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BUDGET OFFICER
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PARLEMENTAIRE DU
BUDGET

CANADA

Federal Spending on Postsecondary Education

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The mandate of the Parliamentary Budget Officer (PBO) is to provide independent analysis to Parliament on the state of the nation's finances, the Government's estimates and trends in the Canadian economy; and, upon request from a committee or parliamentarian, to estimate the financial cost of any proposal for matters over which Parliament has jurisdiction.

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Parliamentary Budget Officer

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Executive Summary

This report analyzes federal spending on postsecondary education in Canada; examines the evolution of federal support for postsecondary education over the past 10 years; and, where possible, analyzes the distributional impacts of federal programs. It also provides forward projections to 2020-21 to examine where federal support is headed taking into account recent *Budget 2016* announcements.

Summary Figure 1 Postsecondary Education Expenditure by Major Streams, 2013-14

HUMAN CAPITAL FORMATION	RESEARCH	CANADA SOCIAL TRANSFER
Tax Measures Tuition Tax Credits Education tax credits Textbook tax credits Registered Education Savings Plan Deferral Student Loan Interest Credit Bursary Income Exemption Subtotal \$ 2.1 billion	Granting Councils Canadian Institute of Health Research Social Sciences and Humanities Research Council Natural Sciences and Engineering Research Council Canada Foundation for Innovation (CFI) Canada Research Chairs (CRC)	Postsecondary Education Allocation
Canada Educational Savings Program Canada Education Savings Grants Canada Learning Bond Subtotal \$ 903 million		
Canada Student Loan Program Grants and Loans	Subtotal \$ 2.6 billion	
Merit-Based Grants to Students Social Sciences and Humanities Research Council, Natural Sciences and Engineering Research Council, Canadian Institute of Health Research Grants to Support Indigenous Students Postsecondary Student Support Program (PSSSP), Postsecondary Partnerships Program (PSPP), Indspire Youth Employment Strategy Skills Link, Career Focus, Student Summer Jobs Subtotal \$ 2.1 billion	Federal Departments Health Canada Infrastructure Funds Administrative Costs – Granting Councils, CFI, CRC Subtotal \$926 million	
Total \$5.1 billion	Total \$3.5 billion	Total \$3.7 billion

Sources: Public Accounts of Canada; Departmental Performance Reports, PBO calculations.

Note: For the purposes of this analysis, federal contributions to human capital formation do not include training programs, apprenticeships, lifelong learning plans, and labour market agreements.

Why does the federal government subsidize postsecondary education?

Though education in Canada generally falls under provincial jurisdiction, the federal government has historically played an important, if indirect, role in funding postsecondary education (that is, education beyond high school). This indirect role is based on the federal government's involvement in several significant policy areas that intersect with postsecondary education, including: economic policy, human resource development and indigenous affairs.

What does Canada's postsecondary education system look like?

In 2013-14, postsecondary education in Canada was a \$35.1-billion industry, with total postsecondary enrolment exceeding 2 million students. Tuition is a growing source of revenue. In 2004-05, total revenues were an estimated \$22.7 billion, where 54.2 per cent came from governments and 20.7 per cent from tuition and fees. By 2013-14, around \$17.2 billion or 48.9 per cent came directly from different levels of government, while \$8.7 billion or 24.7 per cent came from tuition and fees.

How much does the federal government spend?

In 2013-14, total federal spending on postsecondary education reached an estimated \$12.3 billion. This represents a decline from its peak of \$12.8 billion in 2010-11.

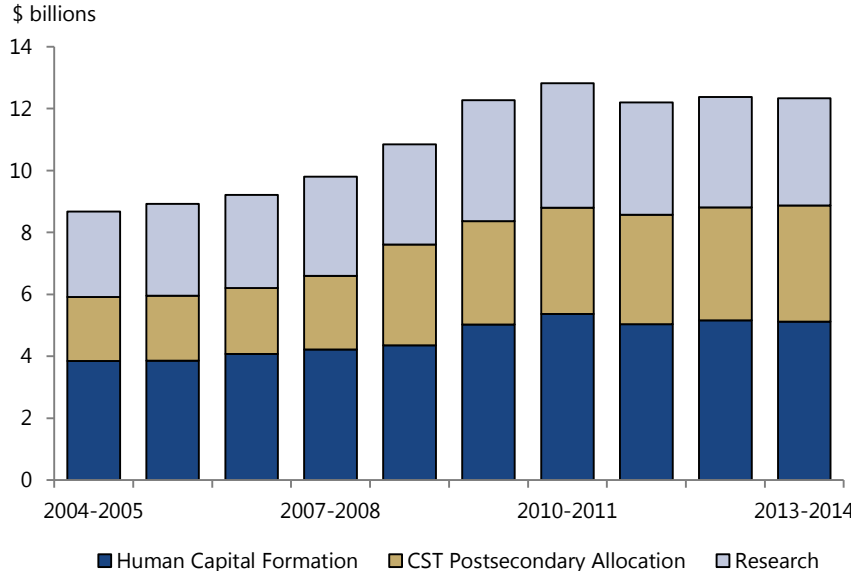
What was the expenditure trend over the last 10 years?

In 2004-05, total federal spending in postsecondary education approached \$8.7 billion. Expenditures grew steadily to exceed \$12.8 billion in 2010-11. The greatest growth occurred in spending that supports human capital formation and the Canada Social Transfer (CST).

In 2011-12, expenditures for research, research infrastructure and student employment began to decline, largely the result of the winding down of federal stimulus measures enacted in response to the financial crisis. The CST allocation, tax expenditures, and grants and bonds under the Canada Education Savings Program (CESP), Registered Education Savings Plans (RESP) continued to rise in response to both increasing enrolment and increasing tuition. Even so, total federal spending began to decline in 2011-12 to \$12.2 billion before increasing to \$12.3 billion in 2013-14.

Summary Figure 2

Federal Expenditures on Postsecondary Education, by Area of Focus



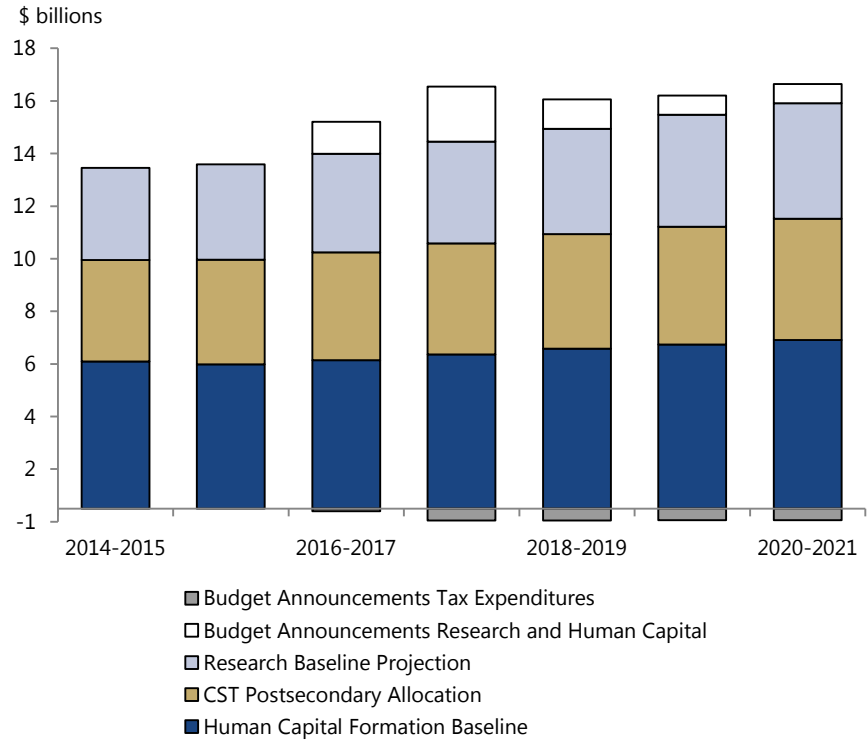
Sources: Statistics Canada, Financial information of universities and degree-granting colleges (2015); Finance Canada, *Advantage Canada: The Budget Plan 2007*; Public Accounts of Canada; PBO calculations, figures in nominal dollars.

What will all these programs likely cost five years from now?

Taking into account recent *Budget 2016* announcements, PBO estimates total federal spending on postsecondary education will exceed \$15.7 billion by 2020-21. (Summary Figure 3)

Summary Figure 3

Expenditure Projections – Total Federal Expenditures on Postsecondary Education



Sources: Statistics Canada - Financial Information of universities and degree granting colleges (2015); SPSDM 22.1; Public Accounts of Canada; Departmental Performance Reports; Reports on Plans and Priorities; Office of the Superintendent of Financial Institutions, Report on the Canada Student Loan Program as of 31 July 2014; Budget 2016; and PBO calculations.

Who is going to college and university?

PBO estimates that roughly 60 per cent of postsecondary students belonged to higher-income families (that is, the two highest after-tax or disposable income quintiles). Increases in federal funding targeted towards human capital formation have primarily benefited these families. This was due to a growing share of federal support provided through the tax system and the CESP, RESPs. In particular, non-refundable tax credits such as the tuition tax credit, as well as RESP savings grants, disproportionately benefited wealthier and higher income families. It is also noted that while the highest income families claimed the [majority] of tax benefits in a given year, the average value of personal income tax credits (that is, for tuition, education, textbooks) booked in a given year per family were more evenly balanced across income tax quintiles.

Will recent government commitments to make postsecondary education more affordable make a difference?

The re-allocation of education and textbook tax expenditure savings towards increases in student grants, loan repayment and student employment assistance will likely make postsecondary education more affordable for some Canadians. These measures, over the next five years, represent a 31 per cent increase from the baseline projection for student grants and loans and a 58 per cent increase from the baseline projection for student employment programs. These measures will not, however, significantly change the distribution of total federal spending on postsecondary education.

1. Introduction

Why does the federal government subsidize postsecondary education?

There are numerous positive externalities associated with high-quality postsecondary education. As a result, markets will likely produce less than is socially optimal. Consider that an important goal of postsecondary institutions is to train students and thus create a high-quality workforce. Much of the benefit of this training will be captured by the students themselves through higher earnings over their lifetime. Some of this benefit, however, will spill over to the larger society through improved long-term economic growth, lower unemployment and increased productivity, as well as greater equity and economic mobility.¹

Though education in Canada generally falls under provincial jurisdiction, the federal government has historically played an important if indirect role in postsecondary education. This indirect role is based on the federal government's involvement in several significant policy areas that intersect with postsecondary education, including: economic policy, human resource development and indigenous affairs. The federal government is also responsible to ensure mobility across provinces and equivalent access to public services.² Its indirect role aligns with its interest in addressing market failures for human capital formation and research.

This report analyzes federal spending on postsecondary education in Canada.³ It examines the evolution of federal support for postsecondary education over the past 10 years and, where it is possible, analyzes the distributional impacts of federal programs. It also provides forward projections to 2020-21 to examine where federal support is headed and considers implications of the current government's recent announcements on postsecondary education.⁴

2. Postsecondary Education in Canada

Postsecondary Education Snapshot circa 2013

Full-time and part-time postsecondary enrolment : **2,023,191**

Average undergraduate tuition fees for full-time Canadian students : **\$5,767**

Percentage of graduates with student loans : **46%**

Average debt at graduation : **\$22,276**

Canadians aged 25 to 64 with a completed college, trade, vocational or university certificate below bachelor's level : **37%**

Canadians aged 25 to 64 with a university degree (bachelors to PhD) : **28%**

Proportion of GDP from all sources spent on postsecondary education : **2.8%**

OECD average : **1.6%**

Total revenues of universities and colleges (in billions) : **\$35.1**

Federal expenditures on postsecondary education (in billions) : **\$12.3**

Sources: Statistics Canada (2015c), (2014a), (2014c); OECD (2014); Canadian Association of University Teachers (CAUT) (2014); PBO calculations.

