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Understanding the Increases in Education Spending in **Public Schools in Canada** 2017 Edition

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SUMMARY

- Education spending on public schools in Canada increased by \$17.5 billion (37.7 percent) between 2005-06 and 2014-15, from \$46.4 billion to \$63.9 billion.
- Compensation (salaries and wages, fringe benefits, and pensions) accounts for most of the increase, growing from \$33.5 billion in 2005-06 to \$47.2 billion in 2014-15. Salaries and wages increased by 36.1 percent, from \$27.6 billion in 2005-06 to \$37.5 billion in 2014-15. Fringe benefits increased 53.6 percent from \$3.6 billion to \$5.5 billion over the period.
- Teacher pension costs increased 77.8 percent from \$2.4 billion in 2005-06 to \$4.3 billion in 2014-15. Pension costs increased as a share of total education spending on public schools from 5.2 percent in 2005-06 to 6.7 percent in 2014-15.
- Capital spending increased 52.3 percent over this period, increasing from \$3.3 billion to \$5.1 billion in 2014-15. As a share of total education spending in public schools, capital spending increased from 7.2 percent in 2005-06 to 8.0 percent in 2014-15.

Introduction

This research bulletin is a complement to Education Spending and Public Student Enrolment in Canada (MacLeod and Emes, 2017) and an update to Understanding the Increases in Education Spending in Public Schools in Canada (Van Pelt, Emes, and Clemens, 2016). The first section presents the per-student education spending in public schools for the decade 2005-06 to 2014-15. The second section analyses the nature of the increases in education spending in public schools for the same decade. An appendix provides detailed provincial information about the nature of education spending increases in public schools over the period.

The Increase in Education Spending in **Public Schools in Canada**

Before examining the nature of the increase in education spending in public schools across Canada over the last decade, it is worthwhile to review the results of Education Spending and Public Student Enrolment in Canada (MacLeod and Emes, 2017). That study measures the changes in education spending over the last decade (2005-06 to 2014-15), focusing on perstudent spending in public schools adjusted for price changes over time. Enrolment in public schools declined in Canada by 3.0 percent between 2005-06 and 2014-15 (figure 1).1 This enrolment drop means that any increase in aggregate education spending in public schools resulted in larger proportional increases in perstudent spending.

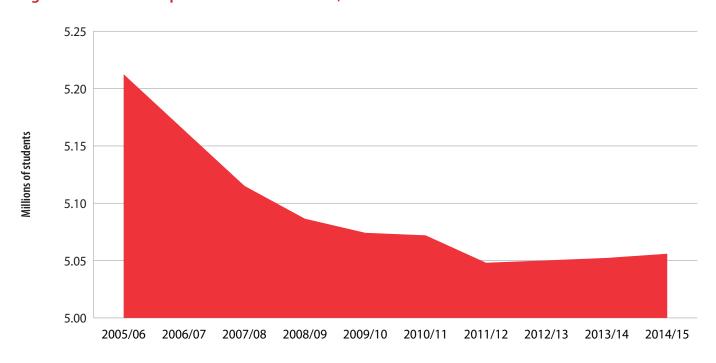


Figure 1: Enrolment in public schools in Canada, 2005–06 to 2014–15

Source: Statistics Canada (2016, 2017b).

Table 1 and figure 2 summarize the key insights. Per-student, inflation-adjusted spending in public schools increased 22.3 percent between 2005-06 and 2014-15 for Canada as a whole, rising from \$10,339 to \$12,646.

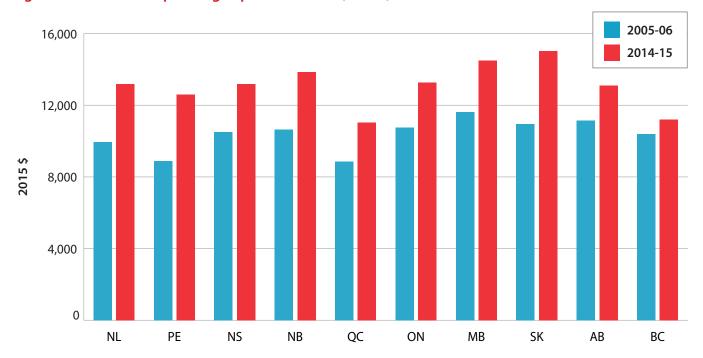
Table 1: Per-student spending in public schools (\$ 2015)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Change |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| Canada | 10,339 | 10,748 | 11,080 | 11,761 | 12,121 | 12,200 | 12,279 | 12,391 | 12,521 | 12,646 | 22.3 % |
| NL | 9,949 | 10,242 | 11,405 | 12,330 | 13,858 | 13,273 | 13,280 | 13,172 | 13,251 | 13,174 | 32.4 % |
| PE | 8,891 | 9,657 | 9,872 | 11,135 | 12,998 | 11,956 | 11,661 | 12,020 | 12,335 | 12,610 | 41.8 % |
| NS | 10,498 | 11,156 | 11,397 | 12,144 | 12,591 | 12,598 | 12,435 | 12,451 | 12,430 | 13,179 | 25.5 % |
| NB | 10,660 | 11,170 | 11,453 | 12,591 | 12,931 | 13,641 | 13,548 | 13,802 | 13,335 | 13,855 | 30.0 % |
| QC | 8,859 | 9,093 | 9,839 | 10,106 | 10,263 | 10,416 | 10,529 | 10,669 | 11,019 | 11,049 | 24.7 % |
| ON | 10,762 | 11,039 | 11,255 | 11,935 | 12,374 | 12,672 | 12,674 | 12,739 | 12,905 | 13,276 | 23.4 % |
| МВ | 11,636 | 11,709 | 11,933 | 12,433 | 12,758 | 12,738 | 12,806 | 13,350 | 14,054 | 14,499 | 24.6 % |
| SK | 10,960 | 11,105 | 11,084 | 11,779 | 12,830 | 12,787 | 13,959 | 14,913 | 14,920 | 15,040 | 37.2 % |
| AB | 11,157 | 12,523 | 12,132 | 13,609 | 14,421 | 14,399 | 14,190 | 13,724 | 13,530 | 13,115 | 17.5 % |
| ВС | 10,392 | 10,860 | 11,430 | 11,992 | 11,655 | 11,011 | 11,263 | 11,624 | 11,513 | 11,216 | 14.0 % |

