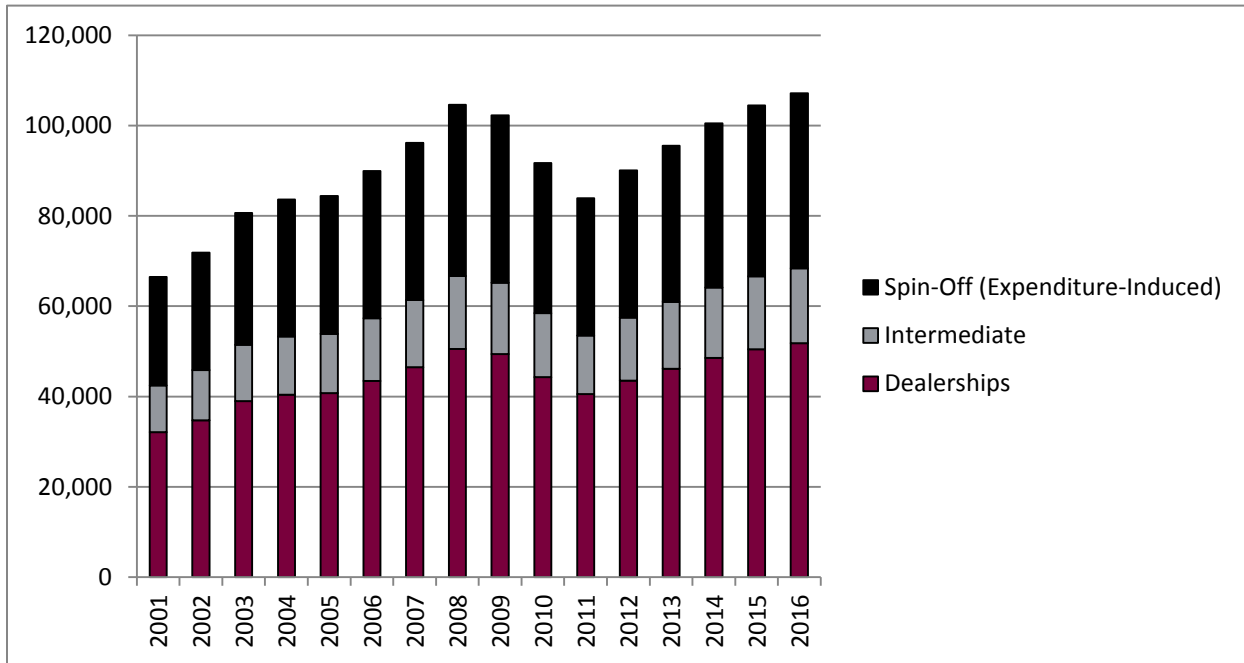


***b) Japanese-Brand New Vehicle Dealership Impacts***

To estimate the number of intermediate and expenditure-induced jobs created by Japanese-brand new vehicle dealership activities, we employ the same model as Prusa (2016). We use Prusa’s model because dealership activities in the two countries are similar.

Japanese-brand new vehicle dealerships employed 51,799 people in 2016. Economic activity occurring in the dealerships created an additional 16,576 jobs in intermediate activities and 38,797 jobs induced by expenditures. Therefore, the total number of direct, intermediate, and expenditure-induced jobs created by Japanese-brand new vehicle dealerships was 107,172 in 2016 (an employment multiplier of 1.07). This represents an increase of 40,664 jobs (61.1%) compared to 2001 (Figure 18).

Figure 18 – Employment Impact of Japanese-Brand New Vehicle Dealerships, 2001-2016