Postsecondary education in Canada is a \$35.1-billion industry. It has grown in real terms over 2.9 per cent per year since 2004-05, an average of 0.9 per cent faster than real economic growth. In that time, direct government funding for universities has declined from 54.2 per cent of total institutional revenues to 48.9 per cent. Tuition and other fees have grown from 20.7 per cent of revenues in 2004-05 to 24.7 per cent in 2013-14. The remaining share of revenues (totalling 25.0 per cent in 2004-05 and 26.4 per cent in 2013-14) come from donations, grants⁵, investments and sales. (Table 2-1)

From 2004-05 to 2013-14, tuition increased steadily, on average 1.7 percentage points higher than the rate of inflation, as measured by the Consumer Price Index (CPI).⁶ During this period, total postsecondary enrolment increased to 2,048,000, an average growth rate of 2 per cent per year.⁷ The participation rate of Canadians aged 15 to 29 in postsecondary programs also grew from 18.9 per cent in 2004-05 to 21.4 per cent in 2013-14.⁸ (Figure 2-1)

Table 2-1 Total College and University Revenues, by type of funds, as percentage of total revenues

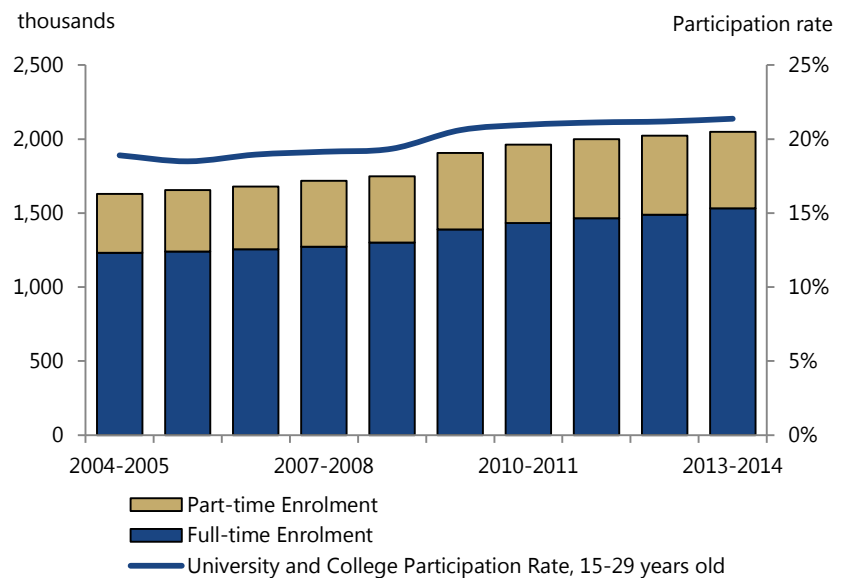
	2004-05	2013-14
Federal	11.6%	9.4%
Non-federal	42.6%	39.5%
Total Government	54.2%	48.9%
Tuition and Other Fees	20.7%	24.7%
Donations	4.2%	3.3%
Grants	6.2%	5.6%
Investments	3.1%	6.7%
Sales	8.1%	8.2%
Miscellaneous	3.5%	2.7%
Total Other	25.0%	26.4%

Sources: Statistics Canada, *Financial information of universities and degree-granting colleges*; PBO calculations.

Note: Some totals may not add up due to rounding.

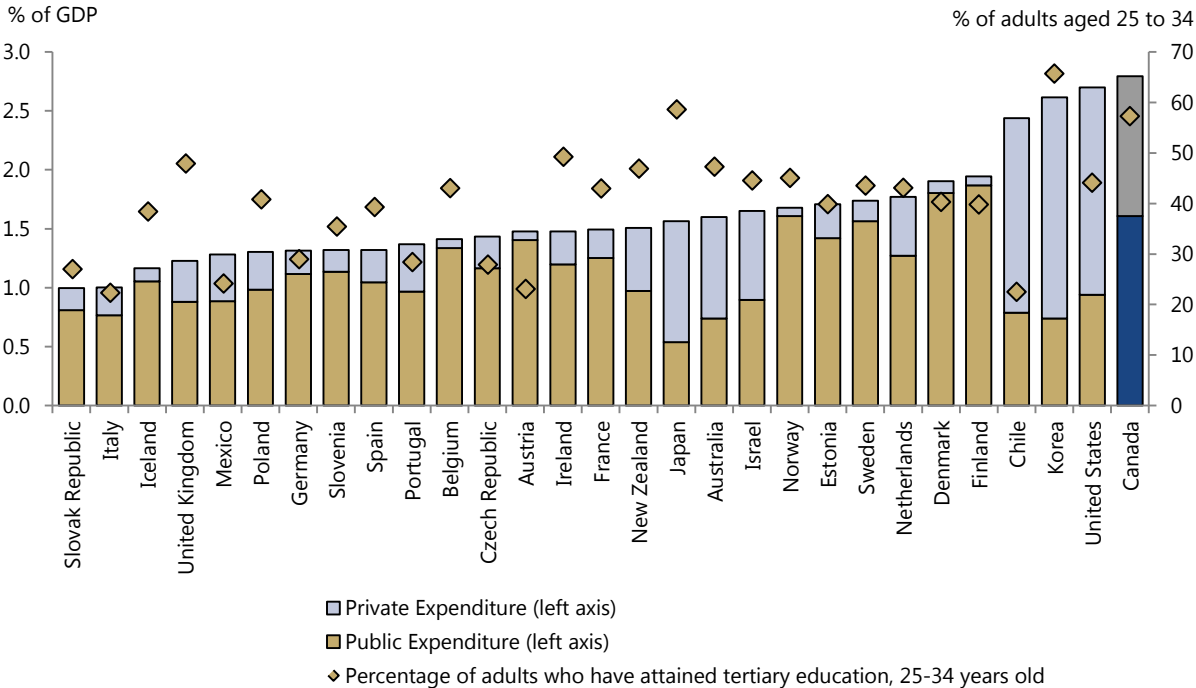
Canada has high completion rates in postsecondary education. In 2012, 57.3 per cent of Canadians aged 25 to 34 had either a college or university diploma, the third highest among member nations of the Organization for Economic Cooperation and Development (OECD), behind only South Korea (65.7 per cent) and Japan (58.6 per cent). Canada’s spending on postsecondary education reached 2.8 per cent of gross domestic product in 2011, the highest among OECD member countries.⁹

Figure 2-1 Postsecondary Enrolment



Sources: Statistics Canada, *Postsecondary enrolments, by student status, country of citizenship and sex*; PBO calculations. Participation rate (right axis).

Figure 2-2 Postsecondary Spending and Attainment, 2011-12



Source: OECD, Education at a Glance, 2014

Note: Enrolment data corresponds to 2011, except for Canada (2010) and Chile (2012). Attainment data corresponds to 2012.

3. Federal Contributions to PSE

Federal expenditures on postsecondary education generally focus on two broad economic goals: human capital formation and research. In addition, a portion of the Canada Social Transfer (CST) is notionally allocated to postsecondary education, which supports the provincial postsecondary education systems.¹⁰

Figure 3-1 Postsecondary Education Expenditure by Major Streams, 2013-14

HUMAN CAPITAL FORMATION	RESEARCH	CANADA SOCIAL TRANSFER
Tax Measures	Granting Councils	Postsecondary Education Allocation
Tuition Tax Credits	Canadian Institute of Health Research	
Education tax credits	Social Sciences and Humanities Research Council	
Textbook tax credits	Natural Sciences and Engineering Research Council	
Registered Education Savings Plan Deferral	Canada Foundation for Innovation (CFI)	
Student Loan Interest Credit	Canada Research Chairs (CRC)	
Bursary Income Exemption		
Subtotal \$ 2.1 billion		
Canada Educational Savings Program		
Canada Education Savings Grants		
Canada Learning Bond		
Subtotal \$ 903 million		
Canada Student Loan Program Grants and Loans		
	Subtotal \$ 2.6 billion	
Merit-Based Grants to Students	Federal Departments	
Social Sciences and Humanities Research Council, Natural Sciences and Engineering Research Council, Canadian Institute of Health Research	Health Canada	
	Infrastructure Funds	
Grants to Support Indigenous Students	Administrative Costs – Granting Councils, CFI, CRC	
Postsecondary Student Support Program (PSSSP), Postsecondary Partnerships Program (PSP), Indspire		
Youth Employment Strategy		
Skills Link, Career Focus, Student Summer Jobs		
Subtotal \$ 2.1 billion	Subtotal \$926 million	
Total \$5.1 billion	Total \$3.5 billion	Total \$3.7 billion

Sources: Public Accounts of Canada: Departmental Performance Reports, PBO calculations.

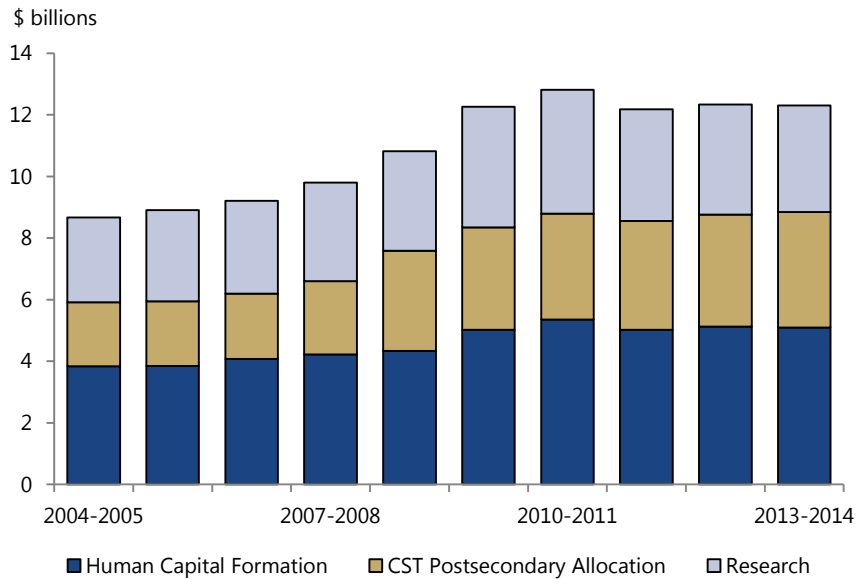
Note: For the purposes of this analysis, federal contributions to human capital formation do not include training programs, apprenticeships, lifelong learning plans, and labour market agreements.

Funding for human capital formation includes all programs and tax expenditures¹¹ that support individuals to finance and benefit from postsecondary education at degree-granting institutions. Investments in research include all funds channeled through postsecondary institutions in support of knowledge creation and research infrastructure.

In 2004-05, total federal spending on postsecondary education approached \$8.7 billion. Expenditures grew steadily to exceed \$12.8 billion in 2010-11. Since then, they have edged down, as federal stimulus measures enacted in response to the financial crisis have been wound down. Total federal contributions to postsecondary education amounted to \$12.3 billion in 2013-14.

In 2004-05, human capital formation received 44.3 per cent of the total allocation of funds, research 31.8 per cent and the Canada Social Transfer 23.9 per cent. By 2013-14, human capital formation comprised 41.5 per cent of the allocation and research 28.2 per cent, while the CST had increased to 30.5 per cent.

Figure 3-2 Federal Expenditures Postsecondary Education, by Area of Focus

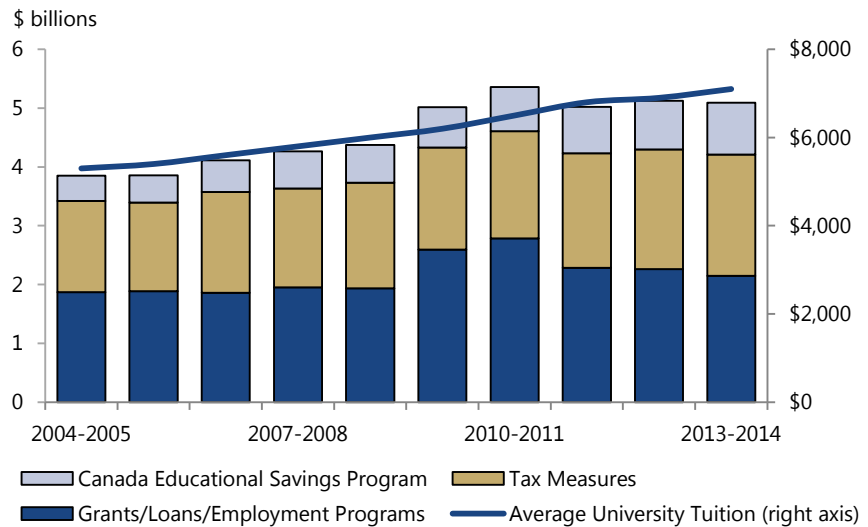


Sources: Statistics Canada, Financial information of universities and degree-granting colleges (2015); Finance Canada, *Advantage Canada: The Budget Plan 2007*; Public Accounts of Canada; PBO calculations, figures in nominal dollars.

3.1. Human Capital Formation

Between 2004-05 and 2013-14, federal expenditures in human capital grew from \$3.8 billion to more than \$5.0 billion. Increases in federal funding targeted towards human capital formation have primarily benefited higher-income families, owing to a growing share of federal support provided through the tax system and Canada Education Savings Program (CESP). (Figure 3-3) In particular non-refundable tax credits such as the tuition tax credit, as well as the Registered Education Savings Plan (RESP) savings grants, disproportionately benefited wealthier and high-income families.¹² Combined CESP and tax expenditures have often exceeded expenditures on Canada student loans and grants.

Figure 3-3 Federal Expenditures on Human Capital



Sources: Department of Finance Tax Expenditure Reports; SPSP/M 22.1; PBO calculations; OFSI Reports. Human Capital Expenditures – in billions (left axis); Tuition (right axis).

