

CHBA MODULAR CONSTRUCTION SURVEY

2016 ANNUAL REPORT

OCTOBER 2017

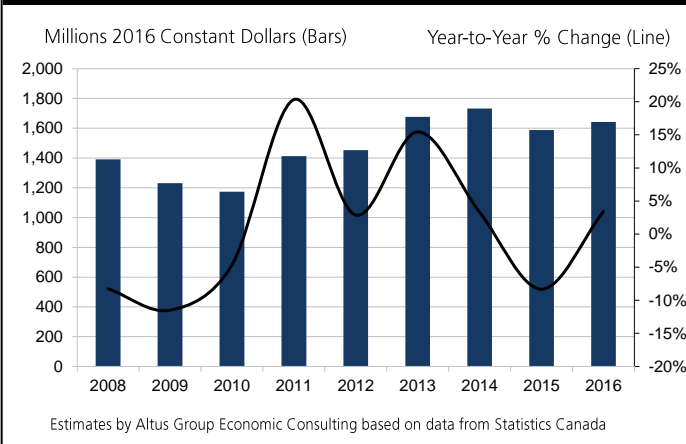
Factory-Built Conditions

The CHBA Modular Construction Council conducts a survey of producers of factory-built homes called the *CHBA Modular Construction Survey*. Altus Group analyses the data produced from the CHBA Survey and provides information as to the evolving position of factory-built buildings within the Canadian construction sector.

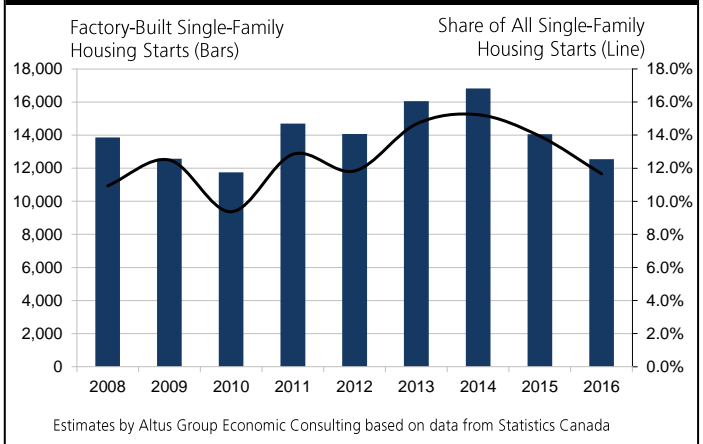
Highlights from 2016:

- In 2016, the value of factory-built building production in Canada (residential and non-residential combined) was slightly over \$1.6 billion, up about 3.5% from 2015 and above the recent 5-year average.
- Factory-built units accounted for about 11.5% of all single-family homes started in 2016, a decrease compared to 2015.
- Some 12,336 factory-built single-family homes were started in 2016, down about 12% from a revised 14,049 units in 2015; overall single-family starts (both factory and site-built) increased by 7%.
- Factory-built building activity helps support over 26,615 full-time equivalent jobs across the country and generates some \$622 million annually in federal and provincial taxes.
- Quebec and Alberta have the largest number of jobs supported by the factory-built building industry.

Factory-Built Building Production Canada, 2008-2016



Factory-Built Building Residential Starts* Canada, 2008-2016



NATIONAL INDUSTRY INDICATORS

Construction Industry

Residential construction investment (a number inclusive of new housing construction, renovation investment and acquisitions costs) advanced 2% in 2016. Conversely, total construction spending declined 3% (after inflation) from the previous year. This marked the second straight annual decline. Construction spending was negatively impacted by declining investment in the energy sector in 2016.

