Atlantic Canada's Tax Disadvantage

Tax Competitiveness: Atlantic Canada & New England Compared

By: Mark Milke & Paige MacPherson, Atlantic Director

Canadian Taxpayers Federation

JULY 2020

Canadian Taxpayers Federation

About the Canadian Taxpayers Federation

The Canadian Taxpayers Federation is a federally incorporated, not-for-profit citizen's group dedicated to lower taxes, less waste and accountable government. The CTF was founded in Saskatchewan in 1990 when the Association of Saskatchewan Taxpayers and the Resolution One Association of Alberta joined forces to create a national organization. Today, the CTF has 235,000 supporters nation-wide.

The CTF maintains a federal office in Ottawa and regional offices in British Columbia, Alberta, Prairie (SK and MB), Ontario, Quebec and Atlantic. Regional offices conduct research and advocacy activities specific to their provinces in addition to acting as regional organizers of Canada-wide initiatives.

CTF offices field hundreds of media interviews each month, hold press conferences and issue regular news releases, commentaries, online postings and publications to advocate on behalf of CTF supporters. CTF representatives speak at functions, make presentations to government, meet with politicians, and organize petition drives, events and campaigns to mobilize citizens to affect public policy change. Each week CTF offices send out *Let's Talk Taxes* commentaries to more than 800 media outlets and personalities across Canada.

Any Canadian taxpayer committed to the CTF's mission is welcome to join at no cost and receive issue and Action Updates. Financial supporters can additionally receive the CTF's flagship publication *The Taxpayer* magazine published three times a year.

The CTF is independent of any institutional or partisan affiliations. All CTF staff, board and representatives are prohibited from holding a membership in any political party. In 2018-19 the CTF raised $5.1 million on the strength of 30,517 donations. Donations to the CTF are not deductible as a charitable contribution.

Paige MacPherson,
CTF Atlantic Director

Phone: 902.717.7078
Toll Free: 1.877.909.5757
E-mail: pmacpherson@taxpayer.com
Twitter: @paigemacp

Executive Summary

Atlantic Canadian governments are hampering the growth of their provincial economies and making life less affordable for taxpayers by imposing taxes significantly higher than their neighbouring jurisdictions. This report analyzes the differences in major tax rates between Atlantic Canada and its nearest regional competitor for investment, jobs, and tax revenues: the New England states. In general, the latter have a significant tax advantage on most measurements. Atlantic Canadian governments can increase budget sustainability and make life more affordable in their respective provinces by reducing tax rates with an eye toward regional competitiveness.

Low- and High-Income Tax Brackets

State income tax rates in New England are mostly lower than provincial income tax rates in Atlantic Canada. For example, in 2019, the lowest provincial income tax bracket in the Atlantic provinces was set at 8.7 per cent (Newfoundland and Labrador), and the highest at 21 per cent (Nova Scotia). In contrast, in New England, the lowest bracket is zero (New Hampshire), and the highest is 8.95 per cent (Vermont).

Income Tax Thresholds

In Atlantic Canada, the threshold at which a taxpayer begins paying provincial income tax is significantly lower, and thus more costly for taxpayers, than most New England state tax thresholds. Also, in one case south of the border, New Hampshire does not tax earned income at all.

Sales Taxes

Sales taxes are also higher in Atlantic Canada. With the goods and services (federal) tax portion removed from the harmonized sales tax, provincial sales taxes in Atlantic Canada are all now set at 10 per cent. The range in New England was zero (New Hampshire) to 7 per cent (Rhode Island).

Taxes on Job Creators

Atlantic Canada's provincial business tax rates for small businesses range from 2.5 per cent to 3.5 per cent, lower than the small business rate in the New England states except for Maine (tied with Prince Edward Island at 3.5 per cent). However, the main business income tax rate in New England ranges from 6 per cent to 8.93 per cent – about half of the standard business tax rate in Atlantic Canada, with New Brunswick and Nova Scotia at 14 per cent, Newfoundland and Labrador at 15 per cent and Prince Edward Island at 16 per cent.

Higher Taxes for Atlantic Canadians

As of 2016, an additional federal 33 per cent tax bracket on personal income and selected other changes worsened Atlantic Canadians' competitive disadvantage compared with their New England neighbours.

Recommendations

Atlantic Canadian provincial governments should consider the following options as one road map to give themselves the fiscal room to reduce taxes in the region:

- Lower business taxes. Academic research has shown that business taxes in every Atlantic province are so high that they are actually turning away investment as a result – and that lowering business taxes would actually result in more government revenue for provincial governments to fund valuable services such as health care, road work and education, by attracting job creators to the region.
- Where possible allow for further resource exploration and development, including onshore exploration and the development of natural gas in New Brunswick and Nova Scotia. The pursuit of such potential wealth has provided significant revenues in other jurisdictions. For example, New Brunswick has untapped natural gas resources that the federal government estimates at nearly 78 trillion cubic feet. To put that in perspective, Pennsylvania produced 5.46 trillion cubic feet (Tcf) of natural gas in 2017, second only to Texas in natural gas production. In 2018, Pennsylvania collected US$ 1.64 billion in royalties from natural gas (or about $2.17 billion Canadian). Alternate revenue sources for Atlantic Canadian provincial governments have the potential to lower other taxes.
- Revisit existing spending in provincial budgets with an eye to better value-for-money and to creating room for tax reductions. The four Atlantic provinces have the highest total expenses relative to GDP of all provinces and per capita program spending in Newfoundland and Labrador is the highest in the country—even higher than Alberta.

By welcoming more job creators and taxpayers to the Atlantic provinces, the combination of new economic development and more carefully controlled spending would result in more revenues from an expanded business, personal and natural resource tax base. It would also free up budgetary room to reduce high taxes in the Atlantic provinces, which currently place the region at a significant disadvantage with respect to its neighbours on tax rates and tax levels by almost every comparison.

High Taxes: Atlantic Canada's Competitive Disadvantage

High taxes put the Atlantic provinces at a competitive disadvantage for attracting jobs and people to the region. That has real impacts on people living in Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador. This report focuses on the consequences of the high tax rates across Atlantic Canada — that is, the costs governments impose on the residents of these provinces. In particular, the report looks at personal tax rates — including the generosity (or lack) of basic personal exemptions from provincial personal income tax — the range of tax brackets applied to personal income, corporate tax rates, and, lastly, sales tax rates.