Tax Expenditures

The federal government provides financial support to students and their families to pay for postsecondary education through the tax system. These tax credits and measures include the:

- Tuition Tax Credit
- Education Tax Credit
- Textbook Tax Credit
- Student Loan Interest Credit
- Scholarship, Fellowship, and Bursary Income Tax Exemption¹³

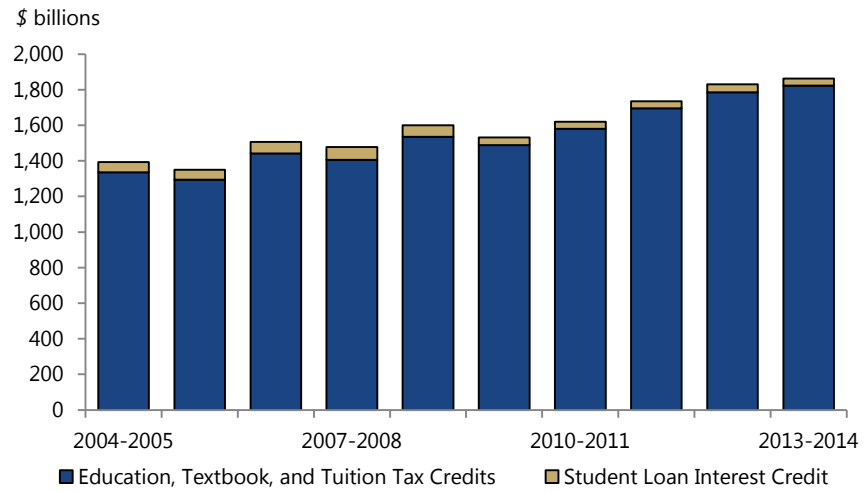
Tax credits and exemptions represent foregone revenue that the government would have collected had the tax credits not been in place. In a given year, total tax expenditures represent the value of current and saved past-year credits that are claimed in that year.

- Deferral of Investment Returns in Registered Education Savings Plans (RESPs)¹⁴

PBO used the SPSPD/M tax simulation database and model and Department of Finance Tax Expenditure Reports to assess trends in postsecondary tax expenditures. (See Appendix A.1 for detailed methodology and specific results.)

In 2004-05, total tax expenditures for postsecondary education are estimated at more than \$1.5 billion.¹⁵ By 2013-14, these expenditures are estimated to have exceeded \$2.0 billion. The majority of tax expenditures go toward the **education, textbook** and **tuition** tax credits, which increased from \$1.3 billion in 2004-05 to \$1.8 billion in 2013-14.¹⁶ (Figure 3-4)

Figure 3-4 Non-refundable Tax Credits Related to Postsecondary Education



Sources: Department of Finance Tax Expenditure Reports; SPSPD/M 22.1; PBO calculations.

Note: Tax expenditures related to RESPs will be discussed in the CESP section.

Education, textbook and tuition tax credits are non-refundable tax credits, meaning they can only be used to offset tax owing. These specific credits can, however, be transferred to a relative or carried forward and used in the future. Much of the growth in tax expenditures has been related to credits that are not claimed by the student in the year earned. In the past 10 years, these tax credits have been increasingly transferred to a spouse, parent or grandparent, or have been carried forward (earned in a previous year) and claimed in a year when the individual has tax owing.

Between 2004-05 and 2013-14, despite the total increase in education, textbook and tuition tax expenditures, those credits earned and used in the same year declined both in terms of value, from \$530 million to \$527 million, and in terms of share, from 39.7 per cent to 28.9 per cent. (Figure 3-5)

The total amount of credits transferred to a relative increased in value from \$460 million to \$570 million, but decreased as a share of the total from 34.5 per cent to 31.3 per cent. Expenditures related to credits carried forward from previous years more than doubled in value from \$345 million to \$725 million. They became the largest share of credits claimed, growing from 25.8 per cent to 39.8 per cent. (Box 3-1)

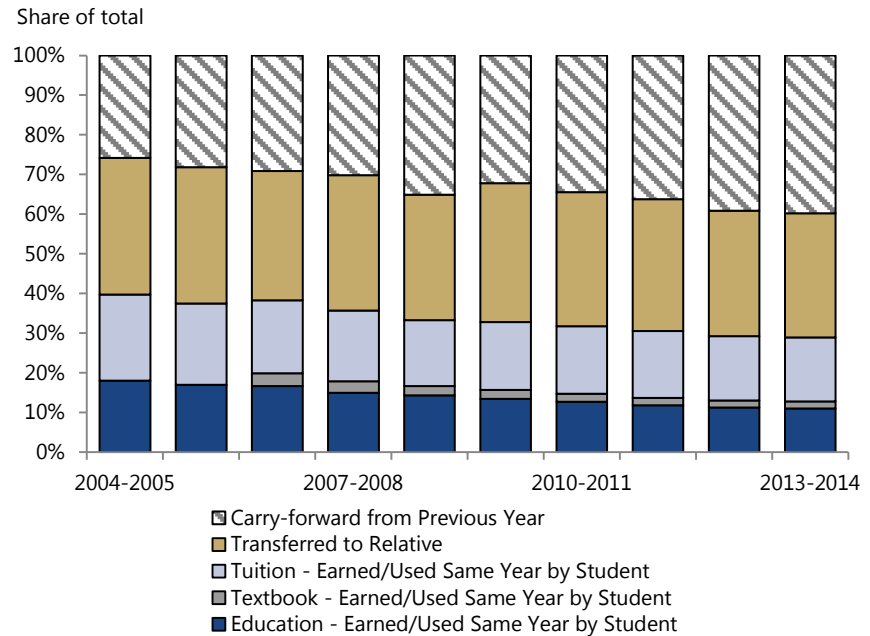
Box 3-1 – Unused Education, Textbook and Tuition Credits

These trends indicate that students are entitled to more tax credits than they can use or transfer in a given year.

In 2010-11, the stock of unused tuition, education and textbook credits is estimated at \$20.3 billion. By 2013-14, the stock of unused tuition, education and textbook tax credits is estimated to exceed \$27 billion, representing a liability of \$4.2 billion in foregone tax revenue.

None of this amount is reported in the Government of Canada’s financial statements.

Figure 3-5 Tuition, Textbook, and Education Tax Credits, by Relative Share



Sources: Department of Finance Tax Expenditure Reports 2004-14; PBO calculations.

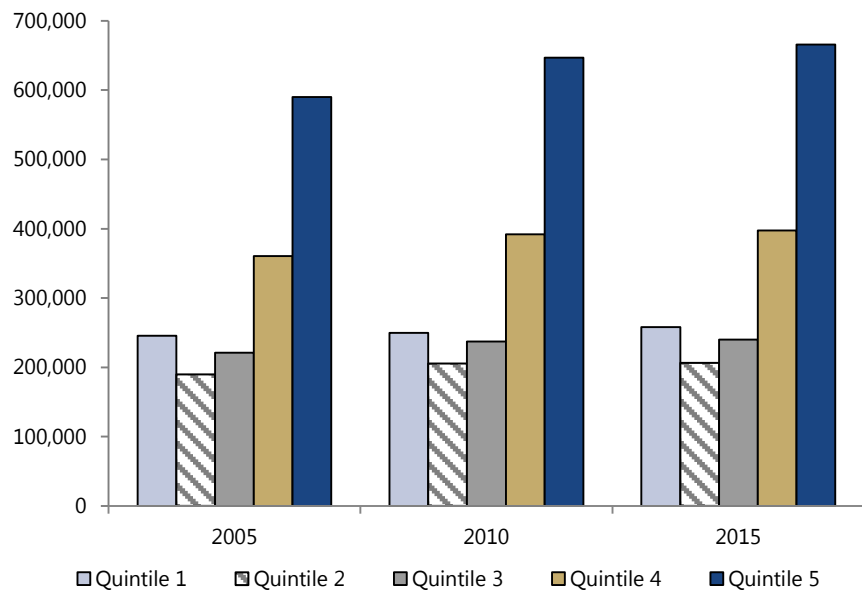
Distributional Impacts

Who is going to college and university?

In the last 10 years, even taking into account increases in enrolment, PBO estimates that roughly 60 per cent of postsecondary students belonged to higher-income families (that is families belonging to the top two quintiles). Figure 3-6 below illustrates tax data on the number of individuals claiming tuition expenses in a given year by quintiles according to disposable (after-tax) family income.¹⁷ It shows the total number of individuals who claimed to have paid tuition in a given year and those students who transferred their tuition credit to a relative with higher income.

From these data, it is possible to get a sense of the economic circumstances of families that have at least one member attending college or university. (See Appendix A.1 for detailed methodology of how these results were estimated along with data tables.)

Figure 3-6 Number of Individuals Claiming Tuition Expenses by After-Tax Family Income in Quintiles



Sources: PBO calculations using SPSPDM 22.1. Quintile 1 is the lowest after-tax family income quintile, Quintile 5 is the highest after-tax family income quintile. Number of tax filers claiming a tuition credit (left axis).

PBO estimates that in 2005, 36.7 per cent (roughly 590,000 individuals) belonged to families in the highest after-tax quintile and 22.4 per cent (roughly 360,500) belonged to families in the second highest after-tax income quintile.¹⁸

More than 245,400 individuals, or 15.3 per cent, belonged to families in the lowest quintile; 189,900 (11.8 per cent) belonged to families in the second lowest quintile; and 221,000 (13.8 per cent) belonged to the middle quintile.

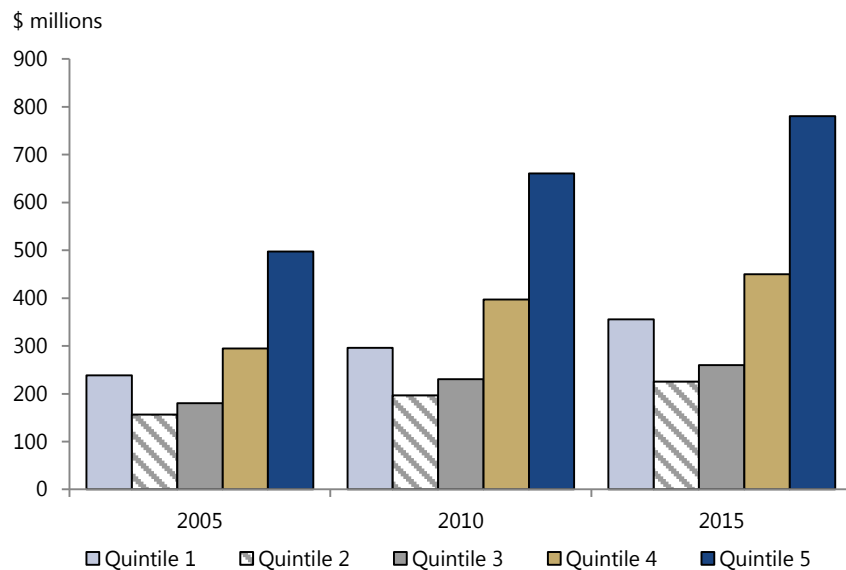
PBO estimates that by 2015, 37.7 per cent belonged to families in the highest after-tax quintile and 22.5 per cent to families in the second highest after-tax income quintile. (Figure 3-6)

Who is benefitting from non-refundable tax credits?

Higher income families benefit disproportionately from non-refundable tax credits. Of the combined \$1.4 billion spent on these four tax measures in 2005¹⁹, families in the highest after-tax income quintile received \$497.6 million, or 36.4 per cent of the total. Over time, the top after-tax family income quintile has also been receiving a growing share of tax expenditures. By 2015, the highest after-tax family income quintile received \$780.5 million (37.7 per cent).

Between 2005 and 2015, the three middle after-tax family income quintiles received smaller benefit. During that period, the second-highest quintile received 21-22 per cent of tax expenditures; the middle quintile 12-13 per cent; and the second lowest quintile 10-11 per cent. The lowest after-tax family income quintile claimed \$355.7 million in tax credits in 2015, or 17.2 per cent.

Figure 3-7 Distribution of Non-refundable Tax Expenditures (Tuition, Textbook, Education, and Student Loan Interest) by After-Tax Family Income Quintiles



Source: PBO calculations using Statistics Canada SPSPD/M 22.1

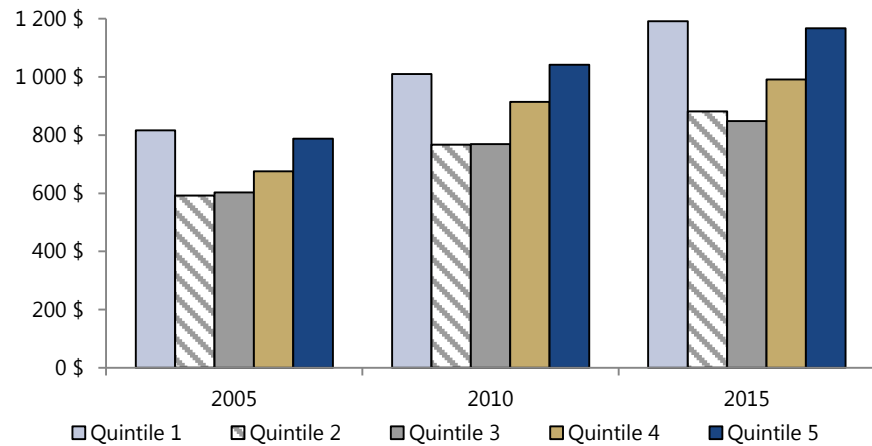
Note: Quintile 1 is the lowest after-tax family income quintile; Quintile 5 is the highest after-tax family income quintile.

