

Catching Up and Falling Behind

The Five Economic Eras of Atlantic Canada 1961–2019

Fred McMahon



Catching Up and Falling Behind

The Five Economic Eras of
Atlantic Canada, 1961–2019

by Fred McMahon

Contents

Executive Summary / i

Introduction / 1

Box 1: Description of data / 2

1. Economic Performance in Atlantic Canada / 3

2. The Economic Eras of Atlantic Canada / 11

Box 2: Adjustments to data for government spending / 11

3. Government Policy and Economic Growth in Atlantic Canada / 18

Box 3: Policy changes, policy stability, and growth / 24

Box 4: How Atlantic Canada compares in size of government with the United States and Mexican states / 34

Conclusion / 35

References / 36

About the author / 45

Acknowledgments / 45

Publishing Information / 46

About the Fraser Institute / 47

Purpose, Funding, and Independence / 47

Editorial Advisory Board / 48

Executive Summary

Many Atlantic Canadians may be surprised, but the region had a charmed 14 years from 1997 to 2010, when the region rapidly closed the economic gap with the rest of the nation, both in per-capita Gross Domestic Product (GDP) and unemployment levels. The charm is over. The catch-up with the rest of Canada has halted and gone into reverse. Atlantic Canada lost ground to the rest of Canada between 2010 and 2019 and, on a per-capita basis, grew more slowly than the rest of Canada.

This study examines the recent history of economic policy in Atlantic Canada. It finds five distinct eras—1961–1972, 1972–1979, 1983–1997, 1997–2010, and 2010–2019— and a tie between government policy in each of these eras and the growth of GDP in the region. Two key measures are used:

- 1 the ratio of per-capita GDP in Atlantic Canada to GDP in the rest of Canada (ROC);
- 2 the ratio of per-capita GDP in the Maritime Provinces (omitting Newfoundland & Labrador) to GDP in the rest of Canada minus Alberta (ROC–A). This ratio is used since it removes the biggest oil and gas producer in each geographic area and thus lessens oil-related distortions.

1961–1972

Government spending and economic development programs grew, particularly through the second half of the 1960s, but were much lower than they would become in 1970s and economic development programs were in their infancy. This was a successful period for the region and the moniker “the Atlantic Revolution” was coined to reflect the enthusiasm of the time. The per-capita GDP in Atlantic Canada grew from 56% of ROC and GDP to 67%; in the Maritimes, per-capita GDP grew from 59% of ROC–A and GDP to 65%.

1972–1979

The Atlantic Revolution was not to last. Government spending and regional development programs exploded in size. But, instead of having the intended consequences, catch-up with the rest of Canada slowed. The per-capita GDP in Atlantic Canada was still at 67% of GDP in ROC in 1979; the Maritimes likewise remained at 65% of GDP in 1979. Many of the new or expanded programs distorted both the labour and business markets and incentives across the economy. These policies and the vast increase in government spending derailed regional growth.

1983–1997

Government policy in Atlantic Canada did not change a great deal in this period. Nonetheless, government spending fell slightly and some of the problematic regional programs were reformed. This may have helped the region catch up to the rest of Canada a little bit. The per-capita GDP in Atlantic Canada rose from 68% of ROC GDP in 1983 to 71% in 1997; the Maritimes rose slightly from 74% of GDP in ROC–A to 75%.

1997–2010

This is the miracle period of Atlantic Canada’s catch-up. The per-capita GDP in Atlantic Canada rose from 71% of ROC GDP in 1983 to 87% in 2010; the Maritimes rose from 75% to 85% of GDP in ROC–A. Significant reforms to Employment Insurance (EI) helped power this economic strength along with the reduction in government spending, which was particularly pronounced in Atlantic Canada. This reduction left more room for the private sector to grow.

2010–2019

During the period from 2010 to 2019, the reduction in government spending in Atlantic Canada came to a halt and spending started to creep up. Reforms, such as the earlier changes to EI, similarly halted and sometimes went into reverse. So too, did the region’s economic trajectory. The per-capita GDP in Atlantic Canada fell slightly from 87% of ROC GDP to 86%; the Maritimes fell from from 85% to 81% of GDP in ROC–A. The story stops at 2019 to avoid distortions caused by the COVID pandemic.

Introduction

Many Atlantic Canadians may be surprised, but the region had a charmed 14 years from 1997 to 2010 when the economic gap with the rest of the nation closed rapidly both, for example, in per-capita Gross Domestic Product (GDP) and unemployment levels. The charm is over. The catch-up with the rest of Canada has halted and gone into reverse. Atlantic Canada lost ground to the rest of Canada between 2010 and 2019; on a per-capita basis, the region grew more slowly than the rest of Canada.

This publication takes a high-level look at the relationship between the evolution of government, in particular the size of government, in Atlantic Canada and the success of the region's economy to catch up or, in some periods, its failure to catch up with other Canadian provinces over the past six decades. While an in-depth analysis of the structure of Atlantic governance is beyond the scope of the study, it will discuss specific programs with strong links to the region's economic evolution.

The paper is organized as follows.

- [1] The first section looks at the evolution of the GDP of Atlantic provinces and the Maritimes¹ from 1961 to 2019, broken down into five eras: [1] 1961–1972; [2] 1972–1979;² [3] 1983–1997; [4] 1997–2010; and [5] 2010–2019.
- [2] The second section discusses the evolution of government spending and policy in Atlantic Canada and the often inverse relation between growth in GDP and the size of government expenditure. It lays the groundwork for discussing whether this inverse relationship was the result of economic conditions (government spending increases when the economy is weak) or whether changes in spending are largely (though not totally) driven by changes in policy.
- [3] The final section explores the links between policy changes and the health of the Atlantic economy.

1. The Maritimes is the designation used for the original three eastern-most provinces, Prince Edward Island, Nova Scotia, and New Brunswick. When Newfoundland & Labrador joined Confederation in 1949, the name was changed to Atlantic Canada to include Canada's newest province.

2. Because of the severe recession from 1980 to 1982 and a break in Statistic Canada's statistic series at exactly this point—both of which caused recorded distortions in economic activity—the years from 1980 to 1982 are omitted.

Box 1: Description of data

A significant problem with any historic examination of the Atlantic economy is that Statistics Canada changes its definitions and methodologies from time to time. A comparison over time needs to employ two GDP series, one from 1961 to 1980 and another from 1981 to the current year, and three series for government expenditures and revenues, 1961–1980, 1981–2009, and 2007 to the current year. For the overlapping years, I use the most recent series.

In many figures in this publication, a break space is inserted where the series change. The series do not always connect well, so comparability is weakened in any historic examination. However, the series are conceptually measuring the same things, even if the precise definitions and methodologies change.

Atlantic Canada or the Maritimes?

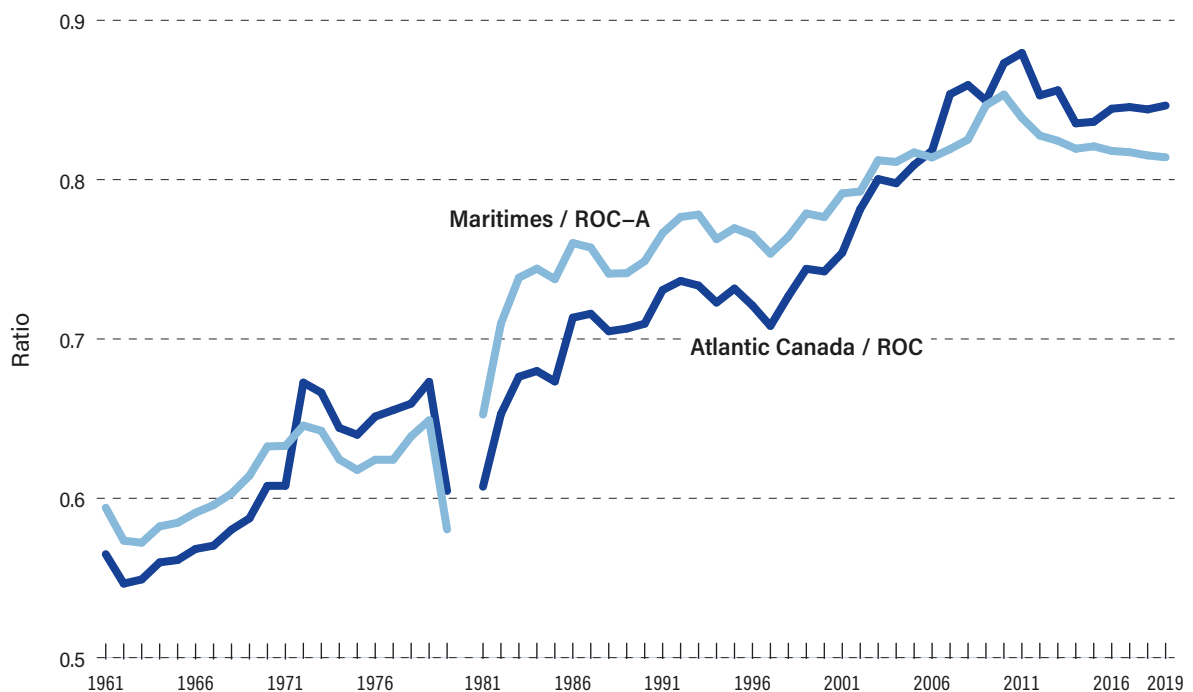
For the most part, I treat Atlantic Canada as a region. However, in a number of charts, provincial data are shown separately to provide more information. The patterns are similar across all the Atlantic provinces except for Newfoundland & Labrador during the era of offshore production, which inflated that province's GDP.

For this reason, in several places I separate the Maritimes—Prince Edward Island, Nova Scotia, and New Brunswick—from Atlantic Canada, which includes Newfoundland & Labrador as well. I then compare the Maritimes to the rest of Canada minus Alberta (ROC–A) to correct, at least partially, for the distortion caused by revenue from oil and gas in Alberta and Newfoundland & Labrador.

1. Economic Performance in Atlantic Canada

Figure 1 shows the ratio of per-capita GDP for the Atlantic provinces and the Maritimes to that of other provinces, from 1961 to 2019³. Another complication, discussed in the **Box 1** (p. 2), is the distortion caused by oil production, which inflates Alberta’s and Newfoundland & Labrador’s GDP.⁴ To see what effect this had on relative growth rates, figure 1 includes two lines, one showing the ratio of the Atlantic Canada’s GDP to the rest of Canada (ROC): Quebec, Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia. The other line shows the ratio of the Maritime economy—Prince Edward Island, Nova Scotia, and New Brunswick—to that of the rest of Canada minus Alberta (ROC–A).⁵ The patterns are similar for both the Atlantic and Maritime ratios, though magnitudes differ.

Figure 1: Ratio of overall per-capita GDP—Maritimes to the rest of Canada minus Alberta (ROC–A) and Atlantic Canada to the rest of Canada (ROC), 1961–2019



Sources: Statistics Canada 2021, 2022c, 2022f, 2022k, 2022i; calculations by author.

3. Because of the economic disruptions created by COVID, the data in this paper do not go beyond 2019.

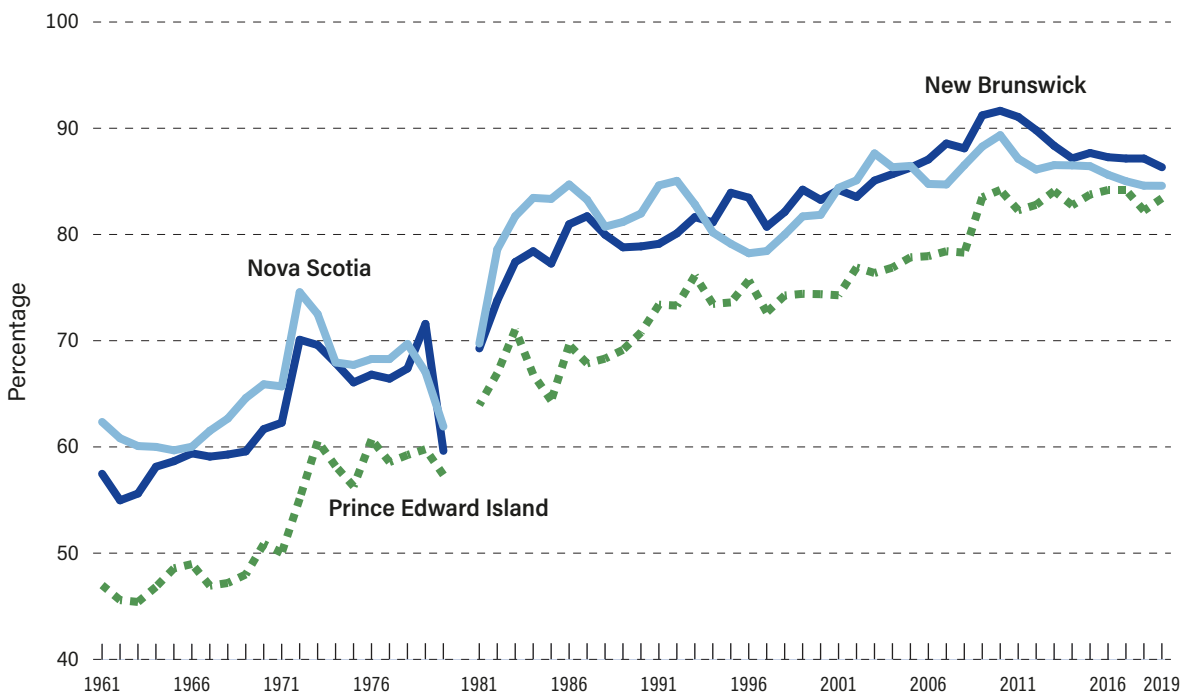
4. See CEG, 2017 for a description of energy development in Atlantic Canada. While Nova Scotia had some offshore development, I keep the province in the Maritime average as its offshore production, never the magnitude of Newfoundland & Labrador’s, has been in decline since 2001, and has had a relatively minor impact on overall GDP.

5. There is no perfect way to exclude the impact of petrochemical development on an economy since it affects virtually every aspect of the economy in spin-off jobs, entertainment spending, and so on. Since this publication looks at general trends, the clearest way to minimize the distortion was simply to exclude the two most oil/gas rich provinces to allow the reader to see the difference this makes.

Each of the five eras represents a change in policy approach. In the early 1970s, Ottawa launched a number of ambitious regional programs that boosted spending in the region. Spending then stabilized and few new initiatives were launched. The election of the Chretien government in 1993 led to significant government retrenchment and reform of regional programs, most particularly Employment Insurance. In fact, these five eras—1961–1972, 1972–1979, 1983–1997, 1997–2010, and 2010–2019—are not only marked by changes in the direction of policy, but the shifts in policy were large enough to cause significant changes in economic growth in Atlantic Canada.⁶ The policy changes and their economic impact will be discussed later in this study.

To provide more information, particularly on the difference between the patterns of Newfoundland & Labrador and the Maritime provinces, **figure 2** shows the evolution of GDP in each of the Maritime provinces while **figure 3** shows that in Newfoundland & Labrador. The scales are different because of the enormous impact of oil and gas production on Newfoundland & Labrador’s GDP.