Source: Statistics Canada (2016, 2017a, 2017b, 2017c).

Note: From 2010/2011 onwards, the enrolment counts for British Columbia include students in "distributed learning." British Columbia's percent change calculation is adjusted for this fact.

Figure 2: Per-student spending in public schools (2015 \$)



Source: Statistics Canada (2016, 2017a, 2017b, 2017c).

The largest per-student spending increase was in Prince Edward Island, which saw spending rise from \$8,891 in 2005-06 to \$12,610 in 2014-15 (41.8 percent). Saskatchewan had the second largest increase at 37.2 percent, rising from \$10,960 to \$15,040 over the same period. The smallest increase was in British Columbia (14 percent).

Every province in Canada increased perstudent spending in public schools. The next section details the nature of these increases. using aggregate rather than per-student data for ease of presentation.

Explaining the Changes in Education Spending on Public Schools

This bulletin extends the analysis of education spending in Canada over the last decade to explain the types of spending increases observed nationally and provincially. The education spending analysis is based on data provided to Statistics Canada by provincial governments. While Statistics Canada's data tables are an excellent resource for understanding education spending, there are weaknesses in the underlying, provincially provided data (Statistics Canada, 2017a, 2017d).² One key challenge relates to the data definitions, which are established by the provinces themselves and not Statistics Canada. Definitional differences among provinces and changes over time to spending categories can affect the quality of the data.

As a result of this definitional limitation along with other concerns, the authors combine the detailed spending data presented in this section into three main categories: compensation, capital, and other. After consultation with Statistics Canada, we determined that this aggregation of education spending categories offered the most reasonable balance between the potential variation in definitions among provinces, together with other issues, and our desire to analyze changes within education spending categories.

"Compensation" covers the wages, benefits, and pensions of all staff employed by public schools. "Pensions" consists of employer contributions to teachers' superannuation plans. Employer pension contributions for non-teaching staff are included in "fringe benefits." "Capital" expenditures are used to acquire a fixed or permanent asset, or to significantly improve an asset so as to extend its original useful life. They include spending on the construction of new buildings, the extension of existing facilities, and renovations and improvements to current facilities.

These two spending categories—compensation and capital-account for 81.9 percent of education spending in public schools (table 2).

The third and final category, "other," combines all of the other spending categories provided by Statistics Canada, such as supply and services, fees and contractual services, and direct provincial government spending on services for school boards and administration.

Table 2 provides the aggregated provincial data for Canada as a whole. In total, education spending in public schools increased by 37.7 percent between 2005-06 and 2014-15, representing an increase of \$17.5 billion, from \$46.4 to \$63.9 billion. An overwhelming proportion of the increase was spent on compensation, the costs for which grew from \$33.5 billion in 2005-06 to \$47.2 billion in 2014-15, an increase of 40.9 percent. The more than \$13.7 billion increase in compensation costs represents 78.5 percent of the total \$17.5 billion increase in education spending in public schools between 2005-06 and 2014-15.

Table 2: Education spending allocations

| | | 2005/06 | | 2014/15 | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|--------------------------------|---------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions Share of total (%) | | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 33,525 | 72.2 | 47,249 | 73.9 | 13,724 | 78.5 | 40.9 | |
| Salaries & Wages | 27,561 | 59.3 | 37,505 | 58.7 | 9,944 | 56.8 | 36.1 | |
| Fringe Benefits | 3,552 | 7.6 | 5,455 | 8.5 | 1,903 | 10.9 | 53.6 | |
| Pensions | 2,412 | 5.2 | 4,290 | 6.7 | 1,877 | 10.7 | 77.8 | |
| Capital | 3,347 | 7.2 | 5,097 | 8.0 | 1,751 | 10.0 | 52.3 | |
| Other | 9,572 20.6 | | 11,591 | 18.1 | 2,019 | 11.5 | 21.1 | |
| Total | 46,444 | | 63,938 | | 17,494 | | 37.7 | |

Source: Statistics Canada (2017a, 2017d).

