



# **The Cost of Credentials**

The shifting burden of  
post-secondary tuition  
in Canada

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## Overview

It may be summer, but for many post-secondary students looming tuition bills are top of mind. If recent history is any guide, 1.1 million Canadians and nearly 170,000 international students will be spending record amounts this fall to further their education, a trend that has helped the post-secondary education sector grow faster than the overall economy for the past decade. Last year, tuition fees hit a new high for at least the 28th year in a row. So why is enrolment rising even as post-secondary education costs become, for many, a long-term burden? The simple answer is that it pays, both in terms of future higher income and relative job security.

- **Rising university tuition costs have outpaced inflation since 1982; outside of Quebec, it now averages \$7,600 per domestic student**
- **Since 1990, the government's share of university funding has fallen by nearly half and the cost of tuition at universities has risen 2.7 times in real terms**
- **In 2015, the median university graduate working full-time earned 63% more than the equivalent high school graduate**
- **In 1990, it took 293 hours of minimum-wage work to pay the average university tuition; today it requires 505 hours**
- **Higher-income households with children are more likely to hold an RESP, and only 51% of Canadians eligible for an RESP benefit from the program**
- **Enrolment in non-university forms of post-secondary education has risen 33% since 2000**
- **Over 20% of graduates with a bachelor's degree start out with more than \$25,000 in debt**

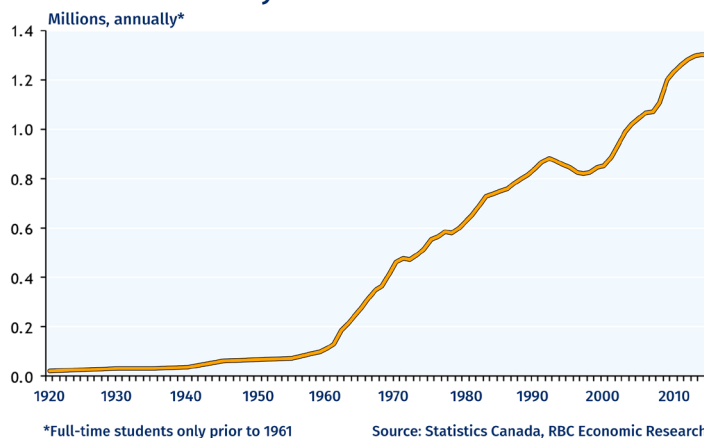
## Higher education and the economy

Post-secondary education is big business, directly employing 3% of the workforce and representing a similar proportion of Canada's GDP<sup>1</sup>. Since 2007, the sector has grown by 2.7% a year, one percentage point faster than the overall economy. Higher education also makes an important, if officially unmeasured, contribution to Canada's trade. Like tourism, spending by international students is the sale of goods and services to non-Canadians and can therefore be regarded as an export. International students spent \$15.5 billion in 2016, up from \$8 billion in 2010<sup>2</sup>. If their spending was counted among exports, it would represent over 14% of overall service exports, and be Canada's fastest-growing export category.

The growth of the university sector coincides with rising enrolment — last year, it was up for the 18th year in a row — and continues a decades-long trend that has seen more than half a million Canadians enrolled in college or university each year (Chart 1). Measured by the proportion with post-secondary training, Canada's workforce is the best-educated in the G7 and among the best educated in the world. Fully 31% of Canadians between ages 25 and 65 have a bachelor's degree or higher, and a further 26% have some other post-secondary qualification. The increased educational attainment of women and Canada's immigrant mix has made a significant contribution to this trend: since the early 1990s women have accounted for between 55% and 60% of university students, and over 40% of working-age immigrants have a bachelor's degree or higher.

*Since the early 1990s women have accounted for 55%-60% of university students in Canada*

**Chart 1: University enrolments**



## How much does it cost to go to university?

Outside of Quebec (see Box 1), the average annual tuition cost for an undergraduate degree in Canada jumped by 3.1% in the 2017-18 academic year to \$7,600. But tuition is just the beginning. Compulsory fees averaged \$900 in 2017-18 (up 4% from the previous year) and the average guidance for cost of living by major Canadian universities exceeds \$12,000 a year<sup>3</sup>.