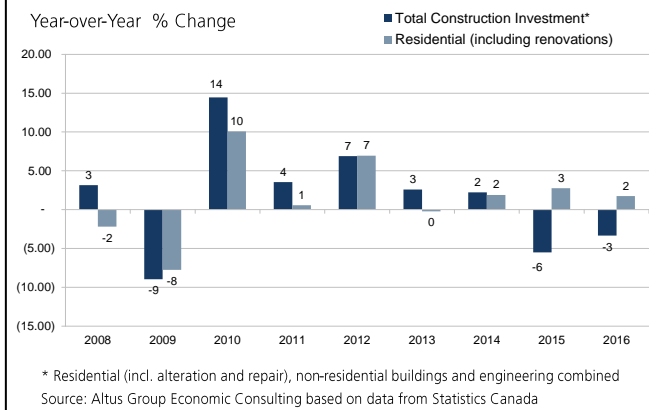
Exports of Factory-Built Buildings

Canada's international trade balance in factory-built buildings was significantly positive in 2016. Ontario and B.C. accounted for 75% of imports. Exports were strong in Quebec, Ontario and B.C. though each region had a positive trade balance in factory-built buildings.

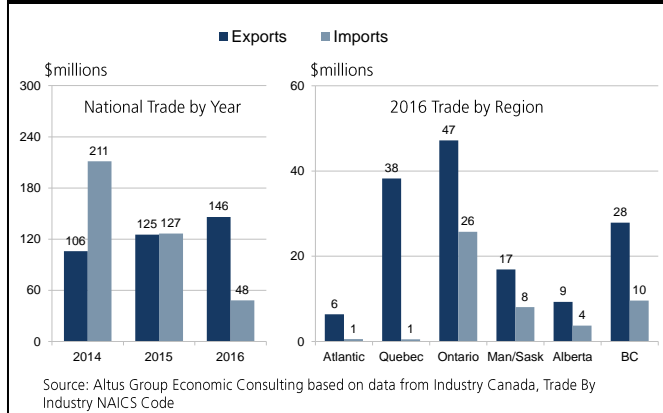
Housing Industry Overview

Canada Mortgage and Housing Corporation (CMHC) publishes data on housing starts (including both site-built and factory-built homes). Overall, housing starts in Canada increased very modestly to 197,915 units in 2016 up about 1.2% from the previous year. Single-family units (including single-detached, semi-detached and row house units) increased in 2016 while apartments dropped some 5%, to about 90,000.

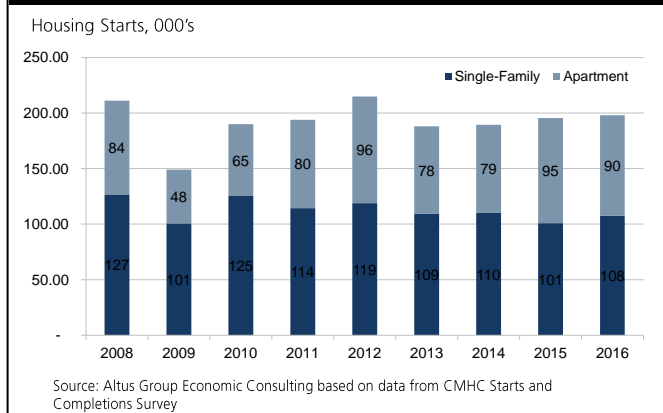
Annual Construction Investment by Sector, Canada, 2008-2016