An Atlantic province's ability to succeed and prosper — in attracting private sector investment, creating jobs, and increasing wages and salaries and even increase its tax revenues — depends on its affordability and attractiveness relative, not just to other provinces, but also to competitive tax jurisdictions on the east coast of the United States. A province's relative tax competitiveness matters, as taxes are real costs for residents and job creators. Tax levels that are too high can impede investment, entrepreneurial activity, and even reduce government revenues.

Following in the tradition of past analyses, this report compares the six neighbouring New England states — Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont — with the four Atlantic provinces. As the report makes evident, these provinces face a significant tax competitiveness gap with the New England states. By almost every measure, with reference to these government-imposed costs that affect not only the daily lives of residents, but also the attractiveness of a jurisdiction for investment, the New England states are less expensive for individual taxpayers and businesses alike.

Note: Throughout this report, American dollars have been converted to Canadian dollars, unless otherwise stated.

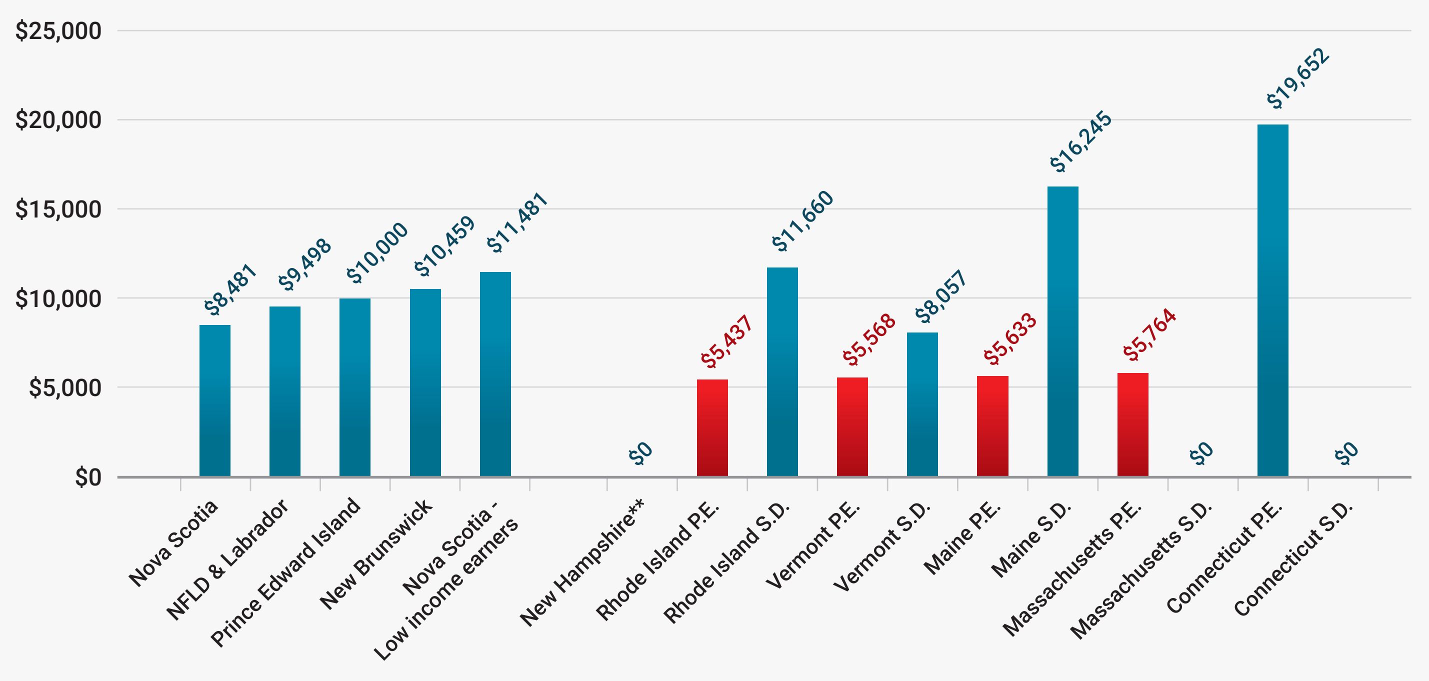
Comparison 1:
Personal Income Tax — The Basic Personal Amount

Canadian provinces provide a non-refundable tax credit called the Basic Personal Amount that lowers any income tax payable. Amounts vary in the Atlantic provinces where provincial basic exemptions ranged from $8,481 in Nova Scotia[1] to $10,459 in New Brunswick (Figure 1). In the United States, some New England states such as New Hampshire, do not tax personal income at all.[2] Others offer a generous standard deduction or a basic personal exemption or both, which helps to save some personal income from tax.[3] In 2020, the standard deduction ranged from $8,057 (Vermont) to $16,245 (Maine), while the personal exemption ranged from $5,437 (Rhode Island) to $19,652 (Connecticut). With these generous exemptions from state income tax, the New England states have the advantage over the Atlantic provinces.

Figure 1

Atlantic Canada and New England Compared: Basic Personal Amount/Standard Deduction/Personal Exemption*

Relative to provincial/state income tax where payable (CA$, 2020)**



Sources: Tax Foundation 2020a; TaxTips.ca 2020; Bank of Canada 2020.

*Converted to Canadian dollars where applicable

**New Hampshire taxes dividend and investment income with a $2,400 exemption but not earned income.

[1] In 2018, the Nova Scotia government changed the basic personal amount in the province for 2018 and all subsequent years wherein there a higher Basic Personal Exemption is applied to lower income earners and rises to $11,481 based on income.

[2] New Hampshire's basic exemption is $2,400 but only on dividend and investment income; N.H. does not tax earned income.