It is important to understand how each of the three categories contributed to the overall increase in compensation spending. Salaries and wages, which increased from \$27.6 billion in 2005-06 to \$37.5 billion in 2014-15 (a 36.1 percent rise) accounted for 72.5 percent of the overall compensation increase. As a share of total education spending in public schools, salaries and wages declined slightly-from 59.3 percent in 2005-06 to 58.7 percent in 2014-15.

"Fringe benefits" rose from \$3.6 billion in 2005-06 to \$5.5 billion in 2014-15, a 53.6 percent increase. The increase in fringe benefits explains 13.9 percent of the overall increase in compensation spending. Unlike salaries and wages, the cost of fringe benefits increased as a share of total education spending in public schools, rising from 7.6 percent in 2005-06 to 8.5 percent in 2014-15.

Finally, "pension" costs increased significantly over the period, rising from \$2.4 billion in 2005-06 to \$4.3 billion in 2014-15, a 77.8 percent increase. This increase explains 13.7 percent of the overall increase in compensation costs. Like fringe benefits, pension costs increased as a share of total education spending on public schools, from 5.2 percent in 2005-06 to 6.7 percent in 2014–15.

"Capital" spending also saw a substantial rise over the decade, growing from \$3.3 billion in 2005-06 to \$5.1 billion in 2014-15, a 52.3 percent increase. Capital represented 10.0 percent (\$1.8 billion) of the overall increase in education spending in public schools. As a share of total education spending in public schools, capital spending increased from 7.2 percent in 2005-06 to 8.0 percent in 2014-15.

"Other" spending recorded the smallest increase of any category of spending in public schools over this time period (a 21.1 percent increase). As a share of total education spending, it declined from 20.6 percent in 2005-06 to 18.1 percent in 2014-15.

Spending on pensions, fringe benefits and capital stand out as the fastest growing components of government spending on public schools. Tables 3 through 8 provide more details about pension, benefits and capital spending in aggregate, both for Canada as a whole and for individual provinces.

Pension Spending

Table 3 provides the dollar value of teacher pension contributions by provincial governments.³ Government contributions to teacher pensions increased by 77.8 percent from 2005-06 to 2014–15.4 Pension contributions are increasing at a faster rate than any other component of overall education spending in public schools.

Three provinces-Ontario, Alberta, and Saskatchewan-increased pension contributions in excess of 100 percent over this period. In fact, these three provinces account for over 80 percent of the \$1.9 billion increase in pension spending between 2005-06 and 2014-15. New Brunswick is alone in showing a decline in pension contribution spending.⁵

Table 4 shows the annual growth in government contributions to teacher pension plans by province. Canada-wide pension spending grew by 6.9 percent a year, on average, between 2005-06 and 2014-15. There was negative annual growth in New Brunswick, low growth in Nova Scotia and Newfoundland & Labrador, and double-digit average growth in Alberta and Saskatchewan of 12.9 percent and 13.8 percent respectively.

Looking at pension spending on a year-by-year basis, 2014-15 actually saw a modest decline in overall pension spending in Canada. This was driven by reduced pension contribution spending in Alberta (a 5.9 percent reduction between 2013-14 and 2014-15)⁶ and Quebec (a 13.0 percent reduction).

Table 3: Teacher pension spending (\$ millions)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Change | Share of change (%) | Growth (%) |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------------------|---------------|
| Canada | 2,412 | 2,569 | 2,444 | 3,104 | 3,253 | 3,673 | 3,881 | 4,036 | 4,335 | 4,290 | 1,877 | | 77.8 |
| NL | 34 | 34 | 36 | 39 | 41 | 43 | 45 | 46 | 45 | 45 | 11 | 0.6 | 32.8 |
| PE | n/a | n/a | n/a | n/a |
| NS | 52 | 54 | 54 | 58 | 58 | 60 | 61 | 60 | 61 | 64 | 11 | 0.6 | 21.4 |
| NB | 113 | 116 | 125 | 131 | 137 | 145 | 149 | 153 | 55 | 68 | -45 | -2.4 | -39.9 |
| QC | 489 | 505 | 569 | 556 | 576 | 672 | 668 | 645 | 806 | 702 | 213 | 11.3 | 43.4 |
| ON | 740 | 797 | 809 | 1,073 | 1,246 | 1,318 | 1,346 | 1,396 | 1,466 | 1,531 | 791 | 42.1 | 106.8 |
| МВ | 115 | 126 | 117 | 137 | 141 | 142 | 145 | 152 | 160 | 167 | 52 | 2.8 | 45.6 |
| SK | 133 | 155 | 77 | 107 | 115 | 156 | 215 | 279 | 274 | 302 | 169 | 9.0 | 127.4 |
| AB | 478 | 483 | 347 | 675 | 600 | 781 | 883 | 932 | 1,089 | 1,025 | 547 | 29.1 | 114.4 |
| ВС | 258 | 297 | 311 | 327 | 339 | 355 | 369 | 372 | 378 | 386 | 128 | 6.8 | 49.7 |

Source: Statistics Canada (2017a).

Notes: Prince Edward Island's teacher pension spending is listed as "terminated." New Brunswick introduced a new teacher's pension plan in 2014 that ended special payments which had averaged \$83 million over the previous decade.