International Trade, Factory-Built Buildings, Canada, 2014-2016

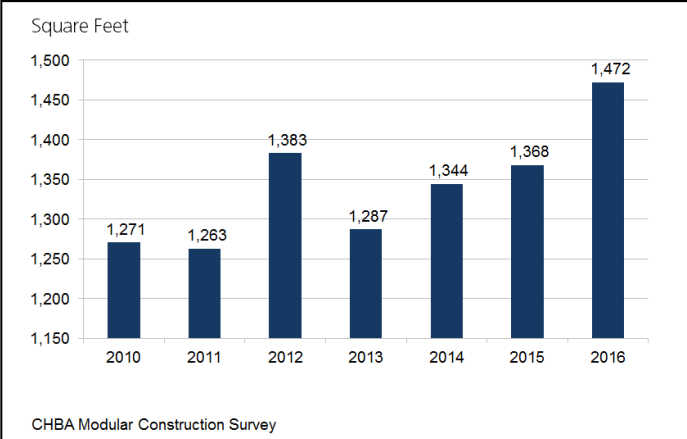


Annual Housing Starts by Type, Canada, 2008-2016

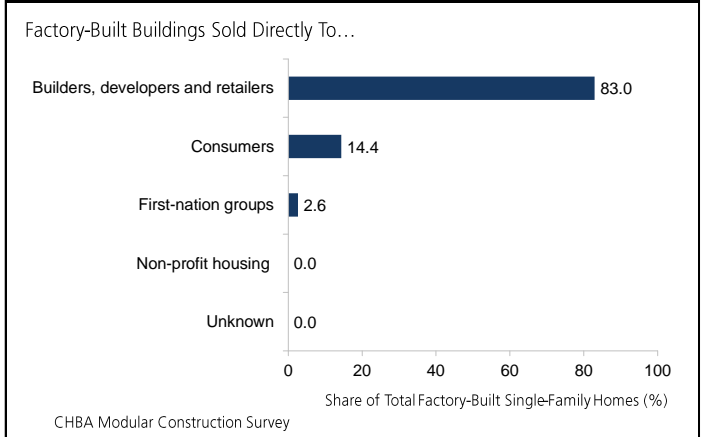


SURVEY RESULTS

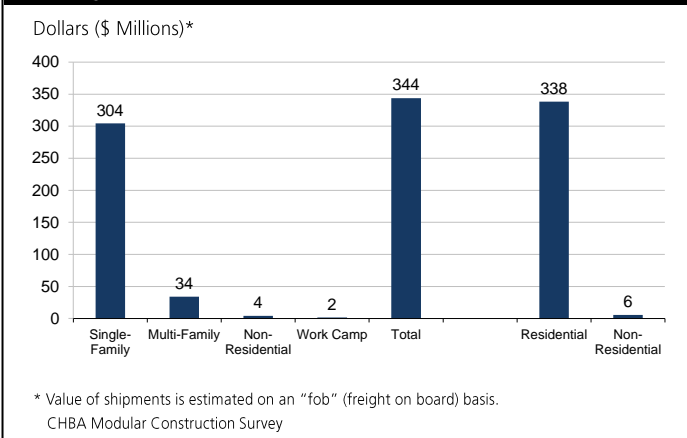
Single-Family Average Square Feet Per Unit, Survey Respondents, 2010-2016



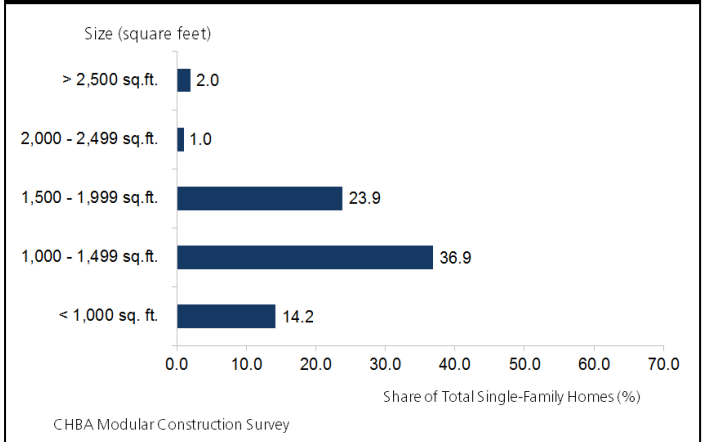
Distribution of Factory-Built Building Sales, Single-Family, Survey Respondents, 2016



Value of Factory Shipments by Product Type, Survey Respondents, 2016



Distribution of Single-Family Homes by Total Home Size, Survey Respondents, 2016



CHBA Modular Construction Survey

The *CHBA Modular Construction Survey* is a survey that collects data from producers of factory-built buildings relating to production volumes. Manufacturers are certified to Canadian Standards Association (CSA) standards. As of January 2017, 161 firms in Canada, the U.S. and China were identified as certified builders of prefabricated buildings, modules and panels under the CSA A277 standard. In 2016, 17 firms participated in the *CHBA Modular Construction Survey*, representing an effective response rate* of 22%.