Since the 1980s, tuition hikes have outpaced the rate of inflation and certain educational segments have had still-faster price increases. International students now pay over \$25,000 annually for an undergraduate degree, up more than 80% since 2008. Professional programs have also seen price increases dwarfing average undergraduate tuition. Over the past 10 years, the increase in tuition for law (85%), dentistry (78%), pharmacy (144%), and MBAs (101%) far outpaced that of the average undergraduate degree (44%).

## Why has the sticker cost of university increased?

Part of the explanation for rising tuition is that the cost of educating a student has increased. In the 2015-2016 academic year, Canada's universities spent \$35 billion, equivalent to \$31,500 per full-time student<sup>4</sup>. This contrasts with an inflation-adjusted expenditure of \$26,000 per student in the 1980s.

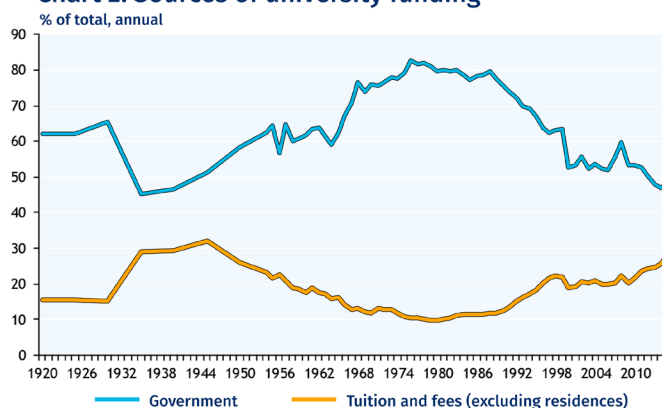
The major driver of rising tuition is changes in the way universities are funded. Starting at the end of WWII, the Canadian government stepped up its supports to universities, initially for veterans and then more broadly. As a university education became associated with upward mobility and a place in the middle class, steadily rising enrolment was matched by increased government funding. By the mid-1970s, provincial governments were directly paying for 75% of the cost of university education, requiring in some years that 8% of total provincial spending<sup>5</sup> be directed to colleges and universities, supported by generous transfers from the federal government (Chart 2).

The trend began to reverse in the 1990s as a fiscally challenged Ottawa put transfers on the chopping block. That prompted a sharp decline in overall expenditures per student and a rapid and sustained increase in university tuition costs (Chart 3).

*Since 1990, the government's share of university funding has fallen by nearly half and the cost of tuition at Canadian universities has risen 2.7 times in real terms.*

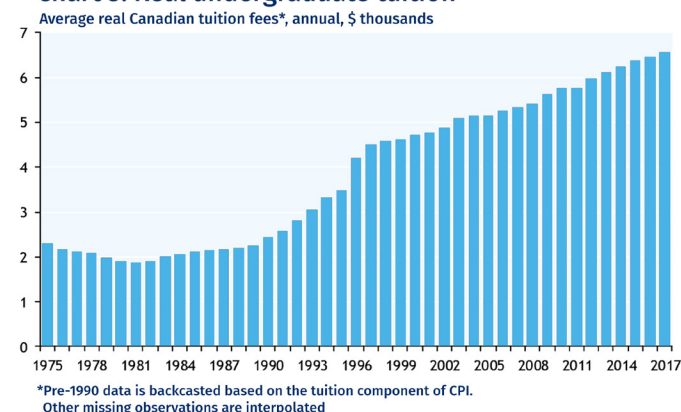
It is only possible for universities to raise tuition if Canadians are willing to pay it, and the changing landscape of university funding cannot explain why some degree programs have seen their relative costs soar. Fundamentally, it is because the market will bear it: demand for university programs remains strong despite rising prices. And part of the reason is because it pays. In 2015, the median university graduate employed full-time earned 63% more than the equivalent high school graduate. Moreover, greater educational attainment correlates with greater security in the job market. University-degree holders have much lower unemployment rates than the rest of the working population, and tend to see less of an impact during recessions (Chart 4). There are also cultural drivers of rising