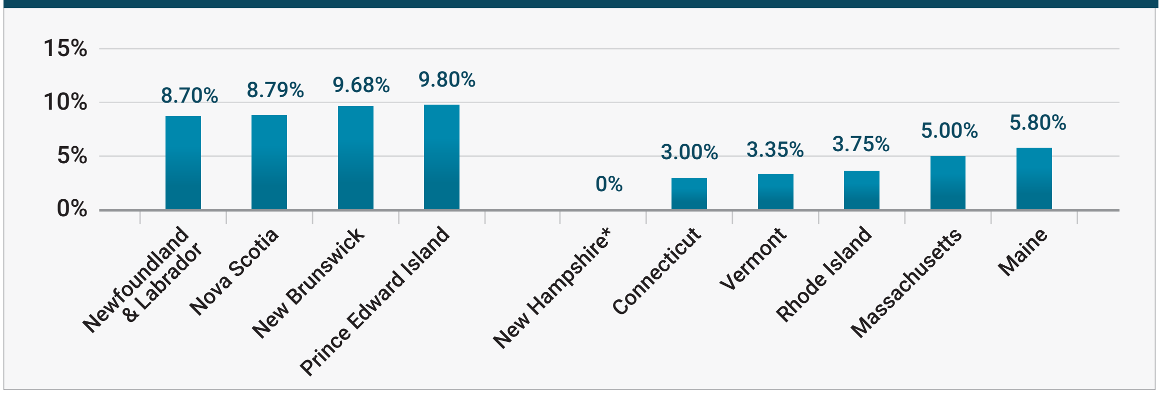
[3] Most individual tax filers in the United States have a choice (both federally and at the state level) between using the itemized or non-itemized approach, with the latter able to then use the standard deduction.

Comparison 2:
Personal Income Tax — Brackets, Range, and Reach

Beyond personal exemption amounts, income tax rates are another main factor that determine personal income tax payable. In 2019, in Atlantic Canada, the lowest income tax rate was 8.7 per cent (Newfoundland and Labrador) and the highest was 21 per cent (Nova Scotia). In contrast, in New England, the lowest rate of state tax on personal income was zero (New Hampshire) and the highest was 8.95 per cent (Vermont) (Figures 2a and 2b).

Figure 2a

Range of Provincial/State Personal Tax Rates - *Lowest*
(On *Taxable* Income, 2020)

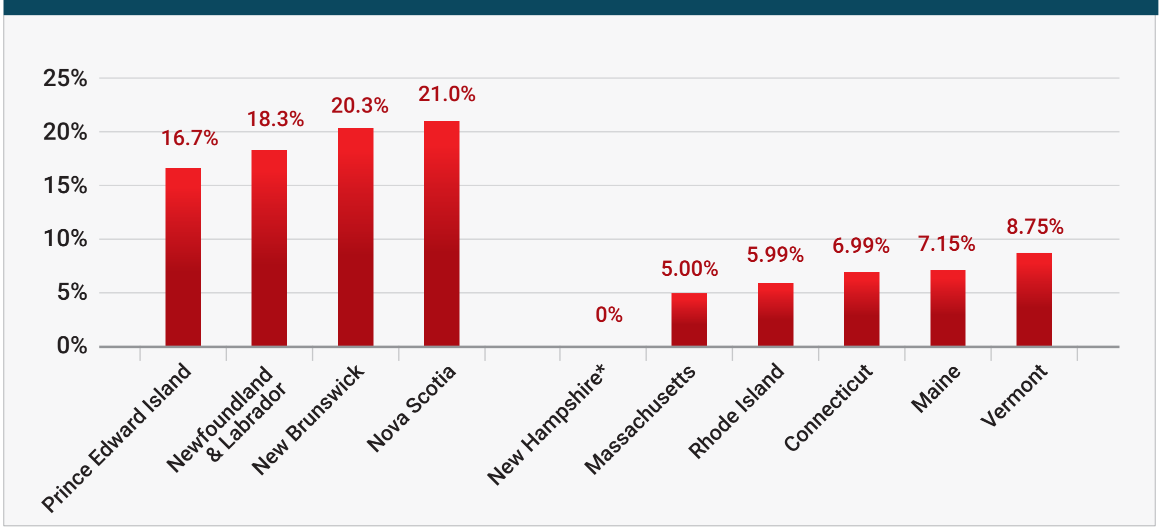


*New Hampshire taxes dividend and investment income at 5.00% but not earned income. The $2,400 exemption and 5% rate would thus apply only to the former and not the latter.

Sources: Tax Foundation 2019a; KMPG 2019

Figure 2b

Range of Provincial/State Personal Tax Rates - *Highest*
(On *Taxable* Income, 2020)



Sources: Tax Foundation 2019a; KMPG 2019

High-Income Tax Thresholds: All Atlantic Provinces/All New England States

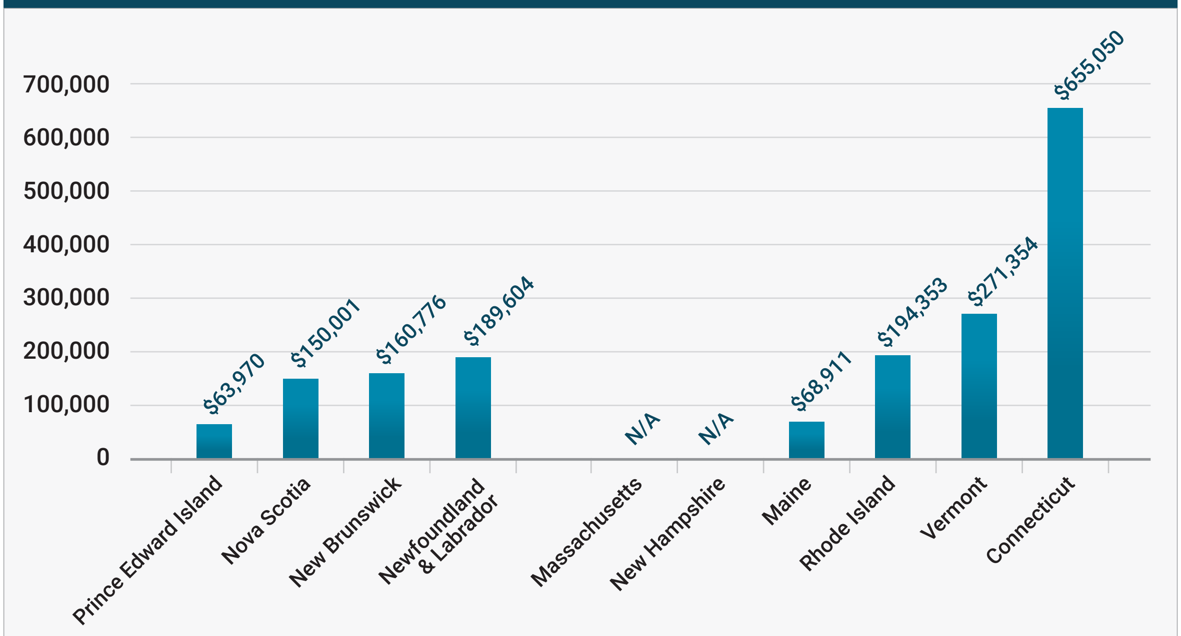
The threshold at which the top rate of provincial/state income tax is applied differs substantially between Atlantic Canada and New England and is mostly to the advantage of New England taxpayers, especially when the lower state rates (one of which is zero) are considered. In Atlantic Canada in 2020, the threshold for the highest marginal rate ranged from $63,970 (Prince Edward Island) to $189,604 (Newfoundland and Labrador).