If you are interested in participating in the *CHBA Modular Construction Survey*, please contact:

CHBA Modular Construction Council

141 Laurier Avenue West, Suite 500, Ottawa, ON, Canada, K1P 5G3

T: (613) 563-3520 F: (613) 232-8600 E: maynard@chba.ca

* Share of survey respondents' production of single-family homes to estimated total production in Canada and net imports (12,336 homes).

CHBA Modular Construction Survey Summary Statistics, Survey Respondents, 2016

<u>Type of Unit</u>	<u>Units</u>	<u>Square Feet</u> <i>(000s)</i>	<u>Value</u> <i>\$(millions)</i>	<u>Value</u> <i>\$(per sf)</i>
Single-family homes	2,696	3,969	304.3	76.7
Multi-family homes	399	208	33.8	162.5
Non-residential	na	38	4.0	105.3
Other residential components ¹	150	3	0.4	105.3
Work camp production	na	11	1.6	151.7
Residential	3,245	4,181	338.4	80.9
Non-Residential	na	49	6	115.4
Total Production²	3,245	4,229	344.0	81.3

¹ Other residential components include second-storey additions, wall panels, individual rooms used as additions to existing dwellings, etc.

² Production refers to units that are produced in the factory and shipped to destinations in Canada and the United States. Value of shipments is estimated on an "fob" (freight on board) basis.

Source: Altus Group Economic Consulting based on data from the CHBA Modular Construction Survey

Estimate of Total Manufactured Building Production, Canada, by Region, 2016

<u>Type of Unit</u>	<u>Atlantic Canada</u>	<u>Quebec & Ontario</u>	<u>Western Canada</u>	<u>Total</u>
	<i>Units</i>			
Survey Respondents				
Single-Family Single-Section*	382	**	1,110	1,492
Single-Family Multi-Section*	**	**	310	310
Single-Family Total	751	524	1,421	2,696
Multi-Family	98	157	144	399
Estimate of Other Producers				
Other Producers and Types of Units	239	4,482	4,508	9,229
Total	1,088	5,163	6,073	12,324

* Not all respondents provided this breakdown ** data suppressed for confidentiality reasons

Source: Altus Group Economic Consulting based on data from the CHBA Modular Construction Survey, Statistics Canada

CHBA MODULAR CONSTRUCTION SURVEY

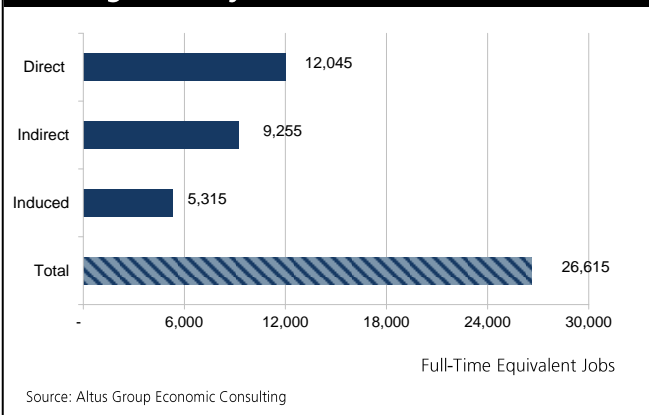
2016 ANNUAL REPORT - NATIONAL ECONOMIC BENEFITS

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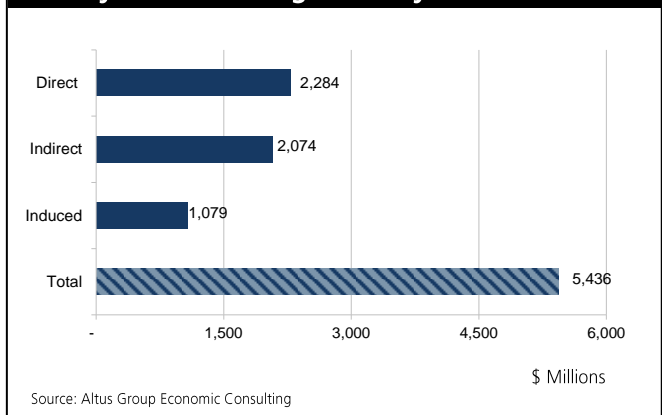
The factory-built building industry generates tremendous economic benefits, in the form of employment, wages, government taxes, etc., to the Canadian economy. In 2016, factory-built building production, installation and other related activities generated more than \$5.4 billion in economic activity, helping to support more than 26,600 full-time equivalent jobs in Canada. The industry was also responsible for generating some \$622 million in federal and provincial taxes. The industry is clearly a vital component of the Canadian economy.

