



Sectoral Profile

Transportation equipment manufacturing

NAICS 336

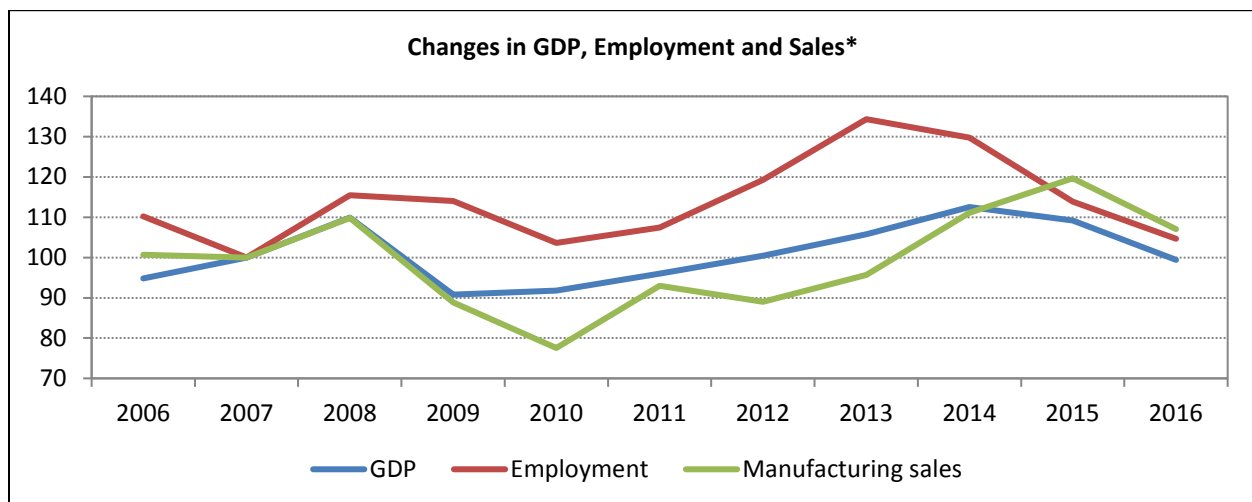
Quebec

2018-2020*



- In Quebec, transportation equipment manufacturing is dominated by Aerospace product and parts manufacturing, which accounts for 60% of jobs, 66% of the value of shipments and 75% of exports
- Consumer behaviour shapes commercial aviation growth, while the general state of the economy impacts business aviation markets

In Canada, the workforce of the transportation equipment manufacturing industry is highly concentrated geographically. Ontario is host to the production of motor vehicles, bodies, trailers and parts (83% of all Canadian automobile manufacturing jobs) and railroad rolling stock (72%). Over half of all ship and boat manufacturing jobs are located in the Maritimes (33%) and British Columbia (24%). Quebec leads in jobs in the aerospace and parts manufacturing industry (56%) and in other vehicles manufacturing (53%) such as recreational vehicles, military vehicles and all-terrain vehicles. Given the nature of the transportation material being manufactured in Quebec, it is not surprising that nearly 80% of production is exported. The United States is the primary destination, with 65% of exports. Other segments in transportation equipment manufacturing are present in the province: Quebec also accounts for 30% of Canadian jobs in motor vehicle body and trailer manufacturing.



Data are expressed as indices with 2007 = 100

Sources: Statistics Canada, GDP – CANSIM 379-0030, Employment – LFS, Sales – CANSIM 304-0015

* This document is the result of analyses performed using information available as of April 5, 2018.

Quebec also has automotive and parts manufacturers, shipyards, rail equipment companies and several businesses from other industrial sectors that supply parts and systems to manufacturers in Canada and abroad. They include fabricated metal product manufacturers, communications equipment manufacturers, machine shops, plastics and rubber products manufacturers, and electrical appliance and component manufacturers.

The 2008-2009 recession led to cancellations and delays in orders in all industry segments, causing many layoffs, both among manufacturers and sub-contractors. This affected manufacturing shipments, exports, and employment until 2010. There was a brief period of recovery before everything started going down again: employment since 2013, shipments since 2015, and exports in 2016.

Aerospace product and parts manufacturing

Large international companies dominate the global market. Globalization and the size of these companies mean that it is difficult for SMEs to break into this industry. In Quebec, the presence of a few prime contractors and several equipment manufacturers benefit a network of skilled small and medium-sized subcontractors and suppliers that successfully integrate into the supply chain and meet the specific requirements of the major players.