In contrast, south of the border, New Hampshire does not tax earned income at all, while three states apply the top marginal tax rate at higher income levels than in the Atlantic provinces. Massachusetts applies a single rate of tax to all taxable income; Maine has two brackets, the second of which begins at $69,911; and the high-income threshold in the other three states varies from $194,535 (Rhode Island) to $416,650 (Vermont).[4]

Figure 2c

Top Bracket Threshold

(Provincial/State Brackets, on *Taxable* Income, C$ 2020)



Sources: Deloitte 2019b, Tax Foundation 2019a.

[4] All American thresholds are converted to Canadian dollars.

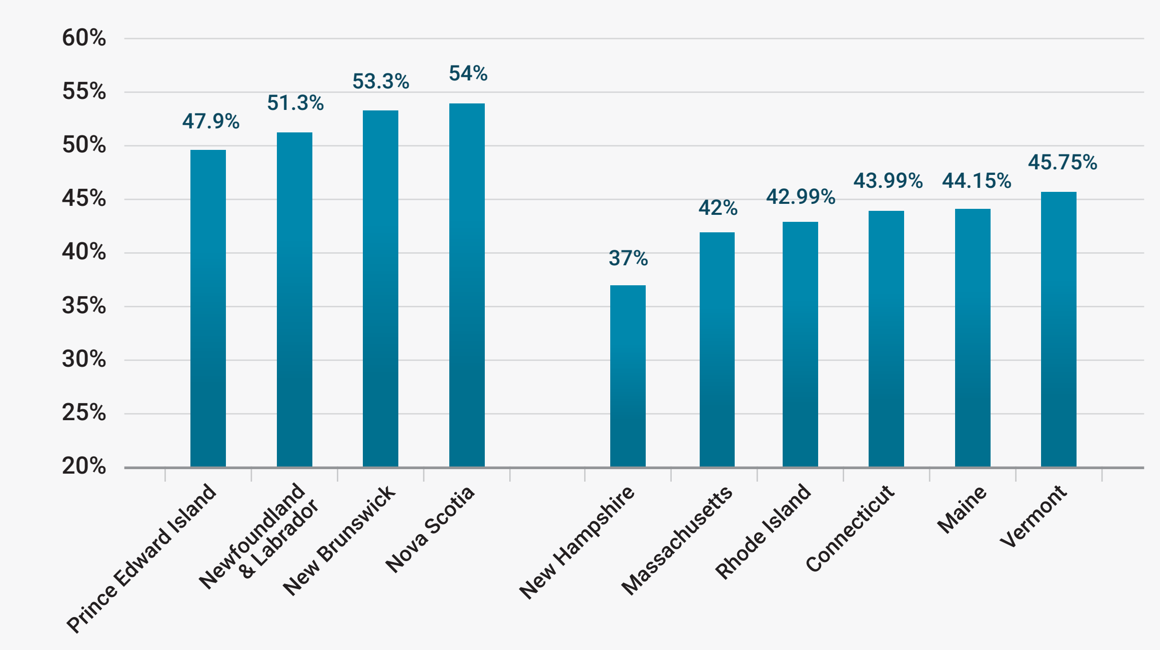
Comparison 3:
Top Marginal Rates Including Federal Tax Rates and Brackets

Tax competitiveness is not solely impacted by provincial or state governments. Federal governments play an important role, too.[5] Thus, to illustrate the total personal income tax rates of Atlantic Canadians and New Englanders, Figure 3a shows provincial and state tax rates on taxable income combined with federal rates in 2019.

Here, the New England states had a slight advantage — New Hampshire applies no state income tax, so only federal income tax rates applied there, resulting in a top marginal rate of just 37 per cent. On the Canadian side, with top marginal rates ranging from 49.7 per cent (Prince Edward Island) to 54 per cent (Nova Scotia) all provinces have significantly higher top marginal rates than even the highest New England state (Vermont, at 45.75 per cent).[6]

Figure 3

Top Marginal Income Tax Rates 2020 Province/State & Federal Combined



Sources: Tax Foundation 2020; Taxtips.ca 2020

[5] In Canada in fiscal year 2017/18, of $988 billion in total revenues to three levels of governments, 33 per cent was collected by the federal government, 48 per cent by provincial governments, and 19 per cent by local governments (Canada 2019). In 2016, in the United States, total revenues amounted to $5.3 trillion with 65 per cent collected by the federal government, 20 per cent by state governments, and 15 per cent by local governments (Canada 2019; Tax Policy Center, undated).