Figure 2: GDP of the Maritime provinces as a percentage of GDP of the rest of Canada, 1961–2019

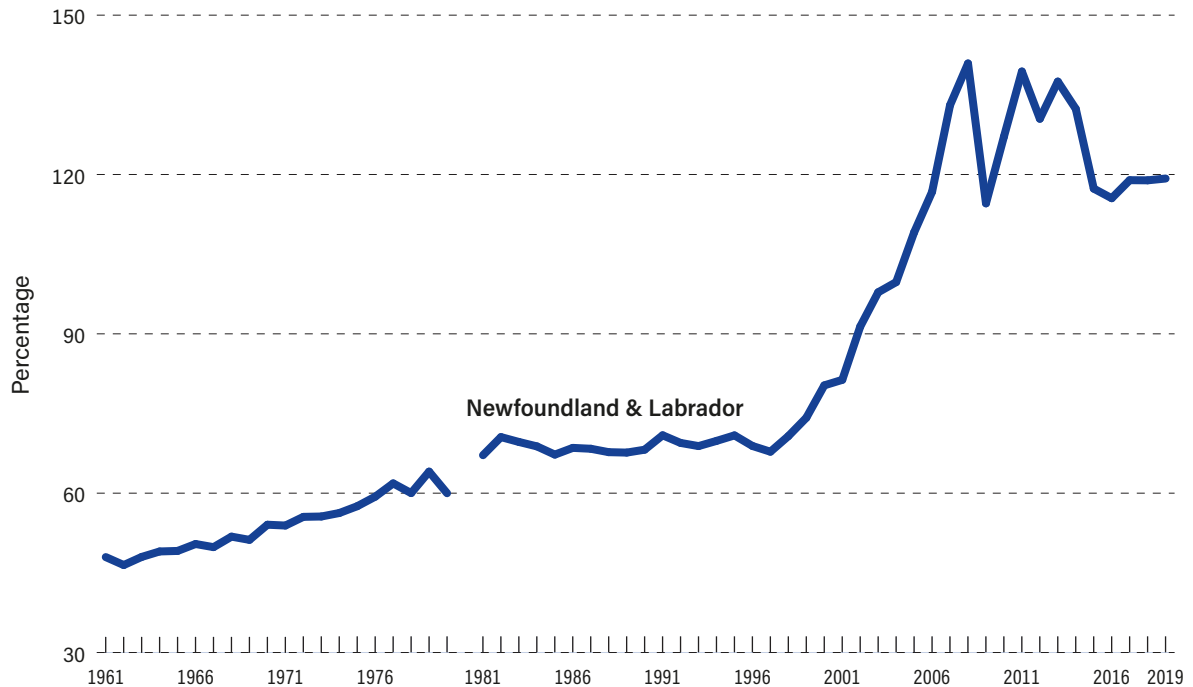


Sources: Statistics Canada 2021, 2022c, 2022f, 2022k, 2022i; calculations by author.

Figure 4 breaks the years from 1961 to 2019 into five eras, which are visually clear, and, as will be discussed, are likely related to policy developments affecting the region. The figure shows the average annual rate of growth for the five eras, 1961–1972, 1972–1979,

6. While the periods themselves are visually clear, the precise starting and end points can be less clear. I discuss why I chose the points I did.

Figure 3: GDP of Newfoundland & Labrador as a percentage of GDP of the rest of Canada, 1961–2019



Sources: Statistics Canada 2021, 2022c, 2022f, 2022k, 2022i; calculations by author.

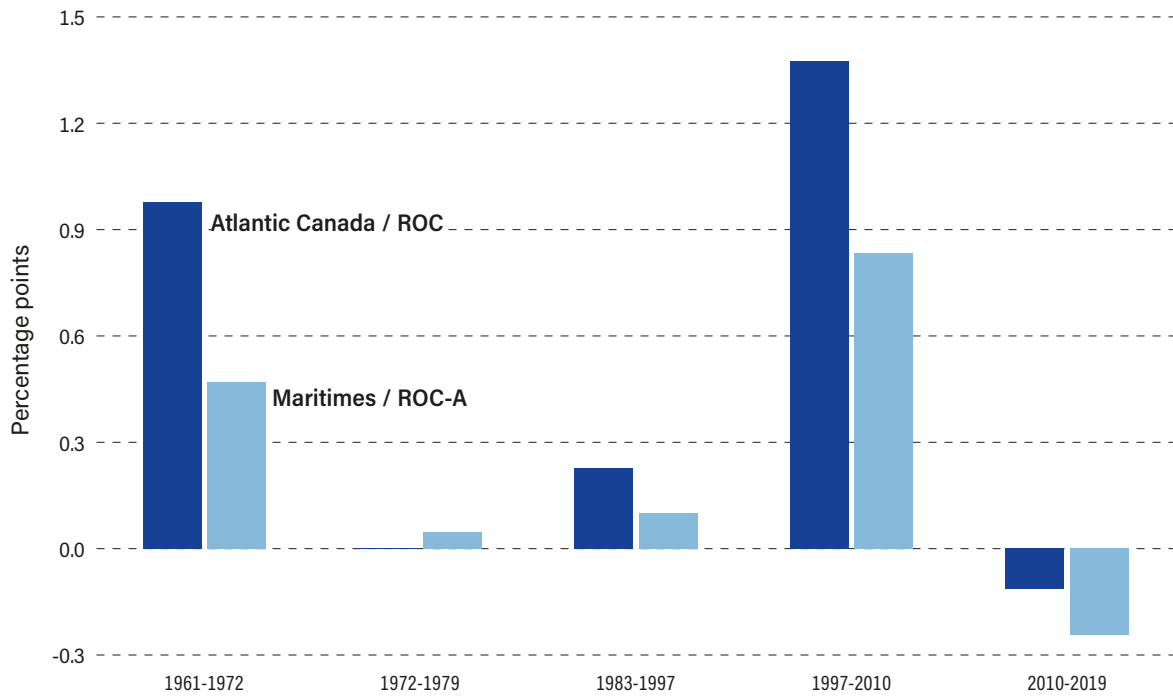
1983–1997, 1997–2010, and 2010–2019. As discussed, the Statistics Canada’s series break between 1980 and 1981 and the 1980–1982 recession complicates things.

The region grew strongly and was catching up with the other provinces through the 1960s to 1972. In the second era, 1972–1979, catch-up evaporated. The transition from the late 1970s to the early 1980s is muddled. The GDP series break between 1980 and 1981. As well, from 1980 to 1982, the world and Canada went through what was likely the worst post-war-world recession until the financial crisis of 2007/08. Both create discontinuity in the data.

The 1980–1982 recession hit Atlantic Canada harder than other provinces as can be seen in the sharp decline in the region’s GDP relative to the rest of the country in 1980 (figure 1). A change in Statistics Canada’s GDP methodology post-1980 further complicates the picture and may have created a one-time “paper” increase in the ratio between the region and the rest of Canada.⁷ For these reasons, I do not include 1980–1982 in either the second or third period in figure 4. Instead, 1972–1979 is used as the second period and 1983–1997 as the third period.

7. I say “paper” since the magnitude of the break is likely due to the change in methodology and might largely disappear if consistent methodology were used across the period. See Jackson (2003) for a discussion of how new accounting techniques can affect GDP measures and thus ratios. To avoid potentially comparing apples to oranges, I break the periods at this point as discussed in the text.

Figure 4: Annual catch-up—Atlantic Canada with the rest of Canada (ROC) and Maritimes with the rest of Canada minus Alberta (ROC-A), 1961–1972, 1972–1979, 1983–1997, 1997–2010, and 2010–2019



Sources: Statistics Canada 2021, 2022c, 2022f, 2022k, 2022i; calculations by author.

Following the 1980–1982 recession, the region began once again catching up with the rest of Canada, though at a much slower pace than in the 1960s and early 1970s. But, starting around 1997, regional growth soared compared to other provinces. Relative to the rest of Canada, the region grew even faster than it had in the 1960s and early 1970s, despite the collapse of cod stocks in the early 1990s, with a devastating effect on the fishery in Newfoundland & Labrador (Statistics Canada, 2017). However, this would have had a relatively minor effect on the overall economy of the region. As well, much of the data in this report is just for the economy of the Maritimes, which was little affected by the collapse. From the mid-1980s to mid-1990s, the fishery fluctuated between 1.5% and 2.5% of the economy of Newfoundland & Labrador and stayed around this level up to the 2000s.⁸ But, by 2008, the fishery had fallen to about 0.7% of GDP, in part of course because GDP was boosted by oil development.

But, even at its peak in roughly 1988, the fishery in Newfoundland & Labrador formed only 0.7% of the regional GDP (Statistics Canada, 2022f). In any event, Newfoundland & Labrador gained far more from oil and gas than it lost with the cod collapse, which also motivates showing separate data for the Maritimes and Atlantic Canada. The bottom line is that the collapse of cod fishery, though a great tragedy for many, does not have a huge impact on the overall economy.

8. Statistics Canada includes hunting and trapping in this number but presumably they have a relatively small impact.

The wheels come off

Between 2010 and 2019, the gap between the rest of Canada and Atlantic Canada grew. This is the only period of extended retreat suffered by Atlantic Canada since the early 1970s. A question might arise about the impact of the decline of demand by US housing on the pulp and paper industry in Atlantic Canada, particularly in New Brunswick. This may have contributed to economic weakness but is only a small part of the story. Between 1997 and 2004, the forestry industry fluctuated around 1.1% of New Brunswick's economy and fell to just under 1.0% in 2010, when the region was still experiencing strong growth compared to the rest of the nation. In 2019, the industry's contribution to the economy was 1.0% (Statistics Canada, 2017). The difference in the impact of the contribution by the forestry industry to New Brunswick's economy between, say, 2010, the end of the growth period, and 2019 equals 0.05% of the economy of New Brunswick. The impact of the forest industry is much less in the other Atlantic Provinces: it averaged under 0.5% of the Atlantic economy between 1997 and 2019. So problems in the forest industry were only a minor contributor to the region's relative weakness.

To keep the discussion of figure 4 simple and avoid at least to some extent distortions from the oil industry, I will mostly examine the ratio of the overall per-capita GDP of the Maritimes to the per-capita GDP of the rest of Canada minus Alberta (ROC-A). The patterns are the same for a comparison between Atlantic Canada and the rest of Canada, though the magnitudes differ. The numbers are available in **table 1**.

In the opening year of the first era, 1961, the per-capita GDP of the Maritimes was 59.2% of the rest of Canada minus Alberta. By 1972, it was 65.0% of the national average, closing the gap by 5.1 percentage points or 0.4 percentage points a year (figure 1). The second era saw relative growth go into reverse. In 1972, per-capita GDP in the Maritimes was 64.6% of ROC minus Alberta compared to 64.9% in 1979. In 1980, with a sharp recession that damaged the Maritime more than the Canadian economy, the per-capita regional GDP fell to 58.0% of the average of the ROC-A. The period from 1983 to 1997 saw relative growth resume but at a slow pace, 0.1% a year on average.

From 1997 to 2010, the per-person GDP in the Maritimes grew from 75.4% of GDP of the ROC-A to 85.3%, or by 0.7 percentage point a year, the fastest catch-up of any period. However, relative progress came to a stop after 2010, following the Great Recession of 2007–2009.⁹ On the surface, there is no clear reason that the Atlantic Provinces would have been differently affected than the rest of Canada, yet following 2010, Atlantic Canada and the Maritimes, in the two ratios reflected in figure 4, stopped growing compared to the rest of Canada and went into reverse.

9. I begin the fifth period in 2010 to avoid the fluctuations around the period of the Great Recession.

Table 1: Ratio (%) of overall per-capita GDP—Maritimes to the the rest of Canada minus Alberta (ROC–A) and Atlantic Canada to the rest of Canada (ROC), 1961–2020

	Maritimes/ ROC–A	Atlantic Canada/ ROC		Maritimes/ ROC–A	Atlantic Canada/ ROC		Maritimes/ ROC–A	Atlantic Canada/ ROC
1961	59.4%	56.5%	1981	65.3%	60.7%	2001	79.1%	75.4%
1962	57.3%	54.6%	1982	71.0%	65.3%	2002	79.3%	78.1%
1963	57.2%	54.9%	1983	73.8%	67.6%	2003	81.2%	80.0%
1964	58.2%	56.0%	1984	74.4%	68.0%	2004	81.1%	79.8%
1965	58.5%	56.1%	1985	73.8%	67.3%	2005	81.7%	80.9%
1966	59.1%	56.8%	1986	76.0%	71.3%	2006	81.4%	81.8%
1967	59.6%	57.0%	1987	75.7%	71.6%	2007	81.9%	85.4%
1968	60.3%	58.0%	1988	74.1%	70.5%	2008	82.5%	85.9%
1969	61.4%	58.7%	1989	74.1%	70.6%	2009	84.7%	85.0%
1970	63.3%	60.8%	1990	74.9%	71.0%	2010	85.3%	87.3%
1971	63.3%	60.8%	1991	76.6%	73.1%	2011	83.9%	87.9%
1972	64.6%	67.3%	1992	77.7%	73.6%	2012	82.8%	85.3%
1973	64.2%	66.6%	1993	77.8%	73.4%	2013	82.4%	85.6%
1974	62.4%	64.4%	1994	76.3%	72.3%	2014	81.9%	83.5%
1975	61.8%	64.0%	1995	77.0%	73.2%	2015	82.1%	83.6%
1976	62.4%	65.1%	1996	76.5%	72.1%	2016	81.8%	84.5%
1977	62.4%	65.5%	1997	75.4%	70.8%	2017	81.7%	84.6%
1978	63.9%	65.9%	1998	76.4%	72.7%	2018	81.5%	84.4%
1979	64.9%	67.3%	1999	77.9%	74.4%	2019	81.4%	84.6%
1980	58.0%	60.5%	2000	77.6%	74.2%	2020	83.4%	86.4%

Sources: Statistics Canada 2021, 2022c, 2022f, 2022k, 2022i; calculations by author.

One possible explanation would be a drop in Maritime exports in this period. This played a role. Leaving aside Newfoundland & Labrador and its oil and gas exports, Maritime exports had risen sharply from 1999 to 2003 and fell abruptly in 2009 with the recession, as would be expected, but mostly recovered after that. For the ROC–Alberta, exports fell significantly from 2000 to 2007 and, if anything, have recovered more slowly than Maritime exports. The export story, then, does not explain why Atlantic Canada’s growth slowed relative to the ROC–Alberta in this period (Statistics Canada, 2022a).¹⁰

Between 2010 and 2019, per-capita Atlantic GDP fell from 87.3% of ROC to 84.6%. The ratio of the Maritimes to ROC–Alberta fell from 85.3% to 81.4%. These might seem like small differences but they still mean the region is walking backwards.

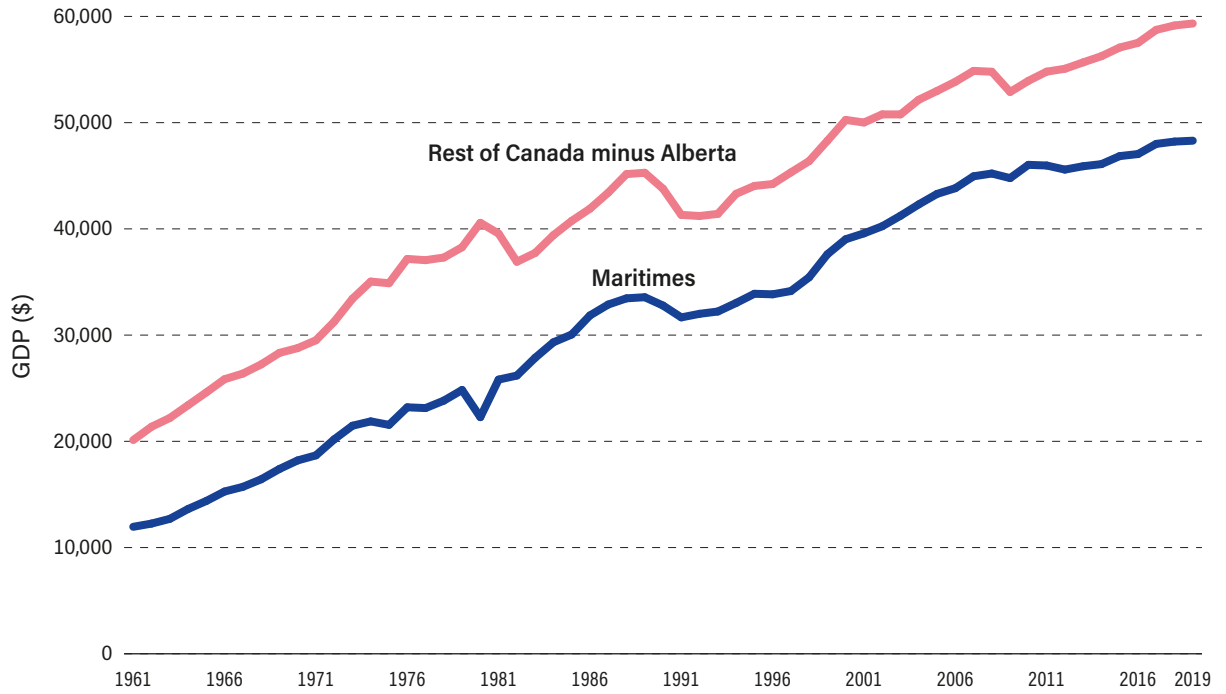
The comparisons have concentrated on the ratio between per-capita GDP in Atlantic Canada or the Maritimes and ROC or ROC–A. These are the most relevant since growth rates themselves can be deceptive. For example, the average OECD growth rate in the 1960s was 5.0% compared to 3.5% in the 1970s (Statista, 2022). Thus, a 4.0% growth rate in the 1960s would have been disappointing but a success in the 1970s. So, comparing Canadian regions and provinces during the same period provides a better indication of their relative success.

