

February 2015

EDUCATION SPENDING IN CANADA:

WHAT'S ACTUALLY HAPPENING?

Deani Neven Van Pelt and Joel Emes





Education Spending in Canada: What's Actually Happening?

by Deani Neven Van Pelt and Joel Emes

Contents

```
Executive summary / iii
Introduction / 1
Elementary and secondary education in Canada / 3
Alternative measures of education spending / 4
Comparison of actual versus constant education spending / 14
Conclusion / 17
References / 18
Appendix 1: Headcount enrolments in government schools / 21
Appendix 2: Per-pupil education spending in government schools / 26
Appendix 3: Education spending in government schools,
actual versus 2001/02 level adjusted for inflation and enrolment / 30
      About the authors / 35
      Acknowledgments / 35
      Publishing information / 36
      Supporting the Fraser Institute / 37
      Purpose, funding, & independence / 37
      About the Fraser Institute / 38
      Editorial Advisory Board / 39
```

Executive summary

Media reports on education spending in Canada often refer to spending cuts, gaps and caps, budget shortfalls, and expenditure decreases. An informal observer may well conclude that spending on government elementary and secondary schools across the provinces is falling, and that it has been doing so for quite some time.

But is this actually the case? Has spending in government schools increased or decreased over the last decade?

Using comprehensive Statistics Canada data, this paper analyzes changes in spending on government schools from 2001/02 to 2011/12—examining variations in provincial spending on public elementary and secondary schools for a period of just over a decade. The data are presented in aggregate form (all provinces combined), with additional province-specific analysis offered throughout the paper and in the appendices.

The paper discusses four of the measures commonly used to analyze spending, and identifies some of their weaknesses when applied to education spending. It also offers an analysis of what spending on education in government schools would have been had it only matched inflation and changes in enrolment. The results do not support a narrative of decline in education spending in Canada.

The most common measure of education spending is nominal spending—the level of total spending in any particular year compared to total spending in previous years. Using this approach, total nominal spending in government schools in Canada grew by 53.1 percent, increasing from \$38.9 billion in 2001/02 to \$59.6 billion in 2011/12. Every province showed a marked increase in nominal spending on government schools. But this measure does not account for changes in student enrolments.

We next consider spending as a ratio of gross domestic product. Spending in government schools relative to GDP at the end of the period was where it was at the beginning of the period (3.4 percent). Even though it initially declined slightly, it then spiked in 2009/10 before declining again. This approach too is a misleading measure of spending over time, however, because the marked increase in education spending as a share of GDP

observed in 2009/10 had little to do with changes in education spending and a lot to do with the recession, during which GDP contracted.

The third measure analyzes education spending as a ratio of provincial spending. The proportion of total program spending represented by spending in government schools fell almost continuously over the period, declining from 21.9 percent in 2001/02 to 19.4 percent in 2011/12. Still, this can also be misleading. Given the marked increases in nominal spending noted earlier, this measure could well simply reflect more dramatic increases in other program spending areas.

The final measure of education spending is at a per-pupil level, accounting for changes in enrolment in government schools. Enrolments have declined from 5.4 million in 2001/02 to 5.0 million in 2011/12, a national decline of 33,000 students per year on average. Only Alberta saw an increase in student enrolment over the period. Furthermore, as a share of total population, student headcounts also declined in every province. Most importantly, when nominal spending is adjusted by enrolments, the per-pupil spending in government schools in Canada is found to increase from \$7,250 to \$11,835, or by 63.2 percent. When variations in student enrolments are considered, the resulting per-pupil spending measure presents a superior approach to analyzing changes in education spending in Canada.

A concluding analysis compares actual spending to what education spending would have been had the level of per-pupil funding in 2001/02, adjusted for inflation, remained constant over the decade. For 2011/12, the real increase in spending compared to 2001/02 was over \$14.8 billion—38.1 percent higher.

Thus, using the best measures available for gauging spending on education in government schools in Canada, large-scale increases in spending between 2001/02 and 2011/12 are observed. The analysis of variations in nominal spending and per-pupil spending exposes, despite widespread narratives to the contrary, a story of marked education spending increases for the period, the first showing an increase of more than 53 percent, the other an increase of more than 63 percent.

Introduction

From news and reports on education, which are littered with terms such as spending cuts and caps, budget shortfalls, and expenditure decreases and freezes, a casual observer might conclude that spending on government elementary and secondary schools has been falling.

Such claims appear in a variety of sources. In Nova Scotia, CBC (2012) reported that the province's "eight school boards will see their funding cut for the second year in a row, this time by 1.3 per cent in the 2012/13 fiscal year." In Quebec, Green (2014) reported that there had been \$640 million in cuts in public education funding since 2010. In Ontario, Chartrand (2012) reported that "the public education system in Ontario will be hit with \$2.6 billion in cuts over the next three years." Tatelman and MacMillan (2014) reported that Alberta "cut \$14.5 million from school boards by freezing perstudent funding and curtailing or cancelling programs." In British Columbia, Carman (2014) reported that the provincial budget runs billions short for education and health, and quotes the vice-president of the provincial teacher federation as saying the "cuts have been because funding has not kept pace with inflation." Also in British Columbia, Culbert and Shaw (2014) state that "budget 2014/15 effectively freezes funding for the kindergarten to Grade 12 system for the next three years."

Some reports move beyond simple claims about overall funding levels to focus on ratios of spending to gross domestic product (GDP). In 2012, the British Columbia Teachers' Federation wrote that "total expenditures in public elementary and secondary schools, as a percentage of the GDP, decreased in BC from 3.6% in 2002–03 to 3.3% in 2003–04, and remains at 3.3% in 2009–10" (BCTF, 2012: 13).

Taken together, and these are just selected instances, such reports reinforce a narrative that decreases in K–12 education spending are taking place across the country. Even if all of the claims noted above are correct, they do not necessarily indicate a funding decline when properly

^{1.} According to Carman (2014), the conference Board of Canada report (British Columbia Fiscal Snapshot: Back on Solid Ground, August 7, 2014) states that "BC budget caps education spending to increases of 0.6 percent per year between now and 2017."

measured—especially when, unlike other types of government spending, the target population for school spending is shrinking.

Given the frequency and influence of such claims, as well as the potential insights that a comprehensive and more detailed analysis might yield, this paper answers the question: Has spending on elementary and secondary education in government schools increased or decreased over the last decade? Since the most recent year for which comprehensive data for education spending is currently available is 2011/12, our analysis covers the period 2001/02 through to 2011/12.

The paper begins with a brief review of the decentralized approach to education delivery in Canada. It then analyses alternative measures of education spending: nominal spending, ratios of government school spending to gross domestic product (GDP) and to other program spending, and spending per pupil. This is followed by an examination of what education spending would have looked like had it grown by inflation and enrolment, and compares this to actual education spending. The paper ends with a summary of the findings.

Elementary and secondary education in Canada

In Canada, K–12 education is almost entirely decentralized to the provinces and territories. Canada does not have a federal department of education and this absence of federal responsibility means each province or territory is almost entirely responsible for the provision, funding, and regulation of education.²

Each provincial and territorial ministry or department of education determines curriculum standards, education financing, teacher education, assessment, and other related issues (Clemens, Palacios, Loyer, and Fathers, 2014). Typically, ministries and departments devolve certain elements of responsibility for the operation and administration of groups of schools—such as curriculum implementation, initiation of proposals for capital expenditures, responsibility for personnel, and enrolment of students—to school boards or divisions (CMEC, 2014), and each also allows for education to be provided through independent schools and homeschooling.

