Canada-US Energy Sector Competitiveness Survey 2023

Julio Mejía and Elmira Aliakbari

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By Julio Mejía and Elmira Aliakbari

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EXECUTIVE SUMMARY

This report presents the results of the Fraser Institute's 2023 Canada-US Energy Sector Competitiveness Survey regarding barriers to investment in oil and gas exploration and production facilities in each country. The survey responses have been tallied to rank Canadian and American jurisdictions according to the extent of such barriers. Those barriers, as assessed by the survey respondents, include high tax rates, costly regulatory obligations, uncertainty over environmental regulations, and the interpretation and administration of regulations governing the "upstream" petroleum industry, as well as concerns over political stability and security of personnel and equipment.

This year's survey of senior executives in the upstream oil and gas sector uses a methodology consistent with the one used in previous editions of the *Global Petroleum Survey* and the *Canada-US Energy Sector Competitiveness Survey*. A total of 165 respondents participated in this year's survey, providing sufficient data to evaluate four Canadian provinces and 13 American jurisdictions.

Jurisdictions evaluated are assigned scores on each of 16 factors known to affect investment decisions. These scores are then used to generate a "Policy Perception Index" for each jurisdiction that reflects the perceived extent of the barriers to investment.

According to this year's survey, for a second year in a row, Wyoming is the most attractive jurisdiction for oil and gas investment, followed by North Dakota (2nd) and Saskatchewan (3rd). Six other US jurisdictions also ranked in the top 10 this year: Oklahoma (4th), Kansas (5th), Texas (6th), US Offshore—Gulf of Mexico (7th), Louisiana (8th) and Alaska (10th).

Saskatchewan's third-place ranking this year places makes it the highest-ranked Canadian province. Alberta improved a few spots over last year and climbed to 9th place. Newfoundland & Labrador received enough responses to be included this year; it ranks 14th. British Columbia (15th) was the worst performing Canadian jurisdiction, posing the greatest barriers to investment.

Investors indicated that uncertainty concerning environmental regulations, regulatory duplication and inconsistencies, and disputed land claims were more concerning in Canadian provinces than in US states. In particular, 100 percent of respondents for Newfoundland & Labrador, 93 percent for British Columbia, 50 percent for Alberta, and 29 percent for Saskatchewan indicated that uncertainty concerning environmental regulations was a deterrent for investment. In contrast, only 6 percent of respondents for Oklahoma, 8 percent for Kansas, and 9 percent for North Dakota were deterred by this factor. Overall, on average, 68 percent of respondents were deterred by the uncertainty concerning environmental regulations in Canada compared to 41 percent in the United States.

On other regulatory factors, all the respondents for Newfoundland & Labrador, 64 percent for British Columbia, and 35 percent for Alberta pointed to regulatory duplications and inconsistencies as a deterrent for investment, whereas none of the respondents for Wyoming and Kansas, and only 14 percent of respondents for Texas, indicated this factor was an issue. On average, 54 percent of respondents for Canada are deterred by regulatory duplications and inconsistencies compared to 34 percent for the United States.

Finally, investors pointed to uncertainty concerning disputed land claims as a major deterrent to investment in Canada in comparison to the United States. Specifically, among all the regions covered in the report, British Columbia and Newfoundland & Labrador stand out as the jurisdictions where participants expressed the most significant concerns, with 83 percent and 57 percent of respondents, respectively, identifying this factor as a deterrent to investment. In contrast, none of the respondents for Pennsylvania or Kansas and only 8 percent of respondents for Texas expressed concerns over the uncertainty concerning disputed land claims. On average, 45 percent of respondents were deterred by the uncertainty concerning disputed land claims in Canada compared to 25 percent in the United States.

Our analysis of the 2023 survey results indicates that negative sentiment by the industry's senior executives regarding key factors driving petroleum investment decisions continues to be higher for many Canadian provinces than for competing American jurisdictions. In fact, the US performs better than Canada in 13 out of the 16 policy factors. Those factors where Canada outperforms the US are the quality of the geological database, security, and the legal system.

INTRODUCTION

The Canada-US Energy Sector Competitiveness Survey 2023 builds on the Fraser Institute's previous work on energy sector competitiveness with the *Canada-US Energy Sector Competitiveness Survey 2022* (Mejia and Aliakbari, 2022) the *Canada-US Energy Sector Competitiveness Survey 2021* (Yunis and Aliakbari, 2021a), and the Global Petroleum Survey 2020 (Yunis and Aliakbari, 2021b).

Thanks to the results from these surveys, we are able to better understand how Canadian provinces, American states, and offshore regions perform in several policy areas. The *Canada-US Energy Sector Competitiveness Survey 2023* continues to serve as a report card for policymakers; jurisdictions that can see that investors assess them as relatively unattractive can take the opportunity to consider implementing comprehensive policy reforms or improvements in individual policy areas.

A relatively recent report suggests that capital investment in Canada is falling relative to the United States and many other developed countries (Globerman and Emes, 2021). In particular, the percentage of capital investment in Canada's oil and gas sector as a share of total capital investment has plummeted, from 28 percent in 2014 to 11 percent in 2023 (Statistics Canada, 2023).

The *Canada-US Energy Sector Competitiveness Survey 2023* highlights policies that are known to affect investment attractiveness, including taxes, regulations, infrastructure, and labor availability, among others. It also shows governments and policymakers which policy areas, according to investors, require improvement and in which regions. Our analysis offers a unique outlook at both the state of the investment climate for the petroleum industry in Canada and the United States, and how investor perceptions vary by region. This year's survey also identifies potential reasons for declining investor perceptions of Canada's energy sector when compared to the United States.

SURVEY METHODOLOGY

Sample design

The questions sent to the senior executives for this 2023 survey of the upstream oil and gas sector are consistent with the survey questions used in previous editions of the *Global Petroleum Survey* and the *Canada-US Energy Sector Competitiveness Surveys* for 2021 and 2022. The survey is designed to identify provinces, states, and offshore regions with the greatest barriers to investment in oil and gas exploration and production. Jurisdictions that investors see as relatively unattractive may choose to use the survey's findings to consider comprehensive policy reforms that could improve their position in the rankings, or they might consider implementing policies that would improve their standing in individual policy areas. Petroleum companies can also use the information to corroborate their own assessments and to identify jurisdictions where business conditions and the regulatory environment are most attractive for investment. The survey results are a useful source of information for academics interested in international competitiveness in the oil and gas sector, and the media, by providing independent evidence as to how particular jurisdictions compare.

The survey was distributed to managers and executives in the "upstream" petroleum industry. This industry includes companies exploring for oil and gas, those producing crude oil from conventional and non-conventional sources (such as bitumen from oil sands and shale formations), and those producing natural gas from both conventional sources and non-conventional sources, such as coal-bed methane and gas embedded in shale formations. It does not include companies that are refining, upgrading, or processing crude oil, bitumen, and raw natural gas, or those that are involved in the transportation and marketing of petroleum products, unless such companies are also directly involved in the upstream.

The names of potential respondents were taken from publicly available membership lists of trade associations and other sources. In addition, some industry associations and non-profit think tanks provided contact information and helped to advertise the survey to their members.

The survey was conducted from May 12, 2023 to August 21, 2023. A total of 165 individuals responded to the survey in 2023, which allowed for the inclusion of four Canadian provinces and 13 American jurisdictions in this year's survey results.[1]

As figure 1 illustrates, almost half of respondents were chairman, CEOs, presidents, or directors of their firms. A further 54 percent of respondents identified themselves as either managers or those holding a higher-level position. Figure 2 shows that 46 percent of the firms participating in the survey are engaged in the exploration and development of oil, almost 40 percent are engaged in the exploration and development of natural gas, over 38 percent are engaged in production of oil and/or natural gas, and over 36 percent provide expert advice and/or drilling services.

Figure 3 shows the principal focus of the petroleum exploration and development activities of companies whose managers or other representatives participated in the survey. The majority of these companies (64.5 percent) specialize at finding and developing conventional oil and gas reserves. Unconventional oil and natural gas exploration and development represented the focus of 35.5 percent of companies in 2023.

1 We did not include in the results jurisdictions that received fewer than 5 responses.

Figure 1: The position survey respondents hold in their company, 2023

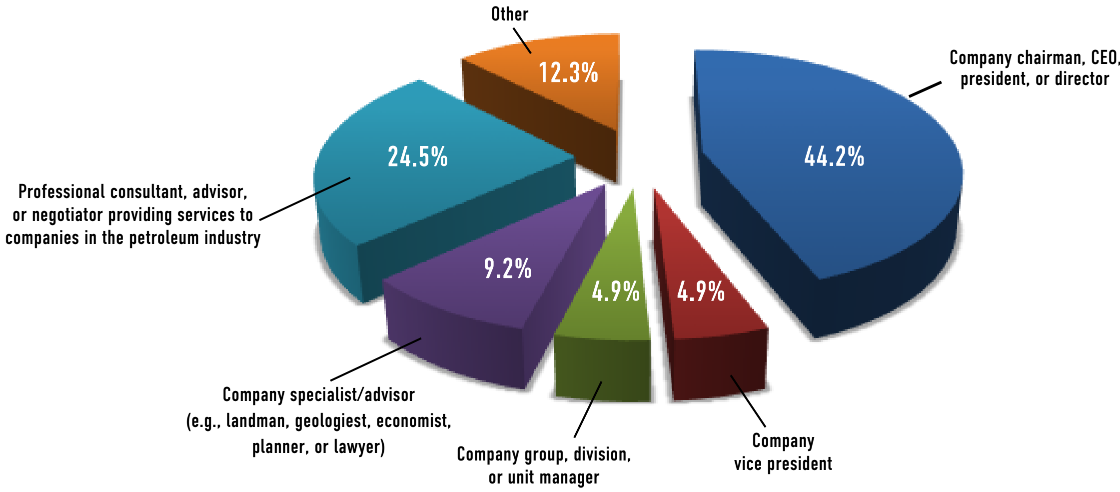
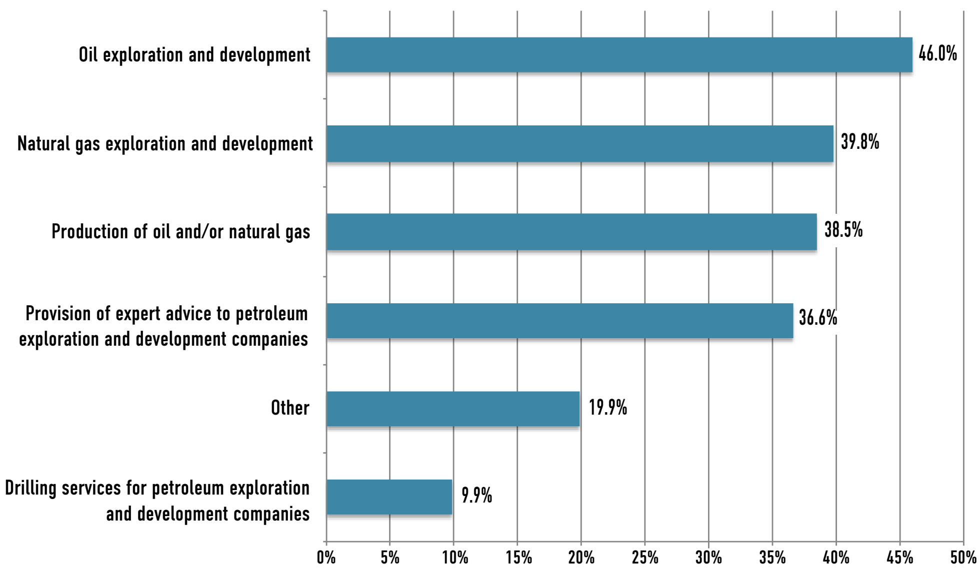