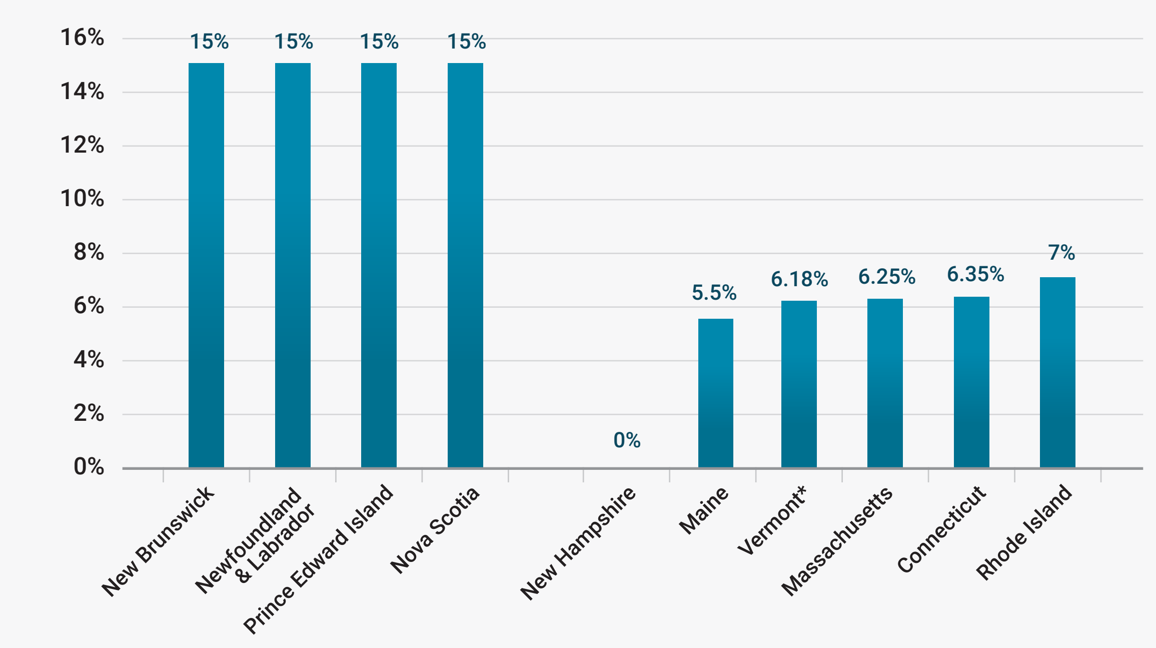
[6] Note that while the United States has a slightly higher top federal rate at 37 per cent, that bracket does not "kick in" until $668,544 in taxable income. In Canada, the top federal income tax bracket of 33 per cent starts at $210,372 in taxable income (Deloitte 2019b; Tax Foundation 2019c).

Comparison 4:
Provincial/State Sales Taxes

A comparison immediately relevant to most consumers is the provincial or state sales tax. The harmonized sales tax (HST) in all Atlantic provinces is 15 per cent. In New England, state sales taxes ranged from zero (New Hampshire) to 7 per cent (Rhode Island); see Figure 4a.

Figure 4a

Provincial/State Sales Tax Rates (Including GST) 2020



*Includes GST in HST measurement for Atlantic Canada

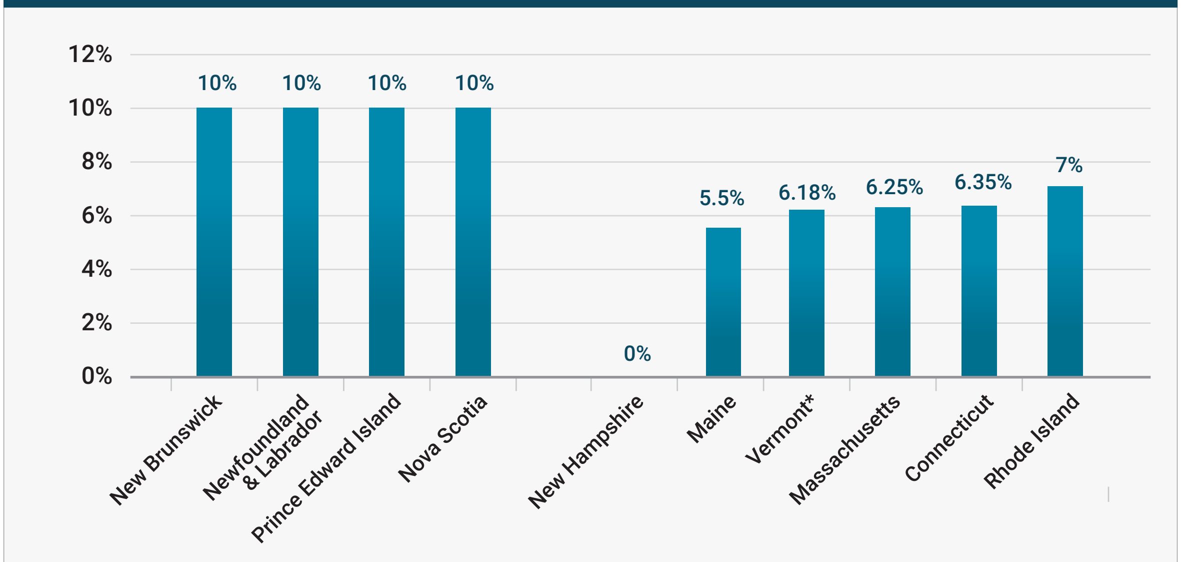
Sources: Tax Foundation 2019b; Retail Council of Canada, 2019.

[7] Note: Some US states have local taxes added on at the local level, which makes their average combined tax higher. The only state in this sample that has local taxes is Vermont, with an average of 0.22% added on to give a combined 6.22% (Tax Foundation 2019b).

However, as the HST includes the federal portion (the 5 per cent goods and services tax), a more accurate comparison of provincial and state sales tax is that shown in Figure 4b. But even with the GST removed, provincial sales taxes (at 10 per cent) were higher than state sales taxes (Figure 4b).[7]

Figure 4b

Provincial/State Sales Tax Rates (Not Including GST) 2020**



*Includes GST in HST measurement for Atlantic Canada

**After GST removed from HST for Atlantic provinces

Sources: Tax Foundation 2020; CRA 2020

High business taxes cost Atlantic Canadians investment, jobs, revenues and higher wages

Academic research has shown that business taxes in every Atlantic province are so high that they are actually turning away investment as a result – and that lowering business taxes would actually result in more government revenue for provincial governments to fund services such as health care, road work and education, by attracting job creators to the region.

The effect was most famously chronicled by economist Edward Laffer who showed that raising taxes beyond a certain level can be counter-productive, with higher rates actually dampening revenues, because they have depressed economic growth. The Laffer Curve as it is known thus points to how high tax rates can bring in less revenue, despite higher revenues usually being the explicit aim of high taxes.

The most comprehensive Canadian work on this is in reports from economists Dr. Ergete Ferede and Dr. Bev Dahlby.