Table 4: Growth in teacher pension spending (%)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Average annual growth (%) |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------------|
| Canada | n/a | 6.5 | -4.9 | 27.0 | 4.8 | 12.9 | 5.7 | 4.0 | 7.4 | -1.0 | 6.9 |
| NL | n/a | 0.8 | 3.9 | 8.4 | 6.0 | 4.6 | 5.0 | 1.4 | -1.3 | 0.3 | 3.2 |
| PE | n/a |
| NS | n/a | 3.8 | -1.2 | 8.3 | 0.3 | 2.7 | 1.7 | -1.8 | 1.3 | 4.9 | 2.2 |
| NB | n/a | 2.9 | 7.3 | 5.4 | 4.1 | 6.4 | 2.6 | 2.9 | -63.8 | 22.1 | -1.1 |
| QC | n/a | 3.3 | 12.7 | -2.3 | 3.5 | 16.7 | -0.6 | -3.4 | 25.0 | -13.0 | 4.7 |
| ON | n/a | 7.7 | 1.5 | 32.6 | 16.1 | 5.8 | 2.1 | 3.7 | 5.1 | 4.4 | 8.8 |
| МВ | n/a | 10.0 | -7.3 | 17.6 | 2.5 | 1.0 | 1.9 | 4.9 | 5.1 | 4.3 | 4.5 |
| SK | n/a | 16.6 | -50.4 | 38.7 | 8.2 | 35.2 | 37.9 | 29.9 | -1.8 | 10.3 | 13.8 |
| AB | n/a | 1.1 | -28.3 | 94.9 | -11.1 | 30.1 | 13.1 | 5.6 | 16.8 | -5.9 | 12.9 |
| ВС | n/a | 15.3 | 4.6 | 5.1 | 3.6 | 4.9 | 3.8 | 1.0 | 1.4 | 2.3 | 4.7 |

Source: Statistics Canada (2017a).

Note: Prince Edward Island's teacher pension spending is listed as "terminated."

Fringe Benefit Spending

Within the compensation category, fringe benefit spending also had a higher average growth rate than the aggregate education spending growth rate. Fringe benefit spending increased from \$3.6 billion in 2005-06 to \$5.5 billion in 2014–15, a rise of 53.6 percent (**table 5**).

Other than a decline in 2011-12, fringe benefit spending in Canada has grown steadily over the last decade, averaging 5.0 percent growth per year, with annual growth ranging from a low of 0.5 percent in 2012-13 to a high of 18.5 percent in 2013-14. The 2013-14 value is driven by changes in Ontario, which saw decreases in the

Table 5: Fringe benefit spending (\$ millions)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Change | Share of change (%) | Growth (%) |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------------------|---------------|
| Canada | 3,552 | 3,734 | 3,920 | 4,090 | 4,251 | 4,420 | 4,333 | 4,355 | 5,159 | 5,455 | 1,903 | | 53.6 |
| NL | 39 | 36 | 37 | 38 | 40 | 39 | 40 | 42 | 44 | 44 | 5 | 0.3 | 12.9 |
| PE | 15 | 20 | 21 | 23 | 24 | 25 | 28 | 30 | 33 | 33 | 18 | 1.0 | 125.4 |
| NS | 71 | 74 | 78 | 80 | 79 | 82 | 86 | 89 | 91 | 98 | 27 | 1.4 | 38.7 |
| NB | 44 | 45 | 47 | 50 | 49 | 51 | 53 | 58 | 61 | 63 | 18 | 1.0 | 41.2 |
| QC | 621 | 654 | 684 | 698 | 729 | 757 | 802 | 844 | 871 | 901 | 281 | 14.7 | 45.2 |
| ON | 1,742 | 1,868 | 1,951 | 2,033 | 2,113 | 2,209 | 1,904 | 1,594 | 2,297 | 2,434 | 692 | 36.4 | 39.7 |
| МВ | 87 | 92 | 96 | 102 | 108 | 111 | 116 | 124 | 128 | 132 | 45 | 2.4 | 51.4 |
| SK | 77 | 86 | 84 | 90 | 98 | 104 | 111 | 119 | 124 | 129 | 52 | 2.7 | 67.1 |
| AB | 419 | 444 | 472 | 500 | 523 | 542 | 675 | 911 | 967 | 1,030 | 611 | 32.1 | 145.9 |
| ВС | 408 | 388 | 419 | 443 | 454 | 464 | 477 | 495 | 493 | 541 | 133 | 7.0 | 32.6 |

Source: Statistics Canada (2017d).