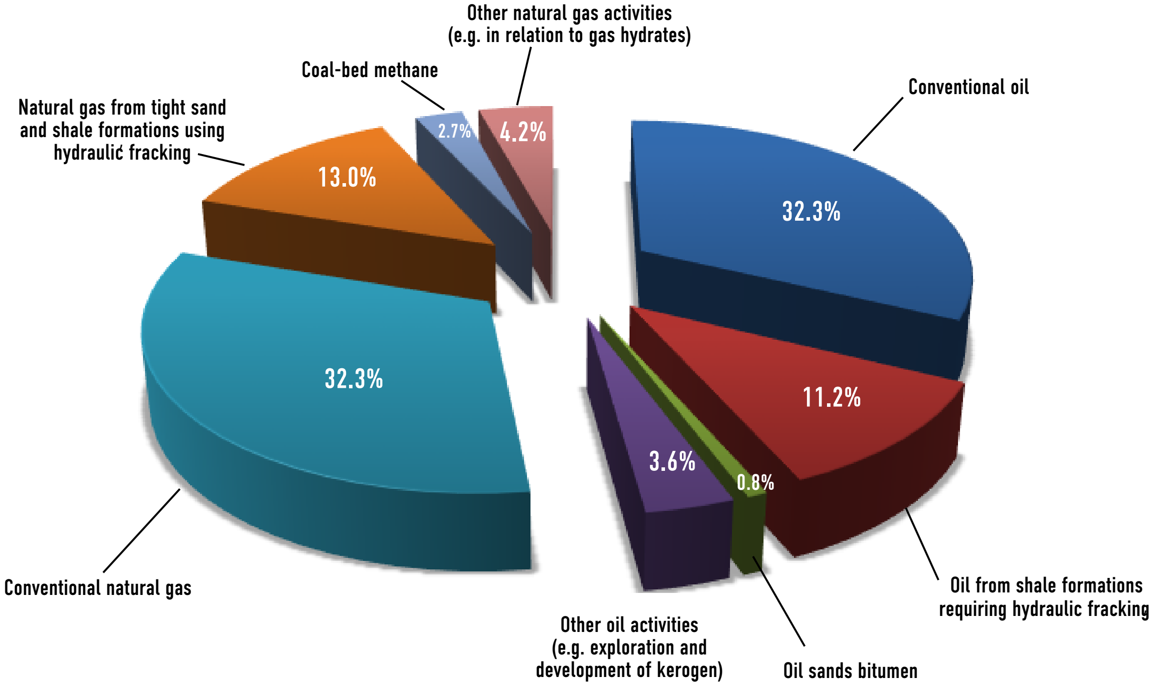
Figure 2: Activities performed by firms of survey respondents, 2023



Senior executives from petroleum firms reported in this year's survey that 15.6 percent of their upstream activity involves unconventional oil resources. The majority of these firms dedicated to unconventional oil resources (71.6 percent) focus on the recovery of oil from shale formations using hydraulic fracturing, 5.3 percent is focused on oil sands bitumen, and 23.1 percent on other oil activities, such as the exploration or development of oil from kerogen found in shale rock.

Participants in the survey also reported that almost 20 percent of their upstream activity involves unconventional natural gas resources. The majority of this activity (65.3 percent) involves the recovery of natural gas from tight sand and shale formations using hydraulic fracturing. Twenty-one percent of petroleum firms responding to the survey reported other unconventional natural gas activities (e.g., related to gas hydrates) while 13.5 percent focused on coal-bed methane.

Figure 3: Company focus in petroleum exploration and development business, as indicated by respondents



Survey questionnaire

The survey was designed to capture the opinions of managers and executives about the level of investment barriers in jurisdictions with which they are familiar. Respondents were asked to indicate how each of the 16 factors listed below influence company decisions to invest in various jurisdictions. The factors were consistent with the previous versions of the *Global Petroleum Survey and the Canada-US Energy Sector Competitiveness Surveys* from 2021 and 2022.

1. **Fiscal terms**—including licenses, lease payments, royalties, other production taxes, and gross revenue charges, but not corporate and personal income taxes, capital gains taxes, or sales taxes.
2. **Taxation in general**—the tax burden including personal, corporate, payroll, and capital taxes, and the complexity of tax compliance, but excluding petroleum exploration and production licenses and fees, land lease fees, and royalties and other charges directly targeting petroleum production.
3. **Environmental regulations**—stability of regulations, consistency and timeliness of regulatory process, etc.
4. **Regulatory enforcement**—uncertainty regarding the administration, interpretation, stability, or enforcement of existing regulations.
5. **Cost of regulatory compliance**—related to filing permit applications, participating in hearings, etc.
6. **Protected areas**—uncertainty concerning what areas can be protected as wilderness or parks, marine life preserves, or archaeological sites.
7. **Trade barriers**—tariff and non-tariff barriers to trade and restrictions on profit repatriation, currency restrictions, etc.
8. **Labor regulations and employment agreements**—the impact of labor regulations, employment agreements, labor militancy or work disruptions, and local hiring requirements.
9. **Quality of infrastructure**—includes access to roads, power availability, etc.
10. **Quality of geological database**—includes quality, detail, and ease of access to geological information.
11. **Labor availability and skills**—the supply and quality of labor, and the mobility that workers have to relocate.
12. **Disputed land claims**—the uncertainty of unresolved claims made by aboriginals, other groups, or individuals.
13. **Political stability.**
14. **Security**—the physical safety of personnel and assets.
15. **Regulatory duplication and inconsistencies** (including federal/provincial, federal/state, inter-departmental overlap, etc.).
16. **Legal system**—legal processes that are fair, transparent, non-corrupt, efficiently administered, etc.

For each of the 16 factors, respondents were asked to select one of the following five responses that best described each jurisdiction with which they were familiar:

1. Encourages investment
2. Is not a deterrent to investment
3. Is a mild deterrent to investment
4. Is a strong deterrent to investment
5. Would not invest due to this criterion

Scoring the survey responses—the Policy Perception Index

This year we replicated the methodology used in 2016 and every year since, which follows that used in the Fraser Institute's Annual Survey of Mining Companies (see Stedman and Green, 2019). The methodology differs from that used prior to 2016[2] in that it is it is based on an average of the responses for all five possible response categories.[3] In previous years, the index was based only on the prevalence of responses in the "deters investment" categories. The measure also takes into consideration how far a jurisdiction's score is from the average in each of the policy areas. To calculate the Policy Perception Index (PPI), we estimate a score for each jurisdiction for all 16 factors addressed by the survey questions by calculating each jurisdiction's average response in relation to each survey question. We then standardize this score using a common technique whereby we subtract the average response from each jurisdiction's score on each of the policy factors and then divided it by the standard deviation. A jurisdiction's scores on each of the 16 policy variables, as reflected by the responses to the survey questions, is then added to generate a final, standardized PPI score. That score is then normalized using the formula ((Vmax-Vi))/((Vmax-Vmin)) ×100.[4] The jurisdiction with the most attractive policies receives a score of 100 and the jurisdiction with the policies that pose the greatest barriers to investment receives a score of 0.

2 See appendix 2 for an overview of the previous methodology.

3 Encourages investment, not a deterrent to investment, mild deterrent to investment, strong deterrent to investment, and would not invest due to this factor.

4 Where Vmax is the maximum value, Vmin is the minimum value, and Vi represents the summed score of a jurisdiction.

CANADA-US RESULTS

Policy Perception Index Rankings

Table 1 compares the 2023 scores and rankings of the jurisdictions on the Policy Perception Index (PPI). The first column shows the absolute scores for each jurisdiction, based on the methodology described above. The second column shows the rankings for each. It is worth remembering that these rankings are entirely driven by responses to the survey questions and do not account for the extent of any jurisdiction's proved oil and gas reserves. Hence, some jurisdictions with relatively small or even no reserves may rank more highly on the basis of the respondents' perceptions of business conditions, regulatory regimes, and other factors, than some jurisdictions with significant reserve holdings.