The *CHBA Modular Construction Survey* collects data from producers of factory-built buildings. Manufacturers are certified to Canadian Standards Association (CSA) standards. As of January 175 firms in Canada, the U.S. and China were identified as certified builders of factory-constructed buildings and structures under the CSA A277 Standard.

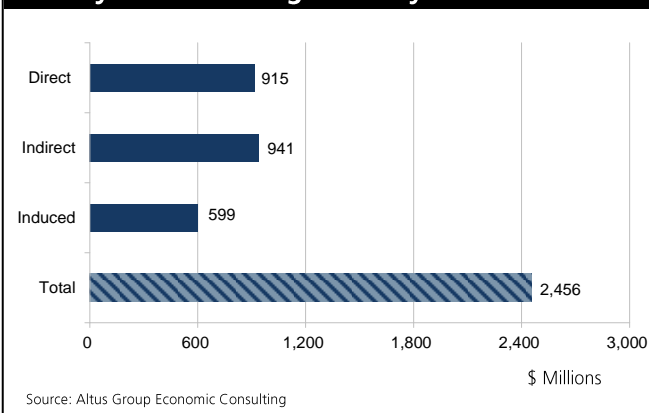
Jobs Supported By the Factory-Built Building Industry



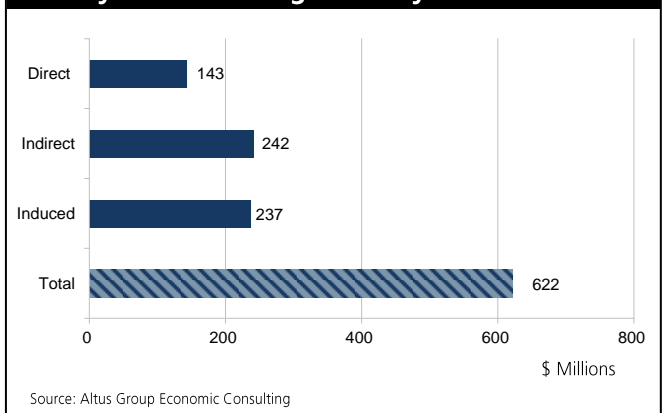
Economic Activity Generated by the Factory-Built Building Industry



Wages and Business Profits Generated by the Factory-Built Building Industry



Federal and Provincial Taxes Generated by the Factory-Built Building Industry

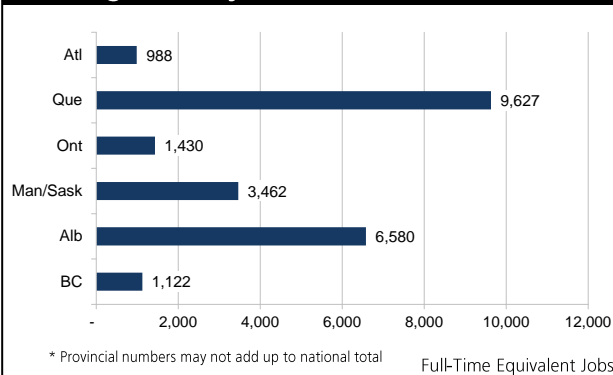


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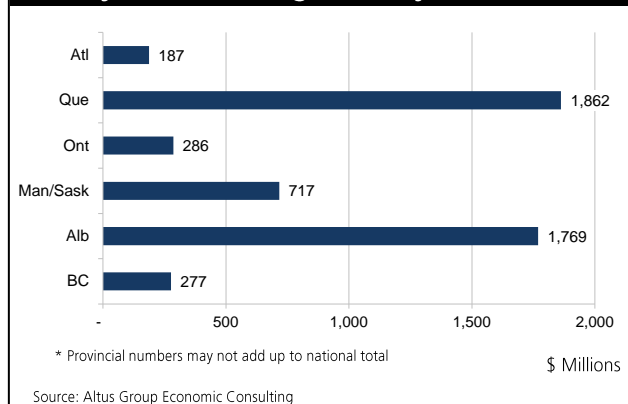
2016 ANNUAL REPORT - REGIONAL ECONOMIC BENEFITS