While the highest income families claimed the [majority] of tax benefits in a given year, the average value of personal income tax credits (that is, for tuition, education, textbook) claimed per family were more evenly balanced across income tax quintiles. In 2005, the average value of credits booked was \$816 for families in the lowest quintile and \$787 in the highest. By 2015, the average value of education, textbook and tuition credits booked by families in the lowest quintile had risen to \$1,191. The average value of credits booked by families in the highest quintile had risen to \$1,167.

Over seventy-five percent of economic families in the lowest quintile claiming tuition expenses were unattached individuals. These single students were also more likely to carry-forward credits not using them in the year earned, [owing to lower taxable income]. Top quintile families claiming tuition expenses almost always contained at least two members and were far more likely to use credits booked in that year to reduce tax owing.

Families in the three middle quintiles claimed slightly lower tax credits per family, on average. In 2015 this ranged from \$848 for the middle quintile to \$991 for the second highest quintile. Families in the three middle quintiles like top quintile families are more likely to use credits booked in the same year to offset tax owing. (See Figure 3-8)

Figure 3-8 Average Value of Credits Claimed (Tuition, Education, Textbook) per Family by After-Tax Family Income Quintiles



Source: PBO calculations using Statistics Canada SP5D/M 22.1

Note: Quintile 1 is the lowest after-tax family income quintile; Quintile 5 is the highest after-tax family income quintile.

Because tax expenditures are not considered programs under the *Financial Administration Act*, there is no requirement to review these expenditures every five years to determine if they are both effective and relevant.²⁰

Table 3-1 After-tax (disposable) Family Income Ranges by Quintile

Quintile (Q)	2005	2010	2015
Lowest – Q1	Min-\$19,638	Min-\$23,281	Min-\$25,645
Second Lowest – Q2	\$19,639-\$33,127	\$23,282-\$38,526	\$25,646-\$42,269
Middle – Q3	\$33,128-\$48,552	\$38,527-\$56,364	\$42,270-\$62,122
Second Highest – Q4	\$48,553-\$73,523	\$56,365-\$85,081	\$62,123-\$94,640
Highest - Q5	\$73,524-Max	\$85,082-Max	\$94,641-Max

Sources: SPSDM 22.1; PBO calculations, figures in nominal dollars.

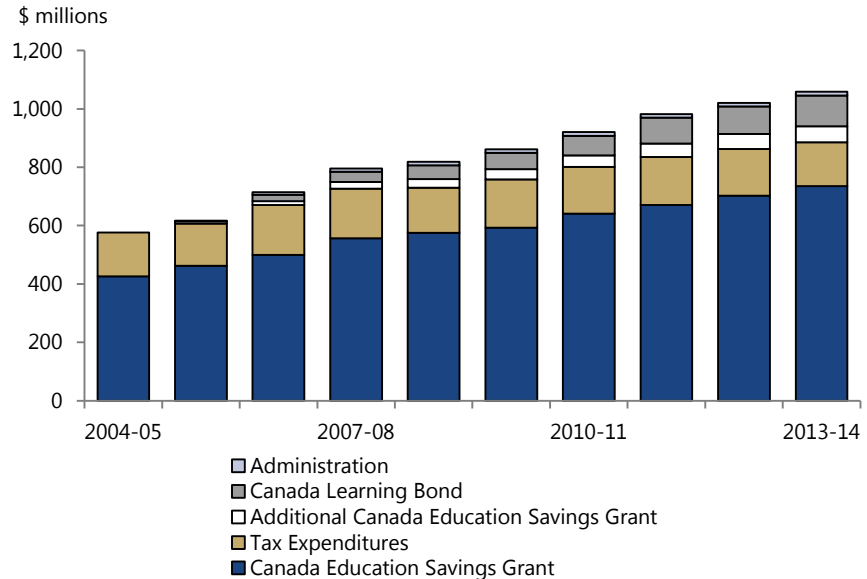
Canada Educational Savings Program (CESP)

The CESP is designed “to encourage the financing of children’s post-secondary education through savings, from early childhood”.²¹ The program uses Registered Educational Savings Plans (RESPs) to provide savings incentives, including:

- The Canada Education Savings Grant (CESG)
- The Additional Canada Education Savings Grant (A-CESG)
- The Canada Learning Bond (CLB)
- Deferred income tax on RESP investment returns

More detailed information on RESPs can be found in Appendix A.2. PBO estimates the total expenditure on the CESP, taking into account tax expenditures, nearly doubled between 2004-05 and 2013-14, from \$583 million to \$1.1 billion.

Figure 3-9 Total Expenditures for the Canada Educational Savings Program



Source: Canada Education Savings Program Annual Statistical Reviews.²²

The government introduced program enhancements (Canada Learning Bond and Additional Canada Education Savings Grant) in 2004 and 2005 to encourage more low- and modest-income Canadians to participate in the program.²³ By 2013-14, the Canada Learning Bond and A-CESG comprised 14.7 per cent of program expenditures.

PBO and Statistics Canada analyzed the distributional impacts of RESPs using micro-data from the Survey of Financial Security. (See Appendix A.2 for detailed methodology and results.) The analysis revealed that wealth or net worth is the strongest predictor of whether a family will have an RESP.²⁴

In 2005, families in the highest net worth quintile were 28 per cent more likely than a family in the lowest net worth quintile to have an RESP. A family in the highest quintile also had on average \$20,000 more in their RESP than a family in the lowest net worth quintile.

By 2012, families in the highest net worth quintile were 34 per cent more likely to have a plan. They would have an average of \$26,380 more in their RESP than families in the lowest net worth quintile.²⁵

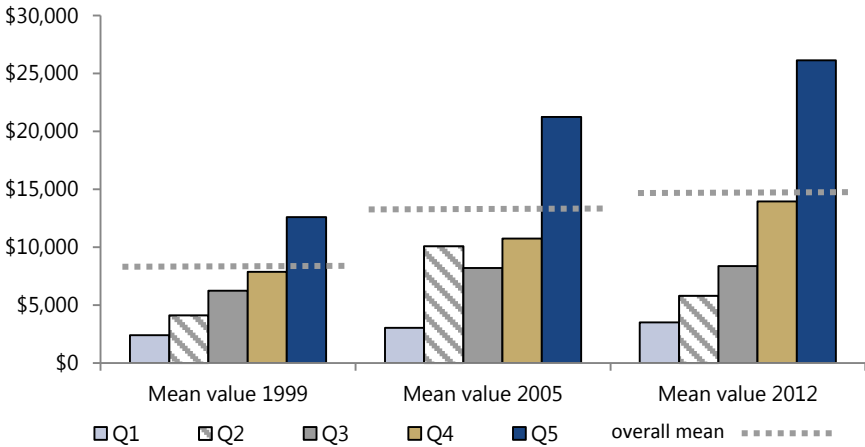
Income, which is highly correlated with net worth, was not a significant variable in the regression results.²⁶ A recent Government evaluation does, however, reveal that program expenditures disproportionately benefit high-income families.²⁷

Box 3-2 – Who is receiving Canada Education Savings Grants?

In 2013, over \$400 million in grants (49 per cent of grant and bond expenditures) were distributed to families with a household income of \$90,000 or more, of which \$280 million (32 per cent) went to families earning \$125,000 or more.

Source: ESDC, CESP Summative Evaluation Report (2015)

Figure 3-10 Mean Value of RESPs by Family Net-Worth Quintiles



Sources: Statistics Canada; Survey of Financial Security 1999, 2005, 2012; Statistics Canada Custom Tabulations. Quintile 1 is the lowest family net-worth quintile; Quintile 5 is the highest.

While families in the lowest quintile are benefitting from more recent program enhancements, families in the highest quintile and, to a lesser extent, families in the second highest quintile are moving farther ahead of the pack. (Figure 3-10) This may be the result of the compounding effects of high wealth families being both more likely to contribute, and more likely to contribute larger amounts. There also might be a significant “grandparent” effect whereby older family members with greater available stocks of wealth are making use of the program.²⁸

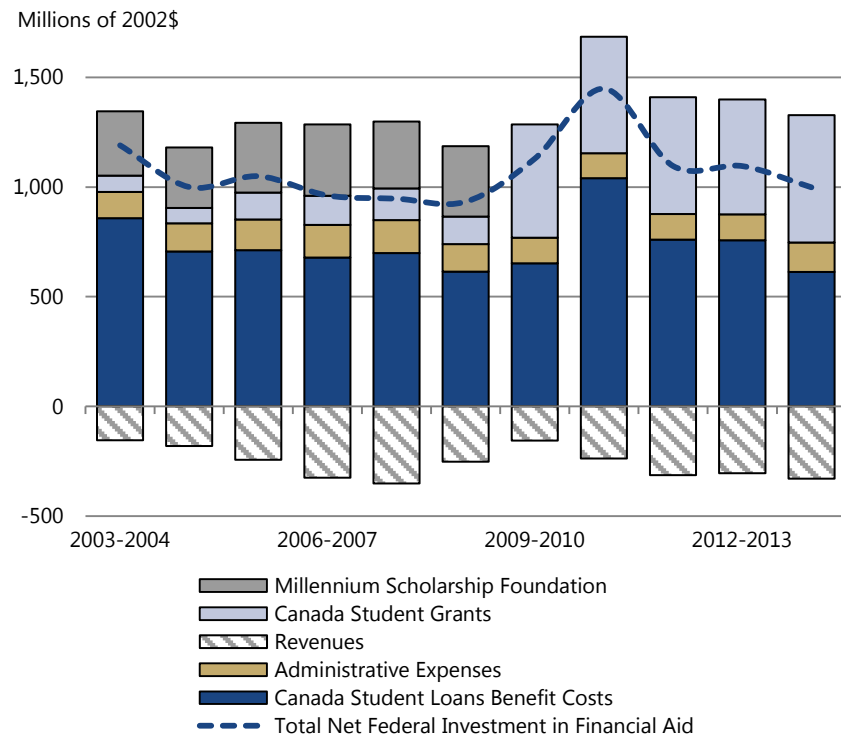
Canada Student Loans and Grants

The Canada Student Loan Program (CSLP) promotes access to postsecondary education for students with demonstrated financial need. The CSLP comprises **grants, loans** and loan **repayment assistance**.²⁹ (More detailed information of the CSLP is found in Appendix A.3.)

Between 2004-05 and 2013-14, the number of students participating in the student loan program increased from 340,000 to 498,000. The value of new loans issued in a given year increased from \$1.6 billion to \$2.7 billion over the same period.

Non-repayable grants increased from \$364 million in 2004-05 to \$715 million in 2013-14. In 2004-05, the total net cost of the CSLP (plus the Millennium Scholarship Grants) reached \$1.05 billion. In 2013-14, the total net cost of the CSLP including Canada Student Grants was \$1.2 billion.

Figure 3-11 Total Canada Student Loan Program and Millennium Scholarship Expenditure Trends



Sources: Office of the Superintendent of Financial Institutions Canada, Actuarial Reports on the Canada Student Loans Program 2003 – 2014; Public Accounts of Canada; Canada Student Loan Program Annual Reports 2003-04 – 2012-13; PBO calculations using PBO CPI index, in 2002 dollars.

Note: Total Net Federal Spending on Financial Aid includes Total Net Cost of CSLP and Millennium Scholarship Funds prior to 2009.