Figure 4 presents the Policy Perception Index rankings for the 17 jurisdictions ranked this year. Respondents ranked the following 10 jurisdictions as the most attractive for investment in petroleum exploration and development:

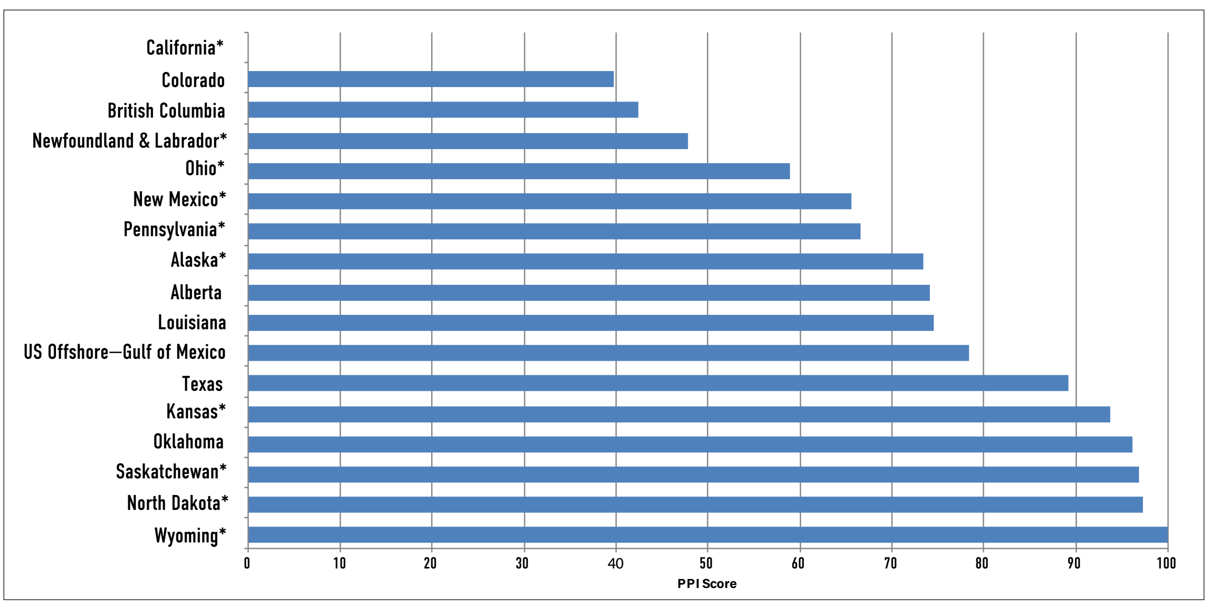
1. Wyoming
2. North Dakota
3. Saskatchewan
4. Oklahoma
5. Kansas
6. Texas
7. US offshore — Gulf of Mexico
8. Louisiana
9. Alberta
10. Alaska

Table 1: Policy Perception Index 2023

	SCORE	RANK
Wyoming*	100.0	1/17
North Dakota*	97.3	2/17
Saskatchewan*	96.8	3/17
Oklahoma	96.1	4/17
Kansas*	93.7	5/17
Texas	89.2	6/17
US Offshore—Gulf of Mexico*	78.4	7/17
Louisiana	74.6	8/17
Alberta	74.1	9/17
Alaska*	73.3	10/17
Pennsylvania*	66.5	11/17
New Mexico*	65.6	12/17
Ohio*	58.9	13/17
Newfoundland & Labrador*	47.9	14/17
British Columbia	42.4	15/17
Colorado	39.7	16/17
California*	0.0	17/17

* Jurisdictions marked with an asterisk received between 5 and 10 responses for at least one of the assessed policy factors.

Figure 4: Policy Perception Index, 2023

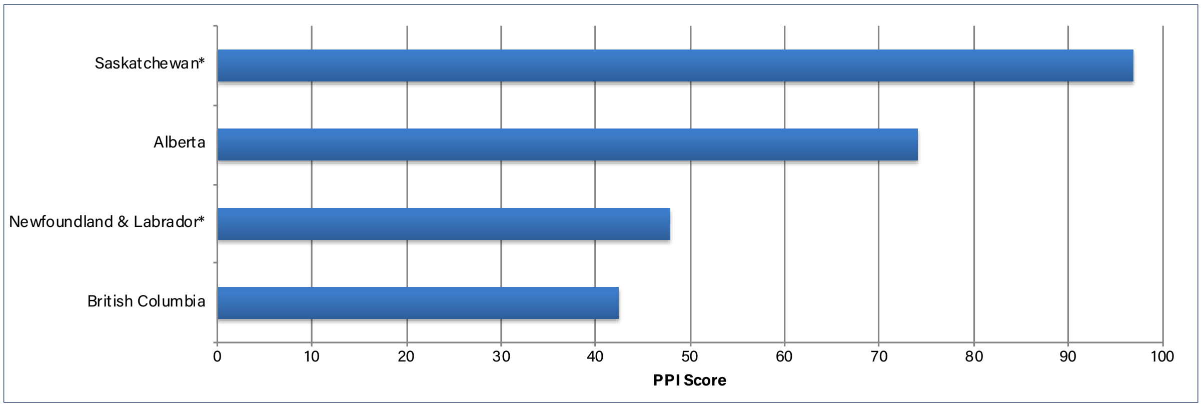


Results by Region

Canada

Figure 5 illustrates the relative performance of the Canadian jurisdictions in the 2023 survey. Compared to American jurisdictions, survey respondents gave less favorable overall scores to a couple of Canadian jurisdictions this year, indicating that barriers to investment continue to be significant relative to the US.

Figure 5: Policy Perception Index–Canada, 2023



Saskatchewan and Alberta improved their policy scores in 2023 (compared to 2022 results) by 20.9 and 22.6 points respectively and along with those improved scores their position on the Policy Perception Index. Although British Columbia also increased its policy score (by 10.2 points), oil and gas investors still rank the province as the worst Canadian jurisdiction—and near the bottom of all the jurisdictions included in this year's report. Newfoundland & Labrador, which did not appear in the 2022 edition of this report, received enough responses to be included again this year. These four provinces accounted for a little over 99 percent of Canada's total oil production in 2022 (Canada Energy Regulator, 2023).

British Columbia's position in the relative ranking improved marginally, going from 14th out of 15 jurisdictions in 2022 to 15th out of 17 jurisdictions this year. The province continues to be ranked among the jurisdictions with the highest deterrents for investment. In contrast, Saskatchewan improved its score and went from ranking 6th in 2022 to 3rd in 2023 and the process becomes the only Canadian jurisdiction to place in the top five. Alberta's position also improved; it went from ranking 12th out of 15 jurisdictions in 2022 to ranking 9th out of 17 in 2023. Finally, Newfoundland & Labrador ranked 14th out of 17 and is the second-worst ranked Canadian jurisdiction.

Comments from respondents about various Canadian provinces and territories ranged from complimentary to critical. The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meaning.

Canada–General

> "Swiftly rising carbon costs coupled with uncertain solutions for practical carbon storage serve as obstacles to investment."

"In certain areas of Canada, property rights protection is deficient. Some provinces possess the authority to expropriate property without offering compensation, potentially compelling us to shut down."

"The possibility of revoking oil and gas licenses following discovery is a major deterrent to investment."

Alberta

"Consistent policy changes and discrepancies in carbon regulations across government jurisdictions are a deterrent to investment."

British Columbia

"Carbon taxes, emission regulations, and abrupt regulatory shutdowns."

Newfoundland & Labrador

"Significant delays in the environmental assessment approval process are hindering investment."

The United States

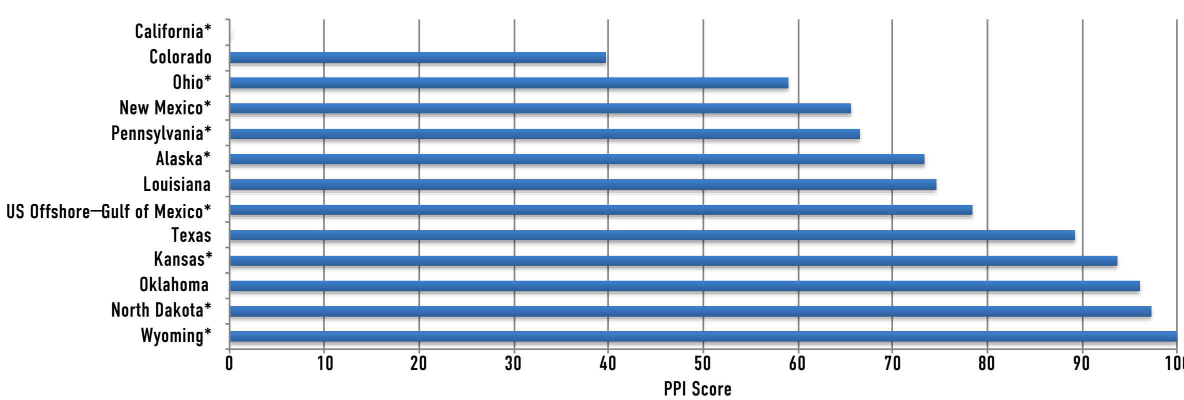
In 2023, we received sufficient responses to enable us to rank 13 US jurisdictions.

For the second year in a row, Wyoming is the most attractive jurisdiction in the United States—and the most attractive jurisdiction included in this analysis. North Dakota climbed the ranking this year to become the second most attractive jurisdiction in the US and the second most attractive in this year's survey. Six other US jurisdictions also ranked in the top 10 this year: Oklahoma (4th), Kansas (5th), Texas (6th), US Offshore—Gulf of Mexico (7th), Louisiana (8th) and Alaska (10th) (figure 6).

Compared to last year's survey, only Texas saw its policy scores decline; all other US jurisdictions in the survey showed improvements. For instance, Alaska's policy score improved 32.2 points this year and it is included in the top 10. Similarly, North Dakota increased its score by 18.9 points. Meanwhile the 2.3-point decline for Texas meant that it fell to 6th place after occupying 2nd place last year.

Survey participants' comments on a number of American jurisdictions are presented below. Comments have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

Figure 6: Policy Perception Index–United States



* Jurisdictions marked with an asterisk received between 5 and 10 responses for at least one of the assessed policy factors.

Colorado

"The Financial Assurance Regulation mandates annual payments to the state government to address P&A [Plug and Abandon] liabilities, even though we already contribute funds to an orphan well program that far exceeds the costs of any P&A obligations related to companies unable to P&A wells due to financial distress."

"Granting local governmental agencies the authority to establish regulations concerning oil, gas, and the environment is a deterrent to investment as long as these regulations are more stringent than Colorado's existing laws."

Louisiana

"Legacy lawsuits, which entail the reinterpretation of outdated policies, are being used not for environmental restoration but primarily as obstacles to investment."

Ohio

"Local officials invoked EPA 'waters of the US' laws during a rainstorm, making an unfounded claim of an environmental catastrophe. This unwarranted accusation resulted in a nine-month ordeal and incurred costs of $250,000 to disprove. This incident marked my first encounter with the weaponization of bureaucracy."

"Local regulatory agents used 'waters of the US' regulations to raise concerns regarding water runoff from a rainstorm that occurred in a farmer's field, where water flowed into a ditch between fields. The blame for historical runoff was unjustly placed on oil operations, necessitating approximately $200,000 in scientific research and negotiations to resolve this unwarranted accusation. Ultimately, we made the decision to sell our assets and leave the state of Ohio due to these detrimental policies."