- In 2012, analyzing data from 1977 to 2006, Ferede and Dahlby studied the impact of provincial corporate income tax rates on the investment and growth rates of the Canadian provinces. They found that that a one-percentage-point reduction in the corporate marginal tax rate is correlated with a 0.34-percentage-point increase in the private investment-to-GDP ratio. They also found that that a one-percentage-point increase in the corporate tax rate was linked to a 0.1- to 0.2-percentage-point reduction in a province's annual growth rate (Ferede and Dahlby, 2012, 563).
- In 2016, Ferede and Dahlby found that higher corporate taxes stifled economic growth and lowered tax revenues to the Atlantic provinces — the opposite of what policymakers intended. With reference to the phenomenon, they found it occurred in New Brunswick, Newfoundland and Labrador, P.E.I., and Nova Scotia. "In all these provinces, corporate tax rates are so high that lowering the tax rate would actually increase the provincial governments' tax revenues," wrote the authors.

At the time, optimal corporate tax rates (to raise the maximum revenue at the right rate before moving to the wrong side of the Laffer Curve) in each Atlantic Canadian province was pegged at 5.7 per cent for New Brunswick, 6.5 per cent for both Prince Edward Island and Newfoundland and Labrador, and 9.1 per cent for Nova Scotia (Ferede and Dahlby, 2016, 1, 4).

- In 2017, Ferede and economist Kenneth McKenzie, found that wage rates are also negatively affected by higher business taxes. Ferede and McKenzie found that a one per cent increase in the corporate income tax rate was linked to a 0.10-per-cent reduction in the real wage rate in the long run. As a recent and correlated example, they pointed to Alberta, where they found that "aggregate wages decline by 95 cents for every $1 increase in CIT revenue." In Atlantic Canada, the effect on wages was even more severe, where aggregate wages decline by $1.95 (Newfoundland and Labrador), $2.86 (Nova Scotia), $3.12 (New Brunswick) and $3.85 (Prince Edward Island) for every $1 increase in CIT revenue (McKenzie and Ferede, 2017, 18).
- In 2019, Ferede and Dahlby again noted the counter-productive nature of too-high corporate tax rates on revenues, citing 30 years' worth of data and empirical research on the link between taxes and economies in U.S. states and Canadian provinces (Ferede and Dahlby, 2019, 1-2).

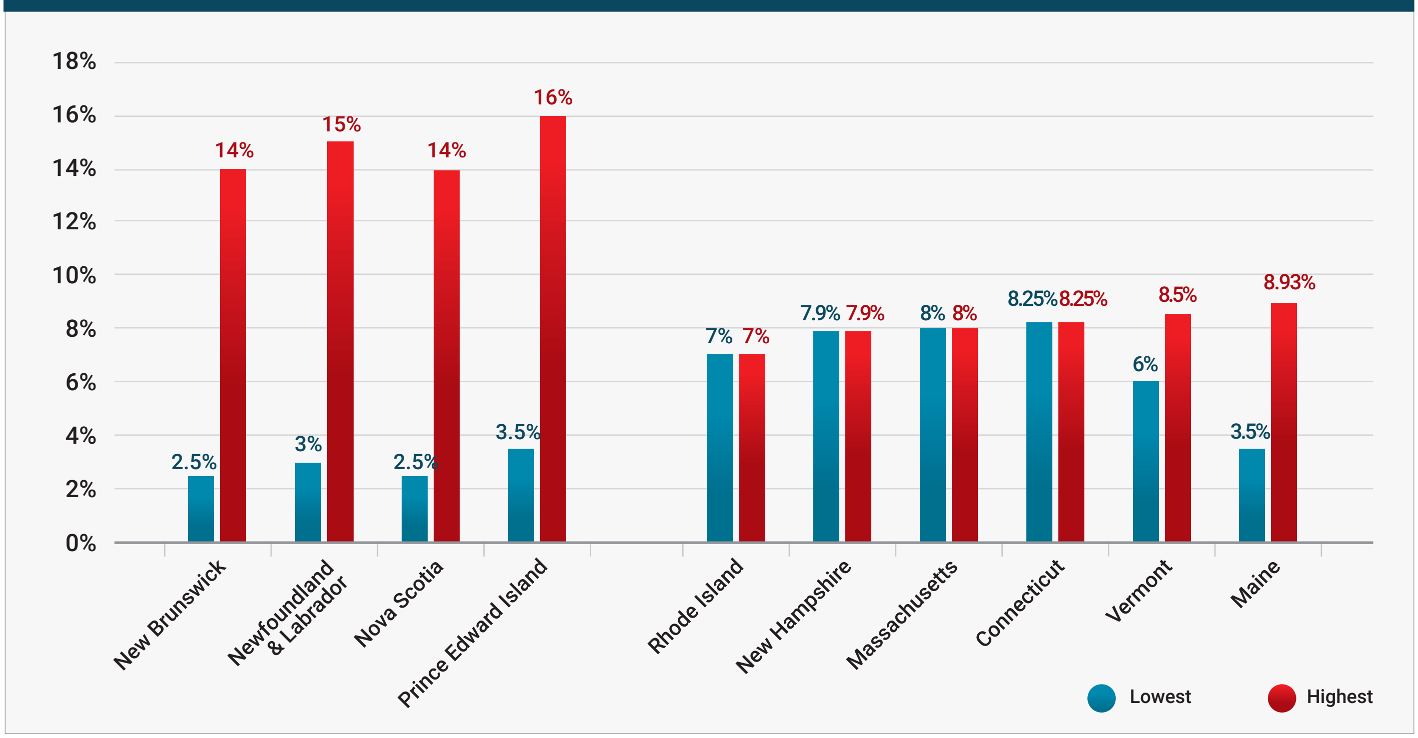
Comparison 5:
Provincial and State Business Taxes

One advantage for Atlantic Canada is in small business tax rates, which ranged from 2.5 to 3.5 per cent, lower than all New England states (except Maine, which tied P.E.I. at 3.5 per cent).

