

ENVIRONMENTAL SPENDING IN CANADA, 2021 EDITION: COMPARISONS BY INDUSTRY AND BY PROVINCE

Environmental spending in Canada

This Fact Sheet details spending on environmental protection by the oil and gas sector, other industries, and provincial governments. The comparisons are made using the most recent data from Statistics Canada. For industry expenditures, data from 2006 to 2018 are available but only on a bi-annual basis. For provincial government spending, data are available from 2008 to 2019 on an annual basis.

As the data makes clear, Canada's oil and gas sector spent the most of any industry—\$28.1 billion or more than four times the next highest industry, electric power generation at \$6.3 billion.

As for governments, Alberta spent \$20.1 billion on environmental protection between 2008 and 2019. Measured per capita, Alberta's spending on environmental protection regardless of the party in power was higher than the average of the other nine provinces every year. For example, in the most recent year for which data is available, Alberta spent \$434 per capita in 2019 on environmental protection; that was 171 percent of the nine-province average of \$253 per capita.

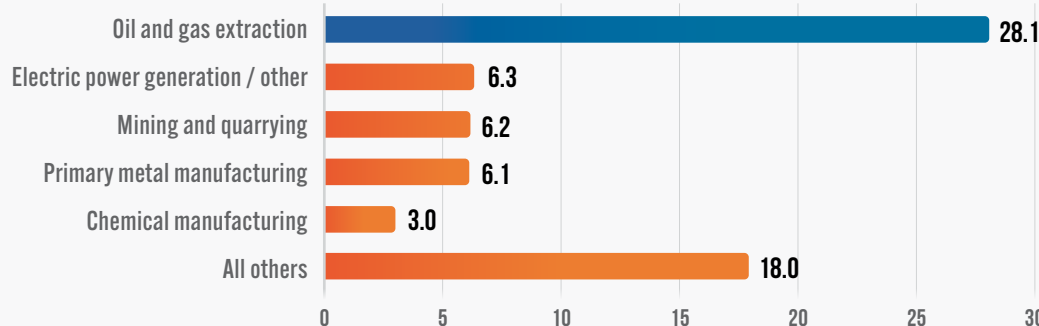
Comparison One: Environmental protection spending by industry

Figures 1 and 2 show a partial estimate of industry spending based on Statistics Canada data, which is only reported every second year.

- For total spending, i.e., when capital and operating expenses on environmental protection in Canada are combined, out of \$67.7 billion spent in total between 2006 and 2018:
 - The oil and gas sector spent \$28.1 billion or 41.5 percent, while all other industries combined spent \$39.6 billion or 58.5 percent.
 - Those other major industries include electric power generation (\$6.3 billion or 9.3 percent), mining and quarrying (nearly \$6.2 billion or 9.1 percent), primary metal manufacturing (\$6.1 billion or 9.1 percent) and chemical manufacturing (\$3 billion or 4.5 percent).
 - In 2018, the oil and gas sector spent \$3.6 billion on environmental protection, which constituted 37 percent of all Canadian business environmental spending that year.

Figure 1

Environmental protection spending by industry: Partial* 2006-2018 totals for top five industries and all others | \$ billions

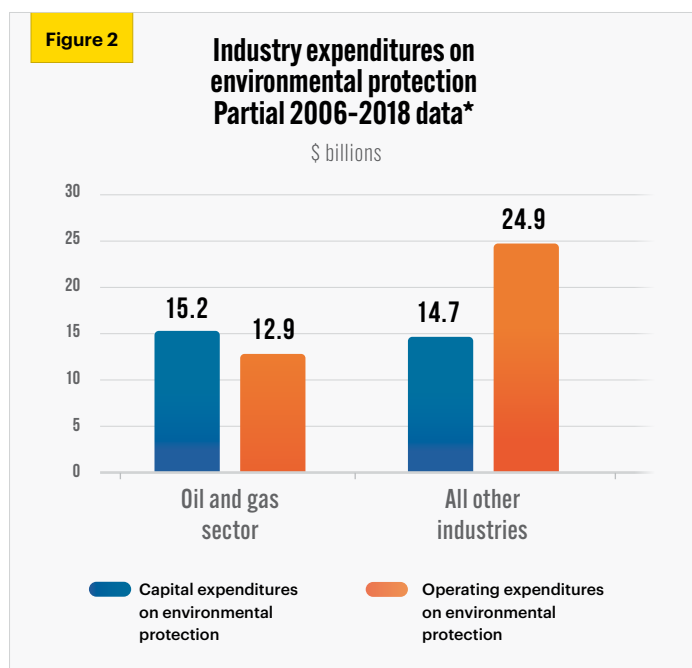


Source: Statistics Canada Table 38-10-0042-01 and Table: 38-10-0130-01

*Statistics Canada surveys companies only every second year, i.e., 2006, 2008 and so forth. This leads to an underestimate of environmental spending by companies, possibly by as much as 50%, given that data on every second year is absent.