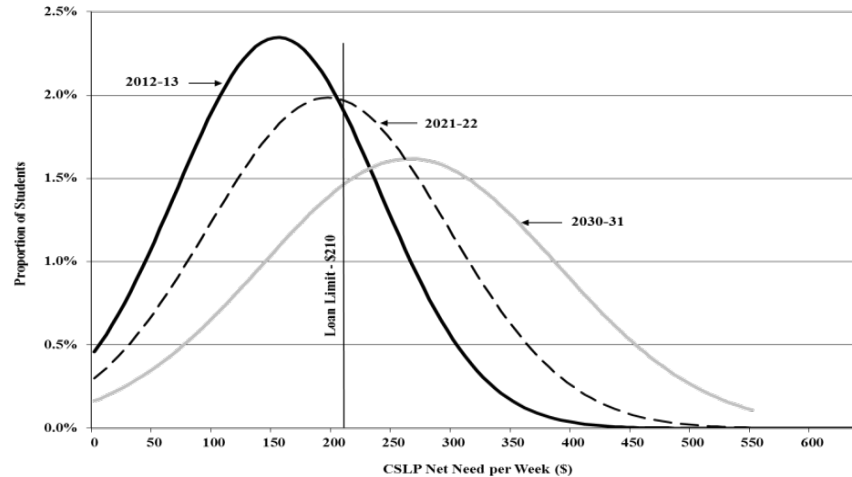
The total net cost of the CSLP is calculated as:

Grants + Loan Benefit Cost (in study interest + bad debt + RAP expenses + alternative payments to the provinces) + Administration - Revenues

The data reflect both increasing need and increasing unmet need. Between 2010-11 and 2013-14, the loan uptake rate increased from 34.3 per cent of full-time students to 39.0 per cent. During this same period, it is estimated that the percentage of students whose needs were at, or in excess of, amounts they could borrow rose from 29.0 per cent to 35.7 per cent.

Under the present program parameters, it is estimated that by 2020-21, 48.9 per cent of students will have needs that are at, or in excess of, the loan limit. (Figure 3-12) Both loan and grant ceilings effectively control total program costs (especially in light of growing participation), but result in higher levels of unmet need.

Figure 3-12 Canada Student Loan Program University Students Projected Net Need Curve



Source: CSLP Actuarial Report as at 31 July 2014, Office of the Chief Actuary, Office of the Superintendent of Financial Institutions Canada.

Additional Spending on Human Capital Formation: Indigenous Postsecondary Education, Student Employment Programs and Merit Based Grants

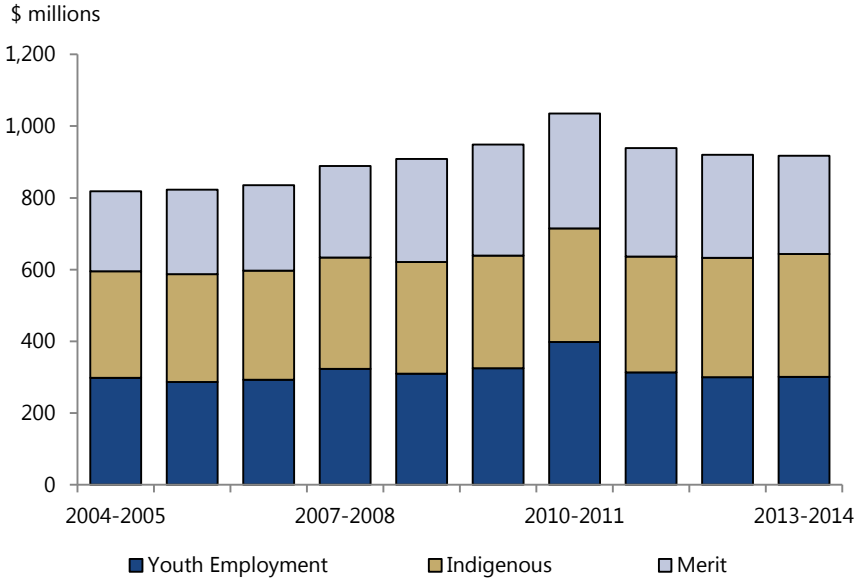
The federal government supports **Indigenous postsecondary education** through programs that help students pay for tuition, books, transportation and living expenses and that fund institutions to develop programming for Indigenous students. The federal government also funds **Indspire**, an Indigenous-led charity that aims to inspire and support educational achievement.

The **Youth Employment Strategy** involves 11 federal departments and agencies. It assists youth, especially those facing barriers to employment, to gain the information, skills and job experience needed to make a successful transition to the workplace. **Merit-based grants** and **scholarships** are

delivered primarily through the Granting Councils to support graduate studies. (See Appendix A.4 for a more detailed discussion of these areas.)

In 2004-05, total expenditures in these three areas exceeded \$800 million. Expenditures grew steadily over the next five years to exceed \$1 billion in 2010-11, and have since declined. Total federal contributions in these three areas fell to \$917 million in 2013-14. (Figure 3-13)

Figure 3-13 Expenditures for Employment, Merit and Indigenous PSE Programs

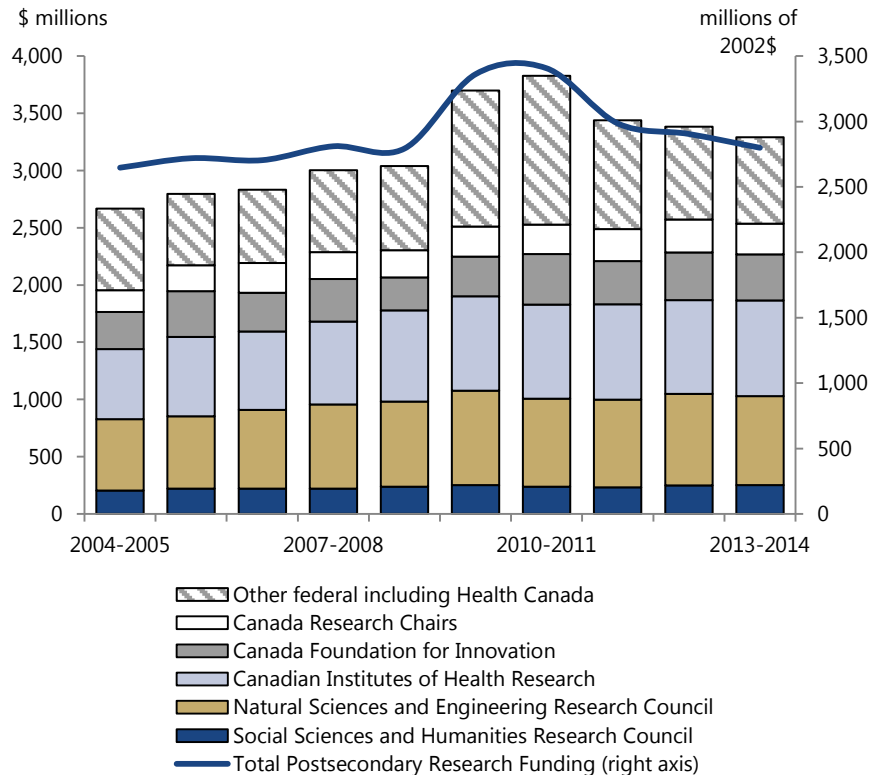


Sources: Public Accounts of Canada 2004-2014; ESDC; Indigenous and Northern Affairs Canada, Departmental Performance Reports and Reports on Plans and Priorities, selected years; PBO calculations.

3.2. Research and Research Infrastructure

In 2004-05, total federal investments in research and research infrastructure exceeded \$2.6 billion. Federal investments peaked at \$3.8 billion in 2010-11 as a result of stimulus measures in response to the 2008-09 recession. Thereafter, federal funding for postsecondary research began to decline, reaching \$3.3 billion in 2013-14. (Figure 3-14)

Figure 3-14 Federal Investment in Postsecondary Research, by Program



Sources: Statistics Canada, Financial Information of universities and degree granting colleges; Canada Foundation for Innovation annual reports, selected years; Social Sciences and Humanities Research Council Performance Reports and Reports on Plans and Priorities, selected years; Natural Sciences and Engineering Research Council Performance Reports and Reports on Plans and Priorities, selected years; Canadian Institutes of Health Research, Performance Reports and Reports on Plans and Priorities, selected years; PBO calculations.

Note: PBO calculations using Investments do not include administrative costs. Total funding adjusted for inflation CPI Index, in 2002 dollars (right axis).

Granting Councils, Canada Foundation for Innovation, and Canada Research Chairs

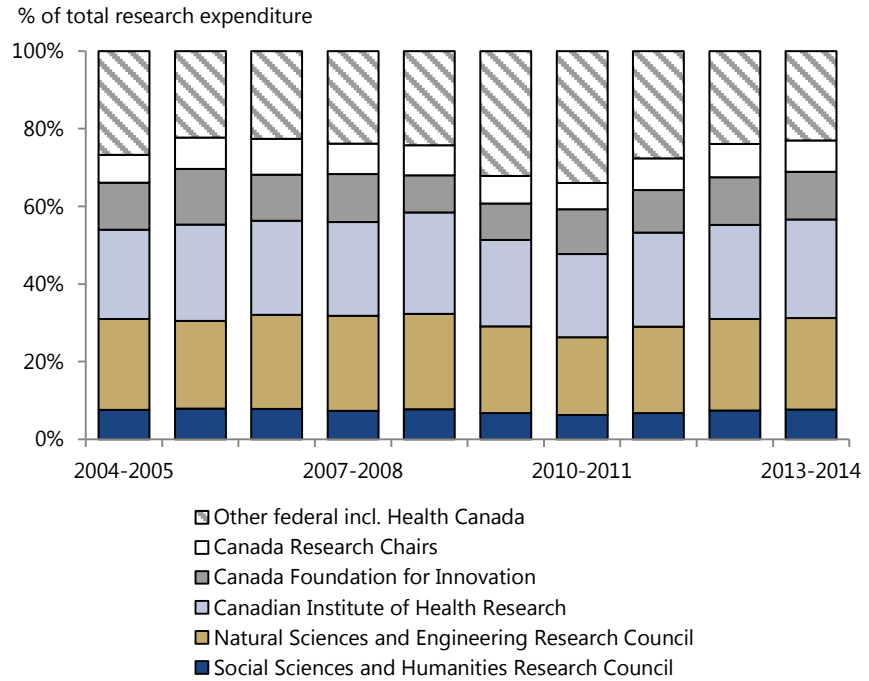
The federal government supports several arms-length organizations for the purpose of funding university and college-based research. Their purpose is to support the production and transmission of knowledge, promote collaboration among universities, industry and governments, and train highly qualified people. There are three granting councils: the **Social Sciences and Humanities Research Council** (SSHRC); the **Natural Sciences and Engineering Research Council** (NSERC); and the **Canadian Institutes of Health Research** (CIHR).

SSHRC also houses the Secretariat of the **Canada Research Chairs** which in turn administers the Indirect Cost of Research program on behalf of the three granting councils. The Canada Research Chairs program provides support to Canadian universities to attract and retain the best researchers.

The **Canada Foundation for Innovation** is also an arms-length organization and is mandated to support research infrastructure. Foundation funds support areas of priority identified by the Minister of Industry (now Innovation, Science and Economic Development).

In 2004-05, these organizations accounted for 74 per cent of total research spending. Except for the fiscal stimulus period between 2009 and 2011, the organizations received a relatively stable share of funding, between 74 per cent and 77 per cent, of total research investments. The reduction in that share between 2009 and 2011 coincides with fiscal stimulus delivered through the Knowledge Infrastructure Program.

Figure 3-15 Federal Investment in Postsecondary Research, by Program Relative Weight



Sources: Statistics Canada, Financial Information of universities and degree granting colleges; Canada Foundation for Innovation annual reports, selected years; Social Sciences and Humanities Research Council Performance Reports and Reports on Plans and Priorities, selected years; Natural Sciences and Engineering Research Council Performance Reports and Reports on Plans and Priorities, selected years; Canadian Institutes of Health Research Performance Reports and Reports on Plans and Priorities, selected years; PBO calculations.

Note: Totals do not include administrative costs.

Knowledge Infrastructure Program and Other Federal Department Expenditures

Budget 2009 announced a one-time \$2-billion fund to repair, upgrade and expand research facilities at postsecondary institutions.³⁰ Eligible projects needed to be materially completed by 31 March 2011. This stimulus expenditure is reflected in “Other Federal” department expenditures.

PBO estimates that nearly \$1 billion was delivered through this program. Other federal department expenditures include grants and contributions, requests for proposals, project contracts, and policy research contracts that federal departments and agencies have with selected postsecondary institutions.

3.3. The Canada Social Transfer, PSE Allocation

The Canada Social Transfer (CST) is a block transfer payment from the federal government to the provinces in support of childcare, early childhood education, social services, social assistance and postsecondary education. Because the various social supports within the CST are all rolled up into one block payment, there is no way to definitively capture the portion of CST earmarked for postsecondary education.

Moreover, there is no process to track the CST once it enters provincial accounts. The postsecondary portion of the CST is, therefore, notional and only can be estimated based on Department of Finance assumptions and data.

In 2004, the Department of Finance estimated the postsecondary allocation of the CST at around \$2.1 billion. In Budget Plan 2007, the federal government announced that it would increase the CST by \$800 million with the objective of strengthening postsecondary education. The government stated that this would increase the postsecondary allocation from \$2.4 billion in 2007-08 to \$3.2 billion in 2008-09.³¹

The government also committed to increasing support to the CST over time with an annual 3 per cent escalator. Under these assumptions, it is estimated that by 2013-14, the postsecondary allocation of the CST exceeded \$3.7 billion.