California

"Years of legal indecision regarding which entity holds the authority to grant a passing permit—whether it is the local county or the California State Division of Oil & Gas (now known as CalGEM or the California Geological Energy Management)."

Texas

"The smuggling of undocumented individuals on the roads in South Texas poses a risk to our community.""

Results by Category

The results of the survey have been broken into four areas: regulatory factors, commercial, geopolitical, and land-related risks.[5]

Regulatory factors

According to investors, regulatory factors continue to be a key in hampering Canada's energy competitiveness. This year's respondents pointed to the uncertainty concerning environmental regulations, regulatory duplication and inconsistencies, the uncertainty regarding the enforcement of existing regulations, and the cost of regulatory compliance as key areas of concern in Canada compared to the United States.

To evaluate investors' perceptions around regulatory processes across jurisdictions we asked survey respondents six questions about the various regulatory factors. The analysis for questions with similar results are combined in this section.

5 To streamline the analysis, this section uses categories (based on Appendix 2 from Stedman and Green 2018) that focus on particular dimensions of policy.

Environmental regulations (Table 2)

Canada

This year, investors rated uncertainty concerning environmental regulations as the factor that most deters investment in Canada. When completing the survey, investors are asked about the stability of regulations and the consistency and timeliness of environmental regulatory processes.

Table 2: Environmental Regulations

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	18%	32%	29%	15%	6%
	British Columbia	0%	7%	50%	36%	7%
	Newfoundland & Labrador*	0%	0%	22%	67%	11%
	Saskatchewan*	43%	29%	29%	0%	0%
United States	Alaska*	20%	10%	50%	20%	0%
	California*	7%	0%	7%	53%	33%
	Colorado	10%	15%	30%	40%	5%
	Kansas*	33%	58%	8%	0%	0%
	Louisiana	39%	28%	28%	6%	0%
	New Mexico*	21%	43%	21%	7%	7%
	North Dakota*	73%	18%	9%	0%	0%
	Ohio*	13%	25%	50%	13%	0%
	Oklahoma	65%	29%	6%	0%	0%
	Pennsylvania*	0%	20%	40%	30%	10%
	Texas	43%	46%	9%	3%	0%
	Wyoming*	79%	7%	14%	0%	0%
	US Offshore—Gulf of Mexico*	21%	50%	21%	7%	0%

*Percentages may not add up to 100 due to rounding.

As a result, many Canadian provinces perform poorly compared to competing US states. All of the respondents for Newfoundland & Labrador pointed to this factor as a major deterrent to investment. Similarly, 93 percent of respondents for British Columbia and 50 percent for Alberta said that uncertainty concerning environmental regulations is a key factor deterring investment.

The top performing Canadian jurisdiction on this measure was Saskatchewan, for which 29 percent of respondents cited this factor as constraining investment.

United States

In contrast, only 6 percent of respondents for Oklahoma, 9 percent for North Dakota, and 11 percent for Texas were deterred by the uncertainty concerning environmental regulations. The poorest performing US state was California, where 93 percent of the survey respondents were dissuaded by this factor.

Overall

On average, uncertainty concerning environmental regulations is the policy factor that most hampers Canada's energy competitiveness and continues to be a major area of concern when compared to the United States. The percentage of respondents for Canadian provinces indicating that this factor was a deterrent to investment was 68 percent on average, compared to 41 percent for the United States.

Regulatory duplication and inconsistencies (Table 3)

Table 3: Regulatory Duplication and Inconsistencies

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	13%	52%	26%	9%	0%
	British Columbia	0%	36%	18%	45%	0%
	Newfoundland & Labrador*	0%	0%	50%	50%	0%
	Saskatchewan*	17%	67%	17%	0%	0%
United States	Alaska*	20%	60%	20%	0%	0%
	California*	0%	11%	33%	44%	11%
	Colorado	8%	17%	67%	8%	0%
	Kansas*	17%	83%	0%	0%	0%
	Louisiana	17%	50%	25%	8%	0%
	New Mexico*	0%	56%	44%	0%	0%
	North Dakota*	20%	60%	20%	0%	0%
	Ohio*	0%	40%	60%	0%	0%
	Oklahoma	36%	36%	27%	0%	0%
	Pennsylvania*	0%	80%	20%	0%	0%
	Texas	33%	52%	14%	0%	0%
	Wyoming*	38%	63%	0%	0%	0%
	US Offshore—Gulf of Mexico*	11%	56%	22%	11%	0%

*Percentages may not add up to 100 due to rounding.

Canada

Investors expressed increasing concerns over regulatory duplication and inconsistencies for Canadian provinces compared to last year's survey and compared to their US competitors. Specifically, all the respondents for Newfoundland & Labrador were deterred by this factor. Similarly, 64 percent of respondents for British Columbia expressed concern over regulatory duplications and inconsistencies, up 21 percentage points from last year's results.

In contrast, Alberta and Saskatchewan showed an improvement on this factor; 35 percent of respondents for Alberta said that this factor is a deterrent to investment (down 21 percentage points from last year) and only 17 percent of respondents for Saskatchewan expressed concern over regulatory duplications and inconsistencies, down 39 percentage points from last year.

Overall, for the four Canadian provinces included in the survey combined, this factor deteriorated by 2 percentage points over 2022.

United States

By comparison, none of the respondents for Wyoming or Kansas indicated that regulatory duplication and inconsistencies were a deterrent to investment. Similarly, only 14 percent of respondents for Texas and 20 percent for North Dakota and for Pennsylvania were deterred by regulatory duplication and inconsistencies. The worst performing US state on this factor was California where 89 percent of respondents were deterred by it.

Overall

This year, regulatory duplication and inconsistencies was the second most important concern for investors in Canada when compared to the United States. The percentage of respondents for the Canadian provinces indicating that this factor was a deterrent to investment was, on average, 54 percent (up 2 percentage points from last year's survey) compared to 34 percent for the United States (down 4 percentage points from the 2022 survey).

Regulatory enforcement (Table 4)

Canada

Uncertainty concerning existing regulations, i.e., uncertainty regarding the administration, interpretation, stability, or enforcement of existing regulations, was the factor on which Newfoundland & Labrador performed the worst—88 percent of respondents indicated that regulatory enforcement was a deterrent to investment in that province. Also performing poorly was British Columbia for which 75 percent of respondents pointed to this factor as a deterrent to investment, as did 42 percent for Alberta. The top performing Canadian jurisdiction on this measure was Saskatchewan, with 17 percent of respondents citing this factor as a deterrent to investment.

Table 4: Regulatory Enforcement

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	23%	35%	29%	10%	3%
	British Columbia	8%	17%	33%	33%	8%
	Newfoundland & Labrador*	0%	13%	38%	38%	13%
	Saskatchewan*	50%	33%	17%	0%	0%
United States	Alaska*	22%	56%	11%	11%	0%
	California*	0%	8%	15%	46%	31%
	Colorado	12%	0%	53%	24%	12%
	Kansas*	36%	55%	9%	0%	0%
	Louisiana	25%	56%	13%	6%	0%
	New Mexico*	29%	43%	14%	14%	0%
	North Dakota*	50%	38%	13%	0%	0%
	Ohio*	17%	50%	0%	33%	0%
	Oklahoma	44%	50%	6%	0%	0%
	Pennsylvania*	0%	0%	88%	13%	0%
	Texas	31%	56%	9%	3%	0%
	Wyoming*	73%	18%	9%	0%	0%
	US Offshore—Gulf of Mexico*	17%	42%	42%	0%	0%

*Percentages may not add up to 100 due to rounding.

United States

Top performing US jurisdictions Oklahoma and Wyoming saw 6 and 9 percent of respondents, respectively, indicate that uncertainty concerning regulatory enforcement was a deterrent to investment. Similarly, 13 percent for Texas indicated that this factor was a concern. However, several US jurisdictions performed poorly in this indicator. All the respondents for Pennsylvania expressed concern over this factor. The second and third poorest performing US states were California and Colorado, where this factor deterred 92 percent and 88 percent of respondents, respectively.

Overall

On average, Canadian jurisdictions perform poorly relative to their US counterparts on uncertainty around the administration, interpretation, stability, or enforcement of existing regulations: 55 percent of respondents for the Canadian provinces compared to 37 percent for the American states indicated that this factor was a deterrent to investment.

Cost of regulatory compliance (Table 5)

Canada

British Columbia and Newfoundland & Labrador performed the worst of all the jurisdictions included in this year's survey on the cost of regulatory compliance: 88 percent for Newfoundland & Labrador and 77 percent for British Columbia indicated that this factor was a deterrent to investment. However, when compared to last year, British Columbia had improved by 23 percentage points. Alberta also improved—by 30 percentage points—though 43 percent of respondents for the province still cite the cost of regulatory compliance as a policy factor that scares away investment. Saskatchewan was the top performing Canadian jurisdiction in this category; 29 percent of respondents claimed that this factor dissuaded investment in that province.

Table 5: Cost of Regulatory Compliance

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	10%	47%	30%	13%	0%
	British Columbia	0%	23%	54%	23%	0%
	Newfoundland & Labrador*	0%	13%	50%	38%	0%
	Saskatchewan*	43%	29%	29%	0%	0%
United States	Alaska*	14%	43%	29%	14%	0%
	California*	0%	0%	17%	50%	33%
	Colorado	6%	13%	38%	31%	13%
	Kansas*	33%	67%	0%	0%	0%
	Louisiana	29%	36%	29%	7%	0%
	New Mexico*	17%	42%	33%	8%	0%
	North Dakota*	43%	57%	0%	0%	0%
	Ohio*	0%	17%	83%	0%	0%
	Oklahoma	36%	57%	7%	0%	0%
	Pennsylvania*	0%	17%	67%	17%	0%
	Texas	38%	44%	16%	3%	0%
	Wyoming*	64%	27%	9%	0%	0%
	US Offshore—Gulf of Mexico*	8%	50%	33%	8%	0%

*Percentages may not add up to 100 due to rounding.

United States

In contrast, many US jurisdictions perform well on this factor, though there are some notable exceptions. None of the respondents for Kansas (ranked 5th on this year's survey) or North Dakota (ranked 2nd this year) pointed to this factor as a deterrent to investment. Only 7 percent of respondents for Oklahoma, 9 percent of respondents for Wyoming, and 19 percent for Texas indicated that the cost of regulatory compliance was a deterrent to investment. The worst performing US jurisdiction is California for which all respondents were deterred by this factor.