Breakdowns by capital and operating

- Capital spending:¹ The oil and gas sector was responsible for 51 percent (\$15.2 billion) of all capital spending for environmental protection compared with 49 percent for all other industries together (\$14.7 billion);
- Operating spending:² The oil and gas sector was responsible for 34 percent (\$12.9 billion) of all operating expenditures for environmental protection compared with 66 percent for all other industries together (\$24.9 billion).



Source: Statistics Canada Table 38-10-0042-01 and Table: 38-10-0130-01
*See the explanation for partial estimates under Figure 1.

Comparison Two: Environment spending by the provinces, 2008-2019

Governments, as well as industries, incur environmental protection spending. Table 1 shows total provincial government environment spending between 2008 and 2019 to be nearly \$117.5 billion. (The federal government and the territories are excluded in this comparison.) As a proportion of all environmental spending, four provinces spent more relative to their share of population totals:

- Alberta spent \$20.1 billion or 17.1 percent of all provincial expenditures on the environment, while its proportion of the (10-province) population was 11.7 percent as of 2020.
- Ontario spent \$46.8 billion or 39.8 percent of all provincial expenditures, while its proportion of the population was 38.9 percent as of 2020.
- The other two provinces that spent a higher proportion on the environment relative to population were Nova Scotia and Saskatchewan.
- Six provinces spent less on the environment than their share of the population: Quebec, British Columbia, Manitoba, New Brunswick, Prince Edward Island, and Newfoundland & Labrador. In particular, the Quebec government spent just 18.3 percent of all provincial environment expenditures between 2008 and 2019, significantly below its 22.6 percent share of the (provinces') population in 2020.

Table 1

Environmental spending by provincial governments

| Province | Total 2008-2019 environment spending | | Share of 10-province population totals (2020) |
|-------------------------|--------------------------------------|------------|---|
| | \$ billions | % of total | |
| Newfoundland & Labrador | 1.2 | 1.0% | 1.4% |
| Prince Edward Island | 0.4 | 0.3% | 0.4% |
| Nova Scotia | 3.5 | 3.0% | 2.6% |
| New Brunswick | 1.8 | 1.5% | 2.1% |
| Quebec | 21.7 | 18.5% | 22.6% |
| Ontario | 46.8 | 39.8% | 38.9% |
| Manitoba | 3.1 | 2.7% | 3.6% |
| Saskatchewan | 3.9 | 3.3% | 3.1% |
| Alberta | 20.1 | 17.1% | 11.7% |
| British Columbia | 15.0 | 12.7% | 13.6% |
| All provinces | 117.5 | 100.0% | 100.0% |

Sources: Statistics Canada Table 10-10-0005-01 and Table 17-10-0005-01.

Text in red indicates provinces where the environmental spending proportion of all provincial environment spending is **less** than the balance of 10-province population totals in 2018.

¹ Capital spending includes outlays on machinery and equipment and for the construction of non-residential facilities, among other expenditures.

² Operating spending includes expenses incurred for labor, materials and supplies, maintenance and repair, among other expenditures.

A per capita look at provincial spending on the environment

Table 2 illustrates all provincial spending on environmental protection between 2008 and 2019 inclusive. Of note:

- Alberta spent more per capita on environmental protection than any other province every year except for one year: Nova Scotia in 2009.
- When the other nine provinces annual average is compared, Alberta spent substantially more than the annual average of all the other provinces on environmental protection every year.

Table 2 and Figure 3 also show the following:

- In 2019, Alberta's spending on the environment at \$434 per capita was 139 percent of the amount spent by Ontario (\$312); 143 percent of that spent by British Columbia (\$303); 171 percent of the nine-province average (\$253); and 159 percent of what was spent by Quebec spent (\$273).³

Table 2 Provincial government expenditures on environmental protection

Per capita, 2008-2019, in \$

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| Newfoundland & Labrador | 145 | 190 | 192 | 190 | 182 | 190 | 199 | 214 | 196 | 189 | 190 | 180 |
| Prince Edward Island | 259 | 250 | 247 | 222 | 221 | 229 | 222 | 228 | 231 | 233 | 241 | 226 |
| Nova Scotia | 303 | 353 | 333 | 343 | 336 | 297 | 330 | 324 | 267 | 267 | 318 | 263 |
| New Brunswick | 214 | 239 | 234 | 232 | 231 | 187 | 159 | 184 | 156 | 157 | 182 | 174 |
| Quebec | 179 | 196 | 204 | 196 | 208 | 212 | 220 | 225 | 218 | 263 | 270 | 273 |
| Ontario | 234 | 270 | 292 | 271 | 277 | 271 | 278 | 282 | 303 | 313 | 323 | 312 |
| Manitoba | 181 | 189 | 186 | 206 | 198 | 190 | 200 | 197 | 200 | 204 | 270 | 235 |
| Saskatchewan | 259 | 260 | 262 | 307 | 320 | 314 | 316 | 318 | 265 | 299 | 311 | 311 |
| Alberta | 335 | 343 | 334 | 390 | 421 | 397 | 395 | 467 | 653 | 404 | 415 | 434 |
| British Columbia | 253 | 238 | 243 | 257 | 256 | 249 | 263 | 264 | 264 | 279 | 303 | 303 |
| Average of all provinces excluding Alberta | 225 | 243 | 244 | 247 | 248 | 238 | 243 | 248 | 233 | 245 | 268 | 253 |
| Alberta relative to nine-province average | 149% | 141% | 137% | 158% | 170% | 167% | 162% | 188% | 280% | 165% | 155% | 171% |

Sources: Statistics Canada Table 10-10-0005-01 and Table 17-10-0005-01.