Like tax expenditures, the CST is not considered a program and, therefore, it is not subject to periodic reviews or evaluation every five years where its relevance and effectiveness must be demonstrated.³² Moreover, the legislation that governs federal-provincial fiscal arrangements only requires periodic reviews of the Canada Health Transfer.³³

4. Recent Government Announcements

On 22 March 2016 the Government tabled its budget for the 2016-17 fiscal year. *Budget 2016* also introduced measures which the government intends to implement over the next five years. Several measures were related to postsecondary education. The Government announced it will:

- eliminate **education** and **textbook tax credits**;
- increase **Canada Student Grant** amounts. **Canada Student Grant** amounts will increase by 50 per cent for both full and part-time students from low and middle-income families starting in 2016-17. The Budget estimates that these measures will cost an additional \$1.53 billion over five years and \$329 million per year thereafter;
- expand **Canada Student Grant** eligibility. The Budget estimates that new eligibility thresholds will be in place for 2017-18 and will cost \$790 million over four years starting in 2017-18;
- simplify **Canada Student Grant** program requirements so that students will be required to contribute a flat amount each year towards the costs of their education, and financial assets and student income will no longer be considered. The Budget estimates that these measures will cost \$267.7 million over four years, starting in 2017-18;
- raise the income threshold for the **Repayment Assistance Plan** of the **Canada Student Loan Program**. The threshold will be increased so that no student will have to repay their Canada Student Loan until they are earning at least \$25,000 per year. The Budget estimates this measure to cost an additional \$131.4 million over five years, beginning in 2016-17, and \$31 million per year thereafter;
- invest an additional \$165.4 million in the **Youth Employment Strategy** in 2016-17 (this amount is in addition to \$339 million over three years that had been announced on February 12, 2016);
- support **student co-op placements** through investments of \$73 million over four years;
- support **youth service** initiatives with \$105 million over five years, starting in 2016-17, and \$25 million per year thereafter;
- support research through Canada's **Granting Councils** (CIHR, SSHRC, NSERC) with an additional \$95 million per year; and
- invest \$2 billion over three years in a new **Post-Secondary Institutions Strategic Investment Fund**.

PBO estimates that by cancelling education and textbook credits, about \$795 million less in credits will be booked starting in 2017-18. The amount

booked in 2016-17 will depend upon when the legislation takes effect. It is assumed that if cancelled credits take effect in July 2016, \$350 million less in credits will be booked. However, roughly 40 per cent of current year foregone tax revenues pertain to tax credits accrued in previous years. As a result, up to half of the "current" expense of education and textbook tax credits will continue to be incurred over the medium-term (that is, in the next five years) notwithstanding amendments to the Income Tax Act.

In 2017-18, PBO estimates the government will realize roughly \$450 million in savings from the elimination of education and textbook credits. In 2016-17 the savings the government would realize could range between \$225 million and \$100 million depending on when the new measures take effect.

New commitments to enhance non-repayable student assistance (Canada Student Grants and Repayment Assistance Program) are estimated to be \$324 million in 2016-17 and \$596 million in 2017-18. New commitments related to non-repayable assistance are estimated to increase gradually in the following three years to reach \$623 million in 2020-21. Budget 2016 estimates for increased Canada Student Grant assistance fall within the range PBO estimates for these program enhancements. PBO notes that the cost of these enhancements could be between 5 per cent higher or lower depending upon how the enhancements impact decisions to enrol in postsecondary education.

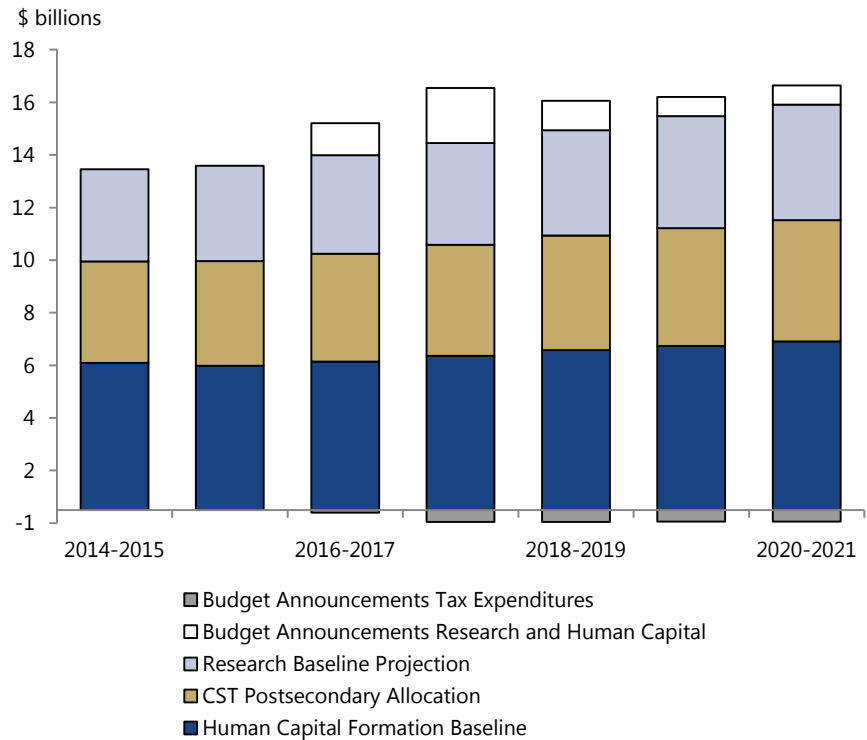
New commitments related to student employment are estimated at \$295 million in 2016-17 declining to \$150 million in 2017-18 and increasing slightly to \$167 million in 2018-19. Only new commitments related to Youth Service extend for the full five years, thus in 2019-20 and 2020-21 new commitments related to student employment are estimated to fall to \$23 million in both years.

New commitments related to research could reach \$595 million in 2016-17 rising to a maximum of \$1.36 billion in 2017-18. In 2018-19, infrastructure funding will begin to wind down. It is estimated that total new investments could reach \$345 million.³⁴ Since commitments related to infrastructure are time limited and only cover 50 per cent of eligible project costs, it is anticipated that some of these infrastructure funds will lapse. Between 2009-10 and 2011-12, PBO estimates that roughly half of the \$2 billion made available for postsecondary infrastructure investments was spent. (See section 3.2) In 2019-20 and 2020-21 new Granting Council commitments are estimated to be \$95 million in each year.

5. Postsecondary Education Expenditure Projection

PBO estimates total federal spending on postsecondary education will exceed \$15.7 billion by 2020-21.

Figure 5-1 Expenditure Projections – Total Federal Expenditures on Postsecondary Education



Sources: Statistics Canada, Financial Information of universities and degree granting colleges (2015); SPSDM 22.1; Public Accounts of Canada; Departmental Performance Reports; Reports on Plans and Priorities; Office of the Superintendent of Financial Institutions, Report on the Canada Student Loan Program as of 31 July 2014; Budget 2016; and PBO calculations.

Human Capital – By 2020-21, PBO estimates that total postsecondary education spending on human capital formation will exceed \$7 billion.³⁵

PBO estimates that **tax expenditures** will decline from \$2.2 billion in 2015-16 to \$1.9 billion in 2017-18 as a result of eliminating **education** and **textbook credits**. After 2017-18, PBO estimates that **tax expenditures** will

then start to increase approaching \$2.2 billion by 2020-21. This is the result of increasing **tuition tax credits** which are a function of rising postsecondary enrolment (more individuals eligible to claim tax credits) and increasing tuition fees that are projected to continue to rise at a rate that exceeds inflation. (Figure 5-1)

Assuming program parameters do not change and contribution trends continue along the same trajectory, PBO forecasts the cost of the **Canada Education Savings Program** including tax expenditures will reach \$1.4 billion annually by 2020-21, with growth in program expenditures exceeding the rate of inflation. PBO estimates that by 2020-21 **Canada Education Savings Program** savings grants and tax expenditures will comprise 81 per cent (about \$1.2 billion) of total program expenditures; the remaining 19 per cent or \$265 million will be targeted towards means-tested **Additional Canada Education Savings Grant** and **Canada Learning Bond**.

It is estimated that by 2020-21 over 510,000 students will be participating in the **Canada Student Loan Program** and the value of new loans issued each year will exceed \$3 billion. The total value of the loan portfolio is estimated to exceed \$21 billion.

It is estimated that with the additional Budget announcements, **Canada Student Grant** expenditures will exceed \$1.3 billion in 2020-21. The total net cost of the **Canada Student Loan Program** is estimated to approach \$2.5 billion.

Research - PBO estimates total research investments will reach \$4.3 billion by 2020-21. Because of time limited targeted infrastructure commitments, PBO estimates that total research expenditures will peak in 2017-18 and could possibly exceed \$5 billion provided that only small amounts of this targeted spending lapses.

CST - Projecting forward to 2020-21, PBO assumes the **CST** as currently structured will continue to increase by 3 per cent per year to reach \$4.6 billion. This increase in expenditure is projected to exceed real growth.

Appendix A: More Detailed Information

A.1 Tax Expenditures

To analyze the distributional impact of non-refundable education, textbook, tuition and student loan interest, PBO estimated the allocation of postsecondary education tax expenditures across families with children from 2005 to 2020.

The economic family was the unit of analysis. Families were divided into quintiles according to disposable (after-tax) income. The tax simulation database and model SPSD/M was used to estimate results. The tool uses micro-data to simulate tax returns, calculating credits claimed and taxes paid to federal and provincial governments.

High income families are disproportionately more likely to benefit from **tuition tax expenditures**. In 2005, total tuition tax expenditures (including credits earned/used in same year, transferred to a relative, and carried-forward) were about \$690 million. Over \$250 million or roughly 37 per cent of tuition tax expenditures was allocated to families in the highest income quintile.

Put another way, families in the top after-tax income quintile claimed over \$250 million in tuition tax credits that were used to offset tax owing.

The lowest and second highest quintiles both received about 21 per cent of total tuition tax expenditures, which represented \$145 million allocated to each quintile. This is more than those claimed by families in the second and third after-tax family income quintiles.

The result reflects that a substantial portion of economic families in the lowest after-tax family income quintile with tuition expenses are in fact unattached individuals. These single students have low incomes while in study, but are then able to carry forward unused amounts into the future with the reasonable expectation that the credits will be used after graduation when earnings increase.

The second lowest and middle quintiles received 12 per cent and 10 per cent of tuition tax expenditures, valued at roughly \$80 million and \$70 million, respectively.

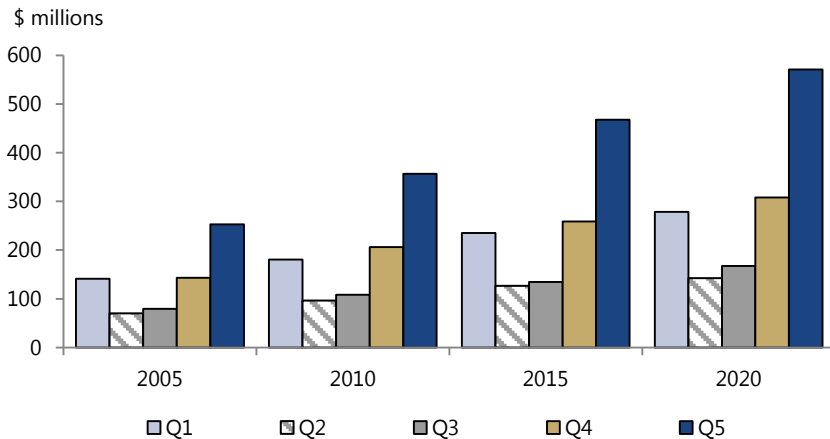
In 2010, total tuition tax expenditures are estimated to exceed \$860 million, with 38 per cent allocated to families in the top income quintile and 22 per

cent allocated to families in the second highest quintile. The share of tuition tax expenditure allocated to the lowest quintile declined to 19 per cent.

By 2020, PBO estimates that the total value of the tuition tax expenditure will approach \$1.4 billion with about 39 per cent allocated to families in the top income quintile. Thus, for families in the top after-tax quintile, the allocation of tuition tax expenditures is increasing both in terms of value and in terms of share.

