

Canada's Oil and Gas Industry: Twice the Size of the Automotive Sector and Four Times the Size of the Aerospace Sector

Canadian Energy Centre

This Fact Sheet compares Canada's oil and gas extraction sector (narrowly defined to include conventional oil and gas and oil sands) with the automotive and aerospace sectors on national and provincial GDP (in billions of dollars and as a percentage of GDP) and employment. In addition, it looks at employment in the broader energy sector.

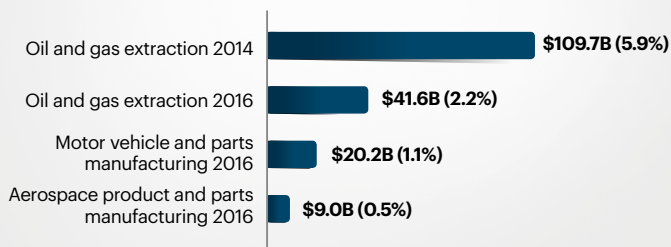
The Statistics Canada economic data enable us to provide an "apples-to-apples" comparison between oil and gas extraction in both 2014 and 2016 with motor vehicle and parts manufacturing, and aerospace products and parts manufacturing. The Statistics Canada and Natural Resources Canada estimates on employment in the broader energy industry are stand-alone estimates; neither agency has conducted a comparison with the broader automobile and aerospace sectors.

GDP: Figures 1 and 2

- In 2014, the oil and gas extraction sector accounted for \$109.7 billion or 5.9 percent of Canada's nominal GDP. Even with the decline in the world crude oil price, in 2016 the oil and gas extraction sector still accounted for \$41.6 billion or 2.2 percent of Canada's nominal GDP.
- By contrast, in 2016 the motor vehicle and parts manufacturing sector accounted for \$20.2 billion or 1.1 percent of Canada's nominal GDP, while the aerospace product and parts manufacturing sector accounted for \$9 billion or 0.5 percent of Canada's nominal GDP.
- In 2016, the oil and gas extraction sector accounted for \$29.5 billion or 10 percent of Alberta's nominal GDP. By contrast, in that same year the motor vehicle and parts manufacturing sector accounted for \$18.1 billion or 2.5 percent of Ontario's nominal GDP, while the aerospace product and parts manufacturing sector accounted for \$5.3 billion or 1.4 percent of Quebec's nominal GDP.

Figure 1

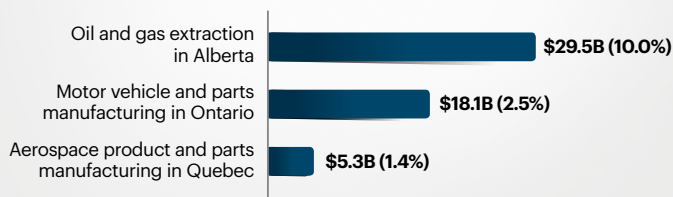
Comparing oil and gas to motor vehicle manufacturing and aerospace, (\$ billions) and as a percentage of nominal GDP



Source: Statistics Canada, Table 36-10-0402-01.

Figure 2

Comparing the size of the oil and gas sector to motor vehicle manufacturing and aerospace, by province (\$ billions) and as a percentage of nominal GDP, 2016



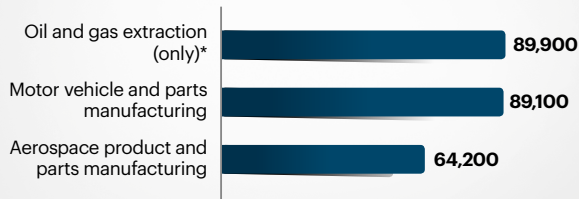
Source: Statistics Canada, Table 36-10-0402-01.

Comparing employment in oil and gas extraction with motor vehicle and aerospace manufacturing: Figure 3

- For 2018-2019, Statistics Canada estimated that the moving two-year average employment in the oil and gas extraction sector only (i.e., excluding pipelines and other oil and gas activity) was 89,900 people, while the motor vehicle and parts manufacturing sector employed 89,100 Canadians, and the aerospace product and parts manufacturing sector employed 64,200 Canadians.