The aerospace industry is a cyclical line of business. During the last recession, several Quebec manufacturers and subcontractors were forced to lay off many workers due to delayed or cancelled orders. Since 2012, manufacturers' order books have been filling up steadily, although shipments from Quebec declined in 2016.

At *Bombardier Aerospace*, a longer and more expensive development of the *CSeries* meant that the company had to reorganize its activities, leading to the losses of thousands of jobs worldwide, including a few thousand in Quebec. The company also announced that the production of some types of products, which could not be done in a competitive manner in North America and Europe, would be transferred to other plants or suppliers in order to optimize costs, win contracts and create jobs in the future. In October 2016, Alain Bellemare, CEO of *Bombardier*, stated that restructuring is always difficult, but the company was ahead of its five-year financial recovery plan, and that these actions were required to ensure long-term competitiveness (in the long term). In 2016, the government of Quebec became a partner in the development of the *CSeries* in exchange for a major investment in the program. In early 2017, the Government of Canada announced a repayable contribution to *Bombardier* to support its research activities, as well as for the development of new technologies, innovation and green technologies in Canada.

2017 was not an easy year for *Bombardier*. Shipment difficulties faced by some suppliers led to production delays for the *CSeries* which, moreover, did not receive new orders to help fill the company's order books. Then, the American Department of Commerce launched an investigation into the price of the planes in the contract with the *Delta Airlines*, raising the risk of antidumping and countervailing duties of 300%. It was not until February 2018 that the *U.S. International Trade Commission* ruled that there were no grounds for imposing duties.

In the fall of 2017, *Bombardier* announced a partnership with *Airbus*, who would hold a 50.01% majority stake in the *CSeries*. This participation would not cost *Airbus* one cent. The contribution of the company would rather consist in offering the *CSeries* its expertise, network, sales force, and the support of the *Airbus* brand. In the same vein, *Bombardier* undertook to pay the costs for adding an assembly chain for the *CSeries* at the *Airbus* plant in Alabama. This plant was relied upon, amongst other things, to avoid problems with supplying the American market.

Although the future looks better with the partnership and the end of import duties, the possibilities for employment growth remain low at this stage. The sales of the *C Series* are growing slowly, and a second assembly chain in the United States will attract contracts in the next few years, which could limit the growth at Mirabel.

Bell Helicopter said recently that the market has stabilized somewhat, following a decline that began in 2006. The recession had made this period difficult—as a result, the workforce of the company fell from 2,100 to 900 during this period. Commercial helicopters are used by police forces and for medical transportation, but also by businesspeople, offshore operators, as well as for exploration and for mining and forestry surveys. Some sectors have been slow to get back on their feet, due to a sluggish growth in global economy. Others are still struggling with low product prices, which make it impossible to go back to costly research activities. *Bell Helicopter* returned to growth by winning the global contract for the assembly of the 505 model, which will boost shipment volumes and lead to about a hundred hirings.

Other companies also announced hirings, due to investments at their installations (plants) or because they will begin operating in Quebec over the next few years.

Motor vehicles, bodies, trailers and motor vehicle parts manufacturing

The industry is benefiting from the fast growing sales (accelerating sales growth) of replacement parts for motor vehicles and (increased sales of) new motor vehicles. Major manufacturers are producing more vehicles in their American, Mexican, Asian and European plants. The outlook is thus positive for Quebec's parts manufacturers-exporters.

However, one must be careful as some red flags have gone up recently. They are reminiscent of the business environment that led to the difficulties of the American motor vehicle industry a dozen years ago: increase in the number of risky car loans, and the yearly production of North American plants is nearing total motor vehicle sales, which means overproduction and overstock. Moreover, several American plants left the northern area of the country for states bordering Mexico—will supply contracts with Quebec plants follow suit?

As regards bus and truck manufacturing, the contracts awarded to major manufacturers are indicating employment growth. However, it is worth noting that a large portion of the new contracts are linked to the American market. For a little over a year now, the rhetoric coming from the United States is not reassuring, as it is threatening a tax on all motor vehicles and parts not manufactured in the United States.