Table 6: Growth in fringe benefit spending (%)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Average annual growth (%) |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------------|
| Canada | n/a | 5.1 | 5.0 | 4.3 | 3.9 | 4.0 | -2.0 | 0.5 | 18.5 | 5.7 | 5.0 |
| NL | n/a | -6.5 | 1.6 | 4.4 | 4.0 | -1.6 | 2.0 | 4.2 | 4.8 | -0.3 | 1.4 |
| PE | n/a | 37.2 | 5.6 | 6.2 | 7.0 | 4.6 | 9.4 | 9.0 | 8.4 | 1.1 | 9.9 |
| NS | n/a | 5.3 | 4.5 | 3.2 | -1.4 | 4.3 | 4.6 | 3.0 | 2.3 | 7.6 | 3.7 |
| NB | n/a | 0.4 | 4.4 | 7.4 | -1.2 | 3.8 | 4.2 | 8.7 | 5.5 | 2.4 | 4.0 |
| QC | n/a | 5.3 | 4.7 | 2.0 | 4.5 | 3.8 | 5.9 | 5.3 | 3.2 | 3.5 | 4.2 |
| ON | n/a | 7.2 | 4.5 | 4.2 | 4.0 | 4.5 | -13.8 | -16.3 | 44.2 | 6.0 | 4.9 |
| МВ | n/a | 4.9 | 5.4 | 5.7 | 5.8 | 3.0 | 4.4 | 7.0 | 2.9 | 3.4 | 4.7 |
| SK | n/a | 10.7 | -2.4 | 7.7 | 8.6 | 6.4 | 6.9 | 7.4 | 3.9 | 4.2 | 5.9 |
| AB | n/a | 5.9 | 6.4 | 5.9 | 4.6 | 3.7 | 24.5 | 35.1 | 6.1 | 6.5 | 11.0 |
| ВС | n/a | -4.8 | 7.9 | 5.9 | 2.4 | 2.2 | 2.9 | 3.7 | -0.4 | 9.7 | 3.3 |

Source: Statistics Canada (2017d).

two previous years followed by a large increase in 2013-14. The next largest annual increase at the national level is 5.7 percent in 2014–15.

The largest increases in nominal dollars over the period were in Alberta and Ontario, with increases of \$611 and \$692 million, respectively. These two provinces accounted for 68.5 percent of the total increase in fringe benefit spending in public schools in all of Canada between 2005-06 and 2014-15 (table 5).

In terms of percentage increase, Alberta had the highest average annual growth rate over the period of 11.0 percent, followed by Prince Edward Island (9.9 percent) and Saskatchewan (5.9 percent). Newfoundland & Labrador had the lowest average annual growth rate of 1.4 percent (table 6).

Capital Spending

Capital spending is another public school spending category that experienced a higher average growth rate than the aggregate education spending growth rate. Capital spending increased from \$3.3 billion in 2005-06 to \$5.1 billion in 2014-15, a rise of 52.3 percent.

Other than a decline in 2010-11, capital spending on public schools in Canada has grown steadily over the last decade, averaging 4.9 percent growth per year, with annual growth ranging from a low of 1.0 percent in 2011-12 to a high of 27.3 percent in 2005-06.

The largest increase in nominal dollars over the period was in Quebec, with a total rise of \$974 million. This province alone accounted for 55.7 percent of the total increase in capital spending in public schools in all of Canada. The second largest increase in nominal dollars was in British Columbia with a rise of \$185 million between 2005-06 and 2014-15.

Alberta had the second-smallest overall increase, in nominal dollars, over the period rising from \$231 million in 2005-06 to \$317 million in 2014–15. However, that province saw a much higher level of capital spending in 2008-09 and 2009-10 (\$565 million and \$604 million, respectively).

Table 7: Capital spending (\$ millions)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Change | Share of change (%) | Growth (%) |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------------------|---------------|
| Canada | 3,347 | 3,763 | 4,091 | 4,514 | 4,772 | 4,580 | 4,628 | 4,771 | 4,919 | 5,097 | 1,751 | | 52.3 |
| NL | 20 | 27 | 30 | 34 | 56 | 77 | 56 | 54 | 74 | 82 | 62 | 3.5 | 313.6 |
| QC | 373 | 556 | 949 | 1,136 | 1,181 | 1,205 | 1,210 | 1,193 | 1,244 | 1,348 | 974 | 55.7 | 261.0 |
| ON | 2,174 | 2,337 | 2,254 | 2,140 | 2,269 | 2,291 | 2,389 | 2,368 | 2,322 | 2,336 | 162 | 9.3 | 7.5 |
| MB | 141 | 132 | 96 | 92 | 91 | 93 | 97 | 131 | 207 | 250 | 109 | 6.2 | 76.9 |
| SK | 91 | 106 | 109 | 92 | 103 | 86 | 138 | 244 | 262 | 258 | 167 | 9.5 | 183.0 |
| AB | 231 | 230 | 229 | 565 | 604 | 397 | 239 | 240 | 269 | 317 | 87 | 4.9 | 37.5 |
| ВС | 290 | 351 | 404 | 438 | 450 | 417 | 487 | 532 | 526 | 475 | 185 | 10.6 | 63.8 |

Source: Statistics Canada (2017d).

Note: Values reported by Prince Edward Island and Nova Scotia drop to zero or essentially zero in 2005 and 2007, respectively. Values reported by New Brunswick are less than 1 percent of total spending, on average, over the period of analysis.

In terms of percentage increase, Newfoundland & Labrador has the highest average annual growth rate over the period of 20.1 percent, followed by Quebec (17.4 percent) and Saskatchewan (15.7 percent). Ontario had the lowest average annual growth rate of 0.9 percent.

There is a high degree of variability in the annual growth rates both between the

provinces, and within each of the provinces over time. Every province has experienced a year-over-year decline in capital spending in public schools at least once, but significant increases were also recorded. Alberta has seen the greatest variability, with an annual growth of 146.8 percent in 2008-09, and a reduction of 39.9 percent in 2011-12.