Overall

On average, respondents see the cost of regulatory compliance as more problematic in Canada than in the United States. An average of 59 percent of respondents for the Canadian provinces compared to 42 percent for the US states indicated that the cost of regulatory compliance was deterring investment.

Labor regulations and employment agreements (Table 6)

Table 6: Labour Regulations and Employment Agreements

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	36%	36%	24%	4%	0%
	British Columbia	27%	27%	45%	0%	0%
	Newfoundland & Labrador*	17%	33%	33%	17%	0%
	Saskatchewan*	67%	33%	0%	0%	0%
United States	Alaska*	29%	29%	43%	0%	0%
	California*	8%	17%	25%	33%	17%
	Colorado	20%	33%	27%	13%	7%
	Kansas*	63%	38%	0%	0%	0%
	Louisiana	50%	43%	0%	7%	0%
	New Mexico*	17%	58%	25%	0%	0%
	North Dakota*	57%	43%	0%	0%	0%
	Ohio*	20%	60%	20%	0%	0%
	Oklahoma	64%	36%	0%	0%	0%
	Pennsylvania*	33%	33%	33%	0%	0%
	Texas	44%	44%	11%	0%	0%
	Wyoming*	80%	20%	0%	0%	0%
	US Offshore—Gulf of Mexico*	36%	45%	18%	0%	0%

*Percentages may not add up to 100 due to rounding.

Canada

For the Canadian provinces included in this study, investors were less concerned than last year over the impact of labor regulations, employment agreements, labor militancy or work disruptions, and local hiring requirements. None of the respondents for Saskatchewan were concerned about this factor (a drop of 33 percentage points from last year). However, 50 percent of the respondents for Newfoundland & Labrador, 45 percent of respondents for British Columbia, and 28 percent for Alberta said that this factor dissuaded investment in those provinces.

United States

In the United Sates, no respondents for Wyoming, North Dakota, Kansas, or Oklahoma said that labor regulations and employment agreements were deterring investment in those states. Not far behind, only 7 percent of respondents for Louisiana and 11 percent for Texas claimed that labor regulations and employment agreements were dissuading investment. The poorest performing American states were California and Colorado where 75 percent and 47 percent of respondents, respectively, were deterred by this factor.

Overall

Labor regulations and employment agreements are a bit more of a concern for investors in Canada than they are for investors in the United States. Respondents for the Canadian provinces who indicated that this factor was a deterrent to investment was, on average, 31 percent (down 14 percentage points from last year's survey) compared to 21 percent for the United States.

Legal system (Table 7)

Table 7: Legal System

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	42%	54%	4%	0%	0%
	British Columbia	18%	64%	9%	9%	0%
	Newfoundland & Labrador*	33%	67%	0%	0%	0%
	Saskatchewan*	83%	17%	0%	0%	0%
United States	Alaska*	67%	33%	0%	0%	0%
	California*	10%	40%	40%	0%	10%
	Colorado	29%	14%	50%	7%	0%
	Kansas*	43%	57%	0%	0%	0%
	Louisiana	46%	23%	8%	15%	8%
	New Mexico*	33%	33%	33%	0%	0%
	North Dakota*	50%	50%	0%	0%	0%
	Ohio*	17%	67%	17%	0%	0%
	Oklahoma	73%	27%	0%	0%	0%
	Pennsylvania*	33%	67%	0%	0%	0%
	Texas	55%	36%	9%	0%	0%
	Wyoming*	56%	44%	0%	0%	0%
	US Offshore—Gulf of Mexico*	50%	30%	20%	0%	0%

*Percentages may not add up to 100 due to rounding.

Canada

Investor perceptions of the legal system vary by province. For instance, none of the respondents for Newfoundland & Labrador or for Saskatchewan and only 4 percent of respondents for Alberta said the legal system is a deterrent to investment. In contrast, 18 percent of respondents for British Columbia indicated that this factor was deterred investment (up 4 percentage points from last year).

United States

None of the respondents for six US jurisdictions (Alaska, Wyoming, Pennsylvania, Kansas, Oklahoma, North Dakota) indicated that the legal system in those states deterred investment. In contrast, 9 percent of respondents for Texas, 17 percent for Ohio, and 31 percent for Louisiana were deterred by this factor. As was the case last year, the worst performing US state was Colorado for which 57 percent of the survey's respondents cited the legal system as a deterrent to investment (up 20 percentage points from last year).

Overall

This year the percentage of respondents deterred by the legal system was higher in the US (17 percent, on average) than in Canada (6 percent, on average).

Commercial risks

Fiscal terms and taxation in general (Tables 8 and 9)

Canada

Fiscal terms and taxation in general continue to be key areas of concern for investors in some Canadian provinces compared to many US states. For instance, the share of respondents for Alberta citing fiscal terms and taxation in general as factors potentially deterring investment increased for a second year in a row. This year, 34 percent of respondents (up 8 percentage points from last year's survey) indicated that licenses, royalties, and production taxes (i.e., fiscal terms) were affecting investment decisions and 41 percent of respondents (up 10 percentage points from last year's survey) claimed that the level of taxation in the province was deterring investment. In contrast, British Columbia improved on both policy factors: 47 percent of respondents expressed concern over fiscal terms and 60 percent over taxation in general, which was down 20 percent and 26 percent, respectively, from last year.

According to survey respondents, concerns about fiscal terms and taxation decreased considerably for Saskatchewan. This year, none of the respondents claimed that fiscal terms were discouraging investment in the province (making it the top performer not just among Canadian provinces but overall on the survey for this policy factor) and, similarly, only 14 percent of respondents cited taxes in general in Saskatchewan as a key deterrent to investment.

This year, Newfoundland & Labrador was the worst performer among Canadian provinces regarding fiscal terms: 80 percent of respondents indicated they were deterred by this factor. Similarly, 56 percent said that taxation in general deters investment in that province.

Table 8: Fiscal Terms

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	45%	21%	18%	11%	5%
	British Columbia	13%	40%	27%	20%	0%
	Newfoundland & Labrador*	20%	0%	60%	10%	10%
	Saskatchewan*	100%	0%	0%	0%	0%
United States	Alaska*	33%	40%	27%	0%	0%
	California*	5%	0%	21%	47%	26%
	Colorado	21%	8%	50%	8%	13%
	Kansas*	57%	36%	7%	0%	0%
	Louisiana	58%	29%	8%	4%	0%
	New Mexico*	35%	47%	12%	6%	0%
	North Dakota*	93%	7%	0%	0%	0%
	Ohio*	22%	44%	22%	11%	0%
	Oklahoma	67%	24%	10%	0%	0%
	Pennsylvania*	21%	43%	29%	7%	0%
	Texas	72%	16%	12%	0%	0%
	Wyoming*	76%	12%	12%	0%	0%
	US Offshore—Gulf of Mexico*	50%	30%	20%	0%	0%

*Percentages may not add up to 100 due to rounding.

United States

North Dakota shares with Saskatchewan top place as the best performer on fiscal terms, with no respondents claiming that that policy factor was affecting investment decisions. Similarly, just 7 percent of respondents for Kansas and 10 percent of respondents for Oklahoma said that fiscal terms in those states deters investment. For Wyoming, only 12 percent of respondents suggested that fiscal terms affect their investment decisions. However, 21 percent of respondents said that taxation in general is a deterrent to investment in that state. North Dakota ranked better than Wyoming on taxation in general; just 9 percent of respondents pointed to this factor as a deterrent to investment for that state. On both measures Texas ranked quite well: 12 percent of respondents claimed that fiscal terms were a deterrent to investment in that state as did 14 percent who cited taxes in general as a deterrent. The share of respondents indicating that fiscal terms and taxation in general were deterring investment in Louisiana were 13 percent and 20 percent, respectively.

California was the worst performer overall in terms of fiscal terms and taxation, with 95 percent and 76 percent of respondents, respectively, saying they were deterred by these factors. Colorado also performed poorly: investors said that 71 percent on fiscal terms and 62 percent on taxation in general deterred investment in that state.

Table 9: Taxation in General

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	18%	41%	26%	12%	3%
	British Columbia	7%	33%	47%	13%	0%
	Newfoundland & Labrador*	0%	44%	22%	22%	11%
	Saskatchewan*	43%	43%	14%	0%	0%
United States	Alaska*	33%	42%	8%	17%	0%
	California*	6%	18%	12%	47%	18%
	Colorado	14%	24%	38%	24%	0%
	Kansas*	25%	67%	8%	0%	0%
	Louisiana	35%	45%	10%	10%	0%
	New Mexico*	38%	31%	19%	13%	0%
	North Dakota*	73%	18%	9%	0%	0%
	Ohio*	13%	50%	25%	13%	0%
	Oklahoma	41%	29%	29%	0%	0%
	Pennsylvania*	18%	36%	36%	9%	0%
	Texas	54%	32%	14%	0%	0%
	Wyoming*	43%	36%	14%	7%	0%
	US Offshore—Gulf of Mexico*	31%	44%	25%	0%	0%

*Percentages may not add up to 100 due to rounding.

Overall

On average, investors expressed more concerns over taxes and fiscal terms for Canada than they did for the United Sates. Forty percent of respondents for the Canadian provinces, on average, indicated that fiscal terms was deterring investment as compared to 27 percent for the United States (a 13 percentage point gap). Similarly, the percentage of respondents indicating that taxation in general was deterring investment was, on average, 43 percent for Canada compared to 31 percent for the United States (a 12 percentage point difference).

Trade barriers (Table 10)

Canada

Investors generally have relatively low concerns about trade barriers in Canada, though that varies by province. Alberta was the top performer in Canada on this category, with 12 percent of respondents suggesting trade barriers were a deterrent to investment. In Saskatchewan, 17 percent of respondents found trade barriers a deterrent (down 6 percentage points from 2022). British Columbia was the worst performing province on this factor: 27 percent of respondents for BC pointed to the province's trade barriers as a deterrent to investment.

Table 10: Trade Barriers

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	24%	64%	4%	8%	0%
	British Columbia	9%	64%	27%	0%	0%
	Newfoundland & Labrador*	17%	67%	0%	17%	0%
	Saskatchewan*	50%	33%	17%	0%	0%
United States	Alaska*	25%	63%	0%	13%	0%
	California*	8%	42%	8%	25%	17%
	Colorado	33%	40%	7%	7%	13%
	Kansas*	50%	50%	0%	0%	0%
	Louisiana	40%	47%	7%	7%	0%
	New Mexico*	17%	58%	25%	0%	0%
	North Dakota*	29%	71%	0%	0%	0%
	Ohio*	33%	50%	17%	0%	0%
	Oklahoma	57%	43%	0%	0%	0%
	Pennsylvania*	29%	43%	14%	14%	0%
	Texas	45%	41%	10%	3%	0%
	Wyoming*	60%	40%	0%	0%	0%
	US Offshore—Gulf of Mexico*	36%	45%	18%	0%	0%

*Percentages may not add up to 100 due to rounding.