**Chart 2: Sources of university funding**



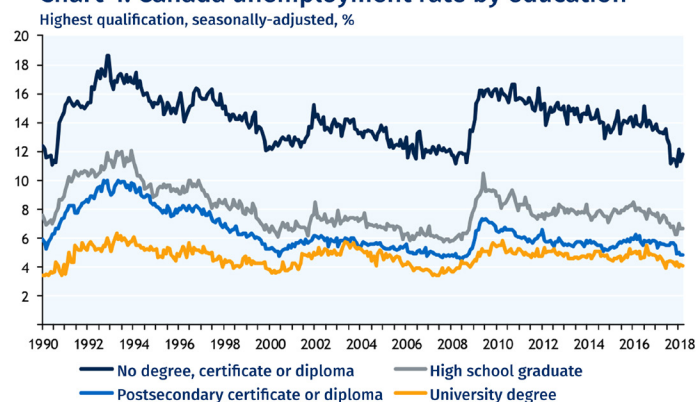
Source: Statistics Canada, RBC Economic Research

**Chart 3: Real undergraduate tuition**



Source: Statistics Canada, RBC Economic Research

**Chart 4: Canada unemployment rate by education**



Source: Statistics Canada, RBC Economic Research

demand. Even controlling for family income, the children of university graduates are more likely to attend university<sup>6</sup>. Whatever the causal link, among people aged 25 to 39 both of whose parents hold university degrees, over 70% have completed university, compared with fewer than 30% whose parents have only high school diplomas. As the number of university graduates rises over time, it induces further demand as children follow their parents into post-secondary education.

### The college option

University is not the only option. More than 725,000 Canadians enroll in some other form of post-secondary education each year, including vocational schools, community colleges and other technical programs. The overall cost of educating students at these institutions is roughly half that of universities and governments pay for 62% of the overall cost<sup>7</sup>. The result is lower average tuition rates compared to universities, which may be why enrolment has risen 33% since 2000. Rising enrolment may also reflect rising returns that come with college. Since 2000, the average income of people with a non-university, post-secondary qualification rose the fastest of any educational group.

## Box 1

### The exceptions that reveal the tradeoff

While most provinces have seen a rapid rise in university tuition costs, there are two exceptions: Quebec and Newfoundland and Labrador. In those provinces, the government maintains a larger role in university funding and assertively caps the cost of in-province tuition through legislation. The upshot is that these provinces charge far lower tuition and fees on average than the rest of Canada for their own students. The average rate of tuition and fees (including out-of-province students) for 2017-18 in Quebec is \$3,736 and \$3,652 in Newfoundland and Labrador, compared with \$8,500 in the rest of Canada. But this requires tradeoffs. University expenditures per student are 11% lower in Quebec than in the rest of the country, and the province spends 5.4% of its provincial budget on post-secondary education (including CEGEP) compared with 3.4% in Ontario. A large governmental contribution to university funding also makes funding for higher education vulnerable to fiscal circumstances. Newfoundland and Labrador cut post-secondary funding sharply in 2017 as part of an effort to close its budget deficit, prompting a 22% hike in tuition and fees.

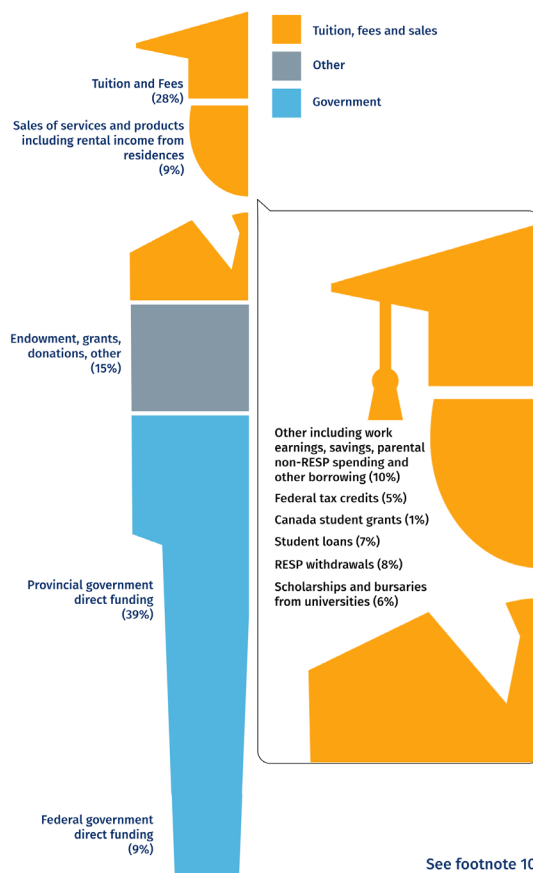
### How do Canadians pay for university?