There is the question of appropriate comparison across regions. In the decade after World War II, Canada’s growth rate was strong but would have looked anemic next to that of, say, Singapore or Hong Kong, which were rebuilding out of great destruction. No comparison is perfect but Canadians are roughly subject to the same economic winds across the country. The correlation of per-capita GDP between the Maritimes and ROC–A is 0.989 throughout the period from 1961 to 2019. Though the patterns are very similar, in the following sections I will argue that differences in economic performance are influenced by the differing policy regimes Atlantic Canada faced over this period.

Nonetheless, an obvious question is whether the problems facing Central Canada manufacturing sector are behind the Maritimes catch-up in the 1997–2010 period. **Figure 5** shows the growth of per-capita GDP from 1961 to 2019. Growth globally declined over this period and this is reflected in figure 5, which shows that decline in Canada. However, growth in ROC–A continued through the 1997-to-2019 period. In fact, annual growth in the 1983-to-1997 period is almost identical to that in the 1997-to-2019 period. However, growth in the Maritimes soared, close to double that in the earlier period and again close to double that of ROC minus Alberta in the latter period. In other words, weakness in Central Canada does not explain how the region caught up in this period. I will argue that changes in policy direction contributed to the region’s increased progress.

10. Central Canadian exports also reflect and are a partial proxy for manufacturing, which also suffered after 2007. However, weakness in manufacturing would, if anything, boost Atlantic Canada compared to the rest of Canada so this hardly provides an explanation of the relative weakness in the rest of Canada.

Figure 5: Per-capita GDP (\$) of the Maritimes and the rest of Canada minus Alberta (ROC-A), 1961-2019



Sources: Statistics Canada 2021, 2022c, 2022f, 2022k, 2022i; calculations by author..

2. The Economic Eras of Atlantic Canada

It is important to emphasize again that the periods are marked by clear changes in policy and these changes are visible in the expenditure patterns in figure 6, particularly the direction of change or lack of change in all of these periods. This section will describe the data and the evolution of government and look more closely at government policy in Atlantic Canada and the region's economic performance (see **Box 2** for a discussion of government spending data).

Figure 6 shows all government spending¹¹—federal, local, and municipal—as a percentage of GDP. For simplicity, only the Atlantic provinces and the rest of Canada are shown. While, as in all of economics, there are no perfect measures, the ratio of spending to GDP is in most instances the best single gauge of the magnitude of government expenditures and revenues. Government spending of, say, \$10,000 per person in a nation where the average GDP is \$15,000 per person will have a much different impact than spending of \$10,000 where the average GDP is, say, \$40,000.¹²

Box 2: Adjustments to data for government spending

Government expenditures in Atlantic Canada are adjusted in figure 7 to reflect two facts. The first and the most important concern oil import subsidies, a program in place from 1974 to 1984. The first oil crisis began in late 1973. Canada was an oil producer and the federal government decided to subsidize the cost of imported oil to match that of oil produced in Canada to create one price across Canada.

Many Canadians had access to “western” oil at a set Canadian price. Ottawa subsidized the cost of imported oil to bring it down to the Canadian price. This resulted, in particular, in a huge flow of money into Atlantic Canada, which was not an oil-producing region at

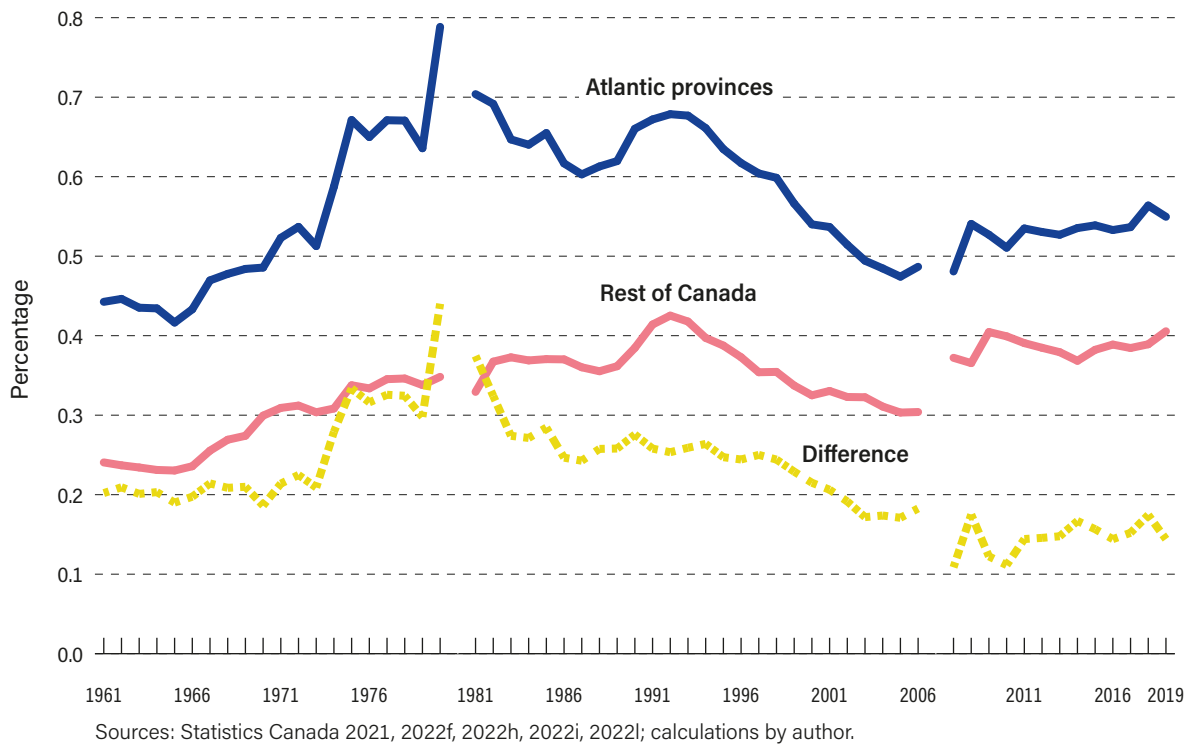
the time and had little access to western oil. The sums were quite large. For example, in the peak year, 1980, oil subsidies to Atlantic Canada reached \$5.5 billion dollars in inflation-adjusted 2019 currency.

The other adjustment is for military spending (the data captures only wages and salaries for the military). Military spending is higher in Atlantic Canada than the rest of the nation. Military spending is removed because it slightly distorts upwards federal spending in Atlantic Canada as a result of the large military presence, particularly in Nova Scotia. This is unrelated, at least directly, to government social, development, and other programs.

11. This is the total amount government spends on everything from salaries, to rent, to car leases and so on.

12. The GDP, as noted above, is in two Statistics Canada series, 1961–1980 and 1981–current. Government spending and revenue data are in three Statistics Canada series, 1961–1980, 1981–2009, and 2009–current. The data from the most recent series is used for the overlap period of 2007, 2008, and 2009.

Figure 6: All government spending—federal, local, and municipal—as a percentage of GDP in the Atlantic provinces and the rest of Canada (ROC), 1961–2019

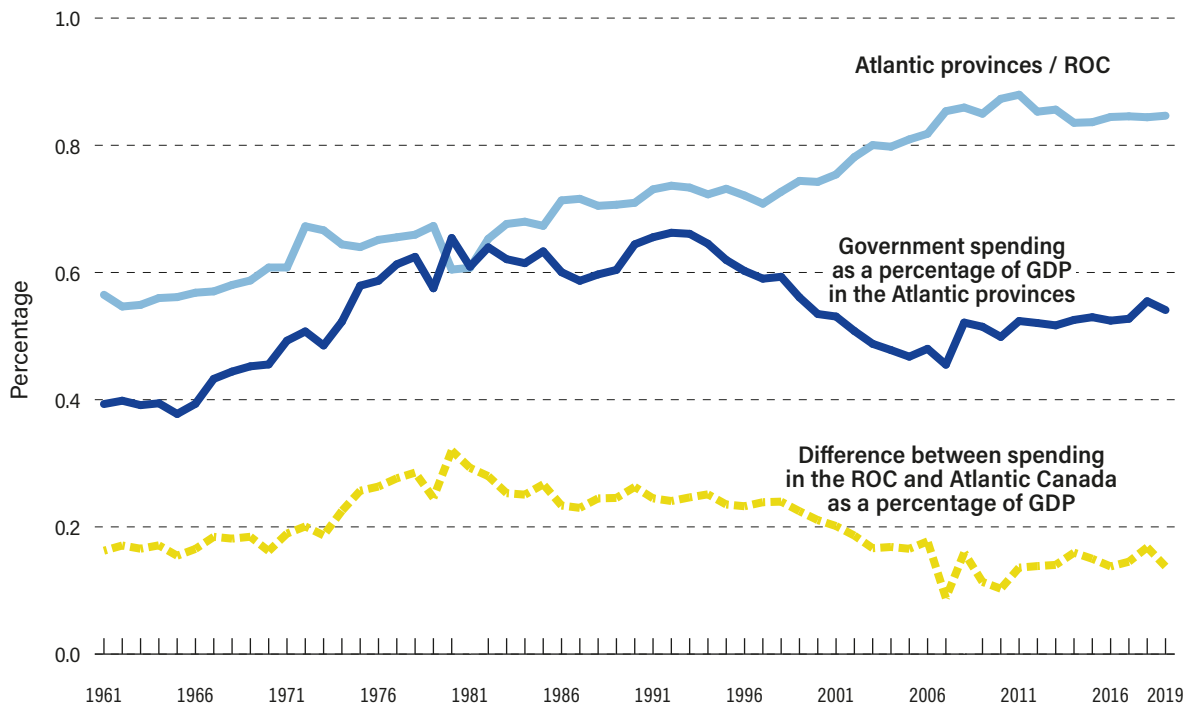


Atlantic Canada through the whole period had a higher level of government spending than the rest of Canada (figure 7, which does not include military spending or oil subsidies, as discussed below). In 1961, government spending in Atlantic Canada, without oil subsidies and military spending, equaled 39% of GDP compared to 23% in the rest of Canada. By 1980, spending had risen to 65% of GDP in Atlantic Canada and to 33% in the rest of Canada. Just before the onset of the Great Recession in 2006, the ratio had fallen to 48% and 30%. The decline in government spending was much greater in Atlantic Canada than elsewhere in the nation. Figure 2 and figure 3 show that government spending has tended to creep up in recent years.

Figure 7, as well as showing all government expenditure, also charts the GDP per person of Atlantic Canada relative to that of the rest of Canada.¹³ For an example to help read the chart, in 2019 per-capita GDP in Atlantic Canada was 84.6% of the Canadian average. Visually, when expenditures increase in Atlantic Canada, particularly relative to the rest of Canada, Atlantic relative GDP tends to fall and vice versa. When they are flat, GDP catch-up is flat too. As will be discussed, this leads to two questions. Is relative GDP causing the changes in spending or are policy moves leading to the changes? Secondly, if the changes are caused by policy, are they having an impact on relative GDP?

13. Gaps are not shown in this graph for simplicity.

Figure 7: Government spending in the Atlantic provinces, minus military spending and oil subsidies, as a percentage of GDP; and GDP per person of Atlantic Canada relative to that of the ROC, 1961–2019



Sources: McMahon, 2000; Statistics Canada 2021, 2022e, 2022f, 2022f, 2022h, 2022i, 2022k, 2022l; calculations by author.

The remaining figures in this section add details. **Figure 8** shows total government revenue and expenditure for Atlantic Canada and the large gap between the two. **Figure 9** and **figure 10** turn to government consumption, the goods and services the government itself consumes to provide other services, such as transfer programs. The relevance will be discussed in the section on government size and how it relates to GDP. Figure 9 shows the regional averages and the gap with the rest of Canada while figure 10 shows government consumption for each of the Atlantic Provinces. **Figure 11** provides more detail on government revenues breaking them down by province.

GDP patterns

The reader may already be struck by the fact that government spending shows patterns that are similar, though inverted, to those of relative GDP, as shown in figure 7. In other words, when government spending goes up in the region, economic growth declines relative to the rest of Canada. (As is argued in this study, spending increases were a result of policy changes, not a response to regional economic weakness.) Economic catch-up is strong through the 1961-to-1972 period and the gap in spending between Atlantic Canada and the rest of Canada remains stable through this period. In 1972, government spending in Atlantic Canada begins to surge and relative growth in Atlantic Canada falters in the 1972-to-1979 period.

Figure 8: Total government revenue and expenditure as a percentage of GDP in the Atlantic provinces, 1961-2019

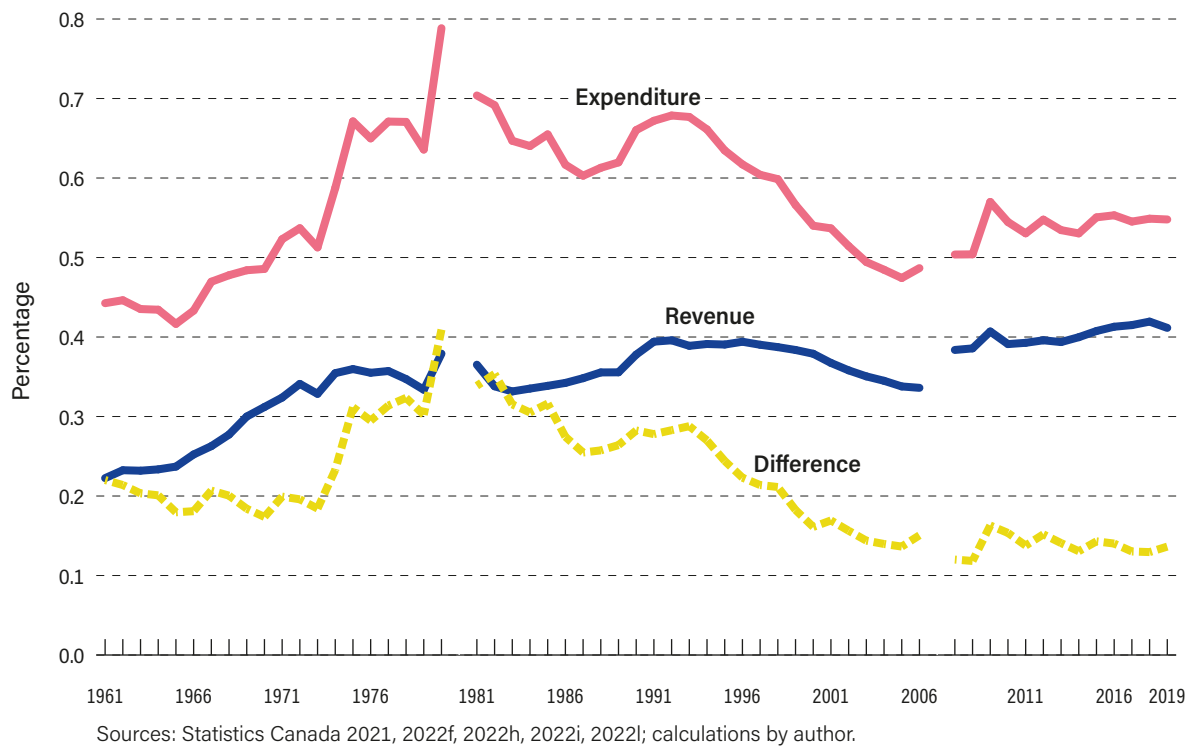


Figure 9: Government consumption as a percentage of GDP, Atlantic provinces and the rest of Canada (ROC), 1961-2019