Because of this decentralization, there is variety in education provision, regulation, and funding from province to province. The government schooling sector in all provinces maintains at least two kinds of government-funded school boards (Anglophone and Francophone).³ In addition, three provinces, Alberta, Ontario, and Saskatchewan, provide fully-funded separate schools for Roman Catholic minorities, and Alberta and Ontario provide fully-funded francophone Roman Catholic schools. Five provinces—Quebec, Manitoba, Saskatchewan, Alberta, and British Columbia—offer various levels of per-pupil funding, from 35 to 80 percent of local government school per-pupil operating expenses, for education in the independent school sector. In the homeschooling sector, two provinces, Alberta and Saskatchewan (depending on school district), offer supplemental funding directly to parents for expenses incurred in home-based education.

The Canada-level data presented herein are the sum of provincial figures.

^{2.} The federal government holds responsibility for K–12 education of Aboriginal students, the families of military personnel, and those in the Foreign Service (Clemens et al., 2014).

^{3.} Enrolment in francophone boards, other than in Quebec and New Brunswick with 78.1 and 28.2 percent respectively in 2009/10, ranged from 0.4 to 3.7 percent of total student enrolment across the provinces (Clemens et al., 2014).

Alternative measures of education spending

There are several common methods by which to measure education spending. This section reviews and applies four different approaches to measure education spending. In each case, some of the key weaknesses are discussed in order to provide context for the final measure, spending on a per-pupil basis, which we argue is the preferred method by which to assess whether education spending has increased or decreased over time.

First, it is important to define what we mean by education spending. In this report, education spending refers to total expenditure on elementary and secondary education in government schools, unless otherwise noted. It is calculated as "public elementary and secondary education expenditures" less "direct government expenditures on public education by the Department of National Defence," "federal school expenditures," and "special education expenditures on public education," using Statistics Canada data, specifically CANSIM Table 478-0014 (Statistics Canada, 2014f). While special education expenditures within public schools are included, special education expenditures exclude certain activities taking place outside of regular public schools in, for example, reform and correctional institutions. These calculations result in a specific measure of spending on government schools.

Second, these data do not include government spending on independent (private) schools that supplements parental spending on independent schools in Quebec and the four western provinces. To reiterate, this analysis only includes spending on government schools.

^{4.} Clifton (2014) has recently also examined and compared growth in education spending to growth in the consumer price index.

^{5.} In this paper, the term "government schools" is used to refer to schools that are operated and administered through district public and separate school boards and controlled by provincial ministries and/or departments of education. These schools could more accurately be labeled "provincial government-provided schools" or "provincial government-supplied schools" but for convenience we use the shortened term "government schools."

Third, the source data from Statistics Canada includes "Fees & Other Private Sources," which cannot easily be separated from spending by governments. This category includes items such as rentals and leases, investment revenues, capital fund sourced revenues such as revenue from the disposal of capital assets, fees, trust account revenues, interschool transfers, and adjustments. Our figures necessarily include these amounts, but, to be clear, this is money spent on government schools, and has nothing to do with private elementary and secondary expenditures.

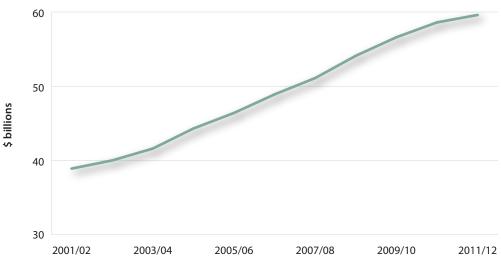
Nominal education spending

The most frequently used measure of education spending is simply the level of total spending in any particular year compared to total spending in previous years, which will be referred to as nominal education spending. This measure does not account for changes in student enrolment or the effects of inflation. However, it does provide an easy-to-understand gauge of changes in spending from one year to the next, which is one of the main reasons it is so often used.

Based on this approach, total nominal spending on elementary and secondary education in government schools grew by over 50 percent in Canada between 2001/02 and 2011/12, from \$38.9 billion to \$59.6 billion (figure 1).

Education spending in government schools 60

Figure 1



Source: Statistics Canada, 2014f.

Note: Nominal dollars (i.e., not adjusted for inflation).

The national numbers presented in figure 1 can be further broken down by province. Recall from the discussion above that education spending in Canada is almost entirely determined by the provincial governments. As **table 1** shows, spending in government schools grew in every province, ranging from a low of 24.7 percent in British Columbia to a high of 92.4 percent in Alberta. The average provincial increase over this period was 53.1 percent.

Table 1Education spending in government schools

| | 2001/02 | 2011/12 | Change, 2001 | /02 –2011/12 |
|-------------------------|---------|---------|--------------|--------------|
| | \$ mi | illions | Percent | Rank |
| Canada | 38,897 | 59,558 | 53.1 | |
| Newfoundland & Labrador | 608 | 865 | 42.2 | 7 |
| Prince Edward Island | 156 | 236 | 51.3 | 5 |
| Nova Scotia | 1,002 | 1,510 | 50.8 | 6 |
| New Brunswick | 845 | 1,352 | 59.9 | 4 |
| Quebec | 8,755 | 11,956 | 36.6 | 8 |
| Ontario | 15,243 | 24,757 | 62.4 | 3 |
| Manitoba | 1,603 | 2,174 | 35.6 | 9 |
| Saskatchewan | 1,315 | 2,206 | 67.7 | 2 |
| Alberta | 4,054 | 7,798 | 92.4 | 1 |
| British Columbia | 5,041 | 6,289 | 24.7 | 10 |

Source: Statistics Canada, 2014f.

Two insights are important to recognize from the provincial data presented in table 1, which covers the period from 2001/02 through to 2011/12, the latest year for which we have comprehensive data. First, there is no single province where there has not been a marked increase in total spending on government elementary and secondary schools in Canada.

Second, and more importantly, this approach to measuring education spending has a serious flaw, which is that it does not account for changes in pupil numbers. Thus, a hypothetical decrease in total education spending, if less than an accompanying hypothetical decrease in the number of students, could actually result in an increase in per-pupil spending. Similarly, a hypothetically large increase in total spending, if less than a hypothetically larger increase in the number of students, could result in a decrease in per-pupil spending. Put differently, if we're trying to measure the level and concentration of spending in education for students, then total nominal spending is of limited benefit, since it misses the number of students within the education system.

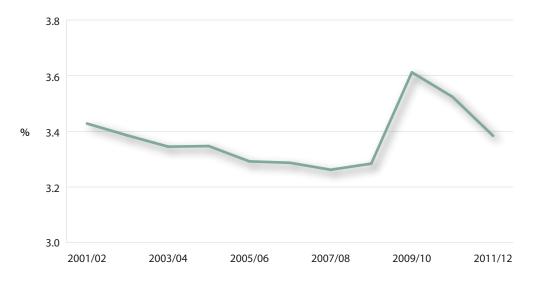
Education spending as share of gross domestic product

Another measure sometimes used to gauge education spending is to compare it to overall economic activity as measured by gross domestic product (GDP). Spending in government schools as a share of GDP in 2011/12 (3.4 percent) is where it was in 2001/02. **Figure 2** depicts aggregated provincial spending in government schools relative to GDP between 2001/02 and 2011/12. It shows a slight decline in the ratio between 2001/02 and 2007/08, followed by a spike in 2009/10. It declines in 2010/11 and 2011/12.