However, the main business income tax (corporate income tax) rates in New England range from 7 per cent to 8.93 per cent, which, at the low end, is half the business tax rate in New Brunswick and Nova Scotia, the latter of which reduced its business tax rate from 16 to 14 per cent this year. Even at the high end at 8.93 per cent, Maine's main business rate is still between five and seven percentage points less than the Atlantic provinces (Figure 5). As per the work from Ferede, Dahlby and McKenzie, the practice of keeping business taxes high in Atlantic Canada costs the region investment and thus jobs; it also means lower wages and lower business tax revenues. In comparison, the rates in New England are moderate.[8]

Figure 5

Range of Provincial/State Small Business and Corporate Tax Rates 2020



Sources: Tax Foundation 2020; CRA 2020

[8] It Is often asserted that that health care costs to the individual in the United States counter any tax advantage U.S. taxpayers have over Canadians. These differences are often overstated, misconstrued or out of date. Regional breakdowns are not available but in the United States, current expenditures on health care in what is known as purchasing power parity (PPP) dollars (which measures the bang for each buck in equivalent terms) is $10,586 in the U.S. and $4,974 in Canada. As of 2018, the government share of health care spending is actually higher in the U.S. than in Canada, at 84.5 per cent compared with 69.7 per cent respectively. In dollars, Canadians pay slightly less ($749 annually) than Americans for out-of-pocket health care expenses ($1,122) but more as a percentage of current expenditures on health (15.1 per cent in Canada vs. 11.0 per cent in the United States) (OECD 2019). In other words, when compared with Canada, U.S. governments pay for more health care as a percentage of all health care spending than do Canadian governments (84.5 per cent in the U.S. vs. 69.7 per cent in Canada). The tax differences between the two countries thus should not be explained away with reference to health care costs.

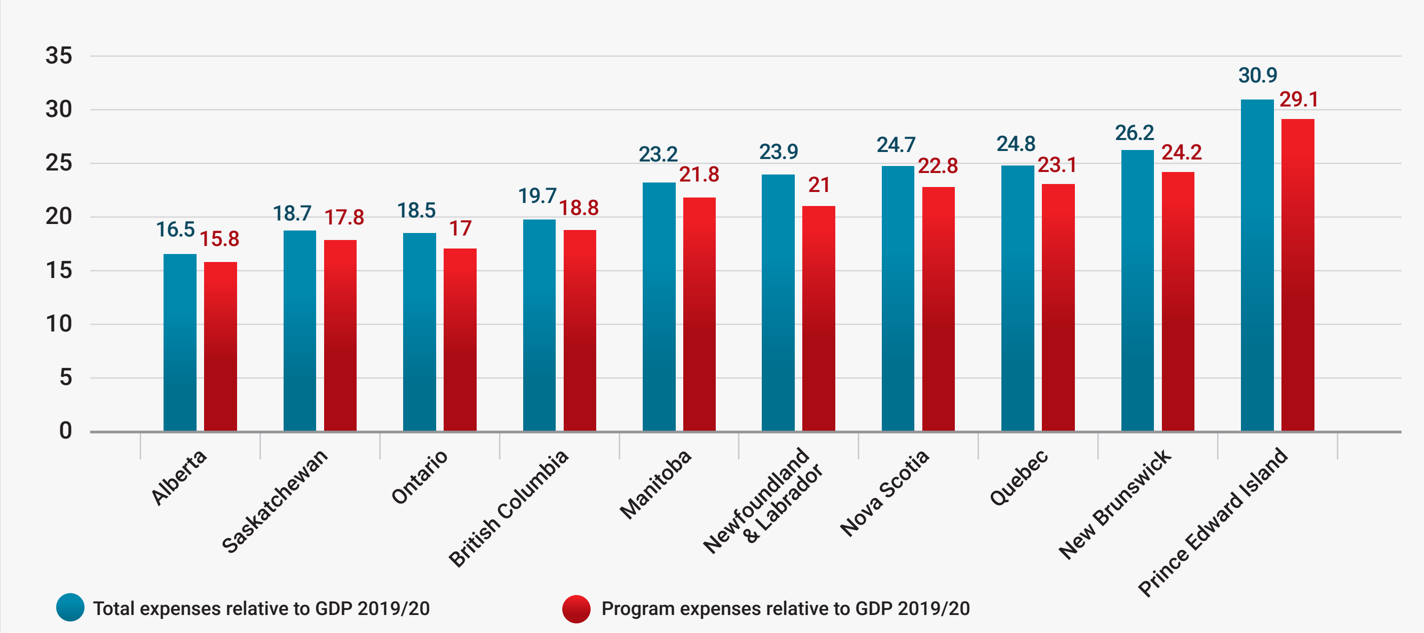
Lower spending and higher resource revenues can help lower provincial taxes

In addition to lowering business taxes in Atlantic Canada to boost investment, jobs, wages and tax revenues, each province could do more to rein in government spending.

- The four Atlantic provinces have the highest total expenses relative to GDP of all provinces. (Quebec is also in the same range as Atlantic Canada.) (Figure 6.)
- Even after removing debt interest payments from the calculation, the four Atlantic provinces and Quebec have the highest total expenses relative to GDP of the provinces. Manitoba is just slightly higher here than Newfoundland and Labrador (Figure 6).

Figure 6

Total Expenses and Program Expenses Relative to GDP (%)
2019/20



Source: RBC Economics 2019

Cut spending and grow the economic pie

To achieve or maintain balanced operational budgets while reducing taxes in the short term, Atlantic Canadian governments need to reduce provincial program spending. Over the long term, provinces should aim to expand the economy and thereby shrink the cost of government relative to taxpayers and GDP.

Newfoundland and Labrador already pursues resource wealth to help it flourish and its main problem is high spending. Thus, this province must instead control its high per-capita spending – the highest in the country at $14,210 in 2019/20 (RBC Economics 2019, 10). Prince Edward Island too must control high per capita program spending (at $13,189 in 2019/20, second only to Newfoundland and Labrador), and should welcome the growth of new industries.

In addition to reducing spending, Nova Scotia and New Brunswick could, if they chose, more aggressively pursue onshore natural gas exploration, extraction and development. While Nova Scotia is pursuing offshore natural gas development (Nova Scotia, undated a) there is significant onshore and offshore oil and natural gas potential with 121 trillion cubic feet of gas and 8 billion barrels of oil offshore and further onshore possibilities (Nova Scotia, undated b and c).

Similarly, New Brunswick has untapped natural resources that the federal government estimates at nearly 78 trillion cubic feet (Natural Resources Canada, undated). To put that in perspective, Pennsylvania produced 5.46 trillion cubic feet (Tcf) of natural gas in 2017, second only to Texas in natural gas production (Pennsylvania, undated). In 2018, the state reaped US$ 1.64 billion in royalties from natural gas (Gough 2018), or about $2.17 billion Canadian. In other words, revenues from potential resource development in Atlantic Canada are significant.