United States

In contrast, none of the respondents for four US states (Wyoming, North Dakota, Oklahoma, and Kansas) cited trade barriers as a deterrent to investment. Further, only 13 percent of respondents for Alaska and Louisiana indicated that this factor was a deterrent to investment. The worst performing US jurisdiction—and the worst performer of all the jurisdictions—was California, where 50 percent of respondents were deterred by trade barriers.

Overall

The percentage of respondents deterred by trade barriers is low and similar in Canada (18 percent, on average) to the United States (16 percent, on average).

Quality of infrastructure (Table 11)

Canada

Investor perceptions of the quality of infrastructure in Canada vary by province. For example, none of the respondents for Saskatchewan (the top performing Canadian province and the top performer overall on this policy area) but 45 percent of respondents for British Columbia indicated that the quality of infrastructure was adversely affecting investment decisions. Alberta, for which only 8 percent of investors are dissuaded by the quality of infrastructure, is the second-best Canadian jurisdiction on this policy factor.

Table 11: Quality of Infrastructure

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	52%	40%	8%	0%	0%
	British Columbia	27%	27%	27%	9%	9%
	Newfoundland & Labrador*	33%	33%	17%	17%	0%
	Saskatchewan*	67%	33%	0%	0%	0%
United States	Alaska*	38%	13%	38%	13%	0%
	California*	8%	31%	38%	15%	8%
	Colorado	31%	31%	25%	0%	13%
	Kansas*	67%	33%	0%	0%	0%
	Louisiana	40%	47%	13%	0%	0%
	New Mexico*	38%	46%	15%	0%	0%
	North Dakota*	75%	25%	0%	0%	0%
	Ohio*	20%	40%	40%	0%	0%
	Oklahoma	73%	20%	7%	0%	0%
	Pennsylvania*	57%	29%	14%	0%	0%
	Texas	57%	36%	7%	0%	0%
	Wyoming*	64%	36%	0%	0%	0%
	US Offshore—Gulf of Mexico*	42%	50%	8%	0%	0%

*Percentages may not add up to 100 due to rounding.

United States

None of the respondents for Wyoming, North Dakota, or Kansas claimed that the quality of infrastructure in those states was a deterrent to investment. Further, only 7 percent of respondents for Texas and Oklahoma were deterred by this factor. The worst performing US state was once again California, where 62 percent of respondents cited the quality of infrastructure as a factor dissuading investment. That policy factor also dissuaded 50 percent of investors commenting on Alaska.

Overall

Investors had low to moderate concerns about the quality of infrastructure in Canada, although nearly half of respondents for British Columbia were concerned about the factor. The percentage of respondents deterred by the quality of infrastructure was, on average, 22 percent for Canada and 20 percent for the United States.

Labor availability and skills (Table 12)

Canada

Survey respondents reported decreasing concern over labor availability and skills. In particular, none of the respondents for Saskatchewan and only 4 percent of the respondents for Alberta indicated that this factor was a deterrent to investment, which was down 33 and 40 percentage points, respectively, from last year. That rosy outlook is not universal across Canada, however: 25 percent of respondents for British Columbia and 43 percent for Newfoundland & Labrador said the availability of labor and skills was adversely affecting the investment attractiveness of those two provinces.

Table 12: Labor Availability and Skills

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	54%	42%	4%	0%	0%
	British Columbia	33%	42%	25%	0%	0%
	Newfoundland & Labrador*	43%	14%	29%	14%	0%
	Saskatchewan*	71%	29%	0%	0%	0%
United States	Alaska*	43%	43%	14%	0%	0%
	California*	9%	36%	27%	0%	27%
	Colorado	40%	33%	20%	0%	7%
	Kansas*	25%	63%	13%	0%	0%
	Louisiana	47%	33%	20%	0%	0%
	New Mexico*	33%	42%	25%	0%	0%
	North Dakota*	63%	38%	0%	0%	0%
	Ohio*	20%	60%	20%	0%	0%
	Oklahoma	57%	43%	0%	0%	0%
	Pennsylvania*	43%	43%	14%	0%	0%
	Texas	48%	41%	11%	0%	0%
	Wyoming*	55%	36%	9%	0%	0%
	US Offshore—Gulf of Mexico*	55%	36%	9%	0%	0%

*Percentages may not add up to 100 due to rounding.

United States

No respondents for either North Dakota or Oklahoma cited labor availability and skills as a deterrent to investment. However, 55 percent of respondents for California were concerned about this factor, making this US state the worst jurisdiction overall for labor availability and skills.

Overall

This year, the percentage of respondents deterred by labor availability and skills was slightly higher in Canada (18 percent, on average) than in the US (17 percent, on average).

Geopolitical risks

Political stability (Table 13)

Canada

Investor concerns related to political stability increased this year for Canada and are slightly higher than for the US. For example, 55 percent of respondents for British Columbia (the worst performing Canadian province on this measure) and 33 percent of respondents for Newfoundland & Labrador

Table 13: Political Stability

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	28%	52%	16%	4%	0%
	British Columbia	0%	45%	27%	18%	9%
	Newfoundland & Labrador*	33%	33%	33%	0%	0%
	Saskatchewan*	67%	33%	0%	0%	0%
United States	Alaska*	50%	33%	17%	0%	0%
	California*	0%	0%	42%	42%	17%
	Colorado	7%	36%	43%	7%	7%
	Kansas*	57%	43%	0%	0%	0%
	Louisiana	31%	38%	23%	8%	0%
	New Mexico*	9%	73%	18%	0%	0%
	North Dakota*	71%	29%	0%	0%	0%
	Ohio*	20%	60%	20%	0%	0%
	Oklahoma	62%	31%	8%	0%	0%
	Pennsylvania*	17%	67%	17%	0%	0%
	Texas	48%	48%	4%	0%	0%
	Wyoming*	70%	30%	0%	0%	0%
	US Offshore—Gulf of Mexico*	20%	50%	20%	10%	0%

*Percentages may not add up to 100 due to rounding.

indicated that this factor deterred investment. In contrast, no respondent for Saskatchewan and 20 percent of respondents for Alberta cited this factor as a deterrent.

United States

None of the respondents for Wyoming, North Dakota, or Kansas indicated that political stability was a deterrent to investment. Similarly, only 4 percent of respondents for Texas and 8 percent for Oklahoma said this policy factor was a deterrent for investment. However, multiple jurisdictions in the US saw their performance worsen on this measure compared to last year's survey. Of all the jurisdictions in the United States, Louisiana saw the largest decline in the perception of political stability with 31 percent of respondents pointing to this factor as a deterrent for investment, up 21 percentage points from 2022. Despite that, California still performs the worst of all—all respondents cited political stability as having an adverse impact on their investment decisions for that state. On this measure, California is the worst performer on this factor in both the United States and Canada.

Overall

Investor concerns over political stability are higher for Canada than for the United States, a trend that continues from last year. The percentage of respondents whose investment decisions were deterred by political stability was, on average, 27 percent for Canada and 23 percent for the United States.

Security (Table 14)

Canada

This year, Alberta, British Columbia, and Saskatchewan all performed better on security than they did in the 2022 survey. In particular, none of the respondents for Saskatchewan and none for Newfoundland & Labrador cited security as a deterrent to investment, which for Saskatchewan represents a decrease of 22 percentage points from last year. Similarly, just 4 percent of respondents for Alberta and 18 percent for British Columbia claimed that security was adversely affecting their investment decisions, down 21 and 10 percentage points, respectively, from last year.

United States

None of the respondents for Wyoming, Pennsylvania, Oklahoma, Ohio, North Dakota, Kansas, or Alaska indicated that security was a deterrent to investment. However, 27 percent of respondents for Colorado claimed the state's security levels were deterring investment. The worst performing jurisdiction for this policy factor was California where 36 percent of respondents were deterred by this factor.

Table 14: Security

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	48%	48%	4%	0%	0%
	British Columbia	36%	45%	18%	0%	0%
	Newfoundland & Labrador*	50%	50%	0%	0%	0%
	Saskatchewan*	67%	33%	0%	0%	0%
United States	Alaska*	83%	17%	0%	0%	0%
	California*	18%	45%	18%	0%	18%
	Colorado	47%	27%	20%	0%	7%
	Kansas*	71%	29%	0%	0%	0%
	Louisiana	38%	46%	15%	0%	0%
	New Mexico*	27%	55%	18%	0%	0%
	North Dakota*	57%	43%	0%	0%	0%
	Ohio*	17%	83%	0%	0%	0%
	Oklahoma	69%	31%	0%	0%	0%
	Pennsylvania*	50%	50%	0%	0%	0%
	Texas	48%	40%	12%	0%	0%
	Wyoming*	70%	30%	0%	0%	0%
	US Offshore—Gulf of Mexico*	45%	45%	9%	0%	0%

*Percentages may not add up to 100 due to rounding.

Overall

Historically, the percentage of respondents deterred by security in both countries is relatively low. This year, the US performed worse than Canada due to increased concerns about security in Texas, New Mexico, and Louisiana (up 12, 7, and 4 percentage points from last year). The percentage of respondents deterred by security concerns was, on average, 6 percent for Canada and 9 percent for the United States.

Land-related risks

Uncertainty concerning disputed land claims and protected areas (Tables 15 and 16)

Canada

Two policy areas that continue to hamper investor perceptions of some Canadian jurisdictions are uncertainty concerning disputed land claims and uncertainty over which areas will be protected. Investors expressed significant concern over these factors for British Columbia, where 83 percent of respondents saw uncertainty surrounding disputed land claims and 92 percent saw uncertainty over protected areas as deterrents. In Newfoundland & Labrador, 57 percent of respondents cited uncertainty concerning disputed land claims as a deterrent and 86 percent saw uncertainty over protected areas as a deterrent.