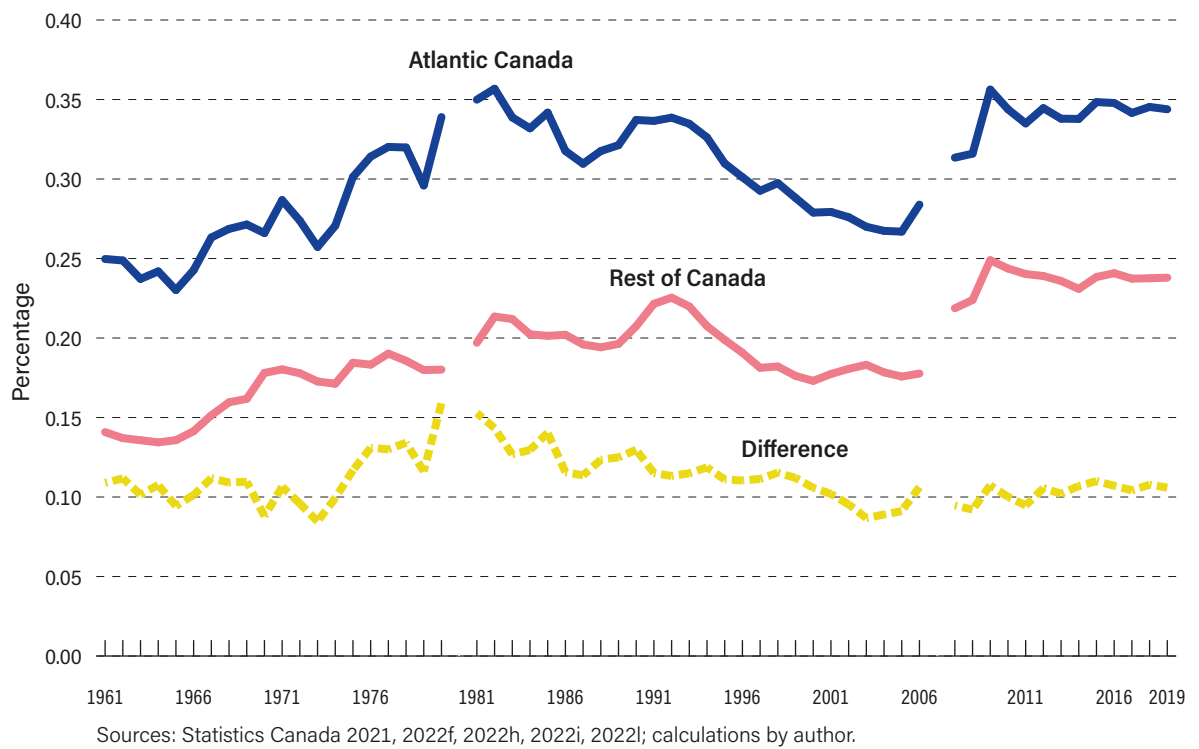


Figure 10: Government consumption as a percentage of GDP, Atlantic provinces and the rest of Canada (ROC), 1961–2019

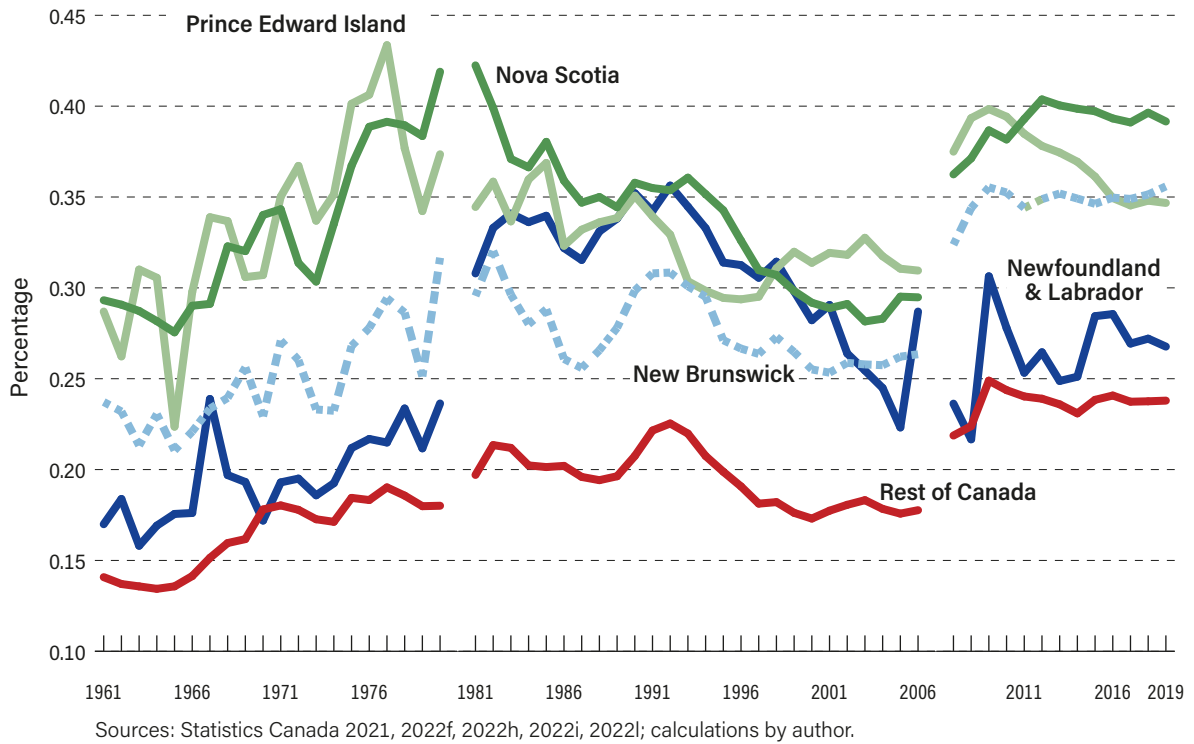
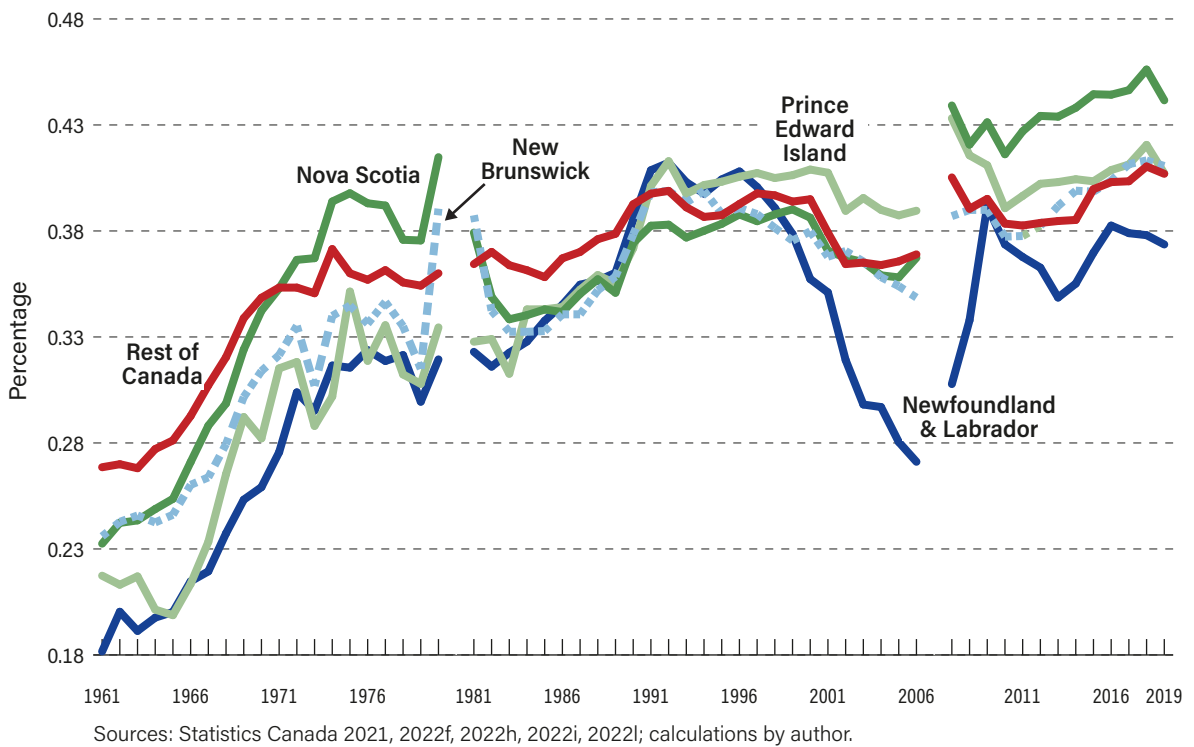


Figure 11: Total government revenue as a percentage of GDP, Atlantic provinces and the rest of Canada (ROC), 1961–2019



Atlantic Canada's economic catch-up remains sluggish through the 1983-to-1997 period and government spending in the region also remains high and mostly flat though a noticeable decline begins in 1994. For the 1997-to-2010 period, the decline in government spending accelerates and continues until the beginning of the 2007 recession. In 1994, government spending, minus military spending and oil subsidies, equaled 65% of Atlantic regional GDP. By 1997, that had fallen to 59% of regional GDP and to 45% by 2007. The thing to note is that through this period of reduced government spending, Atlantic Canada grew strongly compared to the rest of the country. As discussed later, the change in government spending was driven by policy reforms and was not primarily an automatic spending response to increased economic growth.

Another shift in the direction of government spending occurs around 2007. Atlantic spending stops declining relative to that of the rest of Canada and begins to increase. Figures 6 to 9 show a great deal of fluctuation because of the Great Recession between 2007 and 2009, so I begin the final period in 2010 for reasons similar to the ones for excluding the period from 1980-to-1983. The financial crisis created large GDP fluctuations not related to longer-term trends. The economy had returned to something like normal in 2010.

Here again, the patterns of the government-spending series and GDP catch-up overlap. Government spending in Atlantic Canada rose relative to the rest of Canada from 2010 to 2019 and Atlantic Canada's catch-up with the rest of Canada went into reverse and the region lost ground. A key question, again, is the relation between GDP changes and government spending, in this case whether weakness in relative Atlantic GDP led to the rise in government spending in 1972-to-1994 and 2010-to-2019 because of increases in various government programs that automatically respond to changes to economic conditions. If this were the case, it would affect relative spending. Poor economic growth relative to the rest of Canada would mean more government spending in Atlantic Canada relative to the rest of Canada.

While this may be part of the story, governments in Atlantic Canada made a number of changes in policy to increase spending in the early 1970s unconnected to automatic spending changes related to GDP growth. Program changes stabilized in the 1980s and so did spending. Then, throughout the 1990s, the federal government took specific measures to reduce spending, and now government spending is on the rise again.

As well, the timing does not support the automatic increase story. Overall government spending began a significant increase both in Atlantic Canada and the rest of Canada in 1966 and the gap between spending in Atlantic Canada and the rest of Canada began growing in 1972. But this could not have been caused by weakness in Atlantic GDP, which grew strongly relative to ROC until 1972. This indicates the change in spending was related to policy choices rather than spending in response to a change in GDP. These changes will be discussed later.

Similarly, spending began to decline in 1994 as did the gap in spending between Atlantic Canada and the rest of Canada. Improved economic conditions in Atlantic Canada were not responsible for the funding decrease since the region did not begin its strong phase of catching up with the rest of Canada until 1997. On the other hand, as will be discussed, a number of policy moves at this time were directed at reducing spending, so this pattern is primarily the result of policy decisions.

However, the picture is muddier for the 2010–to-2019 period. While policy was not static during this time, there were no huge changes in direction as there were in the early 1970s and the mid- to late-1990s. Moreover, the bumpiness of the data as a result of the Great Recession and the change in the GDP series in 2007 further complicate the picture. It is also worth noting that the change in direction of relative spending is not as abrupt or as large as the early 1970s increase or the mid-1990s decrease.¹⁴

14. See Whalen and Li, 2022 for a discussion of government spending patterns since 2007.

3. Government Policy and Economic Growth in Atlantic Canada

Size of government and economic growth

Much economic debate has focused on the relationship between the size of government and economic growth. Di Matteo (2013) undertakes a literature review and finds studies on both sides of the question but his own research indicates that a ratio of expenditure to GDP of 26% to be growth-optimizing. Of course, the sole focus of government is not economic growth: “Naturally, what size the public sector should be is also about broader societal outcomes but, even then, the evidence suggests that there are few additional benefits once the public sector reaches 30% to 35% of GDP” (Di Matteo, 2003: 86–87).

Barro and Sala-I-Martin (1995: 152-161) investigate the impact of the size of government and find, as do many economists, that government spending, if it increases necessary services, most importantly the rule of law, education, and to some extent certain aspects of infrastructure, boosts economic growth up to a certain point and then becomes a drag on growth as increased spending fails to produce commensurate results. This point varies from country to country. Di Matteo argues that the harm or good government spending does to economic growth is related to government efficiency. For a government where 90% of spending is lost to corruption, any level of government spending is too high. An efficient government that provides a dollar of services for a dollar of taxes can spend more with a less negative impact on growth.

Although it lies beyond the scope of this paper to provide a literature review of the research on size of government, it is worthwhile to list some of the many research articles that support the general ideas in Barro and Sala-I-Martin, 1995: Asimakopoulos and Karavias, 2016; Atul and Amir Khalkhali, 2002; Afonso and Furceri, 2010; Kim, Dong-Hyeon, Wu, and Lin, 2018; Hajamini and Ali Falahi, 2018; Bergh and Henrekson, 2011; Ghourchian and Yilmazkuday, 2020. Many of these studies focus on government consumption and find that high government consumption has a higher negative impact on growth than overall spending. This may be partly because a high level of government consumption, directing resources from providing services, various income transfers, and so on, is a sign of government inefficiency.

Therefore, the precise optimal size of government is elusive since what is optimal depends on many other variables, like the competence of the government. Most estimates vary between about 25% and 40% of GDP. But the key point here is not the precision of the estimates but the fact that the size of government in all Atlantic Provinces is far above

any reasonable estimate of optimal size and, according to the studies cited, would be a drag on growth. Moreover, as will be argued later, the nature of programs and their administration in Atlantic Canada suggest large government would be particularly wasteful and often counter-productive in the region.

Efficiency of spending in Atlantic Canada

So, a key question about the size of government in Atlantic Canada is the efficiency of government spending. I will describe how many aspects of government spending in Atlantic Canada did not simply have declining efficiency but instead the spending produced negative results on both the business and labour sides of the economy. In other words, even if the money came for free—as it often did from the federal government—the region’s economy would have been better off if it had not been spent at all but rather buried in a hole and covered over.¹⁵

As will be discussed in the following sections, this spending distorted business incentives and damaged productivity and subsidized unemployment, creating labour shortages in the region even when unemployment was in the double digits. The spending also decreased room for the private sector to create jobs and prosperity.

But even on areas of where there is general agreement that government spending is important, Atlantic Canada faced challenges. Education and infrastructure, particularly transportation infrastructure, have been shown in many studies to promote economic growth (Barro and Sala-i-Martin, 1995, for example). MacPherson, Emes, and Li (2021) examined per-student education spending across Canada from 2014/15 to 2018/19. The study found that the Atlantic Provinces were on average spending about the same amount on education as the Canadian average. Yet, an international study by the Conference Board of Canada (2014) found that, while Canada overall earns a B on educational achievement, the highest-ranking Atlantic province, Nova Scotia, achieved only a C. Newfoundland & Labrador and New Brunswick got Ds while Prince Edward Island came in with a D minus.

The region’s record on transportation infrastructure was, if anything, worse, particularly during the years of high government expenditure in the 1970s. Good infrastructure is key to attracting businesses. As a Deloitte consultant notes: “From a practical standpoint, the most important highway characteristic as it relates to facility location is distance from an interstate highway or limited access highway ... [O]ver 50 per cent of our ... clients want to be within 25 miles of an interchange to such a roadway” (Ady, 1997: 81).

15. Much of the money, as discussed, was free. The economic damage is greater when resources are pulled out of the economy for wasteful spending. However, though not a central topic of this paper, tax rates are high in Atlantic Canada despite the inflow of federal money.

McMahon (2000) discusses how much infrastructure spending was politically motivated, building roads in important constituencies, for example, yet through all this time no twinned highway was built to the region's main market in Central Canada, something noted by many observers.

Spending on highways [in Atlantic Canada] decreased faster in the 1970s, even as freight was increasingly diverted from railways to trucks ... Between 1977 and 1997, over \$1.3 billion will have been spent in joint federal-provincial programs on highways, \$743 million (55%) of that is federal ... Despite this spending, the arterial highway network has still deteriorated in quality and is inadequate for the volume of traffic that uses it. (DRI Canada, APEC, and Canmec Economics 1994: 4.3–4.4).