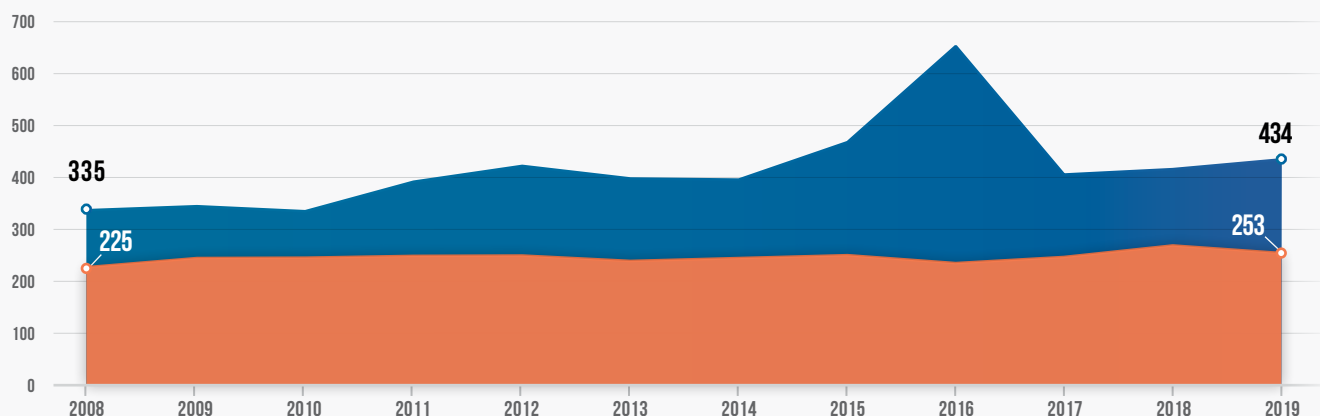
³ The spike in environmental spending in Alberta in 2016 was due to \$1.1 billion in new spending from the province's Climate Leadership Plan. (Source: Statistics Canada 2018.)

Figure 3

**Per capita environmental spending:
Alberta compared with nine-province average**

2008-2019, \$

Alberta
Average of all provinces excluding Alberta



Sources: Statistics Canada Table 10-10-0005-01 and Table 17-10-0005-01.

The takeaway: Environment spending highest by oil and gas industry and by Alberta

When measured as a proportion of \$67.7 billion in all industry spending on environmental protection between 2006 and 2018, not including “gap” years in Statistics Canada data, Canada’s oil and gas sector spent \$28.1 billion, or 41.5 percent. All other industries in Canada were responsible for \$39.6 billion or 58.5 percent of such spending.

When provincial government spending is examined, with data available from 2008 to 2019, Alberta spent significantly more than its share of Canada’s population (\$20.1 billion or 17.1 percent of all provincial spending with a population at 11.7 percent of provincial totals). This is also true when per capita spending is examined: Alberta’s environmental protection spending was significantly higher than the other nine provinces’ average for the entire 2008-2019 period.

Notes

This CEC Fact Sheet was compiled by Ven Venkatachalam and Mark Milke at the Canadian Energy Centre: www.canadianenergycentre.ca. The authors and the Canadian Energy Centre would like to thank and acknowledge the assistance of Philip Cross in reviewing the data and research for this Fact Sheet. All percentages in this report are calculated from the original data, which can run to multiple decimal points. They are not calculated using the rounded figures that may appear in charts and in the text, which are more reader friendly. Thus, calculations made from the rounded figures (and not the more precise source data) will differ from the more statistically precise percentages we arrive at using source data. Image credits: [Lukas Kloeppel](#) from Pexels.com

References (All links live as of February 21, 2021)

Statistics Canada (2020). Table 38-10-0042-01 <<https://bit.ly/2Y65iQi>>, Table : 38-10-0130-01< <https://bit.ly/3qMWJoQ>>; Table 10-10-0005-01 < <https://bit.ly/2ZEkp2W>> ; Table 17-10-0005-01 <<https://bit.ly/3d03wV5>> ; Statistics Canada (2018). Government Expenditures in Alberta. A presentation to deputy ministers in Alberta, Anil Arora, February 12, 2018. < <https://bit.ly/3svYAYP>>.

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