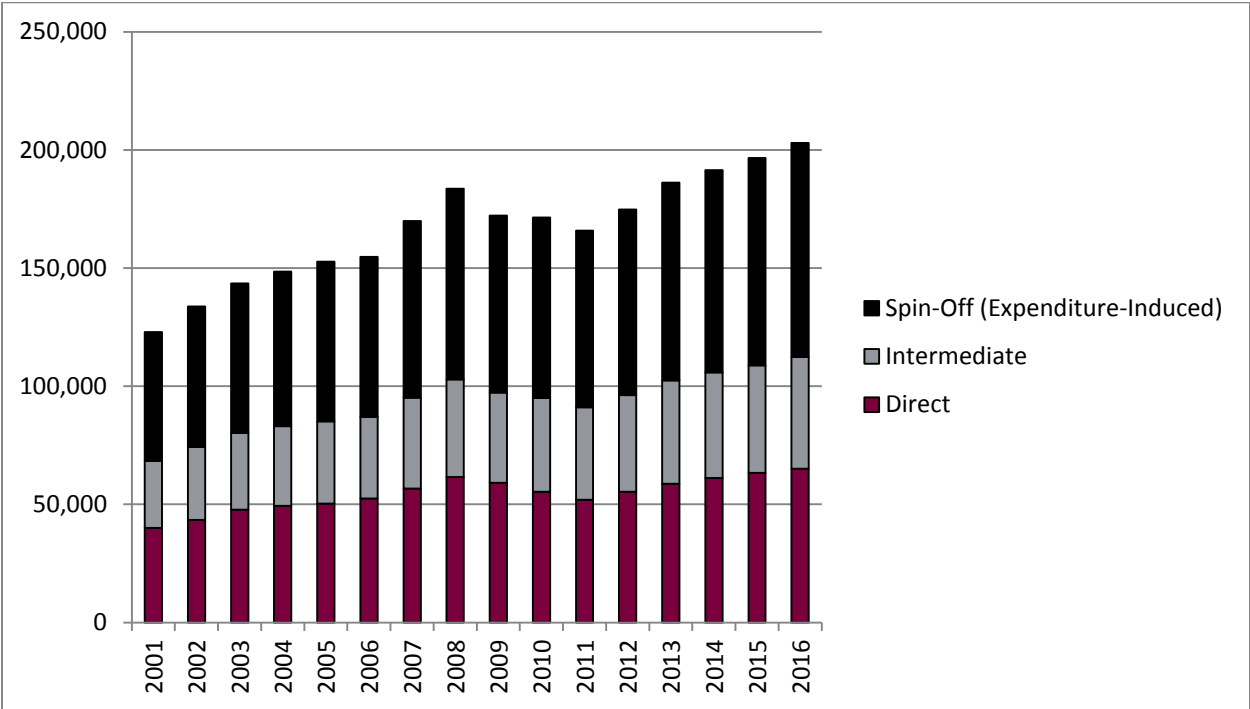


***c) Combined Japanese-Brand Vehicle Assembly and New Vehicle Dealership Impacts***

Japanese-brand vehicle assembly plants and new vehicle dealerships directly employed 65,107 people in 2016. We estimate that the economic activity of Japanese-brand vehicle assembly plants and new vehicle dealerships support 47,184 jobs in intermediate industries, and an additional 90,698 jobs as a result of expenditures induced by Japanese-brand vehicle assembly plants and new vehicle dealerships.<sup>7</sup> We estimate the total employment impact of Japanese-brand vehicle assembly plants and new vehicle dealerships in 2016 to be 202,989. This represents an increase of 80,119 (65.2%) since 2001, when Japanese-brand vehicle assembly plants and new vehicle dealerships supported 122,870 jobs (Figure 19).

<sup>7</sup> The majority of national and regional office employment is included in intermediate new vehicle dealership jobs. Such jobs depend on the activities of new vehicle dealerships (and to a much lesser extent, Canadian vehicle assembly plants).

Figure 19 – Total Employment Impact of Japanese-Brand Automotive Industry, 2001-2016



**4. Conclusion**

This report captures the contributions of the Japanese automotive industry to the Canadian economy from 2001 to 2016. During this period, the economic contributions of Japanese-brand vehicle assembly plants and new vehicle dealerships and Japanese-owned automotive parts and tire manufacturers increased substantially in both nominal and proportional terms. In 2016, Japanese-branded OEMs produced 44% of vehicles in Canada and employed 35% of the automotive OEM workforce. In the same year, Japanese-owned firms employed 20% of Canada’s automotive parts manufacturing workforce.

Japanese-branded and Japanese-owned vehicle assembly plants, automotive parts and tire manufacturing establishments, new vehicle dealerships, and national and regional sales and administrative offices directly employed 85,678 people in 2016. The employment created by

Japanese-brand vehicle assembly plants and new vehicle dealerships and Japanese-owned automotive parts and tire manufacturing firms represent a substantial source of revenues for the federal and provincial governments. These revenues include personal income taxes, CPP/QPP contributions, and EI premiums. Furthermore, the economic activities of Japanese-brand vehicle assembly plants and new vehicle dealerships create a substantial number of intermediate and expenditure-induced (spin-off) jobs.

Between 2001 and 2016, growth of employment in Japanese-brand and Japanese-owned automotive firms has far outpaced growth in the automotive industry itself. In fact, nominal employment in manufacturing establishments owned by Japanese-brand and Japanese-owned firms in vehicle assembly, automotive parts manufacturing, and tire manufacturing grew while total employment in each of these industries shrank. Japanese-owned firms are thus unique in this respect; they have consistently delivered growth and stability within an environment of economic uncertainty and change.

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