Understanding the change in 2009/10 is important because it high-lights why measuring education spending as a share of GDP over time is a weak and, indeed, often misleading measure. The marked increase in education spending as a share of GDP in 2009/10 had little to do with the change in education spending in that year, and was almost entirely driven by the recession, which by definition contracted the GDP number. In other words, there was no marked increase in spending on education in 2009/10, even though such an increase could easily be inferred from this figure. Similarly, the ratio of spending on government schools to GDP fell sharply in the last two years not because spending on education declined (see figure 1), but because the economy (GDP) grew strongly compared to the growth in education spending.

Figure 2

Education spending in government schools as a share of GDP



Sources: Statistics Canada, 2014d, 2014f.

Table 2 breaks down the aggregated information presented in figure 2 for each province. Seven provinces experienced a decline in education spending on government schools as a share of provincial GDP between 2001/02 and 2011/12, ranging from -0.9 percent in Alberta to -38.6 percent in Newfoundland and Labrador. The ratio of education spending in government schools relative to GDP increased in Nova Scotia (6.2 percent), New Brunswick (8.1 percent), and Ontario (15.5 percent). Ontario stands out as the one among these three with the largest increase in spending on government schools as a percent of provincial GDP.

Table 2Education spending in government schools as a share of GDP

| | 2001/02 | 2011/12 | Change, 2001 | /02 –2011/12 |
|-------------------------|---------|---------|--------------|--------------|
| | Percent | of GDP | Percent | Rank |
| Canada | 3.428 | 3.384 | -1.3 | |
| Newfoundland & Labrador | 4.208 | 2.582 | -38.6 | 10 |
| Prince Edward Island | 4.506 | 4.379 | -2.8 | 5 |
| Nova Scotia | 3.728 | 3.959 | 6.2 | 3 |
| New Brunswick | 3.999 | 4.321 | 8.1 | 2 |
| Quebec | 3.672 | 3.462 | -5.7 | 6 |
| Ontario | 3.275 | 3.781 | 15.5 | 1 |
| Manitoba | 4.476 | 3.940 | -12.0 | 7 |
| Saskatchewan | 3.894 | 3.005 | -22.8 | 9 |
| Alberta | 2.639 | 2.616 | -0.9 | 4 |
| British Columbia | 3.710 | 2.923 | -21.2 | 8 |

Sources: Statistics Canada, 2014d, 2014f.

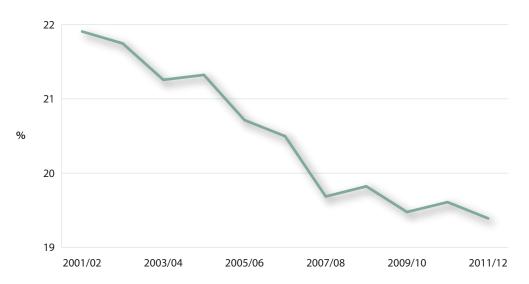
Comparing the results in tables 1 and 2 highlights the problem with analyzing education spending by comparing it to GDP. Table 1 clearly shows increases in every province, but table 2 shows education spending decreasing (as a share of GDP) in seven of ten provinces and for Canada overall.

While comparing education spending as a share of GDP between jurisdictions in a particular year can be a useful comparison, it is a weak and often misleading measure of spending on education over time.

Education spending as a share of program spending

Yet another common measure of education spending (as well as of other types of spending) is the share of total program spending by government on education. In other words, this measure examines the proportion of total program spending (as reported in the Fiscal Reference Tables, Canada, Department of Finance, 2013) represented by spending in government schools. Spending in government schools as a share of total provincial program spending has fallen almost continuously from 21.9 percent of in 2001/02 to 19.4 percent in 2011/12 (figure 3).

Figure 3 Education spending in government schools as a share of program spending



Sources: Statistics Canada, 2014f; Canada, Department of Finance, 2013.

Table 3 shows the data for how education spending in each of the provinces has changed relative to total program spending between 2001/02 and 2011/12. In all provinces, education spending in government schools declined over this time period relative to total program spending. Proportional decreases in education spending ranged from -1.2 percent in Alberta to -38.1 percent in Manitoba.

Still, as with comparisons to GDP, this is a weak and potentially misleading indicator of what is actually happening. As illustrated in figure 1, spending on education in government schools increased every year in the period considered. Ratios comparing education spending to overall program spending may well only reflect proportional increases in other program spending, rather than making meaningful contributions to the analysis of actual education spending.

Table 3Education spending in government schools as a share of program spending

| | 2001/02 | 2011/12 | Change, 2001 | /02 –2011/12 |
|-------------------------|-----------------------------|---------|--------------|--------------|
| | Percent of program spending | | Percent | Rank |
| Canada | 21.9 | 19.4 | -11.5 | |
| Newfoundland & Labrador | 17.0 | 12.4 | -27.3 | 9 |
| Prince Edward Island | 17.8 | 15.3 | -14.2 | 6 |
| Nova Scotia | 22.0 | 18.0 | -18.2 | 8 |
| New Brunswick | 19.1 | 18.3 | -4.3 | 2 |
| Quebec | 21.7 | 19.4 | -10.3 | 4 |
| Ontario | 24.7 | 22.0 | -10.9 | 5 |
| Manitoba | 25.0 | 15.5 | -38.1 | 10 |
| Saskatchewan | 23.0 | 20.7 | -9.9 | 3 |
| Alberta | 20.2 | 20.0 | -1.2 | 1 |
| British Columbia | 18.3 | 15.2 | -16.6 | 7 |

Sources: Statistics Canada, 2014f; Canada, Department of Finance, 2013.

Per-pupil spending

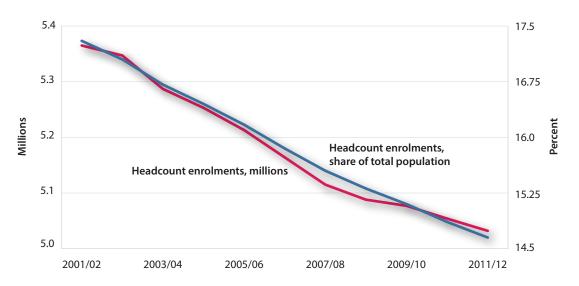
The final measure of education spending presented, and the measure that best reflects what is happening, is at a per-pupil level. It takes spending in government schools in each jurisdiction and divides it by the number of pupils enrolled in such schools. In other words, this measure directly accounts for changes in enrolment.

In total, enrolments⁶ in government schools have declined from 5.4 million in 2001/02 to 5.0 million in 2011/02 (**figure 4**). Put differently, on average, enrolment in government schools across the country has fallen by about 33,000 pupils per year.

Table 4 shows the changes in headcount enrolment, by province, in government schools between 2001/02 and 2011/12. Alberta stands out as the only province to see enrolment in government schools increase over the time

^{6.} Enrolments in this report are the sum of "headcount enrolments in regular programs for youth in public elementary and secondary schools" reported in CANSIM table 477-0025 (Statistics Canada, 2014e), plus an estimate of enrolment in adult upgrading and vocational programs. The estimate is based on comprehensive enrolment figures published by Statistics Canada in the December 4, 2013 edition of *The Daily* augmented by communication with the Tourism and Centre for Education Statistics Division of Statistics Canada. We chose "Headcount Enrolments" over "Full-Time Equivalent" enrolments because three provinces report the same numbers for both measures and, in the future, Statistics Canada will not report FTE enrolments.

Figure 4 Headcount enrolments in government schools



Sources: Statistics Canada, 2013, 2014a, 2014e.