Many times, mainly during the discussions on the renewal of the *North American Free Trade Agreement* (NAFTA), the United States made it clear that they desire to favour American vehicles and parts. In NAFTA, the United States is looking to increase American content at the expense of its partners, namely Canada and Mexico. Given that, since 1994, NAFTA has contributed to the integration and expansion of production chains for parts and motor vehicles North America-wide, the attempt to build a vehicle with a high American content would be detrimental to all businesses and consumers.

Railroad rolling stock manufacturing

Overall, the railroad rolling stock manufacturing segment for passenger and merchandise transportation is expected to grow slightly during the forecast period. However, despite an increase in the use of public transportation, it is difficult for governments to fund all of the requirements simultaneously, and some will require undergoing the long process of feasibility studies before even getting under way. Accepted projects, which will be implemented during the forecast period, should help maintain workforce stability in the short term.

Ship and boat building

Good news kept coming in this segment since 2016: important contracts were announced, businesses were investing to increase their capacity and significant spinoffs from several shipbuilding projects were anticipated. Unfortunately, 2017 did not end on such a high: the *Davie shipyard* had exhausted its order book by that time, resulting in the layoff of several hundreds of workers, pending the arrival of a new contract. The company’s suppliers also laid off several hundreds of workers, as their work was closely linked to that of the *Davie shipyard*. Although discussions took place with the company and the federal government in regards to some projects, the outlook in the short term is negative.

Sectoral Dynamics for Regions

Québec 2018-2020	In the Economic Regions	AAGR
<p>Annual average growth: 0.3%</p> <p>Gain of approx.: 500 positions</p> <p>Yearly dynamics: 2017 : ↘ 2018 : ↗ 2019 : ↗</p>	Gaspésie–Les-Îles	4.8%
	Bas-Saint-Laurent	3.0%
	Laurentides	1.3%
	Centre-du-Québec	0.9%
	Capitale-Nationale	0.9%
	Montréal CMA	0.8%
	Lanaudière	0.5%
	QUÉBEC	0.3%
	Montréal	0.3%
	Estrie	0.2%
	Abitibi-Témiscamingue	0.0%
	Outaouais	0.0%
	Saguenay–Lac-Saint-Jean	0.0%
	Côte-Nord / Nord-du-Québec	0.0%
	Mauricie	-0.5%
Chaudière-Appalaches	-5.9%	

n/a: not applicable

Source: 2018–2020 Sectoral Outlook annual exercise

Labour Market Analysis Directorate, Service Canada – Quebec Region, April 5, 2018.

The following occupations in the transportation equipment manufacturing industry are likely to be affected by job market dynamics (according to the occupation by industry matrix):

- 9521 Aircraft assemblers and aircraft assembly inspectors
- 7231 Machinists and machining and tooling inspectors
- 7237 Welders and related machine operators
- 2146 Aerospace engineers
- 9522 Motor vehicle assemblers, inspectors and testers
- 7315 Aircraft mechanics and aircraft inspectors
- 2132 Mechanical engineers
- 2232 Mechanical engineering technologists and technicians
- 9226 Supervisors, other mechanical and metal products manufacturing
- 1522 Storekeepers and partspersons
- 9536 Industrial painters, coaters and metal finishing process operators
- 0911 Manufacturing managers
- 2233 Industrial engineering and manufacturing technologists and technicians
- 2244 Aircraft instrument, electrical and avionics mechanics, technicians and inspectors
- 9526 Mechanical assemblers and inspectors
- 1225 Purchasing agents and officers
- 7316 Machine fitters
- 2141 Industrial and manufacturing engineers
- 7452 Material handlers
- 1215 Supervisors, supply chain, tracking and scheduling co-ordination occupations
- 2253 Drafting technologists and technicians
- 2171 Information systems analysts and consultants
- 1521 Shippers and receivers.