While the share of university funding from the government has declined in recent years, the government remains highly involved. In addition to paying nearly 50% of university funding costs directly, the government created Registered Education Savings Plans (RESPs) in the 1970s to give households a tax-shielded savings vehicle to help pay for higher education, supplementing the program in 1998 with the Canada Education Savings Grant (CESG) and in 2004 with Canada Learning Bonds<sup>8</sup>. As tuition costs grew, the cost of tax expenditures for tuition and textbooks increased and the government began to spend billions on merit-based grants, scholarships and subsidized employment to defray part of the cost<sup>9</sup>. Finally, the Canadian government guaranteed privately issued student loans (before 2000) before issuing loans directly through the National Student Loans Service Center (2000 to present). The upshot of these programs was to shift government spending on post-secondary education toward supporting private expenditures through the tax code and other targeted programs (Chart 5).

*\$2 billion: the amount spent annually on scholarships and bursaries*

For their part, universities significantly boosted their support for students in step with rising tuition. Since 2000, the total amount of money spent on scholarships and bursaries has more than tripled to \$2 billion a year, or 20% of tuition payments and fees. While this only blunts the rise in tuition costs, it does meaningfully defray some of the overall price.

**Chart 5: University revenues by source  
... and how households pay their share**



See footnote 10



*In 1999, only 16% of Canadian households with children had an RESP; by 2012, that share had jumped to 47%*

Households responded to rising tuition costs by increasing their take-up of RESPs. In 1999, only 16% of Canadian households with children had an RESP; by 2012, that share had jumped to 47%. In 2016, 420,000 post-secondary students received an average of \$8,487 from an RESP to help fund their education, up from \$4,638 in 2003<sup>11</sup>. However, only 51% of eligible Canadians are beneficiaries of RESPs, highlighting the distributional implications of this and other programs. Of families with children in the highest income quintile, 68% have an RESP compared with only 25% in the lowest quintile, and they saved three times as much on average. The RESP program has grown rapidly in recent years and each year the government contributes \$1.0 billion in the form of Canada Education Savings Grants and Canada Learning Bonds. Despite the recent elimination of some education-related tax credits at the federal and provincial levels, governments continue to forgo billions as a result of tax credits for tuition. And partly because higher-income Canadians are more likely to attend university, over 37% of the value of tuition tax credits flows to the top income quintile<sup>12</sup>.

One reason these new funding sources have become so important is that paying for university through summer or part-time work has become more difficult. In 1990, when the average prevailing minimum wage in Canada was \$5 an hour and tuition averaged \$1,464 a year, it took 293 hours of minimum-wage work to pay the average tuition. In 2018, a student earning the national average minimum wage of \$13 an hour would need to work 505 hours to pay the average undergraduate tuition, to say nothing of fees and living expenses<sup>13</sup>.

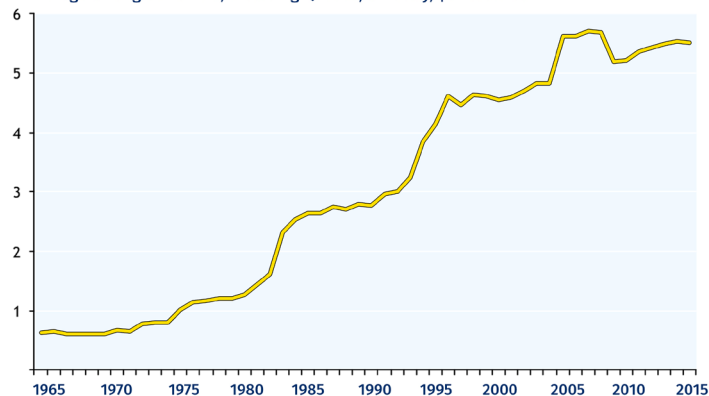
Of those students without access to an RESP and the attendant government grants or other familial funding sources, and with less ability to pay for university through work, many turn to loans. Due in part to the rising take up of RESPs and rising scholarship expenditures by universities, the share of students borrowing to attend university has declined slightly over time. However, for those who do borrow to fund their studies, the average amount borrowed is increasing (Chart 6). Moreover, limits on the amount a student can borrow through governmental sources creates an unmet financing need for one-third of students which is often filled by private loans. According to Statistics Canada's National Graduates Survey, 26% of new graduates had borrowed from non-governmental sources to fund their studies.