Table 4 Headcount enrolments in government schools

| | Enrolments | | | Enrolments to population | | | | |
|-------------------------|------------|---------|----------------------|--------------------------|------------|------------|-------------------|------------------|
| | 2001/02 | 2011/12 | Char | • | 2001/02 | 2011/12 | Char 2001/02 - | |
| | Thou | sands | 2001/02 - Percent | Rank | Percent of | population | Percent | -2011/12 Rank |
| Canada | 5,365.2 | 5032.2 | -6.2 | · · | 17.3 | 14.7 | -15.3 | |
| Newfoundland & Labrador | 87.0 | 67.8 | -22.0 | 10 | 16.7 | 12.9 | -22.5 | 10 |
| Prince Edward Island | 22.8 | 20.8 | -8.8 | 6 | 16.7 | 14.5 | -13.5 | 3 |
| Nova Scotia | 153.5 | 125.5 | -18.2 | 9 | 16.5 | 13.3 | -19.2 | 8 |
| New Brunswick | 122.8 | 102.6 | -16.5 | 8 | 16.4 | 13.6 | -17.1 | 7 |
| Quebec | 1,244.7 | 1,172.0 | -5.8 | 4 | 16.8 | 14.6 | -13.0 | 2 |
| Ontario | 2,163.1 | 2,043.1 | -5.5 | 3 | 18.2 | 15.4 | -15.3 | 6 |
| Manitoba | 188.9 | 178.9 | -5.3 | 2 | 16.4 | 14.5 | -11.6 | 1 |
| Saskatchewan | 186.5 | 170.4 | -8.6 | 5 | 18.6 | 16.0 | -14.3 | 4 |
| Alberta | 548.1 | 577.8 | 5.4 | 1 | 17.9 | 15.2 | -15.0 | 5 |
| British Columbia | 622.8 | 550.7 | -11.6 | 7 | 15.3 | 12.2 | -19.9 | 9 |

Sources: Statistics Canada, 2013, 2014a, 2014e.

period. Its 5.4 percent increase sets it well apart from the other provinces that saw enrolment decrease by at least 5.3 percent (Manitoba) and as much as 22.0 percent (Newfoundland and Labrador).

Enrolment as a share of total population, as also indicated in table 4, decreased in every province. Alberta is in the middle of the pack with a 15.0 percent decrease among changes of -11.6 percent in Manitoba and -22.5 percent in Newfoundland and Labrador.

Appendix 1 shows more detailed provincial figures of headcount enrolment and headcounts as share of total population for the period 2001/02 to 2011/12.

Figure 5 adjusts the education spending data presented in figure 1 and table 1 by student enrolment to calculate per-pupil spending. The results show that per-pupil spending in government schools in Canada has grown from \$7,250 in 2001/02 to \$11,835 in 2011/12, or by 63.2 percent.

12,000 11,000 \$ 9,000 8,000 7,000 6,000 2001/02 2003/04 2005/06 2007/08 2009/10 2011/12

Figure 5
Per-pupil education spending in government schools

Sources: Statistics Canada, 2013, 2014e, 2014f.

Table 5 applies the same adjustment to each of the provinces to show how per-pupil education spending in government schools has changed between 2001/02 and 2011/12. Spending per pupil in government schools increased substantially in every province over the time period. The largest increase was 91.5 percent in New Brunswick and the smallest was 41.1 percent in British Columbia.

Table 5 Per-pupil education spending in government schools

| | 2001/02 | 2011/12 | Change, 2001/02 –2011 | | |
|-------------------------|---------|---------|-----------------------|------|--|
| | 9 | \$ | Percent | Rank | |
| Canada | 7,250 | 11,835 | 63.2 | | |
| Newfoundland & Labrador | 6,994 | 12,754 | 82.4 | 5 | |
| Prince Edward Island | 6,822 | 11,317 | 65.9 | 7 | |
| Nova Scotia | 6,527 | 12,031 | 84.3 | 2 | |
| New Brunswick | 6,884 | 13,181 | 91.5 | 1 | |
| Quebec | 7,034 | 10,201 | 45.0 | 8 | |
| Ontario | 7,047 | 12,117 | 72.0 | 6 | |
| Manitoba | 8,487 | 12,150 | 43.2 | 9 | |
| Saskatchewan | 7,053 | 12,948 | 83.6 | 3 | |
| Alberta | 7,396 | 13,497 | 82.5 | 4 | |
| British Columbia | 8,093 | 11,418 | 41.1 | 10 | |

Sources: Statistics Canada, 2013, 2014e, 2014f.

This approach to analyzing changes in education spending is more reflective of actual education spending than the other measures examined. While the initial comparison of spending in government schools clearly illustrated increases, it did not account for changes (neither possible increases nor decreases) in the population the spending served. Variations in education spending as a share of GDP can be, and more often than not are, driven by changes in overall economic activity rather than by changes in education spending as such. Similarly, comparing education spending to overall program spending can say more about increases in other program spending categories than about changes to education spending. In fact, the examinations of these two measures—comparisons with GDP and as a share of program spending—disguised the consistent growth in education expenditures on government schools. Because it accounts for changes in student enrolment, a per-pupil spending measure is a superior and more refined approach to measuring and analyzing education spending.

Appendix 2 shows provincial figures for per-pupil spending in government schools for the period 2001/02 to 2011/12.

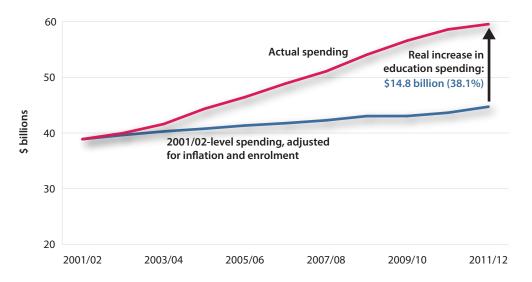
Comparison of actual versus constant education spending

The previous section analyzed four alternative methods by which to measure education spending. As discussed, per-pupil spending provides the best measure of changes in actual education spending over time. Contrary to a narrative that may emerge from the many public statements discussed at the outset of the paper, education spending in government schools, on a per-pupil basis, has increased markedly over the last decade, with provincial increases ranging from 41 percent to almost 92 percent. In other words, using the best measure available for gauging spending on education in government schools, we observe large-scale increases in spending between 2001/02 and 2011/12. Furthermore, although this approach highlights the variation among the provinces, a consistent national narrative did emerge.

An alternative comparison is to ask how much education spending in each province has increased between 2001/02 and 2011/12 relative to changes in inflation and pupil enrolment. This method asks: What is the difference between actual education spending in each province and the amount of education spending that would have been required to maintain the level of per-pupil spending in 2001/02 constant over the decade? This method adjusts for changes in both enrolment and inflation.

Figure 6 depicts the aggregated results for all the provinces. The top line presents total nominal spending in government elementary and secondary schools for all provinces between 2001/02 and 2011/12 (replicated from figure 1). As discussed previously, nominal spending in government schools grew from \$38.9 billion in 2001/02 to \$59.6 billion in 2011/12. The lower line in figure 6 shows what education spending (in government schools) would have been had the level of per-pupil funding in 2001/02, adjusted for inflation using the all-items Consumer Price Index (Statistics Canada, 2014c), remained constant over the decade. The gap between the two lines represents the real increase in per-pupil spending. This increase amounted to \$14.8 billion, or 38.1 percent of 2001/02 education spending.

Figure 6 **Education spending in government schools:** Actual versus 2001-02 level adjusted for inflation and enrolment



Sources: Statistics Canada, 2014c, 2014e, 2014f,

Table 6 shows the same calculations at the provincial level. The first pair of columns in table 6 are from table 1, and show that nominal education spending in government schools grew in every province, ranging from a low of 24.7 percent in British Columbia to a high of 92.4 percent in Alberta.