SIZE AND DISTRIBUTION OF AND CHANGES IN EMPLOYMENT IN THE INDUSTRY IN QUEBEC

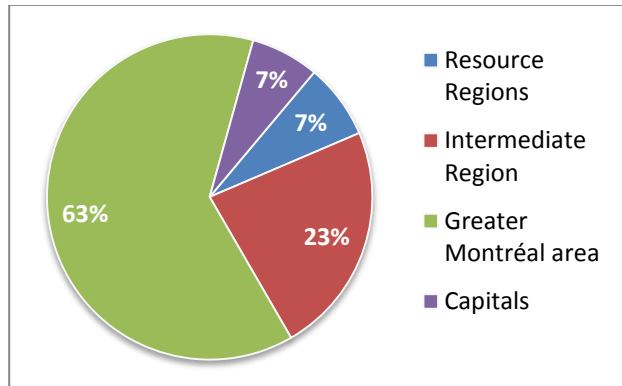
	Employment 2015–2017 Average			10-year Change in Employment	
	Employment In thousands	Provincial distribution	Regional employment share	In thousands	as a %
All of Quebec	54.2	100.0%	1.3%	2.1	4.0%
Resource Regions					
Abitibi-Témiscamingue	x	x	x	x	x
Bas-Saint-Laurent	x	x	x	x	x
Côte-Nord / Nord-du-Québec	x	x	x	x	x
Gaspésie-Îles-de-la-Madeleine	x	x	x	x	x
Saguenay-Lac-Saint-Jean	x	x	x	x	x
Intermediate Regions					
Centre-du-Québec	1.9	3.5%	1.6%	-0.8	-29.6%
Chaudière-Appalaches	3.6	6.6%	1.7%	0.4	12.5%
Estrie	2.5	4.7%	1.6%	-1.7	-40.6%
Mauricie	x	x	x	x	x
Greater Montréal area					
Lanaudière	2.7	5.0%	1.1%	0.4	15.5%
Laurentides	7.5	13.8%	2.4%	1.7	30.1%
Laval	3.6	6.6%	1.7%	-0.1	-2.7%
Montérégie	15.5	28.7%	2.0%	1.4	9.6%
Montréal	14.0	25.8%	1.4%	2.1	17.6%
Capitals					
Capitale-Nationale	x	x	x	x	x
Outaouais	x	x	x	x	x

x: confidential data, fewer than 1,500 people employed in this region

Source: Historical estimates based on Statistics Canada's Labour Force Survey

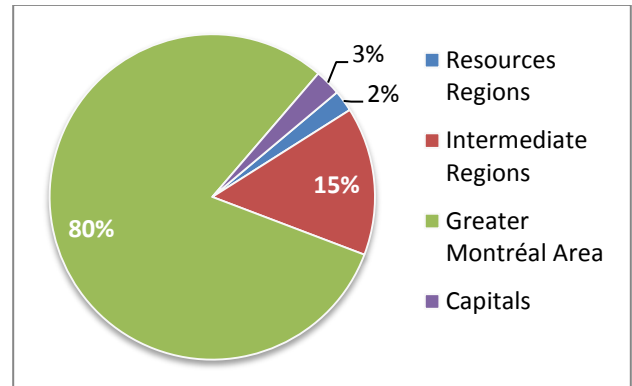
SOME CHARACTERISTICS OF THE INDUSTRY IN QUÉBEC

Establishment distribution by Region



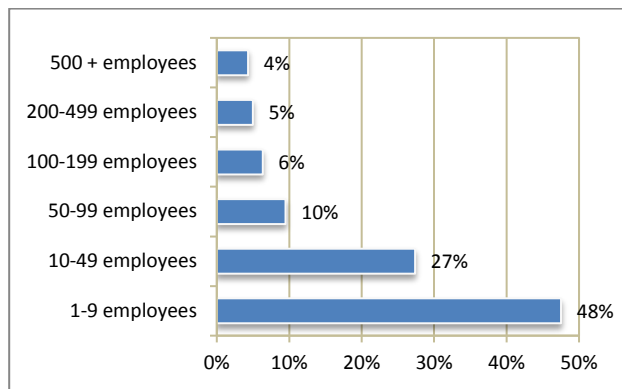
Source: Statistics Canada, Establishment Counts by Economic Region, industry, and Employee Size Ranges, December 2015

Employment distribution by Region



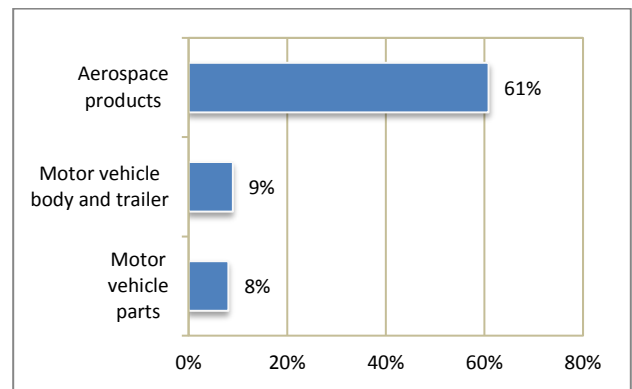
Source: Statistics Canada, Labour Force Survey; based on average employment in 2014-2016