Only in 2001 was the highway to Central Canada twinned (McHardie, 2011).

One key aspect of efficiency in government spending is transparency. If the public is able to track what the government is doing, incentives are created for efficiency. These incentives are greatly reduced if government operates behind a veil. A study sponsored by the Atlantic Canada Opportunities Agency (ACOA, 1996) compared 49 jurisdictions—both developed and developing—for transparency. Atlantic Canada scored dismally, 39th out of 49. As the study concludes: “Regional governments scored low on transparency: citizens and business find it hard to follow how and why decisions are made” (McNiven and Plumstead, 1996, 47–48).

Government consumption was identified by several studies noted above as a great drag on growth. Figure 8 and figure 9 show how high government consumption is in Atlantic Canada compared to the rest of Canada. **Table 2** is perhaps more telling. It compares government consumption as a percentage of GDP in Atlantic Canada to that in other nations.¹⁶ Government consumption in all Maritime Provinces is higher than in Cuba. Only one nation has greater government consumption as a percentage of GDP, Timor-Leste, and only two, Timor-Leste and Lesotho, spend more than New Brunswick and Prince Edward Island. Newfoundland & Labrador comes ninth, after Cuba, Botswana, and Burundi. It is interesting to note that all the nations with consumption spending in Atlantic Canada's range are poor, which means two things. First, like Atlantic Canada, a lot of the spending is supported by outside sources, foreign aid in the case of poor nations. Secondly, since these nations are much poorer than Atlantic Canada, even a high GDP ratio will mean fewer dollars actually spent.

All three Maritime Provinces have significantly higher levels of consumption spending than any advanced nation. Sweden, the highest spending of the advanced nations,

16. Territories and nations with a population under 100,000 are excluded. Canada's smallest province, Prince Edward Island, has a population of about 160,000.

Table 2: Government consumption as a percentage of GDP in Atlantic Canada compared to that in selected other nations, 2019

Jurisdiction	% GDP	Jurisdiction	% GDP	Jurisdiction	% GDP
Timor-Leste	46.72	Burundi	27.64	Equatorial Guinea	25.03
Nova Scotia	39.16	Newfoundland & Labrador	26.77	Netherlands	24.62
Lesotho	38.78	Namibia	25.77	Iceland	24.41
New Brunswick	35.58	Sweden	25.75	Norway	24.35
Prince Edward Island	34.67	Sudan	25.27	Denmark	24.06
Cuba	32.23	Kuwait	25.22	Saudi Arabia	23.85
Botswana	31.56	Brunei Darussalam	25.04		

Sources: Statistics Canada 2021, 2022f, 2022h, 2022i, 2022l; World Bank, 2022; calculations by author.

spends 26% of its GDP on government consumption compared to the 39.2% to 34.7% of the Maritime Provinces. Newfoundland & Labrador likely have a lower ratio because oil development has inflated the size of its GDP.

Another interesting fact is that Canada has the lowest percentage of direct spending by the central government compared to overall government spending in the Organisation for Economic Development and Co-operation (2022) of the 33 nations for which data are available (**table 3**). Statistics are rarely available for overall government spending at the subnational level,¹⁷ but the relatively small size of Canada's federal direct spending and the large size of its provincial transfers suggests that Canada is unusual in the size and variation of spending among its subnational units.¹⁸

With all of this—the size of government consumption, lack of transparency, weak infrastructure and poor educational attainment, as well as other policy failures discussed below—it is difficult to believe that the Atlantic Provinces have the level of government efficiency that would justify typically higher rates of spending, as seen in figure 1 and table 1, than the Nordic nations, which are known for efficiency. The following discussion shows how specific government programs retarded economic growth. But, it is also true that the magnitude of government spending, reducing the size of the private sector and distorting incentives, itself is a negative factor.

17. Many nations like the United States do not provide data on the amount of federal spending per state.

18. An examination of figure 8 and figure 9 shows that Statistics Canada's change in methodology appears to have resulted in finding increased levels of government consumption in its most recent series. However, the World Bank harmonizes data across nations and its data on government consumption is consistent on a national level with that of Statistics Canada, so the regional and provincial numbers should be too.

Table 3: Consolidated government expenditure as percentage of total general government expenditure, 2019

Jurisdiction	%	Jurisdiction	%	Jurisdiction	%
Canada	32.24	Norway	65.86	France	80.17
Denmark	35.32	Poland	66.14	Slovenia	80.70
Switzerland	42.54	Austria	67.62	Slovak Republic	81.51
Sweden	49.44	Netherlands	69.39	Hungary	85.65
United States	52.11	Iceland	69.70	Portugal	86.64
Belgium	53.91	Czech Republic	71.46	Israel	86.85
Spain	55.61	Latvia	71.84	New Zealand	88.68
Australia	55.65	Italy	72.32	Luxembourg	88.97
Finland	59.44	Estonia	74.60	Ireland	90.28
Mexico	59.58	Lithuania	75.67	Greece	93.02
Germany	60.05	United Kingdom	77.38	Costa Rica	95.88

Sources: OECD, 2022; Statistics Canada 2021, 2022f, 2022h, 2022i, 2022l; calculations by author.

Finally, the huge inflow of money to Atlantic Canada, the difference between total federal expenditures and total federal revenue, has some comparison to foreign aid. The goals are roughly the same: to enable government to provide essential services, bring up living standards, and spur growth.¹⁹ However, any number of studies on foreign aid show ineffectiveness (often negative results), wasted money on useless projects, inflated costs in projects and through the economy, and distortion of wages and incentives, all of which have a negative effect on growth (Boone, 1994; Dollar and Pritchett, 1998; Burnside and Dollar, 1998; Easterly, 2016; Moyo, 2010). The rest of this section will discuss, period by period, the parallels of wasted money, useless projects, and distorted incentives in Atlantic Canada.

19. Any number of scholars complain that the goals of regional programs in Canada were ambiguous. However, the massive regional development programs of the 1970s were clearly designed to drive economic development in poor regions where the programs were concentrated. (Since then, they have expanded across Canada.) Equalization and other transfers are clearly intended to bring up government services, increasing living standards, to the national level.

[1] 1961–1972

This era was a huge economic success for Atlantic Canada and generated great enthusiasm. Many in the region were aware of that growth was strong and the region catching up with the rest of country. The phrase “the Atlantic Revolution” was coined to reflect the optimistic tide of change.

The strong relative growth may have been an example of the concept of convergence: that poorer economies will, all things being equal, catch up with richer regions. The main ideas are that it is easier to copy than innovate at prosperity’s edge and that in poorer regions labour should be relatively abundant and capital relatively scarce, implying that labour costs would be relatively low and returns to scarce capital relatively high, spurring investment and growth (Abramovitz, 1994; Barro and Xavier Sala-i-Martin, 1995). Josh Gutoskie and Ryan Macdonald (2019) find that this pattern holds in Canada.

However, skepticism has developed about the convergence (Strielkowski and Höschle, 2019). Studies, like that of Dawid, Harting, and Neugart (2014), have turned to various aspects of the policy environment. That makes sense. No matter how poor North Korea is, given its policy mix it is unlikely to catch up with Switzerland anytime soon. The view now is that convergence occurs all other things being equal. A nation or region with growth-suppressing policies will not converge with better governed nations, but a poorer nation or region with as good or better policy than a richer nation or region will tend to converge.

Convergence may have played a role in Atlantic Canada’s growth in the 1960s and early 1970s. Although government in the Atlantic provinces was considerably larger as a percentage of GDP than in Canada, this difference was stable until the early 1970s, and would have already been baked into the relative growth rates (see **Box 3**, p. 24). Since Atlantic Canada’s GDP growth rates are relative to the rest of Canada, the key expenditure indicator is Atlantic Canada relative to the rest of Canada. As well, government dominance of the economy in the 1960s was considerably lower than today across all provinces.

[2] 1972–1979

The negative affects on growth of Ottawa’s regional policy of the 1970s, and the hangover the region still suffers, were and are large. McMahon (2000) provided a broad survey of the Atlantic economy and the negative impact of mostly federal policies. The discussion here will be moderately detailed since some of the distortions, though at reduced levels, still inhibit regional economic growth.

The huge increase in federal spending was not a response to any economic weakness in Atlantic Canada but, as was clearly understood at the time, a deliberate federal policy change. Ironically, the success of the 1960s had in part inspired this burst of spending:

Box 3: Policy changes, policy stability, and growth

An interesting aspect of economic reform is that a significant, positive policy change may not change the long-term growth rate but instead change the “level” of the economy.

The economy will expand rapidly after a positive reform until it rises to the new level, then growth returns to its standard rate. This arises out of the mathematical structure of many classical growth models. (Jones and Voltrath, 2013: ch. 2). But it is easy to understand intuitively.

Let’s imagine two virtually identical nations that are experiencing almost exactly the same rate of growth. One leaves policy unchanged. The other government simplifies and lowers the cost and complications of hiring and employment. More people will enter the work force, the economy will grow, and unemployment will decline.

Let’s say this raises the workforce participation rate from 55% to 60%, increasing the national GDP. More workers mean that more things and services are produced. This does not happen overnight, so the workforce increases as people understand the changes, adjust their lives, and perhaps seek new skills. The nation will experience several years of boosted growth. But, at some point, all those for whom work has become a better option will have entered the workforce.

Assuming all other things have been held equal—no new gains in labour productivity, no improved

transportation infrastructure, no new technological breakthroughs—growth will return to its earlier steady state but at a higher level of prosperity.

The “middle-income trap” is often at least partially attributable to this phenomenon. Nations successfully undertake reforms that cause them to reach middle income, then complacency sets in, special interests block further reform, and, with the middle-income success already on the books, the drive for further reform falters (Bulman, Eden, and Nguyen, 2016; Agénor, Canuto, and Jelenic, 2012).

The bottom line is that for these nations to continue on to upper-income status, further reform is required. A 2012 World Bank study found that of 101 middle-income nations in the 1960s and 1970s, only 13 had become high income by 2008 (Agénor, Canuto, and Jelenic, 2012). All introduced and maintained during their strongest periods of growth, market-friendly reforms, limiting government intrusion into the economy as measured by *Economic Freedom of the World* (Gwartney, Lawson, Hall, Murphy, 2021).

Both experience and theory indicate that to move to “have” status from “have-not,” to shift to Canadian terminology, Atlantic Canada will require further reforms, including some by the federal government to remove or change policies that now hold the region back.

“Far from attenuating the demands of Atlantic Canada for a greater national commitment to reducing regional disparities in the country, the general prosperity of the 1960s made the idea of regional development seem a more attainable goal, if only the Canadian state would commit itself to the task” (Bickerton, 1990: 175). The Atlantic Provinces Economic Council in the mid-1970s went so far as to say: “Government employment and transfer payments were ... two chief underpinnings of the Atlantic economy”²⁰ (APEC, 1974).

20. Resources were a third.

It is beyond the scope of this paper to examine all the multiple channels through which the federal government increased spending in Atlantic Canada. That would take volumes. But, the principal avenues were increases in shared-cost program spending, equalization, payments from the Unemployment Insurance (UI) program, and efforts towards economic development.

Figure 6 shows the massive increase in government size in the early 1970s, reaching nearly 80% of the region's GDP in 1980. As noted, those numbers are inflated by the oil-import program and military spending in the region. Even when those are removed, the rise in government spending is immense (see figure 7). By 1972, all government spending in Atlantic Canada, even omitting oil subsidies and military spending, had reached 50% of GDP, followed by nearly two decades, 1977 to 1996, when government spending equalled over 60% of GDP. The gap with the rest of Canada was over 20 percentage points throughout this period.

This is one reason the regional economy went into relative decline. As noted above, this size of government simply leaves less space for private-sector activity to create employment and prosperity. The size of government in Atlantic Canada in this period is beyond any reasonable estimate of the optimal growth-enhancing size of government. Government demand bids up the cost of both labour and materials, making it difficult for businesses, particularly small or new businesses. Business and job creation slowed. (McMahon, 2000). High government spending also politicizes and corrupts business incentives. The government becomes the biggest customer for businesses. Pleasing and cultivating government officials becomes more important than producing products of competitive price and quality.

All this was stunningly revealed in a study (O'Farrell, 1990), sponsored by the Atlantic Canada Opportunity Agency and the Nova Scotia Department of Industry, Trade and Technology, two bodies charged with leading the way in showing how government development agencies can spur growth. P.N. O'Farrell, of the Edinburgh-based Heriot-Watt University, conducted the study in conjunction with a local economic consulting firm, Gardner Pinfold Consultants. His task was to compare the competitiveness of Nova Scotia's firms with those of New England.

He found that Nova Scotia's firms had newer and more expensive equipment than New England's firms, far more government support (enabling the firms to buy the equipment), and paid their workers less than firms in New England. Yet, Nova Scotia's firms charged higher prices than the New England firms and produced goods of inferior quality, that often failed international quality tests. The newer equipment in Nova Scotia, O'Farrell noted, was often left on the shop floor unopened. When it did get opened, New England firms rushed to buy the old equipment, continuing to produce lower priced, better quality goods with their second-hand bargains. O'Farrell explains:

[A] significant proportion of the Nova Scotia firms visited were partially dependent either directly upon provincial or other forms of public purchasing or indirectly through subcontracting to larger firms which are in turn reliant upon government spending for their survival and profitability ... The heavy reliance upon Federal transfers has indirectly promoted a dependency culture in the province ... a culture, as one owner manager said, of “a whole region being on the dole”. (O’Farrell, 1990: 24–25)

O’Farrell also ties problems in the Atlantic fishery to the huge presences of government. (O’Farrell, 1990: 13–14). The quality of fish after handling on Nova Scotian boats was much inferior to the quality of those handled on US boats. In effect, the financial incentives had Nova Scotian fishing mostly for government subsidies, often their largest source of income.

Another government-sponsored study found that the availability of government support led to the politicization of private-sector investment and cut it off from private investors who bring expertise and advice to new entrepreneurs:

First, entrepreneurs become accustomed to the notion of raising money without making relationships with investors; second, business people are often required to “adapt” their business plans in order to fit into the requirement of government programs; and third, the fact that government financing is an option means that private investors tend to stand on the sidelines. The result is that companies generally miss out on the benefits of receiving “intelligent money”—money which brings with it the support, advice and discipline demanded by a private-sector view. The best investors work to support the success of companies in which they are involved. (DRM Advisory Group, 1994: 11-1)

This had a negative impact even on marketing. “Selling is characterized by a casual and rudimentary approach. Price is often the major marketing platform used by too many firms, especially as this research has conclusively demonstrated that, on average, products manufactured in the province are not price competitive” (O’Farrell, 1990: 28–29).

O’Farrell reports on a foreign firm looking for sub-contractors, a key part of technology transfer for poorer regions. The company approached six firms, several were not interested, one backed out because of the quality required, and one firm accepted the work, delivering it 6 weeks late with 10% of the components rejected for low quality.

The UI system, however, had, if anything, an even more devastating effect on the economy:

In high unemployment regions, where U.I. is a mainstay of incomes, it also has undesirable side effects by creating incentives in favour of short-term employment, maximization of unemployment benefits, and disincentives to long-term

reemployment. It affects the supply side of the labour market by influencing work attitudes where workers may wish to work the minimum number of weeks necessary to obtain stamps; it rewards conformity to the system rather than initiative. For employers, it discourages training investment and the creation of [a] suitable workforce; and it contributes to a high labour turnover and increased training costs. (O’Farrell, 1990: 25)

Large government, government employment, and a generous UI system inflate wages by forcing private business to compete with government, and government benefits, for workers. The dramatically higher wages increase costs for business and further weaken competitiveness (documented in chapter 5, McMahon, 2000). The region is still troubled by wage rates that are higher than their productivity would justify so that unit labour costs are typically higher than elsewhere in Canada, reducing competitiveness (McMahon, 2021b).

But, it was not just on wages that UI had a negative effect. UI reforms made it possible for many Atlantic Canadians to work 10 weeks of the year and then collect UI for 42 weeks. The scheme was so widely used it became known as “lotto 10–42”.²¹ And, it quickly led to profound adjustments in the economic and social life of communities throughout the region (see, for example, Royal Commission on Employment and Unemployment, 1986; May and Hollett, 1995; and Vanderkamp, 1986). Work was reorganized into 10-week parcels and much of the fishing industry moved to the 10-week year. Government-subsidized plants sprang up throughout Atlantic Canada, and people were typically cycled through in 10-week segments. In many communities in Atlantic Canada, 90% or more of the families with two (or more) income earners collected UI at some point every year. In at least one community, 100% of such families collected Unemployment Insurance (Courchene, 1994).