PBO’s estimates are consistent with data and research that reveal higher income families are both more likely to spend more on postsecondary education and to have tax owing, and thus be in the best position to benefit from the support provided by non-refundable tuition tax credits.³⁶

Figure A-1 Distribution of Tuition Tax Expenditures, by After-Tax Family Income Quintile



Source: PBO calculations using Statistics Canada SPSP/M 22.1

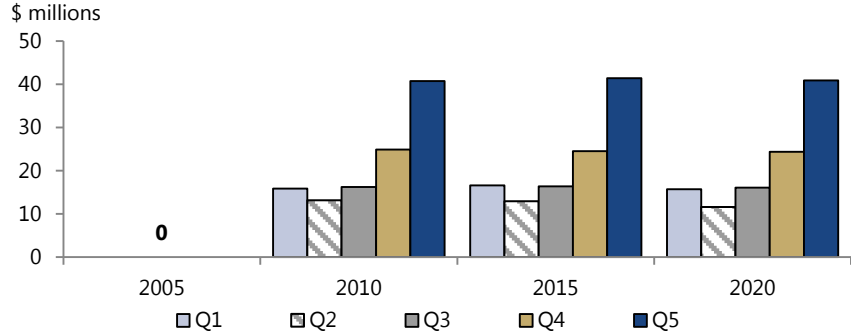
Note: Q1 is the lowest after-tax family income quintile; Q5 is the highest after-tax family income quintile.

Data on enrolment of college and university students were compared to the number of individuals who claimed tuition credits on their tax returns. College and university enrolment exceeded tax credit claims by as much as 10 per cent. For 2013-14, the data suggested that between 150,000 and 200,000 might not be claiming tax credits to which they are entitled.³⁷

There are also questions related to the timing of tuition tax credits. Postsecondary tuition fees are normally due in late summer before the school year begins. Yet a tax filer cannot reasonably expect to receive a tax refund until early spring of the following year. This creates at least a six-month lag between when the tuition expense is incurred and federal support in the form of a tax expenditure is received.

The same observation can also be made for **education and textbook credits** although these credits purport to address living expenses, books and supplies, expenses that may be more evenly distributed over the entire year.

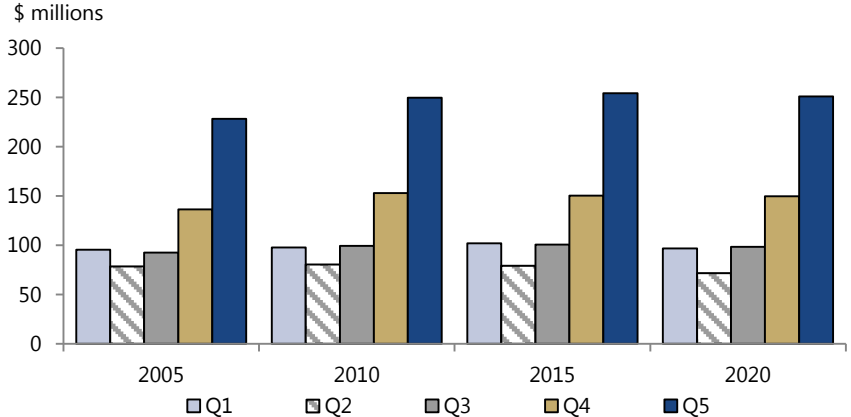
Figure A-2 Distribution of Textbook Tax Expenditures, by After-Tax Family Income Quintile



Source: PBO calculations using Statistics Canada SPSPD/M 22.1
 Note: Q1 is the lowest after-tax family income quintile; Q5 is the highest after-tax family income quintile.

Tax expenditures related to education amounts and textbook amounts have similar distributional impacts as tuition credits, although somewhat less pronounced. This is the result of the ceilings placed on the monthly amounts that can be claimed, which have remained constant. Over time, the real value of the textbook and education credits is eroded with inflation.

Figure A-3 Distribution of Education Tax Expenditures, by After-Tax Family Income Quintile



Source: PBO calculations using Statistics Canada SPSPD/M 22.1
 Note: Q1 is the lowest after-tax family income quintile; Q5 is the highest after-tax family income quintile.

Expenditures on the **Student Loan Interest Tax Exemption** are disproportionately allocated in the two top income quintiles. In 2010, total interest on student loan tax expenditures are estimated at \$40 million. About \$14 million or 33 per cent was allocated to families in the highest after-tax income quintile. Families in the second highest quintile received 32 per cent of expenditures valued at about \$13 million.

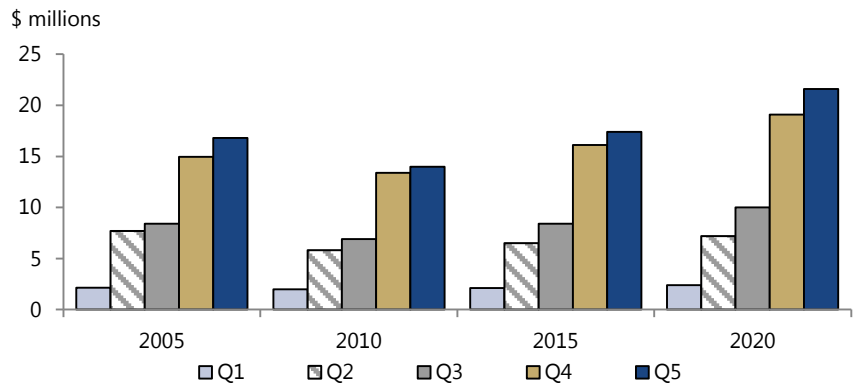
Families in the middle after-tax income quintile received 16 per cent of expenditures valued at \$7 million. Families in the second lowest quintile received 14 per cent or \$6 million. The lowest after-tax income quintile received only 5 per cent or credits valued at \$2 million.

For 2020, the PBO estimates that the total student loan interest tax expenditure will approach \$60 million. The distributional impact is estimated to be somewhat more pronounced with the highest quintile increasing their share of credits. It should be noted that this estimate is highly sensitive to changes in interest rates.

Unlike education, tuition and textbook credits, this non-refundable credit cannot be transferred and can only be carried forward for a period of five years. PBO’s estimates are consistent with existing research suggesting a positive return on postsecondary education investments with respect to future earnings.³⁸

Individuals are claiming credits after completing their studies when their loans are in repayment and more likely to be earning higher incomes as a result of their educational investment. In addition, because credits can only be carried forward for a limited amount of time and cannot be transferred, this will preclude individuals in lower income quintiles with less tax owing.

Figure A-4 Distribution of Student Loan Interest Tax Exemption Expenditures, by After-Tax Family Income Quintile



Source: PBO calculations using Statistics Canada SPSPD/M 22.1

Note: Q1 is the lowest after-tax family income quintile; Q5 is the highest after-tax family income quintile.

A.2 Canada Educational Savings Program (CESP)

The CESP uses Registered Educational Savings Plans (RESPs) to encourage saving for postsecondary education. An RESP is a contract between a subscriber (that is, the person opening the account) and a promoter (that is, a financial institution or any other entity that can support the contract).

Typically, the subscriber is the child's parents, a grandparent, another family member, or a friend of the family. The subscriber names one or more beneficiaries and may make contributions on their behalf. The beneficiary can be of any age, although beneficiaries over the age of 17 are not entitled to receive government grants.

Once the beneficiary is enrolled in postsecondary education, the contributions are returned tax-free to the subscriber and the beneficiary receives Educational Assistance Payments (EAPs). EAPs consist of the accumulated investment earnings (i.e. interest) and incentive payments: the Canada Educational Savings Grant (CESG), the Additional Educational Savings Grant (A-CESG), and the Canada Learning Bond (CLB).

The CESG require subscribers to make contributions to the plan. The basic grant is 20 per cent on the first \$2,500 up to a maximum of \$500. There is an additional grant for low- and modest-income subscribers. The maximum CESG grant is \$7,200 per child.

The CLB is available to low-income families receiving the National Child Benefit Supplement. The Learning Bond does not require the subscriber to make a contribution; the subscriber must only open an account. An initial payment of \$500 is paid into the RESP on behalf of beneficiary. This payment is followed by an annual payment of \$100 for up to 15 years provided that the family remains eligible for the National Child Benefit. The maximum bond payment is \$2,000 per child.

EAPs are taxable income for the student. Given that most beneficiaries will have modest incomes when they use their EAPs as students, the amount of tax paid on EAPs is generally minimal.

Table A-1 Registered Education Saving Program – History of Key Parameters

Year	Features of the Program/Important Changes
1974 – 1995	<p>Annual Contribution Limit - \$1,500 per year per beneficiary Cumulative Maximum - \$31,500 per beneficiary (student) Contributions are after tax and not taxable when withdrawn by beneficiary Accumulated income taxed at the (presumably) lower rate of the beneficiary</p>
1996	<p>Annual contribution limit increased to \$4,000 per year per beneficiary Cumulative Maximum - \$42,000 per beneficiary (student)</p>
1998	<p>Canada Education Study Grant is introduced</p> <ul style="list-style-type: none"> - Annual matching grant of 20% on the first \$2,000 for maximum grant of \$400 - Eligible for children aged 0 to 17 - Lifetime maximum Canada Education Study Grant of \$7,200 per beneficiary - Taxable at the rate of the beneficiary - Carry forward of unused grant eligibility through to age 17
2004	<p>Introduction of the Canada Learning Bond</p> <p>Low income families receiving the National Child Benefit Supplement can receive:</p> <p>One-time grant of \$500 for child born after 2004 upon opening up an RESP</p> <p>An additional \$100 per year up to 15 years</p> <p>No contribution is necessary</p> <p>If the child does not attend post-secondary education the Bond must be returned</p>
2005	<p>Additional Canada Education Study Grant is introduced</p> <p>Extra 20% (total 40%) on contributions made to beneficiaries from families with less than \$44,701 (2014 dollars)</p> <p>Extra 10% (total 30%) on contributions made to beneficiaries from families with \$43,953 and \$87,907 (2014 dollars)</p> <p>This applies to only the first \$500 contributed</p> <p>Income brackets are the same as that of Child Tax Benefit</p> <p>There is a lifetime grant limit of \$7,200.</p> <p>This includes both the basic Canada Education Savings Grant and the Additional Canada Education Savings Grant</p>
2007	<p>Elimination of annual limit on RESP contributions</p> <p>No change to the Canada Education Study Grant</p> <p>Lifetime cumulative limit increased to \$50,000</p> <p>Annual matching grant of 20% on the first \$2,500 for maximum grant of \$500</p>

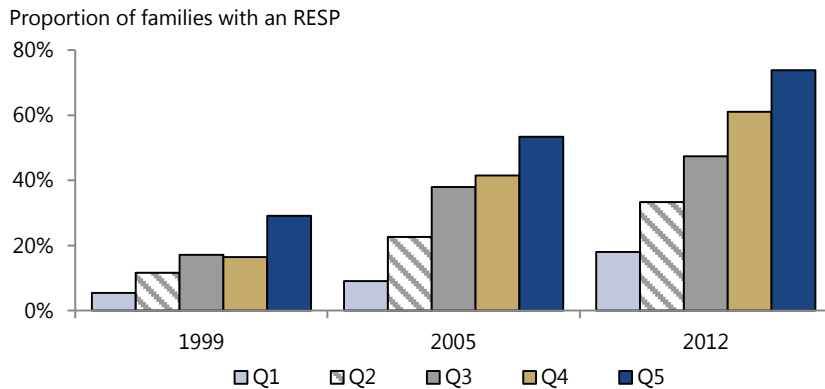
RESP Distributional Analysis

PBO used micro-data from the Survey of Financial Security to conduct a distributional analysis of the impacts of the RESP. The survey contains data on socio-demographic characteristics, labour market activity, wealth holdings and income. Economic families with children are the unit of observation. The sample was divided into quintiles by family after-tax (disposable) income and also into quintiles by family net worth. The level of participation and the mean value of RESP holdings were estimated for each quintile.

Multivariate analysis was used (probit and Tobit models) to determine the significance of wealth, income, level of education and age (which are all correlated) on the likelihood of participating in the program and the account balances of plan holders.

The probit and Tobit analysis follows closely the methodology used in earlier research that was completed before the Canada Learning Bond and the Additional Canada Education Savings Grant were introduced.³⁹ Both the Canada Learning Bond and A-CESG were introduced to improve participation among low- and modest-income families. (See Tables A-3a,b,c for regression results)

Figure A-5 Families with Children that have an RESP, by Family Net-Worth Quintile



Sources: Statistics Canada; Survey of Financial Security 1999, 2005, 2012; Statistics Canada Custom Tabulations.

Note: Q1 is the lowest net-worth quintile; Q5 is the highest.

Wealth is the strongest predictor of CESP participation.

Besides wealth, the level of parental education is also a highly significant predictor of both whether a family will have a plan and the value of the plans holdings. In 2012, families in which the highest parental level of education was at least a university degree were 27 per cent more likely to have a RESP than families in which the highest parental level of education was high school or below.

Families with a university educated parent also had \$3,074 more in their accounts than families where the highest of level of parental education was high school or below.

Another significant predictor of program participation was not living in Quebec. In 2012, families living in Quebec were 11 per cent less likely to have an RESP than families in Ontario. In 2005, families in Quebec were only 9 per cent less likely to have an RESP. There is no statistically significant difference between the value of accounts between Ontario and Quebec plan holders.