Figure 3

A comparison of direct employment by industry: Two-year moving average, 2018-2019



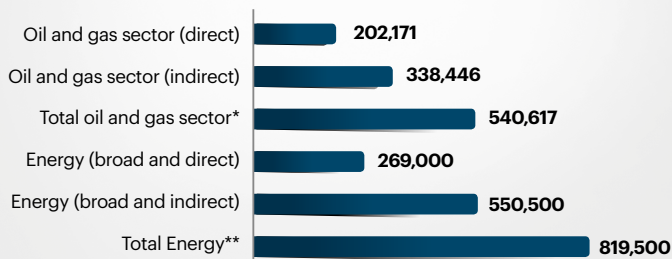
*Excludes pipeline construction, for example.
Source: Statistics Canada, Table 14-10-0202-01.

Energy industry employment estimates: Figure 4

- In a 2016 Statistics Canada analysis, the oil and gas sector (defined as oil and gas extraction and oil and gas investment) directly employed 202,171 Canadians and indirectly employed another 338,446. Combined, the sector employed 540,617 people in Canada that year.
- A Natural Resources Canada analysis of employment in the broader energy sector (i.e., including coal, utilities, and pipelines), indicates that in 2018, Canada's energy sector directly employed more than 269,000 people and indirectly supported over 550,500 jobs. Employment in the sector thus totaled 819,500 jobs in 2018.
- In the same analysis, Natural Resources Canada estimated direct energy employment at 143,019 people in Alberta, followed by 41,527 in Ontario, 27,455 in Quebec, 21,478 in British Columbia, and 17,334 in Saskatchewan with lower employment levels in other provinces.

Figure 4

Broader employment numbers in the oil and gas and energy sectors: Statistics Canada and Natural Resources Canada estimates, 2018



*The oil and gas sector is defined as the sum of oil and gas extraction and oil and gas investment.

** The broader energy sector includes oil and gas extraction, petroleum and coal manufacturing, utilities, and pipelines.

Sources: Statistics Canada (2016), Table 14-10-0202-01; Natural Resources Canada (2018), Energy and the Economy.

Average weekly earnings are 172 percent higher in oil and gas than industry average: Figure 5

Those Canadians in the oil and gas extraction sector earn high incomes relative to other industries in Canada. For example, in 2018, average weekly earnings by industry were:

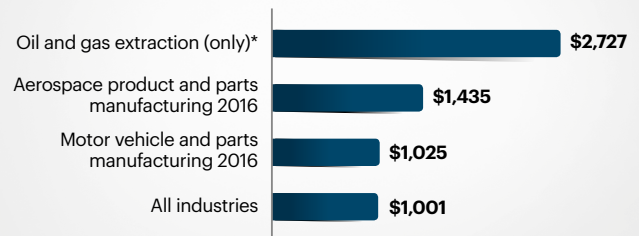
- \$1,025 in motor vehicle parts manufacturing;
- \$1,435 in aerospace product and parts manufacturing;
- \$2,727 in oil and gas extraction.

The average for all industries in Canada in 2018 was \$1,001 in weekly earnings. When compared with the average across industries, average weekly earnings were

- slightly higher in motor vehicle parts manufacturing (by 2 percent);
- much higher in aerospace product and parts manufacturing (by 43 percent);
- significantly higher in the oil and gas extraction industry (by 172 percent).

Figure 5

Average weekly earnings in 2018: Industry comparisons (\$)



*Excludes pipeline construction, for example.
Source: Statistics Canada, Table 14-10-0204-01.

Notes

This CEC Fact Sheet was compiled by Mark Milke and Lennie Kaplan at the Canadian Energy Centre: www.canadianenergycentre.ca. The authors and the Canadian Energy Centre would like to thank and acknowledge the assistance of Mr. Philip Cross in reviewing the data and research for this Fact Sheet. Image credits: "Rainbow Pump Jack" by Mike Drew.

Sources (Links live as of March 26, 2020)

Natural Resources Canada. *Energy and the Economy*. <<https://bit.ly/2JhZFpx>>; Statistics Canada. Tables 38-10-0285-01, 36-10-0214-01, 36-10-0489-01, 36-10-0480-01, 36-10-0221-01, 36-10-0400-01, 14-10-0202-01, and 14 10 0023 01. <<https://bit.ly/3btn6YT>>.

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