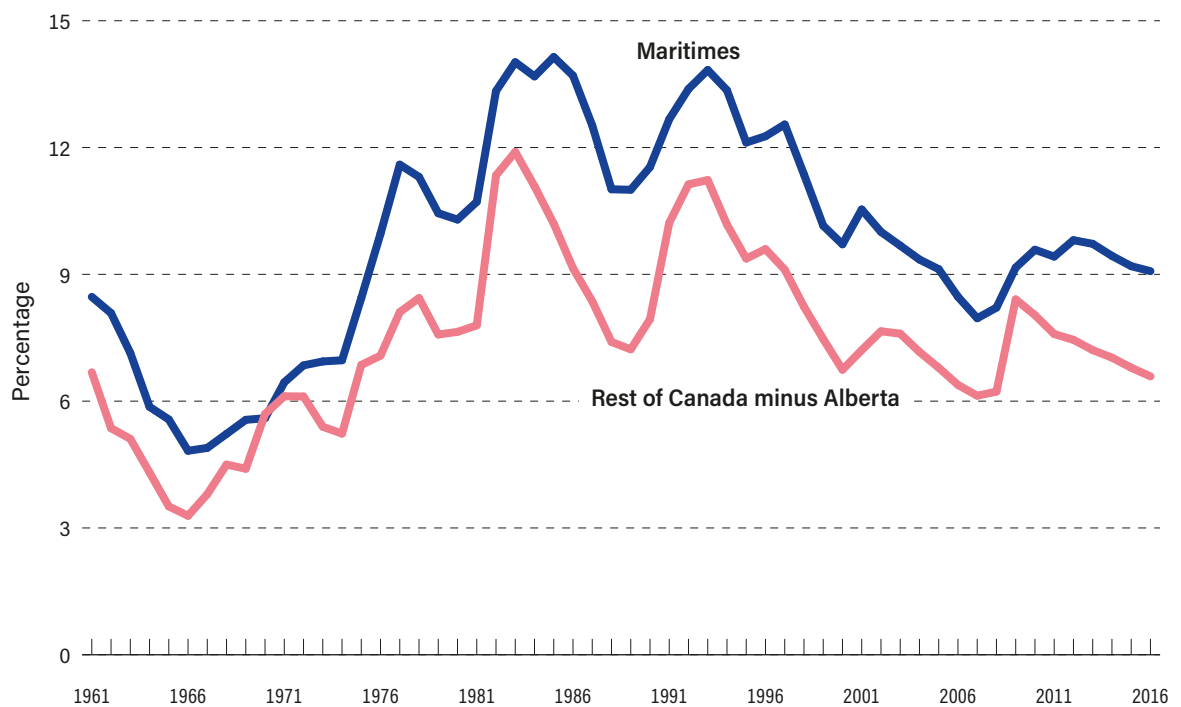
Something remarkable occurred. The number of people collecting UI—most of whom had to be unemployed to qualify—vastly outnumbered those who were employed in all Atlantic provinces. To apply for UI, individuals had to declare themselves unemployed and willing to work. However, the Labour Force survey used by Statistics Canada asked if people were unemployed and looking for work. Only those not working and looking for work were counted as unemployed; only the officially unemployed by this definition could collect UI. For more people to collect UI than were officially unemployed, many must have answered the survey question differently than how they filled out their UI application, even if they would have said yes to both. The official unemployment rate was over 10% through this period, meaning actual unemployment was often around 20%. This shortage of workers not only forced up wages, it created desperate employers unable to find employees across Atlantic Canada.

21. This shifted as the qualifying period changed.

Somewhat surprisingly, in view of the high unemployment levels, constant complaints of shortage of workers are heard. Reports are common of the forest, fishing and farming industries being unable to obtain sufficient workers. Even the Job Vacancy Survey conducted by Statistics Canada, which excluded agriculture and fishing, shows an increase in job vacancies since 1971 ... Another measure of employment opportunities in the region, the Help Wanted Index ... also indicates increasing job opportunities. (APEC, 1973: 6)

Despite the large numbers in unofficial unemployment, throughout this period the unemployment rate in Atlantic Canada soared and the gap between unemployment in the Maritimes and ROC-A soared after the UI reforms in 1971. This is a tragedy. By 1970/71, the region's unemployment rate was virtually identical to the rest of the country, only to have this achievement derailed by badly designed UI reforms. (See **figure 12**, which, for simplicity, shows the Maritimes and the rest of Canada minus Alberta though the pattern is almost identical for Atlantic Canada and the rest of Canada.)

Figure 12: Unemployment rates (%), Maritimes and the rest of Canada minus Alberta (ROC-A), 1961–2016



Another failed effort was the series of massive economic-development programs launched, some in the 1960s but most in the 1970s. They had many of the flaws of foreign-aid development programs, plus some others. They turn business's focus from creating successful goods and services to obtaining government money. They tempt firms to distort their business plans so as to qualify for grants or concessionary loans. Resources are misallocated by bureaucrats and politicians, who are unequipped to pick winners

and who are hobbled by incentives to protect existing interests and political friends. And, they result in successful businesses being undercut by subsidized competitors, who themselves may well fail when the subsidy runs out but not before damaging or destroying successful businesses in the sector.

The string of failures is too long to mention here but some examples are instructive. The attempt to subsidize Cape Breton coal and steel production long after they were economically uncompetitive cost Canadian taxpayers hundreds of millions to keep open. There was also the failed attempt to build automobiles in New Brunswick with Bricklin, or to grow cucumbers in Newfoundland & Labrador, two heavy-water plants that hardly produced any heavy water but sucked in lots of money, and so on (Soucoup, 2013).

The negative affects on the business community showed up not only in analyses like O'Farrell's and the many failures of economic development, they also appeared in the data on private-sector investment. Through the 1960s, per-capita business investment in Atlantic was catching up with the rest of Canada. By 1972, per-capita business investment in Atlantic Canada and the rest of Canada had reached parity at about \$3,500 in 1997 dollars. However, as the perverse business and labour incentives in government programs spread through the economy of the region, per-capita investment in Atlantic Canada stagnated at that level while per-capita business investment in the rest of Canada rose to almost \$6,000 prior to the 1980/1981 recession. The gap has since shrunk but remains significant (McMahon, 2000: 108–111).

The availability of government funds for investment probably discouraged much private-sector investment. Why risk your own money when you can spend taxpayers' money, even if you have to make all sorts of compromises with government to do so? Moreover, government as guaranteed customer lessened the need for investment to improve quality and price: with the right contacts, government bought regardless.

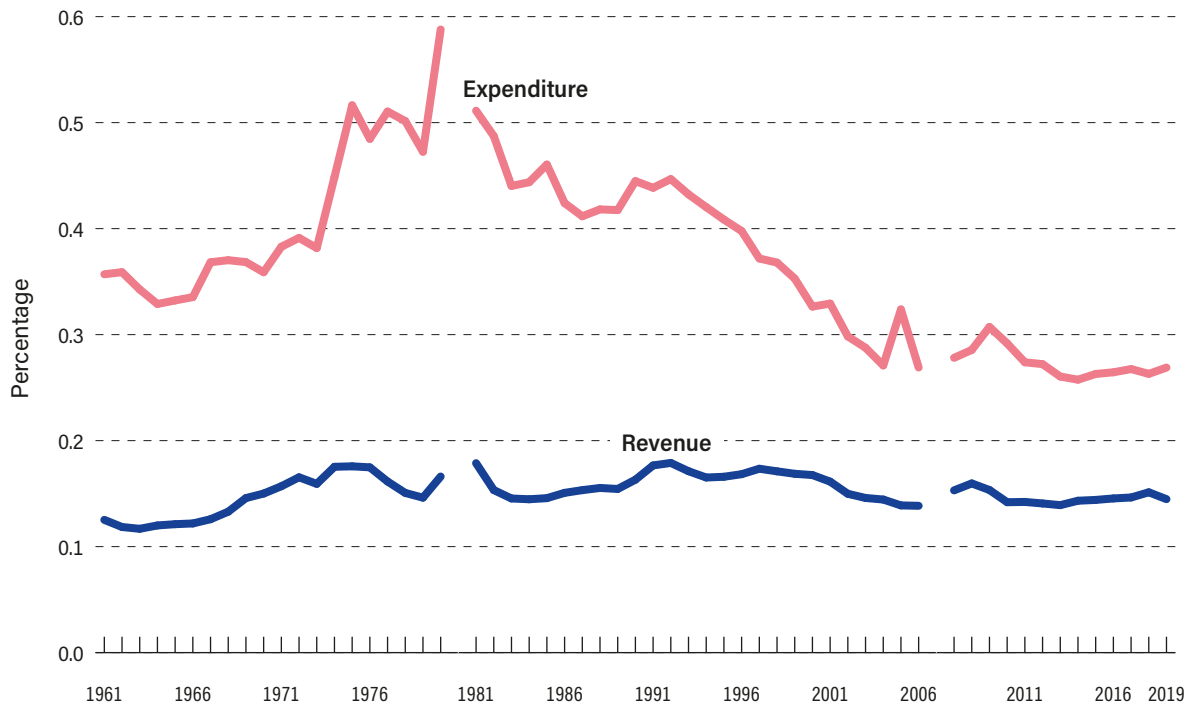
[3] 1983–1997

The era from 1983²² to 1997 was marked by less of the same, so the discussion can be brief. Again, the changes in spending are driven by policy rather than automatic fiscal responses to economic changes. Most of the policy changes were intended to reduce overall spending in Atlantic Canada, but as figure 1 and **figure 13** show, the impact, if any, was minimal until the mid-1990s.

In 1982, the equalization formula was amended in a way that reduced benefits. A ceiling was placed on payments. In the same year, Ottawa took a number of steps that effectively

22. Because of the severe recession from 1980 to 1982 and a break in Statistic Canada's statistic series at exactly this point—both of which caused recorded distortions in economic activity—the years from 1980 to 1982 are omitted.

Figure 13: Total federal expenditure in, and revenue from, Atlantic Canada as a percentage of GDP, 1961–2019



Sources: Statistics Canada 2021, 2022f, 2022h, 2022i, 2022j; calculations by author.

reduced spending on cost-sharing for programs like health care and education. Petroleum-related subsidies were wound down through the middle of the decade, and the Petroleum Incentive Program was eliminated at the end of it. Cutbacks increased after 1984, when a new federal Conservative government pledged to fiscal responsibility was elected. Regional transfers were reduced between 1985 and 1988, before bouncing back up again. Transfers were not effectively reduced until the 1990s (McMahon, 2000). There were also some relatively minor changes in Employment Insurance (EI)—the new name for Unemployment Insurance (UI)—that tightened restrictions and generosity (see McMahon 2021b).

[4] 1997–2010

The 1997-to-2010 era saw much less of the same. The policy environment for Atlantic Canada began changing significantly in the mid-1990s but the most important change was to the Employment Insurance (EI) system in 1996 and 1997. Reforms of Employment Insurance—put in place between July, 1996 and January, 1997—were designed to reduce seasonal claims and to decrease the number of frequent claimants. Under the “intensity rule”, the benefit rate dropped to 50% as the number of weeks of benefits in the preceding five years rose. A claw-back of up to 100% of earnings was introduced for repeat claimants if earnings on claim exceeded maximum insurable earnings. Entrance requirements for new entrants and re-entrants rose to 900 hours of work, and the qualifying period for special benefits was set at 700 hours (Kerr, 1998).

Even by the first report to Parliament on the changes, research showed positive changes directly related to the reforms of Employment Insurance: “the available information suggests that the reform has helped reduce program costs, strengthened work incentives, and extended adjustment assistance to more individuals, despite reduced expenditures on employment benefits and support measures” (Kerr, 1998).

McMahon (2021b) shows that after these reforms unemployment and seasonality declined across Canada but that the decline in Atlantic Canada was faster. Workforce participation also increased, particularly in Atlantic Canada. While direct causation is always difficult to prove, if unemployment and seasonality decrease dramatically and workforce participation grows after the introduction of reforms intended to do exactly those things, then it would seem likely the reforms had something to do with these developments. Given the huge distortions to the labour market caused by the 1972 reforms to Unemployment Insurance, the 1996/97 changes helped synchronize the Atlantic labour market with the national labour market and were likely a main contributor to the spurt of relative growth the region enjoyed from 1997 to 2010. Just the increase in the participation rate, which was significant, would lead to increased per-capita GDP.

The growth of the participation rate from the 1976-to-1995 period to the period from 1997 to 2019 was 4.96 percentage points in Newfoundland & Labrador. This may have been boosted by the development of offshore oil though it is a smaller increase than that seen in Prince Edward Island and New Brunswick. The participation rate increased by 5.43 percentage points in Prince Edward Island, 3.64 percentage points in Nova Scotia, and 5.39 percentage points in New Brunswick. This compares to an average Canadian increase of 1.23 percentage points, though these increases brought only Prince Edward Island up to the national participation rate (McMahon, 2021b).

Another significant policy change boosted growth to the extent large government, as discussed earlier, is an impediment to growth. Beginning with his 1995 budget, Prime Minister Jean Chrétien reduced federal spending significantly. It fell from 18.4% of GDP in the rest of Canada in 1994 to 13.3% in 2007.²³ But federal spending in Atlantic Canada fell even more, dropping from 42.0% of GDP in 1994 to 27.8% in 2007. In fact, the decline in federal spending had begun before 1995. It had been 20.2% of GDP in the rest of Canada and 43.9% of GDP in Atlantic Canada in 1991. (The steady decline is visually evident in figure 13.)

A number of studies indicate that the “Chrétien” reforms contributed to the economic gains (IMF, 2012; Clemens, Lau, Palacios, and Veldhuis, 2017). This is consistent with the discussion earlier on the size of government and growth. The narrowing in the difference between the size of government in Atlantic Canada and of government in the rest of Canada likely helped power the strong catch-up in this period.

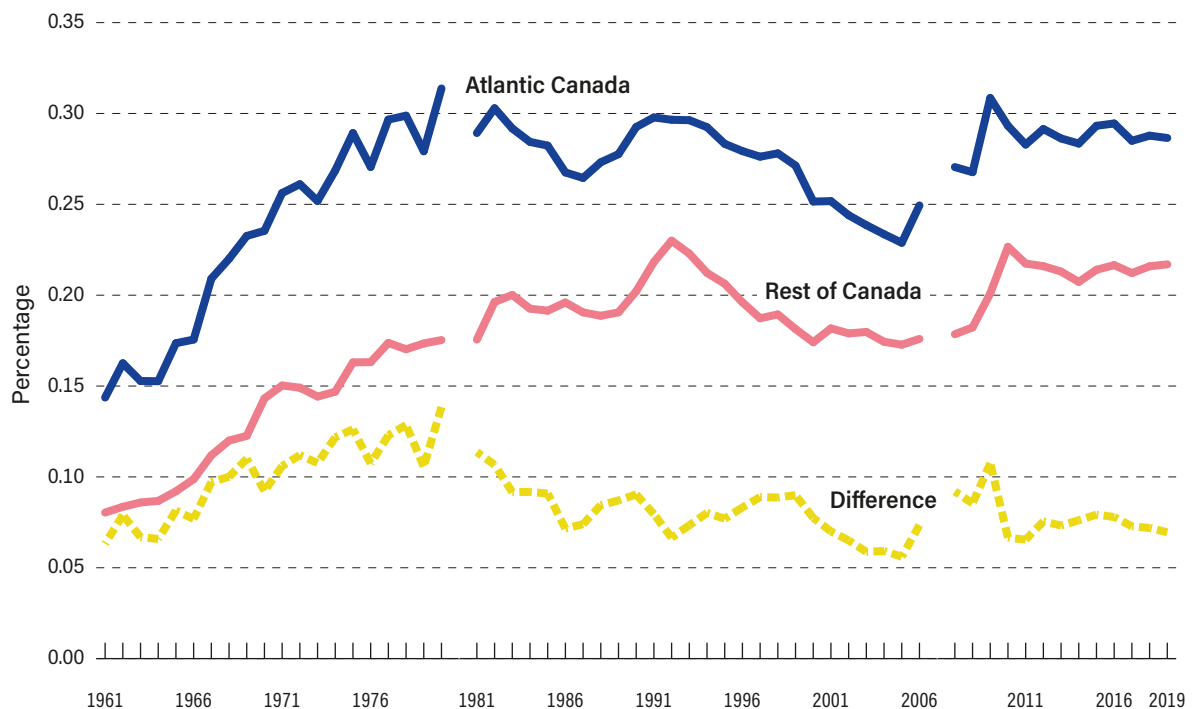
23. At this point, government spending was distorted by the beginning of the financial crisis.