The second pair of columns shows, by province, what spending in government schools would have been had the 2001/02 level of per-pupil funding remained constant in real terms (i.e, adjusted for inflation). Had per-pupil spending only grown by inflation and changes in enrolment, nine of ten provinces would have seen spending increases, ranging from 3.4 percent in Nova Scotia to 37.0 percent in Alberta. The only province which would have spent less on education was Newfoundland and Labrador, where spending on government schools would have declined by 3.1 percent between 2001/02 and 2011/12.

The reality is that in every province the increase in education spending for government schools between 2001/02 and 2011/12 was beyond what was needed to account for inflation and changes in enrolment. For example, British Columbia spent 24.7 percent more in 2011/12 than in 2001/02, but had it allowed per-pupil spending to change only to account for price and enrolment changes it would have spent only 5.4 percent more. In other words, education spending for government schools in British Columbia was \$973 million (19.3 percent) higher in 2011/12 than it would have been had it constrained per-pupil spending to grow at the rate of the general price level between 2001/02 and 2011/12. Further, in percentage terms, British

Table 6Per-pupil education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment

| | Actual | | | 2001/02 level adjusted for inflation and enrolment | | | | Difference | | |
|-----|---------|---------|-------------------|--|---------|---------|-------------------|------------|------------------------|---------|
| | 2001/02 | 2011/12 | Char 2001/02 - | • | 2001/02 | 2011/12 | Char 2001/02 - | _ | 2011/12 s above 200 | |
| | \$ mil | llions | Percent | Rank | \$ mi | llions | Percent | Rank | \$ millions | Percent |
| CDA | 38,897 | 59,558 | 53.1 | | 38,897 | 44,727 | 15.0 | | 14,831 | 38.1 |
| NL | 608 | 865 | 42.2 | 7 | 608 | 589 | -3.1 | 10 | 276 | 45.3 |
| PE | 156 | 236 | 51.3 | 5 | 156 | 179 | 15.2 | 3 | 56 | 36.1 |
| NS | 1,002 | 1,510 | 50.8 | 6 | 1,002 | 1,035 | 3.4 | 9 | 475 | 47.4 |
| NB | 845 | 1,352 | 59.9 | 4 | 845 | 875 | 3.6 | 8 | 477 | 56.4 |
| QC | 8,755 | 11,956 | 36.6 | 8 | 8,755 | 9,951 | 13.7 | 6 | 2,005 | 22.9 |
| ON | 15,243 | 24,757 | 62.4 | 3 | 15,243 | 17,645 | 15.8 | 2 | 7,112 | 46.7 |
| MB | 1,603 | 2,174 | 35.6 | 9 | 1,603 | 1,825 | 13.8 | 5 | 349 | 21.7 |
| SK | 1,315 | 2,206 | 67.7 | 2 | 1,315 | 1,509 | 14.7 | 4 | 698 | 53.1 |
| AB | 4,054 | 7,798 | 92.4 | 1 | 4,054 | 5,555 | 37.0 | 1 | 2,244 | 55.3 |
| BC | 5,041 | 6,289 | 24.7 | 10 | 5,041 | 5,315 | 5.4 | 7 | 973 | 19.3 |

Sources: Statistics Canada, 2014c, 2014f.

Columbia's spending above and beyond that needed to account for inflation and changes in enrolment was the smallest among the provinces in 2011/12. New Brunswick's was the highest at 56.4 percent.

Altogether, in 2011/12, provinces spent nearly \$15 billion (38.1 percent) more on education in government schools than they would have if they had kept per-pupil spending growth at the inflation rate between 2001/02 and 2011/12.

Appendix 3 presents graphical comparisons of actual versus constant levels of education spending (adjusted for inflation and enrolment) for each province over the period from 2001/02 to 2011/12.

Conclusion

This paper has analyzed changes in education spending in government schools in Canada over a decade. It did not include all spending on elementary and secondary education in Canada. Excluded from this analysis are government education expenditures by the department of national defense, federal school expenditures, and special education which takes place outside of regular schools. Furthermore, the analysis does not include spending by parents or governments on independent schools.

The central question addressed was whether expenditures in government elementary and secondary schools in Canada have increased or decreased over the period from 2001/02 to 2011/12.

The analysis found that overall nominal public spending in Canada on government schools increased by 53.1 percent during the period, from \$38.9 billion to \$59.6 billion. The increases were greatest in Alberta (92.4 percent) and lowest in British Columbia (24.7 percent).

Furthermore, enrolments in government schools have consistently declined for the period in almost every province.

Not surprisingly, analysis of education spending per pupil in government schools revealed growth of 63.2 percent over the period, up to \$11,835 from \$7,250 per pupil for Canada as a whole.

Finally, analysis of 2011/12 actual spending in government schools versus spending adjusted for inflation and pupil enrolment changes revealed a 38.1 percent increase over 2001/02. Had per-pupil spending on government schools in Canada increased only at the rate of inflation, in 2011/12 provincial governments would have spent \$14.8 billion less.

In conclusion, education spending on government schools in Canada, despite various and widespread narratives to the contrary, has increased by a substantial amount in the period from 2001/02 to 2011/12.

References

British Columbia Teachers' Federation (2012). *A Brief to the Select Standing Committee on Finance and Government Services*. BCTF. http://www.bctf.ca/uploadedFiles/Public/Publications/Briefs/2012EdFundingBrief.pdf

Carman, Tara (2014, August 7). B.C. Budget Runs Billions Short For Education and Health: Spending Constraints Will Mean Less Funding For Students and Patients Over the Next Three Years, According to Conference Board of Canada. *Vancouver Sun.* http://www.vancouversun.com/business/budget+runs+billions+short+education+health+report/10098996/story.

Canada, Department of Finance (2013). *Fiscal Reference Tables*. Government of Canada.

CBC (2012, February 10). *School Boards Get Funding Cut*. CBC News. http://www.cbc.ca/news/canada/nova-scotia/school-boards-get-funding-cut-1.1146561

Chartrand, Harvey (2012, August 9). Ontario Education Must Learn to Deal with Massive Spending Cuts. *Ottawa Life*.

http://www.ottawalife.com/2012/08/ontario-education-must-learn-to-deal-with-massive-spending-cuts/>

Clemens, Jason, Milagros Palacios, Jane Loyer, and Frazier Fathers. (2014). *Measuring Choice and Competition in Canadian Education: An Update on School Choice in Canada*. Fraser Institute.

Clifton, Rodney A. (2014). *The Cost Disease Infects Public Education Across Canada. Backgrounder*. Frontier Centre for Public Policy & Atlantic Institute for Market Studies.

All websites retrievable as of December 2, 2014.

Council of Ministers of Education, Canada [CMEC] (2014). Education in Canada: An Overview. Council of Ministers of Education, Canada.