Table 8: Growth in capital spending (%)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Average annual growth (%) |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------------|
| Canada | 27.3 | 12.4 | 8.7 | 10.3 | 5.7 | -4.0 | 1.0 | 3.1 | 3.1 | 3.6 | 4.9 |
| NL | 13.4 | 38.8 | 7.5 | 16.0 | 64.9 | 36.5 | -27.1 | -4.7 | 37.2 | 11.4 | 20.1 |
| QC | 0.1 | 49.1 | 70.6 | 19.7 | 3.9 | 2.1 | 0.4 | -1.4 | 4.3 | 8.3 | 17.4 |
| ON | 40.4 | 7.5 | -3.5 | -5.0 | 6.0 | 1.0 | 4.3 | -0.9 | -1.9 | 0.6 | 0.9 |
| МВ | 1.1 | -6.4 | -27.5 | -3.8 | -0.9 | 2.4 | 3.7 | 34.9 | 58.7 | 20.4 | 9.0 |
| SK | 7.7 | 16.2 | 3.4 | -16.0 | 11.5 | -15.9 | 60.5 | 76.1 | 7.7 | -1.7 | 15.7 |
| AB | -0.9 | -0.2 | -0.7 | 146.8 | 6.9 | -34.3 | -39.9 | 0.5 | 12.3 | 17.9 | 12.1 |
| ВС | 53.3 | 20.9 | 15.2 | 8.5 | 2.5 | -7.2 | 16.8 | 9.1 | -1.1 | -9.7 | 6.1 |

Source: Statistics Canada (2017d).

Note: Prince Edward Island, Nova Scotia, and New Brunswick are not reported because the underlying values are too small and/or drop to zero over the period of analysis.

Summary

Our results indicate that while compensation remains the largest and most costly aspect of education spending, it has also increased as a share of total education spending on public schools over the last decade, from 72.2 percent to 73.9 percent. Fringe benefits and pension costs, which are sub-categories of compensation, increased as a share of both compensation and total education spending. Governments are spending more dollars and a greater share of total education spending on compensation, with an increasing share towards fringe benefits and pensions.

Increased capital spending is the other area that helps explain the overall increase in education spending. Capital spending grew from \$3.3 billion to \$5.1 billion over the ten-year period, a 52.3 percent rise. Increased capital spending in Quebec accounted for more than half of this increase (55.7 percent of the total change).

Endnotes

- 1 Decreased enrolment is a result of a combination of a declining school-aged population (individuals between the ages of 5 and 17) and an increasing preference for independent schools and home schooling over public schools. For a more complete discussion please see MacLeod and Hasan (2017).
- 2 See http://www.statcan.gc.ca/edu/power-pou- voir/ch2/types/5214777-eng.htm> for more information on the types of data collected by Statistics Canada and their relative strengths and weaknesses.
- The public accounts of Newfoundland & Labrador note a one-time special payment of \$2.0 billion into the Teachers' Pension Plan in 2005-06 which does not appear in the information reported to Statistics Canada. This payment was roughly four times the entire remuneration budget for 2005-06 (see Newfoundland & Labrador, 2006: 42).
- 4 The spending in this analysis includes only the employer portion of the pension contributions, not contributions to pensions made by the employees themselves.

- 5 New Brunswick introduced a new teacher's pension plan in 2014 that ended special payments which had averaged \$83 million over the previous decade.
- 6 Alberta made a \$1.2 billion contribution towards the pre-1992 unfunded pension obligation in the Teachers' Pension Plan in 2009-10. It is not entirely clear how this and other lump-sum payments were reported to Statistics Canada but in addition to several large increases in the pension category, Alberta's figures show "direct government expenditures on services to public school boards" increasing from \$143 million in 2005-06 to an average of \$721 million between 2006-07 and 2011-12.

References

- MacLeod, Angela, and Joel Emes (2017). Education Spending and Public Student Enrolment in Canada, 2017. Fraser Institute.
- MacLeod, Angela, and Sazid Hassan (2017). Where Our Students Are Educated: Measuring Student Enrolment in Canada. Fraser Institute. https://www.fraserinstitute.org/studies/ where-our-students-are-educated-measuring-student-enrolment-in-canada-2017>
- Newfoundland & Labrador, Department of Finance (2006). Public Accounts for the Fiscal Year Ended March 31, 2006. Volume 1: Consolidated Summary Financial Statements. Government of Newfoundland & Labrador. http://www.fin.gov.nl.ca/fin/publications/ vol_1_2006.pdf>
- Statistics Canada (2016, November 18). Elementary-Secondary Education Survey for Canada, the Provinces and Territories, 2014/2015. The Daily. Statistics Canada. http://www.statcan. gc.ca/daily-quotidien/161118/dq161118d-eng.htm>
- Statistics Canada (2017a). Table 478-0014: Public and Private Elementary and Secondary Education Expenditures. Statistics Canada. http:// www5.statcan.gc.ca/cansim/a26?lang=eng&retrLan g=eng&id=4780014&&pattern=&stByVal=1&p1=1&p2= -1&tabMode=dataTable&csid=>

Statistics Canada (2017b). Table 477-0025: Number of Students in Regular Programs for Youth, Public Elementary and Secondary Schools, by Grade and Sex, Canada, Provinces and Territories. Statistics Canada.http://www5.statcan. gc.ca/cansim/a26?lang=eng&retrLang=eng&id=477 0025&&pattern=&stByVal=1&p1=1&p2=-1&tabMode= dataTable&csid=>