[5] 2010–2019

This era is more of the same. After the 2007–2009 recession, government spending and intrusion into the economy more or less stabilized. In 2010, federal expenditures in Atlantic Canada equaled 29.2% of GDP compared to 26.9% in 2019. For the rest of Canada, federal spending equaled 13.9% in 2019 compared to 15.1% in 2010. Yet, all-government spending in Atlantic Canada equaled 51.1% of GDP in 2010 and 55.0% in 2019, indicating an increase in provincial spending in the region. For the rest of Canada, total government spending equaled 39.9% of GDP in 2010 and 40.6% in 2019.

Some developments in Atlantic Canada appear to have been moving in the wrong direction in this period. **Figure 14** shows a leap in provincial ratio of spending to GDP following the 2007–2009 recession, and spending stuck at the new higher level. A similar pattern held with the rest of Canada, though the gap between Atlantic Canada and the rest of Canada, which had been mostly in decline—though with some ups and downs—between 1994 and 2005 rose to a new and slightly higher level.²⁴ **Figure 15** shows that Atlantic Canada still maintains a significantly higher level of government employment than the rest of Canada and the gap has mostly widened since 1976 (this series goes back only to 1976).

Figure 14: Total expenditure by provincial governments as a percentage of GDP, Atlantic provinces and the rest of Canada (ROC), 1961–2019

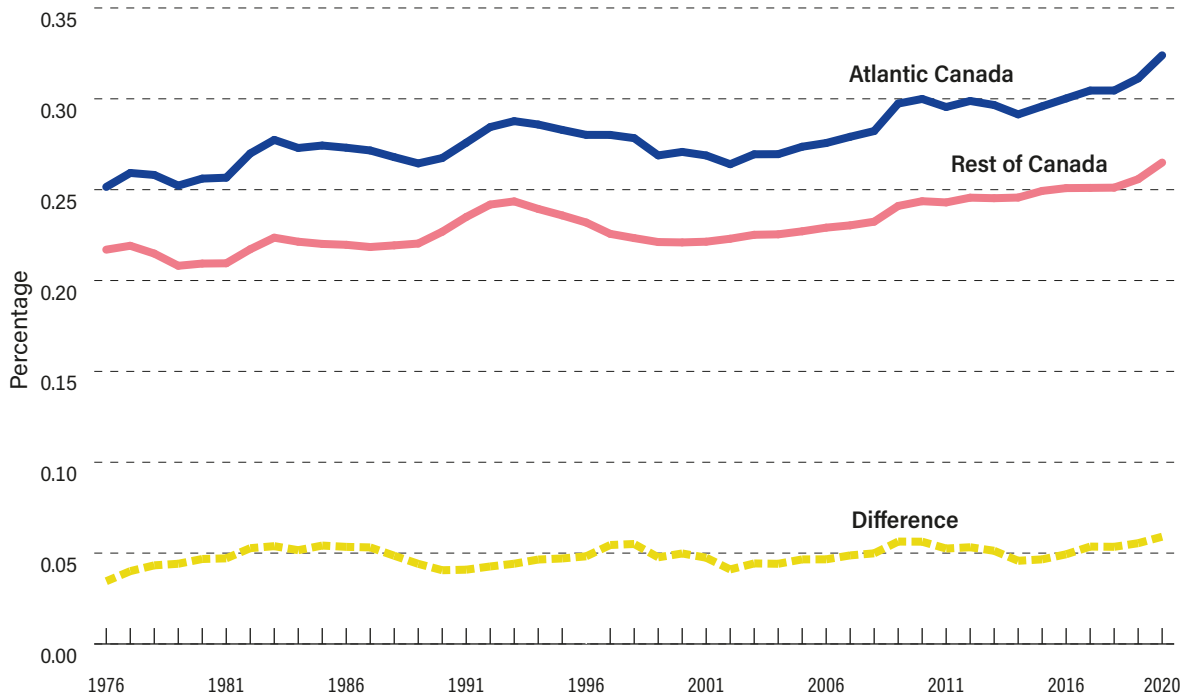


Sources: Statistics Canada 2021, 2022f, 2022h, 2022i, 2022l; calculations by author.

24. However, the break in Statistic Canada’s government expenditure series in 2007 muddies the waters. Nonetheless, the new series itself shows spending increasing after 2007 and remaining at a higher level.

As noted earlier, in this period Atlantic Canada’s GDP growth relative to the rest of Canada halted and went into reverse. In 2010, Atlantic Canada’s per-capita GDP was 87.3% of the national average and 84.6% in 2019. As noted, this is somewhat distorted by oil and gas production in Newfoundland & Labrador, but the pattern for the Maritimes—Atlantic Canada minus Newfoundland & Labrador—is the same: in 2010, per-capita GDP in the Maritimes was 85.4% of the rest of Canada and 81.4% in 2019.

Figure 15: Percentage of workforce employed in public administration, education, health, and social services in the Atlantic provinces and the rest of Canada (ROC), 1976–2020



Sources: Statistics Canada 2022b; calculations by author.

Box 4: How Atlantic Canada compares in size of government with the United States and Mexican states

Table 4 uses data from 2013 since that is the last year where precise data are available for US federal spending by state. All currency has been converted into Canadian dollars at the 2003 exchange rate.

In both panels of the table, all-government spending is calculated on a per-capita basis in Canadian dollars. Three of the four Atlantic provinces are among the top 10 spenders and New Brunswick is 13th. A similar pattern holds in the second panel. The interesting point here is that, with the exception of Newfoundland & Labrador, all the Atlantic provinces devote a greater ratio of GDP to government spending than do the top-spending US states.

As a percentage of GDP, overall spending by the provincial government in Nova Scotia and New Brunswick is behind only that in the Mexican state of Chiapas. New Brunswick is 5th, behind both Chiapas and Mississippi. Newfoundland & Labrador, due to offshore oil and gas development, comes in 40th.

But here again, with one exception, all the high-ratio spenders expend less per person than the Atlantic Provinces. New Brunswick is the exception, virtually tied with New Mexico in per-capita spending. In other words, no matter how viewed, governments in Atlantic Canada are outside the North American norm for size of government.

Table 4: Total all-government and provincial/state spending per capita (CA\$) and as percentage of GDP, Atlantic Canadian provinces and selected US and Mexican states, 2013

Panel 1—all-government spending, sorted by per-capita spending				Panel 2— All-government spending, sorted as a percentage of GDP			
Rank	Jurisdiction	\$ per capita	% GDP	Rank	Jurisdiction	\$ per capita	% GDP
1	Alaska	\$36,411.52	44%	1	Chiapas	\$2,898.58	64%
2	Maryland	\$26,689.52	45%	2	Nova Scotia	\$25,379	61.63%
3	New York	\$26,672.80	39%	3	Prince Edward Island	\$24,199	60.48%
4	Virginia	\$26,432.64	47%	4	Mississippi	\$21,299.96	59%
5	Newfoundland & Labrador	\$26,226	40.08%	5	New Brunswick	\$23,834	56.69%
6	Nova Scotia	\$25,379	61.63%	6	Guerrero	\$2,817.60	56%
7	Wyoming	\$25,340.47	32%	7	Oaxaca	\$2,809.46	56%
8	Hawaii	\$25,012.59	45%	8	Colima	\$6,111.93	56%
9	Atlantic Canada	\$25,001	53.45%	9	Atlantic Canada	53.45%	53.45%
10	Prince Edward Island	\$24,199	60.48%	10	Alabama	\$22,058.46	53%
11	Massachusetts	\$23,993.28	35%	11	New Mexico	\$23,900.04	53%
12	New Mexico	\$23,900.04	53%	12	Maine	\$21,930.84	52%
13	New Brunswick	\$23,834	56.69%	13	West Virginia	\$21,056.61	51%
14	Connecticut	\$23,493.72	33%	14	Distrito Federal	\$11,933.11	51%
15	Vermont	\$23,268.37	48%	40	Newfoundland & Labrador	\$26,226	40.08%

Sources: NCSL, 2022; Torra, 2022; Statistics Canada 2021, 2022f, 2022h, 2022i, 2022j; US Census Bureau, 2022a, 2022b; World Bank 2022; calculations by author. I would like to thank, Dean Stansel and José Torra, my co-authors of the annual report, *Economic Freedom of North America*, for their assistance in obtaining US and Mexican data..

Conclusion

The impact of the negative regional policies developed mostly in the 1970s remains today. While the labour market has moved closer to the Canadian average, EI spending is considerably higher in Atlantic Canada than across Canada. For example, the average annual payment from 2007 to 2018 per labour-force participant was \$939 across Canada compared to \$2,444 in Atlantic Canada while the average Canadian contribution was \$1,168, for a deficit per labour-force participant of \$229. EI contributions in Atlantic Canada averaged \$1,229, close the national average, but the more generous payout resulted in a \$1,215 difference between contribution and payout (McMahon, 2020).

The region remains dependent on federal spending. Between 2007 and 2019, federal spending equaled 27.5% of GDP, of which 12.8% was net transfer, not recouped from regional federal revenues (McMahon, 2021a). This also supports an unusually high level of government employment, which continues to distort the labour market.

Just as policy changes relative to the rest of Canada have petered out, so too has economic growth relative to the rest of the country. As noted in Box 3, growth-enhancing economic reform boosts growth for some years after the reform as the economy moves to an improved level, but then normal growth resumes. If Atlantic Canadians wish to move to the average level of Canadian prosperity—a regional aspiration for decades—then further reforms are necessary to boost growth.

By any measure, overall government spending far exceeds any estimate of a level optimal for growth. A goal should be to bring the Atlantic average in line with the rest of Canada. Spending elsewhere in Canada also exceeds many estimates of the optimal level for economic growth, but this would at least put Atlantic Canada on an even footing with the rest of Canada.

Despite a vastly improved labour market, unemployment and seasonality remain well above the national average and the participation rate below the national average. Reform of the labour market, particularly of Employment Insurance, will have to continue to reduce unemployment and seasonality.

Atlantic Canada has had strong growth spurts relative to the rest of Canada in the periods from 1961 to 1972 and from 1997 to 2010. With a focus on growth-enhancing economic policies, the region could soon be on par with the rest of Canada.

References

- Abramovitz, Moses (1994). Catch-up and Convergence in the Postwar Growth Boom and After. In W.J. Baumel, R.R. Nelson, and E.N. Wolff (eds.), *Convergence of Productivity: Cross-National Studies and Historical Evidence* (Oxford University Press): 86–124.
- Ady, Robert M. (1997). Discussion [of Fisher (1997)]. In Proceedings of a [Federal Reserve Bank of Boston] Symposium on the Effects of State and Local Public Policies on Economic Development. *New England Economic Review* March/April: 81–82.
- Afonso, António, and Davide Furceri (2010). Government Size, Composition, Volatility and Economic Growth. *European Journal of Political Economy* 26, 4: 517–532. <<https://www.sciencedirect.com/science/article/abs/pii/S017626801000008X>>, as of December 18, 2021.
- Agénor, Pierre-Richard, Otaviano Canuto, and Michael Jelenic (2012). *Avoiding Middle-Income Growth Traps*. Economic Premise 98 (November). World Bank. <<https://documents1.worldbank.org/curated/en/42212146815511398/pdf/NonAsciiFileName0.pdf>>, as of May 10, 2022.
- Asimakopulos, Stylianos, and Yiannis Karavias (2016). The Impact of Government Size on Economic Growth: A Threshold Analysis. *Economics Letters* 139 (February): 65–68. <<https://www.sciencedirect.com/science/article/abs/pii/S0165176515005194>>, as of January 22, 2022.
- Atlantic Provinces Economic Council [APEC] (1973). *The Atlantic Report #4* (October). APEC <<https://www.apec-econ.ca>>.
- Atlantic Provinces Economic Council [APEC] (1974) *The Atlantic Report #6* (June). APEC <<https://www.apec-econ.ca>>.
- Atul, A Dar, and Sal Amir Khalkhali (2002). Government Size, Factor Accumulation, and Economic Growth: Evidence from OECD Countries. *Journal of Policy Modeling* 24, 7–8: 679–692. <<https://www.sciencedirect.com/science/article/abs/pii/S0161893802001631>>, as of January 23, 2022.
- Bergh, Andreas, and Magnus Henrekson (2011). Government Size and Growth: A Survey and Interpretation of the Evidence. *Journal of Economic Surveys* 25, 5: 872–897. <<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-6419.2011.00697.x>>, as of January 15, 2022.
- Bickerton, J.P. (1990). *Nova Scotia, Ottawa and the Politics for Regional Development*. University of Toronto Press.

Boone, Peter (1994). *The Impact of Foreign Aid on Savings and Growth*. Working paper. London School of Economics.

Bulman, David, Maya Eden, and Ha Nguyen (2016). *Transitioning from Low-Income Growth to High-Income Growth: Is There a Middle-Income Trap?* ADBI Working Paper Series. Asian Development Bank Institute. <<https://www.adb.org/sites/default/files/publication/224601/adbi-wp646.pdf>>, as of May 20, 2022.

Bureau of Economic Analysis (BEA) (2022). *Gross Domestic Product by State, Advance 2015 and Revised 1997-2014*. <<https://apps.bea.gov/regional/histdata/releases/0616gsp/index.cfm>>, as of May 28, 2022.

Burnside, Craig, and David Dollar (1998). *Aid, the Incentive Regime, and Poverty Reduction*. Policy Research Working Papers No. 1937. Development Research Group, World Bank.

Canada Energy Regulator (CEG) (2017). *Market Snapshot: 25 Years of Atlantic Canada Offshore Oil & Natural Gas Production*. Government of Canada. <<https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2017/market-snapshot-25-years-atlantic-canada-offshore-oil-natural-gas-production.html>>, accessed March 9, 2022.

Chao, Johnny C.P., and Herbert Grubel (1998). Optimal Levels of Spending and Taxation in Canada. In Herbert Grubel, ed., *How to Use the Fiscal Surplus: What Is the Optimal Size of Government?* (Fraser Institute): 53–68. <<https://www.fraserinstitute.org/sites/default/files/HowtoUseFiscalSurplusOptimalLevels.pdf>>, as of May 10, 2022.

Clemens, Jason, Matthew Lau, Milagros Palacios, and Niels Veldhuis (2017). *End of the Chretien Consensus?* <<https://www.fraserinstitute.org/studies/end-of-the-chretien-consensus>>, as of November 2, 2021.

Conference Board of Canada (2014). *Education and Skills*. Provincial and Territorial Ranking, How Canada Performs. <<https://conferenceboard.ca/hcp/Provincial/Education.aspx?msclid=0fc9b520a6fd11ec8e9350ad61e8856f>>, as of 12 February, 2022.

Courchene, Thomas J. (1994). *Social Policy in the Millennium: Reform Imperatives and Restructuring Principles*. The Social Policy Challenge 4. C.D. Howe Institute.

Dawid, H., P. Harting, and M. Neugart (2014). Economic Convergence: Policy Implications from a Heterogeneous Agent Model. *Journal of Economic Dynamics and Control* 44: 54–80. <<https://www.sciencedirect.com/science/article/abs/pii/S0165188914000852>>; <<https://doi.org/10.1016/j.jedc.2014.04.004>>, as of January 3, 2022

Di Matteo, Livio (2013). *Measuring Government in the Twenty-first Century: An International Overview of the Size and Efficiency of Public Spending*. Fraser Institute. <<https://www.fraserinstitute.org/studies/measuring-government-in-the-21st-century>>, accessed March 9, 2022.

Dollar, David, and Lant Pritchett (1998). *Assessing Aid: A World Bank Policy Research Report*. World Bank.