Culbert, Lori, and Rob Shaw (2014, February 18). No New Money For Education in B.C. Budget: Teachers, School Boards Disappointed. Vancouver Sun. http://www.vancouversun.com/news/money%2Beducation%2B budget/9521826/story.html>

Federation of Independent School Association British Columbia (FISABC) (undated). Enrolment Comparing Public and Independent - Historical. http://www.fisabc.ca/stats-resources/statistics

Green, Robert (2014, June 10). Opinion: A Bad Budget for Education. *Montreal Gazette*. http://www.montrealgazette.com/news/Opinion+budget+e ducation/9925408/story.html>

Manitoba, Education and Advanced Learning (2000–2013). *Enrolment Report.* Government of Manitoba. http://www.edu.gov.mb.ca/k12/finance/sch_enrol/index.html

Ontario, Ministry of Education (various years). *Education Facts*. Government of Ontario. http://www.edu.gov.on.ca/eng/educationFacts.html

Quebec, Ministry of Education, Recreation and Sport (2011). Statistiques de l'éducation 2011. Government of Quebec.

http://www.mels.gouv.gc.ca/fileadmin/site web/documents/PSG/statistiques info_decisionnelle/se2011-EditionS.pdf>

Quebec, Ministry of Education, Recreation and Sport (2012). Principales statistiques de l'éducation 2012. Government of Quebec.

http://www.mels.gouv.qc.ca/fileadmin/site_web/documents/PSG/statistiques_ info_decisionnelle/PrincStatEducation_Edition2012s.pdf>

Statistics Canada (2013, December 4). Elementary-Secondary Education Survey for Canada, the Provinces and Territories, 2012. *The Daily*. Statistics Canada.

http://www.statcan.gc.ca/daily-quotidien/131204/dg131204c-eng.htm

Statistics Canada (2014a). *Table 051-0001, Estimates of Population, by* Age Group and Sex for July 1, Canada, Provinces and Territories. Statistics Canada. http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=05 10001&tabMode=dataTable&srchLan=-1&p1=-1&p2=9>

Statistics Canada (2014b). *Table 052-0005, Projected Population, by Projection Scenario, Sex and Age Group as of July 1, Canada, Provinces and Territories*. Statistics Canada.

http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=0520005&pa Ser=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>

Statistics Canada (2014c). *Table 326-0021, Consumer Price Index (CPI),* 2011 Basket, Annual (2002=100). Statistics Canada.

http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3260021&pa Ser=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>

Statistics Canada (2014d). *Table 384-0038*, *Gross Domestic Product*, *Expenditure-based*, *Provincial and Territorial*. Statistics Canada. http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3840038&pa Ser=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>

Statistics Canada (2014e). *Table 477-0025, Enrolments in Regular Programs for Youth in Public Elementary and Secondary Schools, by Grade and Sex, Canada, Provinces and Territories.* Statistics Canada.

Statistics Canada (2014f). *Table 478-0014, Public and Private Elementary and Secondary Education Expenditures.* Statistics Canada. "http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4780014&paser=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>"http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www5.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng&id=4780014&paser="https://www.statcan.gc.ca/cansim/a26?lang=eng

Tatelman, Sara, and Sarah MacMillan (2014). Are Budget Cuts Being Made in Your Child's School? *Canadian Family*. http://www.canadianfamily.ca/kids/are-budget-cuts-being-made-in-your-childs-school/

Van Pelt, Deani Neven, Milagros Palacios, and Taylor Jackson. (2014.) *Financial Savings: Restructuring Education in Ontario Using the British Columbia Model.* Fraser Institute.

Appendix 1

Headcount enrolments in government schools

Figure A1.1Headcount enrolments in government schools: Newfoundland & Labrador

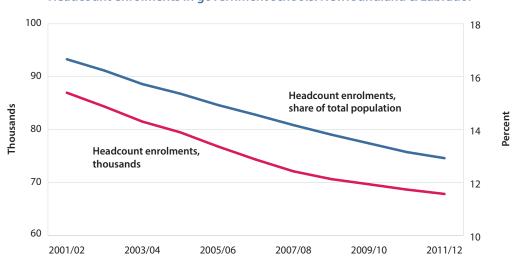


Figure A1.2Headcount enrolments in government schools: Prince Edward Island

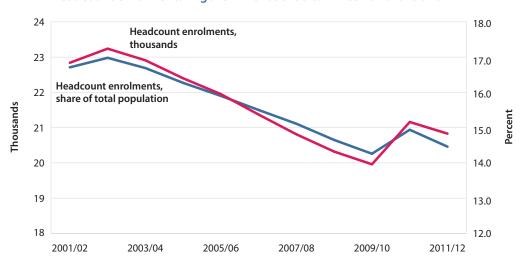


Figure A1.3Headcount enrolments in government schools: Nova Scotia

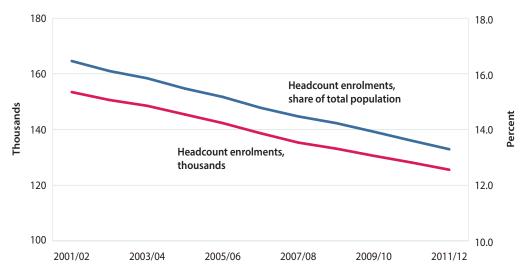


Figure A1.4Headcount enrolments in government schools: New Brunswick

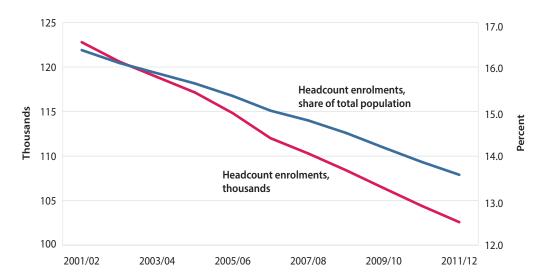


Figure A1.5 Headcount enrolments in government schools: Quebec

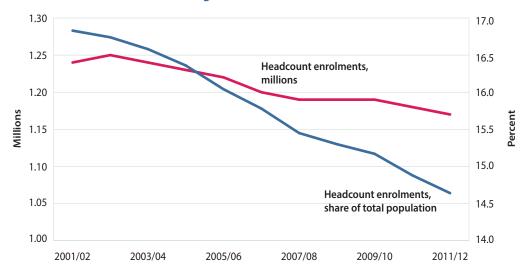


Figure A1.6 Headcount enrolments in government schools: Ontario

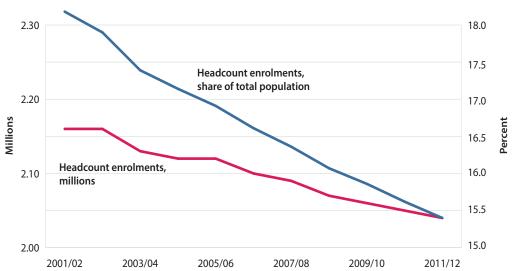


Figure A1.7Headcount enrolments in government schools: Manitoba

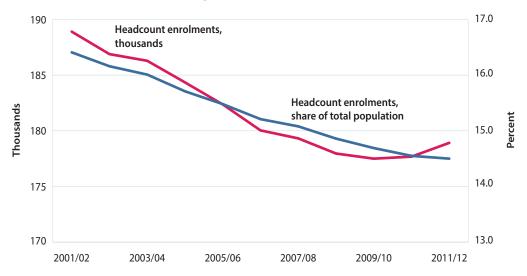


Figure A1.8Headcount enrolments in government schools: Saskatchewan

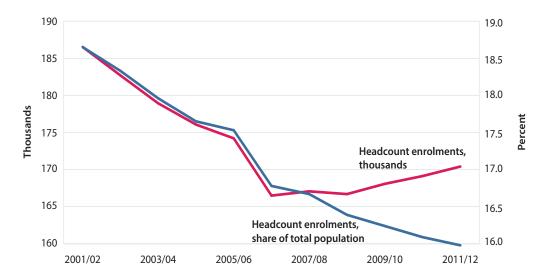


Figure A1.9 Headcount enrolments in government schools: Alberta

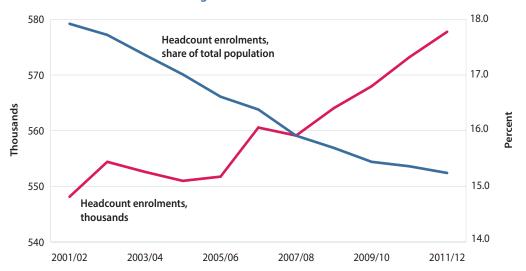
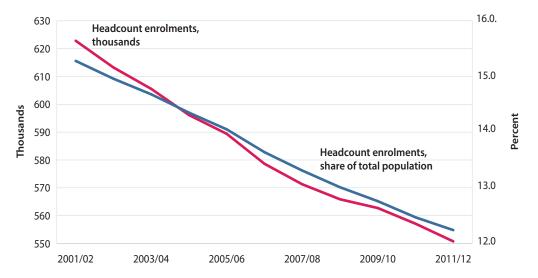