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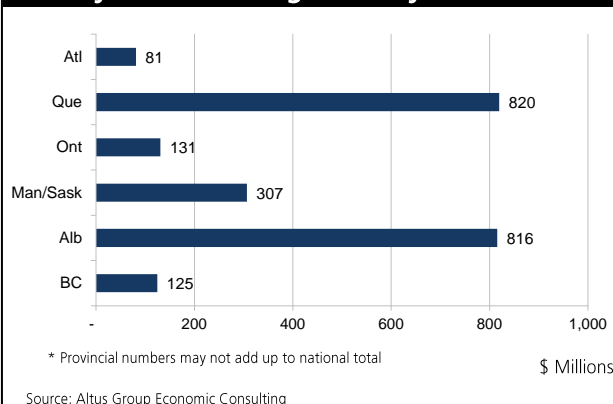
Jobs Supported by the Factory-Built Building Industry



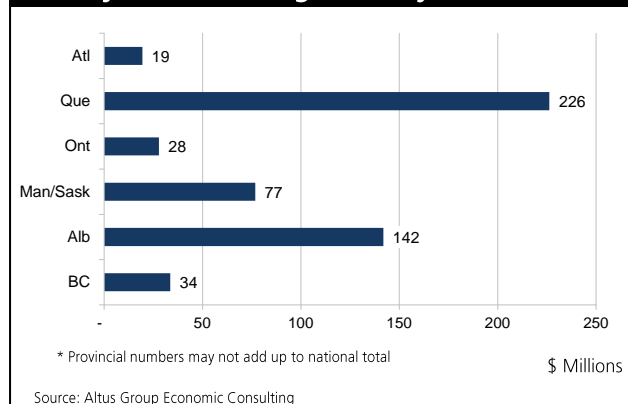
Economic Activity Generated by the Factory-Built Building Industry



Wages and Business Profits Generated by the Factory-Built Building Industry



Federal and Provincial Taxes Generated by the Factory-Built Building Industry



Regional economic impact refers to the impact to the national economy stemming from activity within a given province or region and includes three rounds:

Direct – jobs and economic activity related directly to the day-to-day operations of the industry

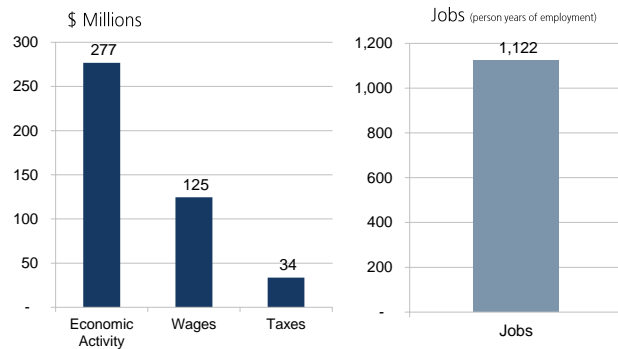
Indirect – jobs and economic activity connected to the supply chain supporting the industry

Induced – jobs and economic activity supported by spending of income from the first two rounds

- **Economic activity** of the factory-built building industry includes the activity stemming from the manufacture, installation, and transportation of factory-built buildings
- **Jobs** refers to full-time equivalent person-years of employment

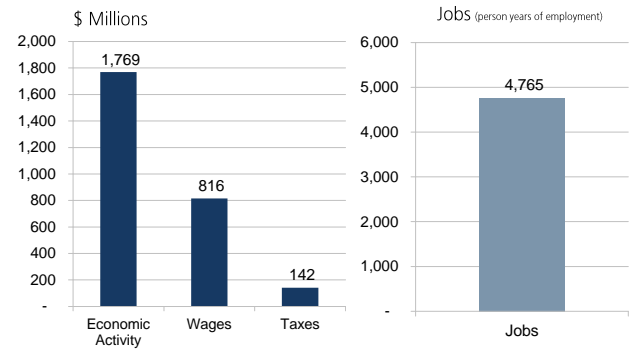
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Economic Impact Summary, Factory-Built Building Industry, B.C.