DRI Canada, APEC, and Canmac Economics (1994). *Atlantic Canada: Facing the Challenge of Change: A Study of the Atlantic Economy*. Atlantic Canada Opportunities Agency.

DRM Advisory Group (1994). *Obstacles and Challenges in the Development of Innovative Export Firms in Nova Scotia and PEI—Summary*. Industry Canada.

Easterly, William (2016). *The Economics of International Development: Foreign Aid versus Freedom for the World's Poor*. Institute for Economic Analysis.

Ghourchian, Shahrzad, and Hakan Yilmazkuday (2020). Government Consumption, Government Debt and Economic Growth. *Review of Economic Developments* 24, 2: 589–605. <<https://onlinelibrary.wiley.com/doi/abs/10.1111/rode.12661>>, as of February 10, 2022.

Gutoskie, Josh, and Ryan Macdonald (2019). *Income Growth per Capita in the Provinces since 1950*. Statistics Canada. <<https://www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2019009-eng.htm>>, as of March 13, 2022.

Gwartney, James, Robert Lawson, Joshua Hall, and Ryan Murphy (2021). *Economic Freedom of the World: 2021 Annual Report*. Fraser Institute. <<https://www.fraserinstitute.org/studies/economic-freedom-of-the-world-2021-annual-report>>, as of May 10, 2021.

Hajamini, Mehdi, and Mohammad Ali Falahi (2018). Economic Growth and Government Size in Developed European Countries: A Panel Threshold Approach. *Economic Analysis and Policy* 58: 1–13. <<https://www.sciencedirect.com/science/article/abs/pii/S0313592616301643>>, as of December 12, 2021.

International Monetary Fund [IMF] (2012). *World Economic Outlook, October 2012: Coping with High Debt and Sluggish Growth*. <<https://www.imf.org/en/Publications/WEO/Issues/2016/12/31/World-Economic-Outlook-October-2012-Coping-with-High-Debt-and-Sluggish-Growth-25845>>, as of October 28, 2021.

Jackson, Chris (2003). *The Effect of Rebased on GDP*. Research Paper. Cat. no. 13-604-MIB no. 35. Statistics Canada. <<https://www150.statcan.gc.ca/n1/en/pub/13-604-m/13-604-m1996035-eng.pdf?st=TuFC8gYG>>, as of March 13, 2022.

Jones, Charles (2002). The Solow Model. Chapter 2 in *Introduction to Economic Growth* (2nd edition). W W Norton. <https://www.academia.edu/3319887/introduction_To_Economic_Growth_2nd_Edition>, as of May 28, 2022.

Kerr, Kevin B. (1998). *Employment Insurance Reform: The First Monitoring and Assessment Report* (June). Economics Division, Parliament of Canada. <<https://publications.gc.ca/Collection-R/LoPBdP/BP/bp463-e.htm>>, as of October 1, 2021.

Kim, Dong-Hyeon, Yi-Chen Wu, and Shu-Chin Lin (2018). Heterogeneity in the Effects of Government Size and Governance on Economic Growth. *Economic Modelling* 68: 205–216. <<https://www.sciencedirect.com/science/article/abs/pii/S0264999316305843>>, as of December, 2021

MacPherson, Paige, Joel Emes, and Nathaniel Li (2021). *Education Spending in Public Schools in Canada: Fall 2021*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/education-spending-in-public-schools-in-canada-fall-2021.pdf>>, as of March 10, 2022.

May, Douglas, and A. Hollett. 1995. *The Rock in a Hard Place*. The Social Policy Challenge 9. C.D. Howe Institute.

McHardie, Daniel (2011). Highway transforms into “a poisoned chalice”. *CBC News* (October 11). <<https://www.cbc.ca/news/canada/new-brunswick/highway-transforms-into-a-poisoned-chalice-1.1041422>>, as of January 15, 2022.

McMahon, Fred. (2000) *Retreat from Growth: Atlantic Canada and the Negative-Sum-Economy*. Atlantic Institute for Market Studies. <<https://www.aims.ca/books-papers/retreat-from-growth/>>, as of May 10, 2022.

McMahon, Fred (2020). *Extended Employment Insurance Now Open to All: Atlantic Canada’s Warning for Other Provinces*. Fraser Institute/AIMS. <<https://www.fraserinstitute.org/studies/extended-employment-insurance-now-open-to-all>>, as of May 10, 2022.

McMahon, Fred (2021a). *Fiscal Federalism and the Dependency of Atlantic Canada*. Fraser Institute/AIMS. <<https://www.fraserinstitute.org/studies/fiscal-federalism-and-the-dependency-of-atlantic-canada>>, as of May 10, 2022.

McMahon, Fred (2021b). *Returning to Normalcy: Unemployment and Seasonality in Atlantic Canada*. Fraser Institute/AIMS. <<https://www.fraserinstitute.org/studies/returning-to-normalcy-unemployment-and-seasonality-in-atlantic-canada>>, as of May 10, 2022.

McNiven, J.D., and Janice Plumstead (1996). *Atlantic Canada and the World: A Development Comparison*. North American Policy Studies Group and the Atlantic Canada Opportunities Agency.

Moyo, Dambisa (2010). *Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa*. Farrar, Straus and Giroux.

O'Farrell, P.N. (1990). *Small Manufacturing Competitiveness and Performance: An Analysis of Matched Pairs in Nova Scotia and New England*. In association with Gardner Pinfold Consultants, for the Nova Scotia Department of Industry, Trade and Technology and the Atlantic Canada Opportunities Agency.

Rodrik, Dani (2011). *The Future of Economic Convergence*. Working Paper 17400. National Bureau of Economic Research. <<https://www.nber.org/papers/w17400>>, as of March 14, 2022.

Royal Commission on Employment and Unemployment (1986). *Building on Our Strengths*. Chair, Douglas House. Government of Newfoundland & Labrador.

Soucoup, Dan (2013). *Failures and Fiascos*. Nimbus Publishing.

Strielkowski, Wadim, and Felix Höschle (2019). Evidence for Economic Convergence in the EU: The Analysis of Past EU Enlargements. *Technological and Economic Development of Economy* 22, 4: 617–630

Vanderkamp, K. (1986). The Efficiency of Interregional Adjustment Process. K. Norrie (research coordinator), Disparities and Interregional Adjustment. *Collected Research Studies for the Royal Commission on Economic Union and Development Prospects for Canada* 64: 53–108. University of Toronto Press.

Whalen, Alex, and Nathaniel Li (March 2022). *The Size of Government in Canada in 2019*. Fraser Research Bulletin. <<https://www.fraserinstitute.org/sites/default/files/size-of-government-in-canada-in-2019.pdf>>, accessed March 17, 2022.

Data sources

McMahon, Fred. (2000) *Retreat from Growth: Atlantic Canada and the Negative-Sum-Economy*. Atlantic Institute for Market Studies. <<https://www.aims.ca/books-papers/retreat-from-growth/>>. As Statistics Canada no longer posts oil import subsidies for the years 1980 to 1984, data from this earlier publication was used instead.

National Council of State Legislators (NCSL) (2022) *Federal Spending by State*. <<https://www.ncsl.org/aboutus.aspx#:~:text=NCSL%2C%20founded%20in%201975%2C%20represents,exchange%20of%20information%20among%20legislatures>>, as of February 11, 2022

Organisation for Economic Development and Co-operation (2022). Consolidated government expenditure as percentage of total general government expenditure (table 5: 1970–2020). <<https://www.oecd.org/tax/federalism/fiscal-decentralisation-database/>>, as of March 20, 2022.

Pew Charitable Trusts (2014). Federal Spending in the States, 2004 to 2013. <https://www.pewtrusts.org/-/media/assets/2016/03/federal-spending-in-the-states-report_final.pdf>, as of February 17, 2022.

Statista (2022). Average annual real gross domestic product (GDP) growth in select Organization for Economic Co-operation and Development (OECD) countries in the 1960s and 1970s. <<https://www.statista.com/statistics/788497/average-annual-real-gdp-growth-oecd-countries-60s-70s/>>, as of April 23, 2022.

Statistics Canada (2017). Table 36-10-0396-01. Archived - Gross domestic product (GDP) at basic prices, by North American Industry Classification System (NAICS) and province (x 1,000,000). <<https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3610039601>>, as of April 23, 2022.

Statistics Canada (2021) Table: 36-10-0324-01. Archived - Provincial gross domestic product (GDP), income-based, provincial economic accounts, annual, 1961 – 1980 (x 1,000,000). <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610032401>>, as of December 12, 2021.

Statistics Canada (2022a) Table 12-10-0133-01. Canadian international merchandise trade by province and country, and by product sections, customs-based (x 1,000). <<https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1210013301>>, as of April 23, 2022.

Statistics Canada (2022b). Table 14-10-0027-01. Employment by class of worker, annual (x 1,000). <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410002701>>, as of January 22, 2022.

Statistics Canada (2022c). Table 17-10-0060-01. Estimates of population as of July 1st, by marital status or legal marital status, age and sex. Annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710006001>>, as of 12 January, 2022.

Statistics Canada (2022d). Table 33-10-0163-01. Monthly average foreign exchange rates in Canadian dollars, Bank of Canada. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3310016301>>, as of February 12, 2022.

Statistics Canada (2022e). Table 36-10-0205-01. Wages, salaries and employers' social contributions (x 1,000). Monthly. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610020501>>, as of February 17, 2022.

Statistics Canada (2022f). Table 36-10-0221-01. Gross domestic product, income-based, provincial and territorial, annual (x 1,000,000) [1981–current]. Annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610022101>>, as of January 12, 2022

Statistics Canada (2022g). Table 36-10-0298-01. Archived - Wages and salaries and supplementary labour income, by industry, by province or territory, monthly, 1961 – 1996 (x 1,000). Monthly. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610029801>>, as of February 18, 2022.

Statistics Canada (2022h). Table 36-10-0314-01. Archived - Government sector revenue and expenditure, provincial economic accounts, annual, 1981 – 2009 (x 1,000,000). Annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610031401>>, as of February 5, 2022.

Statistics Canada (2022i). Table 36-10-0332-01. Archived - Federal government and government sector revenue and expenditure, provincial economic accounts, annual, 1961 – 1980 (x 1,000,000). Annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610033201>>, as of February 5, 2022

Statistics Canada (2022j). Table 36-10-0342-01. Archived - Government transfer payments to business, provincial economic accounts, annual, 1961 - 1980 (x 1,000,000). Annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610034201>>, as of February 13, 2022.

Statistics Canada (2022k). Table 36-10-0345-01. Archived - Selected economic indicators, provincial economic accounts, annual, 1926 – 1980. Annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610034501>>, as of February 5, 2022

Statistics Canada (2022l). Table: 36-10-0450-01. Revenue, expenditure and budgetary balance - General governments, provincial and territorial economic accounts (x 1,000,000). Annual. [2007–current]. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610045001>>, January 13, 2022.

Statistics Canada (2022m) Table 14-10-0023-01. Labour force characteristics by industry, annual. <<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410002301>>, as of February 17, 2022.

Torra, José (2022). Total Government Spending for the Mexican States. Caminos de la Libertad. Data provided directly to the author.

United States Census Bureau (2022). Table 1: State and Local Government Finances by Level of Government and by State: 2013. <https://www.census.gov/programs-surveys/gov-finances/data/datasets.2013.List_1883146942.html>, as of February 11, 2022.

United States Census Bureau (2022b). Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico. <<https://www2.census.gov/programs-surveys/popest/tables/2010-2019/state/totals/nst-est2019-01.xlsx>>, as of February 11, 2022.

World Bank (2022). *World Development Indicators*. <<https://databank.worldbank.org/source/world-development-indicators#>>, as of March 20, 2022.

About the author

Fred McMahon

Fred McMahon is a Fraser Institute Resident Fellow and holder of the Dr. Michael A. Walker Research Chair in Economic Freedom. He has an M.A. in Economics from McGill University. Mr. McMahon manages the Economic Freedom of the World Project and coordinates the Economic Freedom Network, an international alliance of over 100 think-tank partners in about 100 nations and territories. His research focuses on global regional issues such as development, trade, governance, and economic structure. Mr. McMahon is the author of numerous research articles and several books including, *Looking the Gift Horse in the Mouth: The Impact of Federal Transfers on Atlantic Canada*, which won the Sir Antony Fisher International Memorial Award for advancing public-policy debate, *Road to Growth: How Lagging Economies Become Prosperous*, and *Retreat from Growth: Atlantic Canada and the Negative Sum Economy*. He has written for numerous publications including the *European Journal of Political Economy*, *SAIS Journal* (School of Advanced International Studies, Johns Hopkins University), *Wall Street Journal*, *Policy Options*, *National Post*, *Time* (Canada), *Globe and Mail*, *Ottawa Citizen*, and most other major Canadian newspapers. Recent research articles of which he has been the author or a co-author include: *Economic Freedom of North America*, *Quebec Prosperity: Taking the Next Step*, *The Unseen Wall: The Fraser Institute's Annual Trade Survey*, and *Economic Freedom of the Arab World*.



Acknowledgments

The author wishes to thank the Lotte & John Hecht Memorial Foundation for its generous support of this project. He would also like to thank Alex Whalen and three anonymous reviewers who improved the paper immensely. All remaining errors and oversights are the responsibility of the author. As the researcher has worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

Publishing Information

Distribution

These publications are available from <<http://www.fraserinstitute.org>> in Portable Document Format (PDF) and can be read with Adobe Acrobat® or Adobe Reader®, versions 7 or later. Adobe Acrobat Reader® DC, the most recent version, is available free of charge from Adobe Systems Inc. at <<http://get.adobe.com/reader/>>. Readers having trouble viewing or printing our PDF files using applications from other manufacturers (e.g., Apple's Preview) should use Reader® or Acrobat®.

Ordering publications

To order printed publications from the Fraser Institute, please contact us via e-mail: sales@fraserinstitute.org; telephone: 604.688.0221, ext. 580 or, toll free, 1.800.665.3558, ext. 580; or fax: 604.688.8539.

Media

For media enquiries, please contact our communications department via e-mail: communications@fraserinstitute.org; telephone: 604.714.4582.

Copyright

Copyright © 2022 by the Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

Date of issue

2022

ISBN

978-0-88975-699-1

Citation

Fred McMahon (2021). *Catching Up and Falling Behind: The Five Economic Eras of Atlantic Canada, 1961–2019*. Fraser Institute. <<http://www.fraserinstitute.org>>.

Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact us via post: Development Department, Fraser Institute, Fourth Floor, 1770 Burrard Street, Vancouver, British Columbia, V6J 3G7, Canada; telephone: toll-free to 1.800.665.3558, ext. 548; e-mail: development@fraserinstitute.org; or visit our webpage: <<http://www.fraserinstitute.org/support-us/overview.aspx>>.

About the Fraser Institute

Our mission is to improve the quality of life for Canadians, their families and future generations by studying, measuring and broadly communicating the effects of government policies, entrepreneurship and choice on their well-being.

Notre mission consiste à améliorer la qualité de vie des Canadiens et des générations à venir en étudiant, en mesurant et en diffusant les effets des politiques gouvernementales, de l'entrepreneuriat et des choix sur leur bien-être.

Purpose, Funding, and Independence

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute's Board of Directors and its donors.

The opinions expressed by authors are their own, and do not necessarily reflect those of the Institute, its Board of Directors, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its directors, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.

Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute’s research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute’s peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.

Editorial Advisory Board

Members

Prof. Terry L. Anderson
 Prof. Robert Barro
 Prof. Jean-Pierre Centi
 Prof. John Chant
 Prof. Bev Dahlby
 Prof. Erwin Diewert
 Prof. Stephen Easton
 Prof. J.C. Herbert Emery
 Prof. Jack L. Granatstein

Prof. Herbert G. Grubel
 Prof. James Gwartney
 Prof. Ronald W. Jones
 Dr. Jerry Jordan
 Prof. Ross McKittrick
 Prof. Michael Parkin
 Prof. Friedrich Schneider
 Prof. Lawrence B. Smith
 Dr. Vito Tanzi

Past members

Prof. Armen Alchian*
 Prof. Michael Bliss*
 Prof. James M. Buchanan* †
 Prof. Friedrich A. Hayek* †
 Prof. H.G. Johnson*

Prof. F.G. Pennance*
 Prof. George Stigler* †
 Sir Alan Walters*
 Prof. Edwin G. West*

* deceased; † Nobel Laureate