Size of establishment



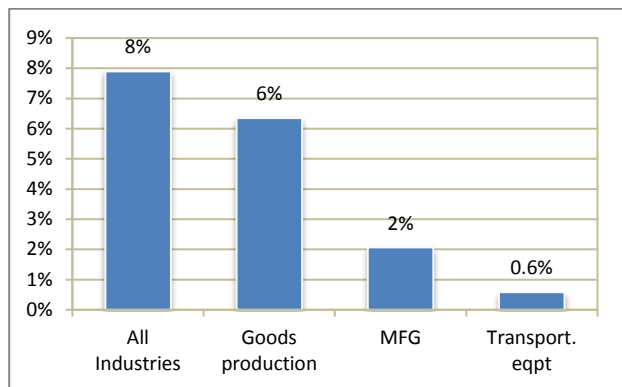
Source: Statistics Canada, Establishment Counts by Economic Region, industry, and Employee Size Ranges, December 2015

Employment by industry subsectors



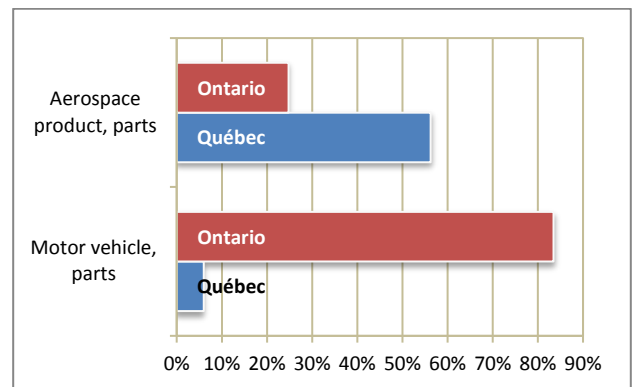
Source: Statistics Canada, Survey of Employment, Payrolls and Hours; based on average employment in 2014-2016

Self-employed jobs compared to Total employment



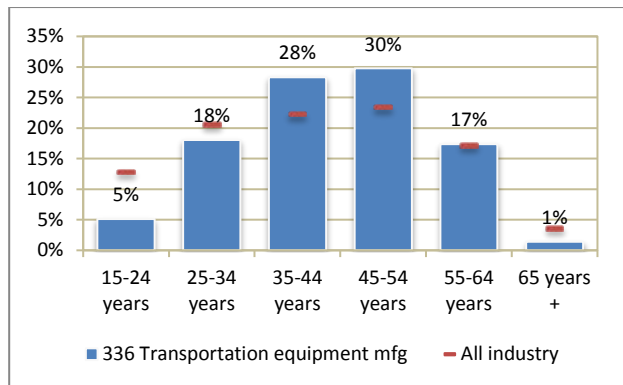
Source: Statistics Canada, CANSIM 383-0031 Labour statistics, based on average employment in 2014-2016

Share of industry employment in Canada



Source: Statistics Canada, Survey of Employment, Payrolls and Hours; based on average employment in 2014-2016

Employed Labour Force Aged 15 Years and Over



Source: Statistics Canada, 2016 Census, special tabulation for ESDC

Employment distribution by skill type

National Occupational Classification	
0. Management	9%
1. Business, finance and administration	15%
2. Natural and applied sciences and related	22%
3. Health	0%
4. Education, law and social, community and government services	1%
5. Art, culture, recreation and sport	1%
6. Sales and service	4%
7. Trades, transport and equipment operators	24%
8. Natural resources, agriculture and related production	0%
9. Manufacturing and utilities	24%

Source: Statistics Canada, 2016 Census, special tabulation for ESDC

FOR MORE INFORMATION

- Job Bank (Canada) – [Job Market Trends and News](#): Information on job, skills and local labour market trends is important for making career decisions. In addition, information on wages, labour supply, labour demand and other factors helps employers recruit, train and retain workers and make business and investment decisions.
- North American Industry Classification System (NAICS) Canada 2012: Transportation equipment manufacturing [NAICS 336](#)

Note: In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Employment and Social Development Canada.

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http://www.esdc.gc.ca/cqi-bin/contact/edsc-esdc/eng/contact_us.aspx?section=lmi

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