### How much of a burden is student debt?

Just 2% of Canadians' total debts are student loans, but for a segment of Canada's population, namely the young and those with low net worth, the burden is significant. Among Canadians in the lowest net-worth quintile, student loans represent 27% of their total debts and for Canadians under the age of 35, one-quarter carry student loans and the total outstanding amount has increased by 46% since 1999.

**Chart 6: Average full-time student loan borrowing**

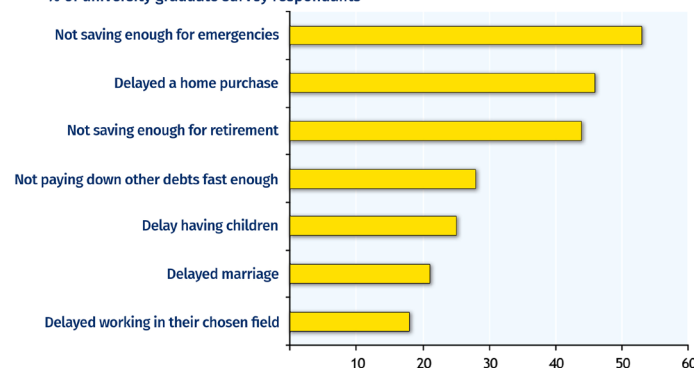
Average among borrowers, excluding Quebec, annually, \$ thousands



Source: Employment and Social Development Canada, RBC Economic Research

**Chart 7: Life goals impacted due to student debt**

% of university graduate survey respondents



Source: Ipsos on behalf of BDO, RBC Economic Research

*50% of newly minted undergraduate degree holders graduate with some sort of student debt*

The percentage who are 'highly indebted' — owing more than \$25,000 — has increased rapidly over the past 10 years. Predictably it can take years for many new graduates to pay off this balance. Three years after graduation, nearly a quarter (23%) of bachelor's graduates with government student loans still owed over \$25,000. For a small subset of students, it's worse still: among surveyed households with a student loan balance, 7% owe more than \$50,000, up from only 3% in 2008. Debts of this magnitude are likely having a macroeconomic impact. As new graduates enter the workforce burdened with student debt, many will delay major life events: buying cars and houses, saving for emergencies or retirement, or getting married and having children (Chart 7).



## End Notes

1. Gross domestic product at basic prices universities, community colleges and CEGEPs
2. Roslyn Kunin & Associates (2017 and 2012). "Economic Impact of International Education in Canada". Global Affairs Canada
3. The average mid-point estimate of cost of living guidance for the academic year from Canada's ten largest universities
4. A part-time student is counted as 30% of a full-time student equivalent throughout
5. Ontario Budget 1976
6. Turcotte, M. (2011) "Intergenerational education mobility: University completion in relation to parents' education level". Statistics Canada
7. Total expenditures by community colleges and vocational schools divided by total college enrolments
8. Office of the Parliamentary Budget Officer (2016) "Federal Spending on Postsecondary Education"
9. *ibid*
10. University revenues based on the 2015-16 academic year. Sales of services and products are assumed to be primarily to the household sector given the inclusion of rent for residences in this aggregate. Scholarships and bursaries, student loan borrowing, and RESP withdrawals are assumed to be entirely directed toward defraying the cost of tuition, fees, and other university costs. The proportion of RESP withdrawals and federal tax credits directed toward universities (rather than colleges) is assumed to be proportional to the total spend on university tuition and fees as a share of total postsecondary tuition and fees
11. Employment and Social Development Canada (2016) "Canada Education Savings Program 2016 Annual Statistical Review"
12. Office of the Parliamentary Budget Officer (2016) "Federal Spending on Postsecondary Education" and Department of Finance (2017) "Report on Federal Tax Expenditures—Concepts, Estimates and Evaluations"
13. Official provincial minimum wages weighted by share of national population