Statistics Canada (2017c). Table 326-0021: Consumer Price Index. Statistics Canada. http:// www5.statcan.gc.ca/cansim/a26?lang=eng&retrLan g=eng&id=3260021&&pattern=&stByVal=1&p1=1&p2= -1&tabMode=dataTable&csid=>

Statistics Canada (2017d). Table 478-0011: School Board Expenditures, by Function and Economic Classification. Statistics Canada. http:// www5.statcan.gc.ca/cansim/a26?lang=eng&retrLan g=eng&id=4780011&&pattern=&stByVal=1&p1=1&p2= -1&tabMode=dataTable&csid=>

Websites retrievable as of August 3, 2017

Appendix: Education spending allocations in government schools, by province

Source: Statistics Canada (2017a, 2017d).

Table A1: Education spending allocations, Newfoundland & Labrador, 2005/06 to 2014/15

| | | 2005/06 | | 2014/15 | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|--------------------------------|---------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions Share of total (%) | | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 495 78.5 | | 651 | 75.4 | 156 | 66.8 | 31.5 | |
| Salaries & Wages | 422 | 67.0 | 562 | 65.1 | 140 | 59.9 | 33.1 | |
| Fringe Benefits | 39 | 6.1 | 44 | 5.1 | 5 | 2.1 | 12.9 | |
| Pensions | 34 | 5.4 | 45 | 5.2 | 11 | 4.8 | 32.8 | |
| Capital | 20 | 3.1 | 82 | 9.5 | 62 | 26.6 | 313.6 | |
| Other | 116 18.3 | | 131 | 15.1 | 15 | 6.6 | 13.2 | |
| Total | 631 | | 864 | | 233 | | 37.0 | |

Table A2: Education spending allocations, Prince Edward Island, 2005/06 to 2014/15

| | | 2005/06 | | 2014/15 | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|--------------------------------|---------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions Share of total (%) | | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 135 | 81.3 | 193 | 77.6 | 59 | 70.2 | 43.5 | |
| Salaries & Wages | 120 | 72.4 | 160 | 64.3 | 40 | 48.2 | 33.5 | |
| Fringe Benefits | 15 | 8.9 | 33 | 13.3 | 18 | 22.1 | 125.4 | |
| Pensions | n/a | n/a | n/a | n/a | n/a | n/a | n/a | |
| Capital | n/a | n/a | n/a | n/a | n/a | n/a | n/a | |
| Other | 31 18.5 | | 56 | 22.4 | 25 | 30.1 | 81.8 | |
| Total | 166 | | 249 | | 83 | | 50.4 | |

Table A3: Education spending allocations, Nova Scotia, 2005/06 to 2014/15

| | | 2005/06 | | 2014/15 | 2005/06 to 2014/15 | | | | |
|------------------|-------------|--------------------|--------------------------------|---------|---------------------|---------------------|------------|--|--|
| | \$ millions | Share of total (%) | \$ millions Share of total (%) | | Change, \$ millions | Share of change (%) | Growth (%) | | |
| Compensation | 852 | 68.4 | 1,079 | 70.5 | 226 | 79.3 | 26.6 | | |
| Salaries & Wages | 729 | 58.6 | 917 | 59.9 | 188 | 65.8 | 25.8 | | |
| Fringe Benefits | 71 | 5.7 | 98 | 6.4 | 27 | 9.6 | 38.7 | | |
| Pensions | 52 | 4.2 | 64 | 4.2 | 11 | 3.9 | 21.4 | | |
| Capital | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | |
| Other | 393 31.5 | | 452 | 29.5 | 60 | 20.9 | 15.2 | | |
| Total | 1,245 | | 1,531 | | 286 | | 22.9 | | |

Table A4: Education spending allocations, New Brunswick, 2005/06 to 2014/15

| | | 2005/06 | | 2014/15 | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 719 | 67.4 | 909 | 66.4 | 191 | 62.6 | 26.5 | |
| Salaries & Wages | 562 52.7 | | 779 | 56.8 | 217 | 71.4 | 38.7 | |
| Fringe Benefits | 44 | 4.2 | 63 | 4.6 | 18 | 6.0 | 41.2 | |
| Pensions | 113 | 10.6 | 68 | 4.9 | -45 | -14.8 | -39.9 | |
| Capital | 10 | 0.9 | 5 | 0.4 | -5 | -1.5 | -45.1 | |
| Other | 337 31.6 | | 456 | 33.2 | 118 | 38.9 | 35.1 | |
| Total | 1,066 | | 1,370 | | 305 | | 28.6 | |

Table A5: Education spending allocations, Quebec, 2005/06 to 2014/15

| | 2005/06 | | 2014/15 | | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 6,769 | 72.1 | 9,253 | 70.6 | 2,485 | 66.7 | 36.7 | |
| Salaries & Wages | 5,659 | 60.2 | 7,650 | 58.3 | 1,992 | 53.5 | 35.2 | |
| Fringe Benefits | 621 | 6.6 | 901 | 6.9 | 281 | 7.5 | 45.2 | |
| Pensions | 489 | 5.2 | 702 | 5.3 | 213 | 5.7 | 43.4 | |
| Capital | 373 | 4.0 | 1,348 | 10.3 | 974 | 26.2 | 261.0 | |
| Other | 2,251 | 24.0 | 2,515 | 19.2 | 264 | 7.1 | 11.7 | |
| Total | 9,393 | | 13,116 | | 3,723 | | 39.6 | |