Table 15: Disputed Land Claims

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	4%	72%	20%	4%	0%
	British Columbia	0%	17%	25%	50%	8%
	Newfoundland & Labrador*	14%	29%	57%	0%	0%
	Saskatchewan*	14%	71%	14%	0%	0%
United States	Alaska*	0%	67%	17%	17%	0%
	California*	0%	45%	9%	18%	27%
	Colorado	14%	36%	29%	7%	14%
	Kansas*	43%	57%	0%	0%	0%
	Louisiana	23%	54%	0%	23%	0%
	New Mexico*	8%	50%	33%	8%	0%
	North Dakota*	17%	50%	33%	0%	0%
	Ohio*	0%	75%	0%	25%	0%
	Oklahoma	31%	46%	23%	0%	0%
	Pennsylvania*	20%	80%	0%	0%	0%
	Texas	42%	50%	8%	0%	0%
	Wyoming*	44%	33%	22%	0%	0%
	US Offshore—Gulf of Mexico*	30%	60%	10%	0%	0%

*Percentages may not add up to 100 due to rounding.

Table 16: Protected Areas

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	11%	50%	32%	7%	0%
	British Columbia	0%	8%	46%	38%	8%
	Newfoundland & Labrador*	0%	14%	29%	57%	0%
	Saskatchewan*	50%	50%	0%	0%	0%
United States	Alaska*	0%	14%	71%	14%	0%
	California*	0%	17%	17%	25%	42%
	Colorado	0%	31%	25%	25%	19%
	Kansas*	11%	89%	0%	0%	0%
	Louisiana	21%	64%	0%	14%	0%
	New Mexico*	0%	33%	42%	25%	0%
	North Dakota*	14%	86%	0%	0%	0%
	Ohio*	0%	33%	67%	0%	0%
	Oklahoma	21%	57%	21%	0%	0%
	Pennsylvania*	0%	0%	83%	17%	0%
	Texas	26%	55%	10%	10%	0%
	Wyoming*	30%	40%	30%	0%	0%
	US Offshore—Gulf of Mexico*	18%	64%	18%	0%	0%

*Percentages may not add up to 100 due to rounding.

Alberta had proportionately fewer investors concerned over these policy factors, with respondents pointing to the uncertainty concerning disputed land claims (24 percent) and protected areas (39 percent) as deterrents to investment. Saskatchewan is the top performing province on this factor; no respondent cited uncertainty concerning protected areas as a concerning factor and only 14 percent indicated that disputed land claims are a deterrent to investment.

United States

On the 2023 survey, none of the respondents for Kansas and North Dakota claimed that uncertainty regarding protected areas was a deterrent to investment. Further, none of the respondents for Kansas pointed to disputed land claims as a deterrent to investment, but 33 percent of respondents for North Dakota suggested that disputed land claims are. On the other hand, 22 and 23 percent, respectively, of respondents indicated that uncertainty concerning disputed land claims in Wyoming and Oklahoma was a deterrent to investment. Moreover, 30 and 21 percent of respondents, respectively, indicated that uncertainty concerning protected areas was an issue in Wyoming and Oklahoma. Alaska and California are the worst performers on the protected areas factor, with 86 and 83 percent of respondents, respectively, saying that this factor is a deterrent for investing.

Meanwhile, California and Colorado are the worst performers on disputed land claims, with 55 and 50 percent of respondents, respectively, pointing to this factor as deterrent to investment.

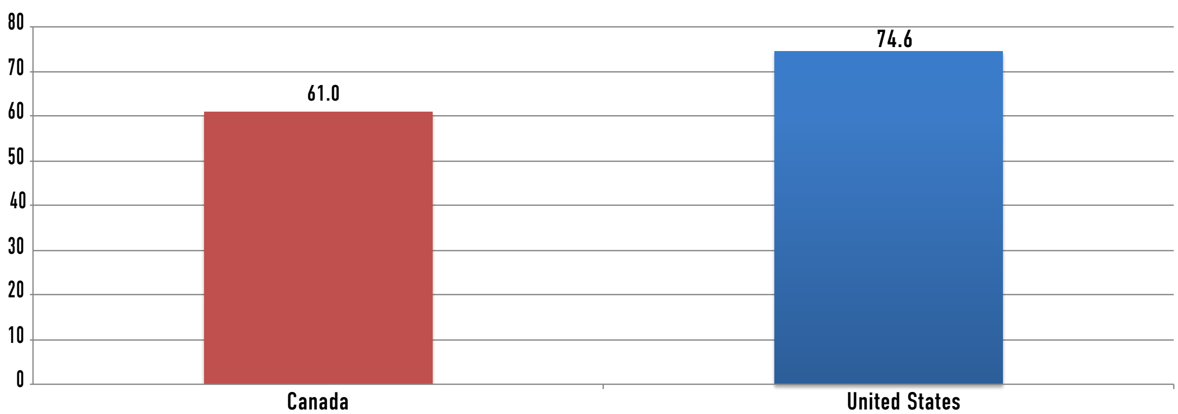
Overall

Overall, investors were more concerned about disputed land claims and protected areas in Canada than in the United States. On average, 45 percent of respondents for Canadian provinces indicated that uncertainty concerning disputed land claims was deterring investment compared to 25 percent for the United States. Further, on average, 54 percent of respondents for Canada's provinces indicated that uncertainty concerning protected areas was deterring investment compared to 44 percent for the United States.

OVERVIEW

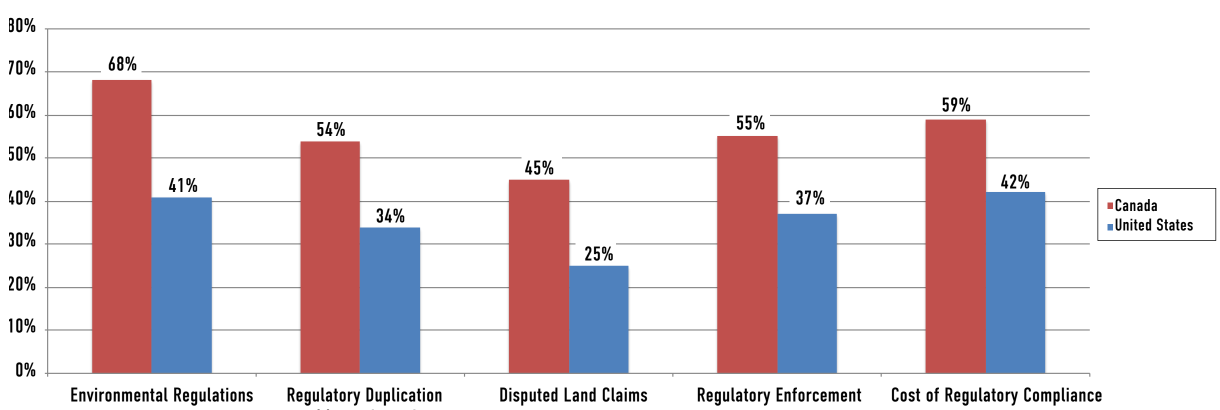
Our analysis of the 2023 survey results indicates that the PPI score gap between Canada and the United States increased this year and the extent of negative sentiment regarding key factors driving petroleum investment decisions continues to be higher in Canada than the United States. In fact, as figure 7 illustrates, this year Canada's median PPI score (61) is over 13 points lower than that for the United States (74.6) demonstrating that the US has a competitive advantage over Canada in most policy areas. In 2022, the PPI score gap was 11 points. This year, Canada's performance was hampered by a higher share of negative responses relative to the US in 13 of the 16 policy factors.

Figure 7: Canada-US Investment Attractiveness, Median PPI Scores by Country



For the second year in a row, investors pointed to uncertainty concerning disputed land claims as one of the key deterrents for investment in Canada when compared to the United States (Figure 8). On average, 45 percent of respondents for Canada indicated that this factor is a deterrent for investment, compared with only 25 percent in the United States.

Figure 8: Top Areas of Concern for Canada, Average Deterrence by Factor



Additionally, investors continue to see Canada's regulatory environment as onerous compared to that in many competing US jurisdictions. In particular, investors cite Canada's uncertainty regarding environmental regulations, regulatory duplication and inconsistencies, the uncertainty concerning disputed land claims, and the cost of regulatory compliance as the top areas of concern (Figure 8). On average, 68 percent of respondents for Canada are deterred by the uncertainty regarding environmental regulations compared to 41 percent for the United States, a difference of 27 percentage points between the two countries. When considering regulatory duplications and inconsistencies, on average, 54 percent of respondents for Canada are deterred by this factor compared to 34 percent for the United States, a difference of 20 percentage points. This result likely reflects a number of regulatory changes in Canada in recent years that have resulted in a less competitive environment in the provinces when compared to many competing US jurisdictions.[6]

6 There are many potential reasons for investors to believe that Canada's investment attractiveness is declining. Some factors include insufficient pipeline capacity, the federal carbon tax, Bills C-69 (which was in force at the time the survey was conducted) and C-48, and onerous regulations.

APPENDIX 1: ADDITIONAL DATA

Included below is additional data on the quality of the geological database that we included in the calculation of PPI scores but that was not discussed in the analysis section.

Table 17: Quality of the Geological Database

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

	RESPONSE	1	2	3	4	5
Canada	Alberta	64%	36%	0%	0%	0%
	British Columbia	42%	58%	0%	0%	0%
	Newfoundland & Labrador*	71%	29%	0%	0%	0%
	Saskatchewan*	43%	57%	0%	0%	0%
United States	Alaska*	50%	50%	0%	0%	0%
	California*	15%	54%	23%	0%	8%
	Colorado	25%	63%	6%	0%	6%
	Kansas*	56%	44%	0%	0%	0%
	Louisiana	38%	56%	6%	0%	0%
	New Mexico*	46%	54%	0%	0%	0%
	North Dakota*	67%	33%	0%	0%	0%
	Ohio*	50%	17%	33%	0%	0%
	Oklahoma	56%	38%	6%	0%	0%
	Pennsylvania*	57%	43%	0%	0%	0%
	Texas	52%	45%	3%	0%	0%
	Wyoming*	67%	33%	0%	0%	0%
	US Offshore—Gulf of Mexico*	50%	50%	0%	0%	0%

*Percentages may not add up to 100 due to rounding.

APPENDIX 2: PREVIOUS METHODOLOGY AND ADDITIONAL SUB-INDICES

The methodology previously used to calculate the PPI in 2015 is as follows. For each jurisdiction, we calculated the percentage of negative scores (i.e., those that are not a deterrent to investment) for each of the 16 factors. We then developed an index for each factor by assigning the jurisdiction with the highest percentage of negative responses a value of 100, and correspondingly lower values to the other jurisdictions according to their scores. Upstream investors consider jurisdictions with the lowest index values the most attractive, and thus rank them above jurisdictions that scored higher as a consequence of having greater proportions of negative scores.