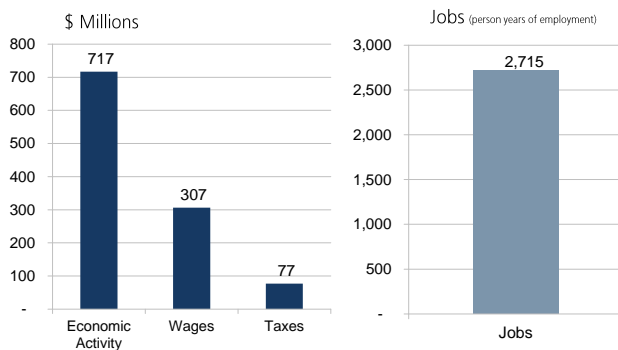
Source: Altus Group Economic Consulting

Economic Impact Summary, Factory-Built Building Industry, Alberta



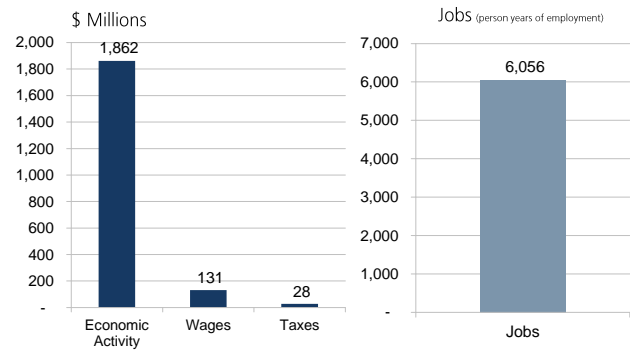
Source: Altus Group Economic Consulting

Economic Impact Summary, Factory-Built Building Industry, Manitoba / Saskatchewan



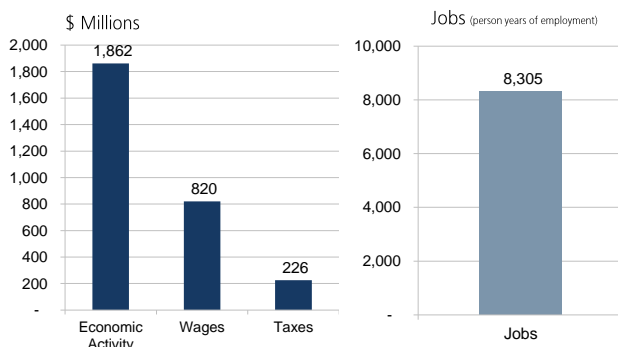
Source: Altus Group Economic Consulting

Economic Impact Summary, Factory-Built Building Industry, Ontario



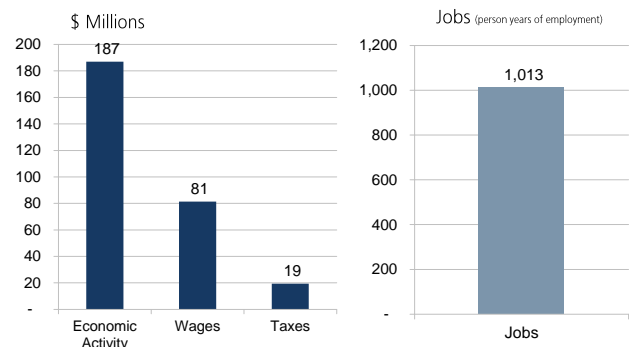
Source: Altus Group Economic Consulting

Economic Impact Summary, Factory-Built Building Industry, Quebec



Source: Altus Group Economic Consulting

Economic Impact Summary, Factory-Built Building Industry, Atlantic Canada



Source: Altus Group Economic Consulting