Table A6: Education spending allocations, Ontario, 2005/06 to 2014/15

| | 2005/06 | | 2014/15 | | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 14,214 | 73.0 | 20,253 | 76.2 | 6,040 | 84.8 | 42.5 | |
| Salaries & Wages | 11,731 | 60.3 | 16,288 | 61.2 | 4,557 | 64.0 | 38.8 | |
| Fringe Benefits | 1,742 | 8.9 | 2,434 | 9.2 | 692 | 9.7 | 39.7 | |
| Pensions | 740 | 3.8 | 1,531 | 5.8 | 791 | 11.1 | 106.8 | |
| Capital | 2,174 | 11.2 | 2,336 | 8.8 | 162 | 2.3 | 7.5 | |
| Other | 3,083 | 15.8 | 4,006 | 15.1 | 923 | 13.0 | 30.0 | |
| Total | 19,470 | | 26,596 | _ | 7,125 | | 36.6 | |

Table A7: Education spending allocations, Manitoba, 2005/06 to 2014/15

| | 2005/06 | | 2014/15 | | 2005/06 to 2014/15 | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) |
| Compensation | 1,319 | 72.5 | 1,902 | 73.0 | 583 | 74.1 | 44.2 |
| Salaries & Wages | 1,117 | 61.4 | 1,603 | 61.5 | 486 | 61.7 | 43.5 |
| Fringe Benefits | 87 | 4.8 | 132 | 5.1 | 45 | 5.7 | 51.4 |
| Pensions | 115 | 6.3 | 167 | 6.4 | 52 | 6.6 | 45.6 |
| Capital | 141 | 7.8 | 250 | 9.6 | 109 | 13.8 | 76.9 |
| Other | 359 | 19.7 | 454 | 17.4 | 95 | 12.1 | 26.5 |
| Total | 1,819 | | 2,606 | | 787 | | 43.2 |

Table A8: Education spending allocations, Saskatchewan, 2005/06 to 2014/15

| | 2005/06 | | 2014/15 | | 2005/06 to 2014/15 | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) |
| Compensation | 1,168 | 73.3 | 1,837 | 69.9 | 669 | 64.6 | 57.3 |
| Salaries & Wages | 958 | 60.1 | 1,405 | 53.5 | 448 | 43.2 | 46.7 |
| Fringe Benefits | 77 | 4.9 | 129 | 4.9 | 52 | 5.0 | 67.1 |
| Pensions | 133 | 8.3 | 302 | 11.5 | 169 | 16.4 | 127.4 |
| Capital | 91 | 5.7 | 258 | 9.8 | 167 | 16.1 | 183.0 |
| Other | 333 | 20.9 | 533 | 20.3 | 200 | 19.3 | 60.0 |
| Total | 1,592 | | 2,628 | | 1,036 | | 65.0 |

Table A9: Education spending allocations, Alberta, 2005/06 to 2014/15

| | 2005/06 | | 2014/15 | | 2005/06 to 2014/15 | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) |
| Compensation | 3,848 | 74.4 | 6,402 | 77.5 | 2,554 | 82.8 | 66.4 |
| Salaries & Wages | 2,951 | 57.1 | 4,347 | 52.6 | 1,396 | 45.2 | 47.3 |
| Fringe Benefits | 419 | 8.1 | 1,030 | 12.5 | 611 | 19.8 | 145.9 |
| Pensions | 478 | 9.2 | 1,025 | 12.4 | 547 | 17.7 | 114.4 |
| Capital | 231 | 4.5 | 317 | 3.8 | 87 | 2.8 | 37.5 |
| Other | 1,092 | 21.1 | 1,538 | 18.6 | 446 | 14.4 | 40.8 |
| Total | 5,171 | | 8,257 | | 3,086 | | 59.7 |

Table A10: Education spending allocations, British Columbia, 2005/06 to 2014/15

| | 2005/06 | | 2014/15 | | 2005/06 to 2014/15 | | | |
|------------------|-------------|--------------------|-------------|--------------------|---------------------|---------------------|------------|--|
| | \$ millions | Share of total (%) | \$ millions | Share of total (%) | Change, \$ millions | Share of change (%) | Growth (%) | |
| Compensation | 3,760 | 68.3 | 4,421 | 71.3 | 661 | 95.6 | 17.6 | |
| Salaries & Wages | 3,094 | 56.2 | 3,494 | 56.3 | 400 | 57.8 | 12.9 | |
| Fringe Benefits | 408 | 7.4 | 541 | 8.7 | 133 | 19.2 | 32.6 | |
| Pensions | 258 | 4.7 | 386 | 6.2 | 128 | 18.5 | 49.7 | |
| Capital | 290 | 5.3 | 475 | 7.7 | 185 | 26.8 | 63.8 | |
| Other | 1,459 | 26.5 | 1,304 | 21.0 | -154 | -22.3 | -10.6 | |
| Total | 5,508 | | 6,200 | | 692 | | 12.6 | |



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