Figure A1.10 Headcount enrolments in government schools: British Columbia



Appendix 2

Per-pupil education spending in government schools

Figure A2.1Per-pupil education spending in government schools: Newfoundland & Labrador

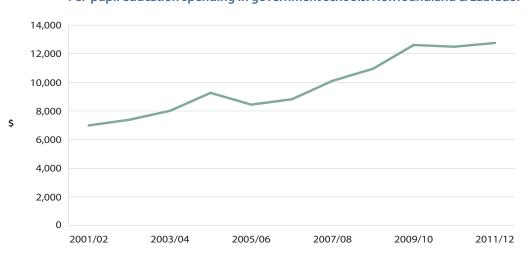


Figure A2.2Per-pupil education spending in government schools: Prince Edward Island

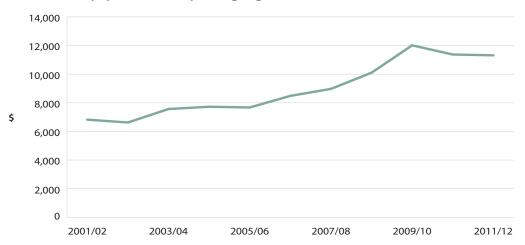


Figure A2.3 Per-pupil education spending in government schools: Nova Scotia

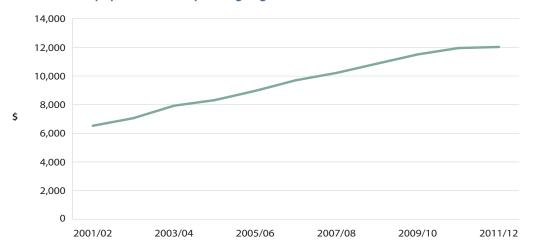


Figure A2.4 Per-pupil education spending in government schools: New Brunswick

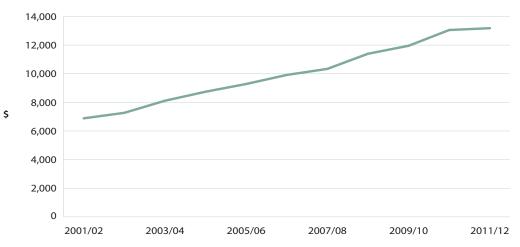


Figure A2.5 Per-pupil education spending in government schools: Quebec

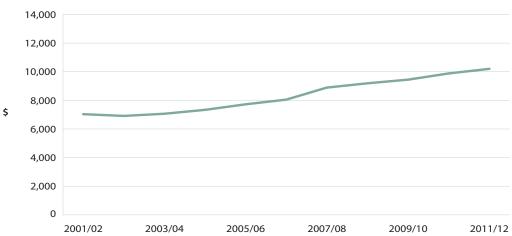


Figure A2.6Per-pupil education spending in government schools: Ontario

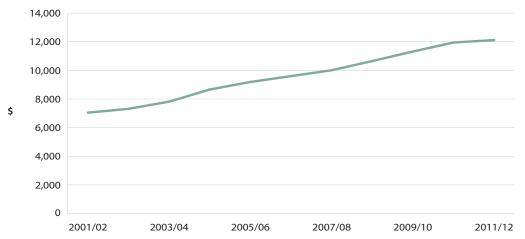


Figure A2.7Per-pupil education spending in government schools: Manitoba

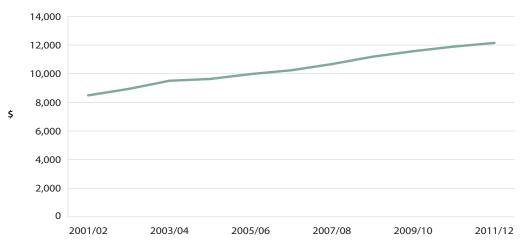


Figure A2.8Per-pupil education spending in government schools: Saskatchewan

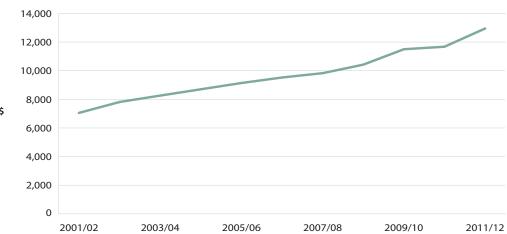


Figure A2.9 Per-pupil education spending in government schools: Alberta

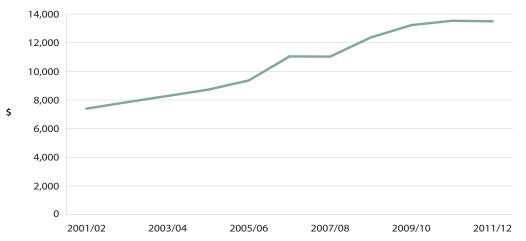
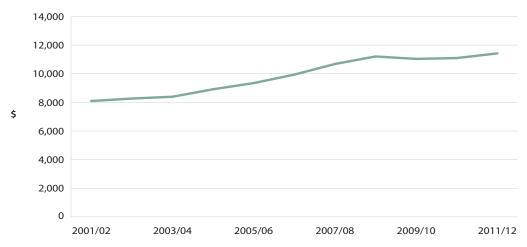


Figure A2.10 Per-pupil education spending in government schools: British Columbia



Appendix 3

Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment

Figure A3.1Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Newfoundland & Labrador