The Policy Perception Index value (referred to in surveys prior to 2013 as the All-Inclusive Composite Index) for each jurisdiction is derived from the equally weighted scores achieved on all 16 factors. This index is the most comprehensive measure of the extent of policy-related investment barriers within each jurisdiction. Most of the discussion that follows is based on the jurisdictional scores and rankings obtained using this index. A high score on this measure reflects considerable negative sentiment on the part of respondents and indicates that they regard the jurisdiction in question as relatively unattractive for investment.

In surveys prior to 2015 we also included three additional sub-indices that focused on particular dimensions of policy, such as the regulatory climate and perceptions of geopolitical risk. In order to streamline the report and to address feedback from respondents, we did not calculate these separate indices last year or this year. However, below are descriptions of the indices and the measurements that would be used to calculate them. For those wishing to calculate these additional indices, all data from the survey is publicly available at www.fraserinstitute.org.

Commercial Environment Index

The Commercial Environment Index ranks jurisdictions on five factors that affect after-tax cash flow and the cost of undertaking petroleum exploration and development activities:

1. fiscal terms
2. taxation in general
3. trade barriers
4. quality of infrastructure
5. labor availability and skills

The scores for the Commercial Environment Index for each jurisdiction can be calculated by averaging the negative scores for each of these five factors. A high index value indicates that industry managers and executives consider that the business conditions reflected in this measure constitute significant barriers to investment.

Regulatory Climate Index

The Regulatory Climate Index reflects the scores assigned to jurisdictions for the following six factors:

1. the cost of regulatory compliance
2. regulatory enforcement

3. environmental regulations
4. labor regulations and employment agreements
5. regulatory duplication and inconsistencies
6. legal system

A relatively high value on the Regulatory Climate Index indicates that regulations, requirements, and agreements in a jurisdiction constitute a substantial barrier to investment, resulting in a relatively poor ranking.

Geopolitical Risk Index

The Geopolitical Risk Index calculates scores for:

1. political stability, and
2. security

These factors are considered to be more difficult to overcome than either regulatory or commercial barriers, because for significant progress to be made on them, a change in the political landscape is usually required. A high score on the Geopolitical Risk Index indicates that investment in that jurisdiction is relatively unattractive because of political instability and/or security issues that threaten the physical safety of personnel or present risks to an investor's facilities.

APPENDIX 3: POLICY PERCEPTION INDEX – 2022 VERSUS 2023

Policy Perception Index

	2022		2023	
JURISDICTION	PPI SCORE	RANK	PPI SCORE	RANK
Wyoming*	100.00	1/15	100.00	1/17
North Dakota*	78.38	5/15	97.28	2/17
Saskatchewan*	75.97	6/15	96.83	3/17
Oklahoma	88.24	3/15	96.06	4/17
Kansas*	81.72	4/15	93.69	5/17
Texas	91.55	2/15	89.23	6/17
US Offshore—Gulf of Mexico*	59.25	9/15	78.39	7/17
Louisiana	58.52	10/15	74.57	8/17
Alberta	51.44	12/15	74.07	9/17
Alaska*	41.12	13/15	73.34	10/17
Pennsylvania*	**	**	66.54	11/17
New Mexico*	54.70	11/15	65.59	12/17
Ohio*	**	**	58.95	13/17
Newfoundland & Labrador*	**	**	47.89	14/17
British Columbia	32.29	14/15	42.44	15/17
Colorado	0.00	15/15	39.70	16/17
California*	**	**	0.00	17/17

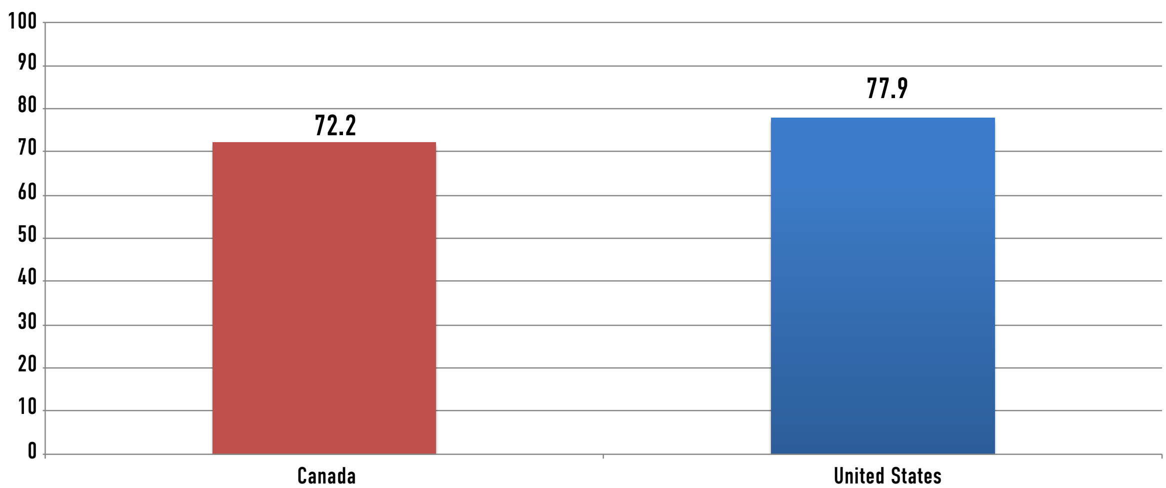
* Jurisdictions marked with an asterisk received between 5 and 10 responses for at least one of the assessed policy factors.

APPENDIX 4: WEIGHTED MEDIAN PPI REGIONAL SCORES

Weighted Median PPI Regional Scores are calculated using standardized PPI scores along with oil and gas reserves data for each jurisdiction. This calculation considers the importance of geological factors in investment attractiveness and decisions.

Oil and gas reserves data were taken from Canada Energy Regulator (2023),[7] Canadian Association of Petroleum Producers (2022), and the United States Energy Information Administration (2022).

Canada-US Investment Attractiveness, Regional Median PPI Scores by Country Weighted by Oil and Gas Reserves



7 Oil and gas reserves data is as of 2019.

REFERENCES

Aliakbari, Elmira (ed.) (2019). *Assessing Canada's Energy Sector Competitiveness: Collected Essays*. Fraser Institute. <https://www.fraserinstitute.org/studies/assessing-canadas-energy-sector-competitiveness>, as of November 27, 2023.

Canada Energy Regulator (2023). Crude Oil Reserves at December 2021 [table]. *Canada's Energy Future 2023*. Canada Energy Regulator. <https://apps.cer-rec.gc.ca/ftrppndc/dflt.aspx?GoCTemplateCulture=en-CA>, as of November 27, 2023.

Canadian Association of Petroleum Producers [CAPP] (2022). Statistical Handbook: Table 02-9 *Marketable Natural Gas by province – Remaining Established Reserves in Canada at year end 1962-2019*. CAPP. <https://www.capp.ca/resources/statistics/>, as of November 27, 2023.

Globerman, Steven, and Joel Emes (2021). *An International Comparison of Capital Expenditures*. Fraser Institute. <https://www.fraserinstitute.org/studies/an-international-comparison-of-capital-expenditures>, as of November 27, 2023.

Statistics Canada (2023). Table 34-10-0035-01: Capital and Repair Expenditures, Non-Residential Tangible Assets, by Industry and Geography (x 1,000,000). Statistics Canada. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3410003501>, as of November 27, 2023.

Mejía, Julio, and Elmira Aliakbari (2022). *Canada-US Energy Sector Competitiveness Survey 2022*. Fraser Institute. <https://www.fraserinstitute.org/studies/canada-us-energy-sector-competitiveness-survey-2022>, as of November 27, 2023.

Yunis, Jairo, and Elmira Aliakbari (2021a). *Canada-US Energy Sector Competitiveness Survey 2021*. Fraser Institute. <https://www.fraserinstitute.org/studies/canada-us-energy-sector-competitiveness-survey-2021 >, as of November 27, 2023.

Yunis, Jairo, and Elmira Aliakbari (2021b). *Canada-US Energy Sector Competitiveness Survey 2020*. Fraser Institute. <https://www.fraserinstitute.org/studies/canada-us-energy-sector-competitiveness-survey-2020>, as of November 27, 2023.

Stedman, Ashley, and Kenneth P. Green (2018). *Global Petroleum Survey 2018*. Fraser Institute. <https://www.fraserinstitute.org/studies/global-petroleum-survey-2018>, as of November 27, 2023.

Stedman, Ashley, and Kenneth P. Green (2019). *Fraser Institute Annual Survey of Mining Companies 2018*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/annual-survey-of-mining-companies-2018.pdf>, as of November 27, 2023.

United States Energy Information Administration [EIA] (2022). *Proved Reserves of Crude Oil and Natural Gas in the United States, Year-End 2020*. EIA. <https://www.eia.gov/naturalgas/crudeoilreserves/pdf/usreserves.pdf>, as of November 27, 2023.

ABOUT THE AUTHORS

JULIO MEJÍA is a Junior Policy Analyst at the Fraser Institute. He holds a Bachelor of Government and International Relations and a Master's degree in International Affairs from the Externado University of Colombia, and a Master's degree in Criminology and Criminal Justice Policy from the University of Guelph. Prior to joining the Fraser Institute, Julio worked as the liaison between the Colombian and the United States Army and as coordinator for international cooperation for different universities in Latin America. His commentaries have appeared in the *Halifax Chronicle Herald,* the *Toronto Sun,* and Colombia's leading news publications. Julio specializes in energy policy, with a focus on the mining and petroleum industries.

ELMIRA ALIAKBARI is Director of Natural Resource Studies at the Fraser Institute. She received a Ph.D. in Economics from the University of Guelph, and M.A. and B.S. degrees in Economics, both from the University of Tehran in Iran. She has studied public policy involving energy and the environment for nearly a decade. Prior to joining the Fraser Institute, Ms. Aliakbari was Director of Research, Energy, Ecology and Prosperity with the Frontier Center for Public Policy. She has presented her work at many academic conferences and has been published in the prestigious academic journal *Energy Economics*. Ms. Aliakbari's research has been discussed in prominent media outlets including the *Wall Street Journal*, and her commentaries have appeared in major Canadian and American newspapers such as the *Globe and Mail, Washington Times, National Post,* and *Financial Post*.

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