Summary

All four Atlantic provinces have high provincial personal, sales and business tax burdens relative to the neighbouring New England states, with the exception of small business tax rates. The difference is of concern both because of the burden it places upon individual Atlantic Canadian taxpayers, and because chronic high tax rates are contributing to the region's low investment, high unemployment, and weak income growth.

Recommendations

Atlantic Canadian governments are not competitive with their New England neighbours on measures of taxation. Atlantic Canadian provincial governments should consider the following options as one road map to allow for reducing taxes in the region:

- Encourage the growth of new industries and allow for further resource exploration and development, including onshore exploration and the development of natural gas, which has proved a boon to revenues in other jurisdictions.
- Revisit existing spending in provincial budgets with an eye to better value-for-money expenditures and reducing spending to allow room for tax cuts.

The combination of new economic development and more carefully controlled spending would result in more revenues from an expanded business and personal tax base, and free up budgetary room to reduce Atlantic Canada's high taxes, which today put the region at a significant tax disadvantage relative to its neighbours. Atlantic Canadian governments can help taxpayers in their respective provinces by reducing tax rates in the interest of promoting growth and budget sustainability, attracting jobs and investment, and making life more affordable in the region.

References

Bank of Canada (2019). July 2019 exchange rate. https://bit.ly/2NMr7xF.

Canada (2020). Corporate Tax rates. https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/corporations/corporation-tax-rates.html

Canada (2020). GST/HST Calculator and Rates. https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/gst-hst-businesses/charge-collect-which-rate/calculator.html

Canada (2019). Fiscal Reference Tables. https://bit.ly/2Nj8ZvX.

Canada Revenue Agency (2019). 2019 Personal Tax Credits Return. https://bit.ly/2riWFDL.

Deloitte (2019a). Personal Income Tax Table. https://bit.ly/2NEsNcb.

Deloitte (2019b). 2019 Top marginal rates for individuals. https://bit.ly/2CeuQ1i

Ernst & Young (2019). Provincial corporate income tax rates for active business income 2019. https://go.ey.com/2qncl8a.

Ferede, Ergete and Bev Dahlby (2012). "The Impact of Tax Cuts on Economic Growth: Evidence from the Canadian Provinces." National Tax Journal, 65(3), 563-594. https://bit.ly/2EgZjNx.

Ferede, Ergete and Bev Dahlby (2016). "Cutting provincial corporate income tax rates to promote investment, employment and economic growth." The School of Public Policy, University of Calgary. https://bit.ly/2PNdwH8.

Ferede, Ergete and Bev Dahlby (2019). "The effect of corporate income tax on the growth rate of Canadian provinces." The School of Public Policy, University of Calgary. https://bit.ly/2RTBcwq.

Gough, Paul. (2018). "Natural gas royalties projected to jump in Pennsylvania", Pittsburgh Business Times. https://bit.ly/2LWn3uj.

KPMG (2019). Federal and Provincial/Territorial Income Tax Rates and Brackets for 2019. https://bit.ly/2NaC2SE.

McKenzie, Kenneth and Ergede Ferede (2017). "The Incidence of Corporate Income Tax on Wages: Evidence from Canadian Provinces." SPP Technical Papers, 10(7): 1-30. https://bit.ly/36Dou8O.

Natural Resources Canada. (Undated). New Brunswick's Shale and Tight Resources. https://bit.ly/2PP3dTb.

Nova Scotia. (Undated a). Oil and gas. https://bit.ly/2sp8HvI.

Nova Scotia. (Undated b). Play Fairway Analysis. https://bit.ly/2rKYGZG.

Nova Scotia. (Undated c). Onshore. https://bit.ly/38CyL7b.

OECD. (2019). OECD Health Statistics 2019 - Frequently Requested Data. https://bit.ly/36A5FUa.

Pennsylvania. (Undated). "New Record Reached for Pennsylvania Natural Gas Production." https://bit.ly/2S3g8DN.

RBC Economics. (2019). Canadian Federal and Provincial Fiscal Tables. https://bit.ly/2YPUeoU.

Retail Council of Canada (2019). Sales Tax Rates by Province. https://bit.ly/2qoVW3q.

Tax Policy Center (undated). Tax Policy Center Briefing Book. https://tpc.io/2CiYxi2.

Tax Foundation (2020a). 2020 State Business Tax Climate Index. https://files.taxfoundation.org/20191021155857/2020-State-Business-Tax-Climate-Index-PDF.pdf

Tax Foundation (2020b). 2020 Tax Brackets. https://taxfoundation.org/2020-tax-brackets/

Tax Foundation (2018a). Tax Trends Heading Into 2019.https://bit.ly/2PBZQQW

Tax Foundation (2019a). State Individual Income Tax Rates and Brackets for 2019. https://bit.ly/34h25x8.

Tax Foundation (2019b). 2020 State Business Tax Climate Index. https://bit.ly/2NuStbi

Tax Foundation (2019c). 2019 Tax Brackets. https://bit.ly/2JONzEO.

TaxTips.ca (2019). 2019 Non-Refundable Personal Tax Credits - Base Amounts. https://bit.ly/36ATOWz.

TaxTips.ca (2020). Marginal Personal Income Tax Rates for 2020 and 2019. https://www.taxtips.ca/marginaltaxrates.htm

About the authors

Paige MacPherson is Atlantic Director of the Canadian Taxpayers Federation and regularly contributes commentary and analysis to major media outlets across Canada, focusing on tax policy and government accountability. Prior to the CTF, Paige worked as a reporter for Sun Media and in communications and program development for the Atlantic Institute for Market Studies. She has published research on education policy in Canada. Paige has a Bachelor of Arts in Political Science from Dalhousie University and a Master of Public Policy from the University of Calgary.

Mark Milke, Ph.D., is a political scientist, policy analyst, author and columnist with six books and dozens of studies published by policy institutes in Canada, the United States and Europe. Mark's policy work has touched on everything from taxes, civil rights, and private property to airline competition, insurance, aboriginal policy, government monopolies and the folly of corporate welfare. Mark served as both Alberta Director and British Columbia Director of the Canadian Taxpayers Federation between 1997 and 2002. He completed the work for this report in 2019.