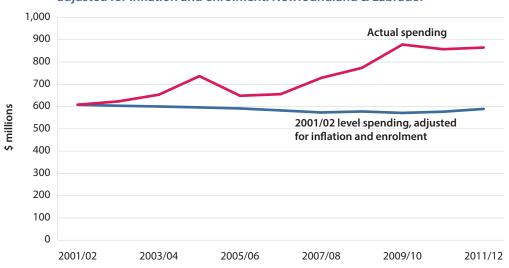


Figure A3.2

Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Prince Edward Island

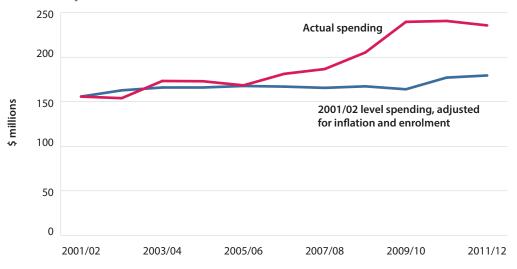


Figure A3.3 Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Nova Scotia

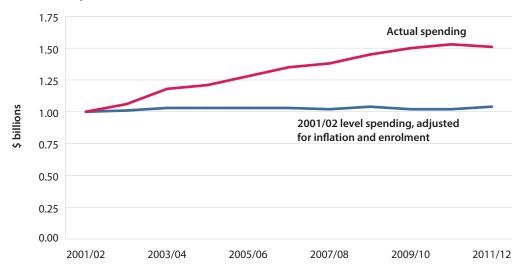


Figure A3.4 Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: New Brunswick

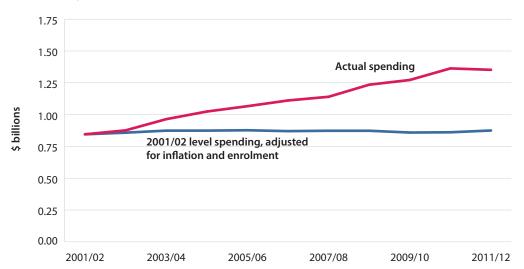


Figure A3.5
Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Quebec

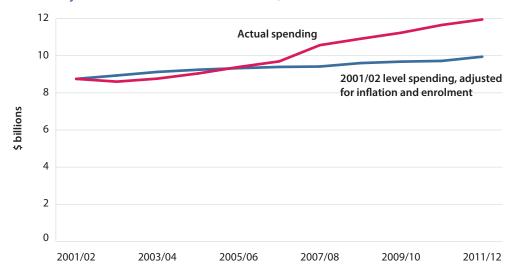


Figure A3.6

Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Ontario

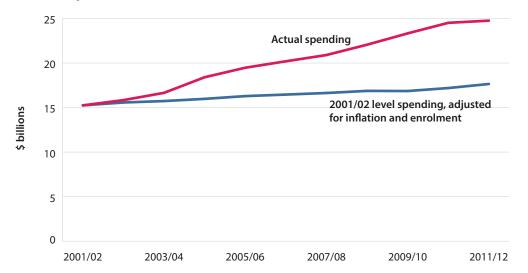


Figure A3.7 Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Manitoba

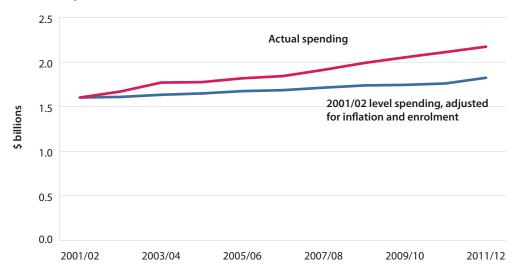


Figure A3.8 Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Saskatchewan

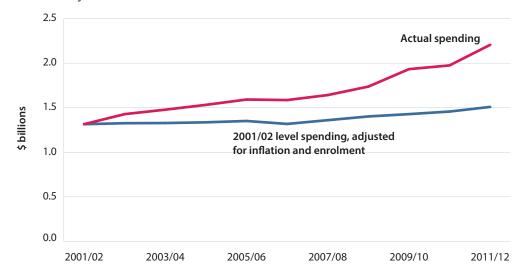


Figure A3.9

Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: Alberta

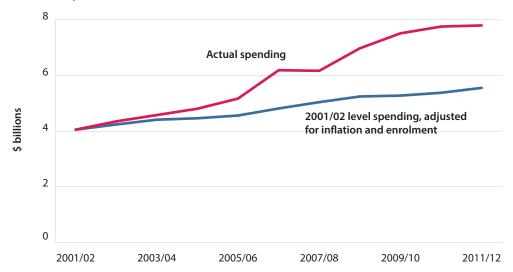
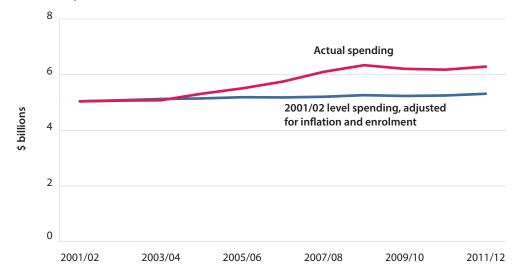


Figure A3.10
Education spending in government schools, actual versus 2001/02 level adjusted for inflation and enrolment: British Columbia



About the authors

Deani Neven Van Pelt

Deani A. Neven Van Pelt is the Director of the Barbara Mitchell Centre for Improvement in Education at the Fraser Institute. Deani's education includes a Bachelor of Commerce from McMaster, a Bachelor of Education from the University of Toronto, and a Masters and PhD in Education from the University of Western Ontario where she received the Bishop Townshend Award for excellence in graduate studies. During her eight years as Associate Professor of Education at Redeemer University, she taught a variety of courses including education law, served as Director of Teacher Education, and led several international research collaborations funded by the Social Science and Humanities Research Council of Canada. Her dissertations, publications, and research interests are in education philosophy and policy.

Joel Emes

Joel Emes is a Fraser Institute Senior Fellow. He is a former senior advisor to British Columbia's provincial government. He previously served as a senior analyst, then as executive director (2009–2011), at the BC Progress Board. Prior to that, Mr. Emes was a senior research economist at the Fraser Institute, where he initiated and led several flagship projects in the areas of tax freedom and government performance, spending, debt, and unfunded liabilities. Joel holds a BA and an MA in economics from Simon Fraser University.

Acknowledgments

The authors would like to offer sincere thanks to the funders of the Barbara Mitchell Centre for the generous support that made this paper possible. They would also like to express appreciation to the Tourism and Centre for Education Statistics Division of Statistics Canada for their frequent, timely, and detailed assistance and communication. The authors also thank the anonymous reviewers of early drafts of this paper. Any errors and omissions are the sole responsibility of the authors. As the researchers 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 Reader® XI, 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 the publications coordinator:

- e-mail: sales@fraserinstitute.org
- telephone: 604.688.0221 ext. 580 or, toll free, 1.800.665.3558 ext. 580
- fax: 604.688.8539.

Media

For media enquiries, please contact our Communications Department:

- 604.714.4582
- e-mail: communications@fraserinstitute.org.

Copyright

Copyright © 2015 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.

ISBN

978-0-88975-340-2

Date of issue

February 2015

Citation

Van Pelt, Deani Neven, and Joel Emes (2015). *Education Spending in Canada:* What's Actually Happening? Fraser Institute. http://www.fraserinstitute.org.

Cover design

Rebecca Marks, The Arts + Letters Studio Inc.

Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact

- Development Department, Fraser Institute Fourth Floor, 1770 Burrard Street Vancouver, British Columbia, V6J 3G7 Canada
- telephone, toll-free: 1.800.665.3558 ext. 586
- e-mail: development@fraserinstitute.org

Purpose, funding, & 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 Trustees and its donors.

The opinions expressed by the authors are those of the individuals themselves, and do not necessarily reflect those of the Institute, its Board of Trustees, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its trustees, 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.

About the Fraser Institute

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals.

Founded in 1974, we are an independent Canadian research and educational organization with locations throughout North America and international partners in over 85 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

Nous envisageons un monde libre et prospère, où chaque personne bénéficie d'un plus grand choix, de marchés concurrentiels et de responsabilités individuelles. Notre mission consiste à mesurer, à étudier et à communiquer l'effet des marchés concurrentiels et des interventions gouvernementales sur le bien-être des individus.

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. Herbert G. Grubel Prof. Terry L. Anderson

Prof. Robert Barro Prof. James Gwartney

Prof. Michael Bliss Prof. Ronald W. Jones

Prof. Jean-Pierre Centi Dr. Jerry Jordan

Prof. John Chant Prof. Ross McKitrick

Prof. Michael Parkin Prof. Bev Dahlby

Prof. Erwin Diewert Prof. Friedrich Schneider

Prof. Stephen Easton Prof. Lawrence B. Smith

Prof. J.C. Herbert Emery Dr. Vito Tanzi

Prof. Jack L. Granatstein

Past members

Prof. Armen Alchian* Prof. F.G. Pennance*

Prof. James M. Buchanan*+ Prof. George Stigler*†

Sir Alan Walters* Prof. Friedrich A. Hayek*

Prof. H.G. Johnson* Prof. Edwin G. West*

^{*} deceased: † Nobel Laureate