Table A-2 Registered Education Saving Plan (RESP) holdings of economic families with children

	Has an RESP 1999	Mean value of RESP 1999	Has an RESP 2005	Mean value of RESP 2005	Has an RESP 2012	Mean value of RESP 2012
	%	\$	%	\$	%	\$
Overall	0.159	8,333	0.330	13,076	0.467	14,728
Bottom net worth quintile	0.055	2,391	0.091	3,039	0.180	3,513
Second net worth quintile	0.115	4,113	0.226	10,072	0.333	5,807
Third net worth quintile	0.171	6,245	0.380	8,211	0.473	8,361
Fourth net worth quintile	0.164	7,881	0.415	10,744	0.611	13,961
Top net worth quintile	0.291	12,589	0.534	21,227	0.739	26,135
Bottom net worth (less RESP)	0.066	6,139	0.113	9,536	0.195	4,269
Second net worth (less RESP)	0.111	3,632	0.212	9,629	0.341	6,037
Third net worth (less RESP)	0.175	7,139	0.383	7,015	0.455	8,722
Fourth net worth (less RESP)	0.159	6,190	0.415	13,190	0.613	14,278
Top net worth (less RESP)	0.285	12,569	0.523	19,596	0.732	25,631
Bottom after-tax income quintile	0.088	8,545	0.171	8,389	0.253	8,187
Second after-tax income quintile	0.122	5,941	0.300	11,767	0.360	10,203
Third after-tax income quintile	0.137	7,044	0.280	8,754	0.460	11,221
Fourth after-tax income quintile	0.172	8,354	0.364	11,502	0.585	12,890
Top after-tax income quintile	0.276	9,928	0.532	18,703	0.679	23,447

Sources: Statistics Canada Custom Tabulations, Statistics Canada, Survey of Financial Security (1999, 2005, and 2012).

The PBO and Statistics Canada analysis is consistent with existing research and program evaluations.⁴⁰

Other factors that may influence lower RESP participation rates among low-income families include the complexity and inconvenience in setting up an account. Almost always an 'in person' appointment at a financial institution is required, along with certain official documents (SIN card, birth certificate) to

set up a RESP account. In addition, not every financial institution that offers RESPs administers the CLB portion of the program.

There is also research that suggests RESP holdings can affect eligibility for other forms of financial aid offered by the government. Educational Assistance Payments are treated as in-study income. They reduce loans dollar for dollar, above the \$100 per week in-study exemption for EAPs and other sources of income.

As a result, the reduction rate may be close to 100 per cent for students working while studying. Moreover, EAPs are treated as taxable income in the hands of student. This can have a direct impact on eligibility for Canada Student Grants for students from low- and middle-income families one year later, as eligibility is based on gross annual family income from the previous year.

Table A-3a Marginal effects from regression of Registered Education Saving Plan (RESP) on socio-economic characteristics - excluding RESP holdings in net worth (1999)

	Quintiles based on own year					Quintiles based on 2012 thresholds						
	Has an RESP		Mean value of RESP (including non-holders)			Has an RESP		Mean value of RESP (including non-holders)				
	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.		
Bottom net worth (less RESP) quintile (ref.)												
Second net worth (less RESP) quintile	0.045	0.027	3,366	2,790	0.067	**	0.022	5,559	*	2,413		
Third net worth (less RESP) quintile	0.095	***	0.027	8,636	**	3,103	0.079	**	0.025	7,100	**	2,635
Fourth net worth (less RESP) quintile	0.078	**	0.027	6,589	*	2,879	0.125	***	0.026	11,822	***	3,313
Top net worth (less RESP) quintile	0.151	***	0.029	15,227	***	4,144	0.171	***	0.029	18,089	***	4,829
Bottom after-tax income quintile (ref.)												
Second after-tax income quintile	0.008		0.026	-187	2,349	-0.003		0.021	-722		1,973	
Third after-tax income quintile	-0.003		0.026	-950	2,525	0.024		0.024	1,536		2,146	
Fourth after-tax income quintile	0.013		0.026	612	2,364	0.032		0.023	3,005		2,236	
Top after-tax income quintile	0.054	*	0.024	3,985	†	2,373	0.060	*	0.029	4,194		2,673
Highest parental education is a high school diploma or below (ref.)												
Highest parental education is a non-university postsecondary certificate	0.035	†	0.018	4,164	*	1,909	0.037	*	0.018	4,472	*	1,961
Highest parental education is a university degree	0.092	***	0.019	9,000	***	2,327	0.092	***	0.019	8,927	***	2,325
Oldest parent is less than 30 years old (ref.)												
Oldest parent is between 30 and 39 years old	0.036		0.028	3,671		2,605	0.034		0.028	3,393		2,647
Oldest parent is between 40 and 49 years old	0.055	†	0.031	5,811	†	3,014	0.055	†	0.030	5,790	†	3,064
Oldest parent is 50 years old or more	0.080	*	0.037	8,741	*	3,594	0.078	*	0.037	8,452	*	3,603
Married or common-law couple	0.043	†	0.024	3,969		2,638	0.044	†	0.023	3,985		2,586
Lone-parent (ref.)												
One child (ref.)												
Two children	0.033	†	0.019	3,517	*	1,785	0.033	†	0.019	3,508	*	1,750
Three or more children	0.019		0.025	3,990		2,465	0.020		0.025	4,083	†	2,448
Youngest child is between 0 and 4 years old (ref.)												
Youngest child is between 5 and 9 years old	-0.021		0.018	834		2,098	-0.019		0.018	1,103		2,119
Youngest child is between 10 and 14 years old	-0.025		0.028	866		2,977	-0.022		0.028	1,255		3,006
Youngest child is between 15 and 17 years old	-0.058		0.041	-2,601		4,133	-0.054		0.041	-2,021		4,173

	Quintiles based on own year				Quintiles based on 2012 thresholds			
	dy/dx	Has an RESP Bootstrap s.e.	Mean value of RESP (including non-holders) dy/dx Bootstrap s.e.		dy/dx	Has an RESP Bootstrap s.e.	Mean value of RESP (including non-holders) dy/dx Bootstrap s.e.	
Oldest child is between 0 and 4 years old (ref.)								
Oldest child is between 5 and 9 years old	-0.027	0.023	-1,614	1,945	-0.029	0.023	-1,919	1,948
Oldest child is between 10 and 14 years old	-0.044	0.030	-5,610 †	3,391	-0.049	0.030	-6,291 †	3,527
Oldest child is between 15 and 17 years old	-0.110 **	0.038	-10,790 *	4,691	-0.117 **	0.038	-11,644 *	4,803
Atlantic provinces	0.011	0.020	962	1,800	0.011	0.019	924	1,767
Quebec	-0.049 **	0.019	-4,930 **	1,840	-0.051 **	0.019	-5,160 **	1,844
Ontario (ref.)								
Prairies	-0.011	0.015	57	1,575	-0.015	0.015	-478	1,560
British Columbia	-0.002	0.017	-777	1,575	-0.003	0.017	-888	1,584
Urban (ref.)								
Rural	0.006	0.019	521	1,630	0.005	0.019	327	1,605

Significance levels: *** = 0.001; ** = 0.01; * = 0.05; † = 0.1

dy/dx = marginal effect; s.e. = standard error

Notes: All variables are measured at the economic family level. All dollar figures are expressed in 2012 constant dollars. Net worth and after-tax income are measured in equivalent dollars, obtained by dividing by the square root of the number of individuals in the economic family. Quintiles from 2012 are applied to all years. A probit model was used to model RESP use and a tobit model was used to model the dollar value of RESP holdings.

Sources: Statistics Canada Custom Tabulations; Statistics Canada, Survey of Financial Security (1999, 2005, and 2012).

Table A-3b Marginal effects from regression of Registered Education Saving Plan (RESP) on socio-economic characteristics - excluding RESP holdings in net worth (2005)

	Quintiles based on own year						Quintiles based on 2012 thresholds					
	Has an RESP			Mean value of RESP (including non-holders)			Has an RESP			Mean value of RESP (including non-holders)		
	dy/dx		Bootstrap s.e.	dy/dx		Bootstrap s.e.	dy/dx		Bootstrap s.e.	dy/dx		Bootstrap s.e.
Bottom net worth (less RESP) quintile (ref.)												
Second net worth (less RESP) quintile	0.097	†	0.059	6,847	†	3,913	0.087		0.062	5,375		4,180
Third net worth (less RESP) quintile	0.220	***	0.053	11,924	***	3,429	0.234	***	0.055	12,444	**	3,797
Fourth net worth (less RESP) quintile	0.207	***	0.056	13,721	***	4,033	0.193	**	0.064	11,866	**	4,371
Top net worth (less RESP) quintile	0.281	***	0.061	20,068	***	4,412	0.233	***	0.068	19,081	***	4,865
Bottom after-tax income quintile (ref.)												
Second after-tax income quintile	0.038		0.056	4,475		3,830	-0.066		0.051	-2,120		3,519
Third after-tax income quintile	-0.052		0.055	-3,467		3,705	-0.058		0.054	-2,313		3,778
Fourth after-tax income quintile	0.012		0.070	1,502		4,434	0.010		0.055	1,269		3,399
Top after-tax income quintile	0.076		0.064	7,228	†	4,109	0.107	†	0.059	8,284	*	3,641
Highest parental education is a high school diploma or below (ref.)												
Highest parental education is a non-university postsecondary certificate	0.133	**	0.044	9,444	**	3,074	0.137	**	0.042	9,679	**	2,990
Highest parental education is a university degree	0.203	***	0.041	14,481	***	3,137	0.200	***	0.040	14,356	***	3,024
Oldest parent is less than 30 years old (ref.)												
Oldest parent is between 30 and 39 years old	0.131	†	0.076	7,472		5,050	0.122		0.077	6,736		5,047
Oldest parent is between 40 and 49 years old	0.236	**	0.075	13,316	**	4,823	0.237	**	0.074	13,142	**	4,810
Oldest parent is 50 years old or more	0.269	**	0.094	17,725	**	5,927	0.272	**	0.092	17,066	**	5,846
Married or common-law couple	-0.012		0.052	-1,769		3,367	-0.007		0.049	-1,528		3,232
Lone-parent (ref.)												
One child (ref.)												
Two children	0.083	*	0.040	7,302	**	2,794	0.088	*	0.040	7,250	**	2,731
Three or more children	0.044		0.063	4,671		4,081	0.053		0.062	4,758		3,960
Youngest child is between 0 and 4 years old (ref.)												
Youngest child is between 5 and 9 years old	-0.018		0.050	-3,720		3,203	-0.010		0.049	-3,182		3,208
Youngest child is between 10 and 14 years old	-0.084		0.073	-6,185		4,569	-0.072		0.072	-6,143		4,557
Youngest child is between 15 and 17 years old	-0.129		0.102	-10,024		6,530	-0.117		0.101	-9,881		6,670

	Quintiles based on own year				Quintiles based on 2012 thresholds							
	Has an RESP		Mean value of RESP (including non-holders)		Has an RESP		Mean value of RESP (including non-holders)					
	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.				
Oldest child is between 0 and 4 years old (ref.)												
Oldest child is between 5 and 9 years old	0.019	0.065	5,445	4,221	0.007	0.066	4,427	4,231				
Oldest child is between 10 and 14 years old	-0.077	0.076	1,771	4,661	-0.094	0.074	846	4,577				
Oldest child is between 15 and 17 years old	-0.054	0.097	4,123	6,066	-0.075	0.097	3,294	6,153				
Atlantic provinces	0.107	†	0.063	4,949	3,456	0.106	†	0.063	4,878			
Quebec	-0.097	**	0.035	-4,633	†	2,772	-0.099	**	0.036	-4,850	†	2,838
Ontario (ref.)												
Prairies	-0.025		0.037	42	2,609	-0.031		0.037	-646	2,624		
British Columbia	-0.128	**	0.046	-7,092	*	3,330	-0.131	**	0.046	-7,706	*	3,343
Urban (ref.)												
Rural	0.033		0.039	478	2,381	0.032		0.038	768	2,357		

Significance levels: *** = 0.001; ** = 0.01; * = 0.05; † = 0.1

dy/dx = marginal effect; s.e. = standard error

Notes: All variables are measured at the economic family level. All dollar figures are expressed in 2012 constant dollars. Net worth and after-tax income are measured in equivalent dollars, obtained by dividing by the square root of the number of individuals in the economic family. Quintiles from 2012 are applied to all years. A probit model was used to model RESP use and a tobit model was used to model the dollar value of RESP holdings.

Sources: Statistics Canada Custom Tabulations; Statistics Canada, Survey of Financial Security (1999, 2005, and 2012).

Table A-3c Marginal effects from regression of Registered Education Saving Plan (RESP) on socio-economic characteristics - excluding RESP holdings in net worth (2012)

	Quintiles based on own year						Quintiles based on 2012 thresholds					
	Has an RESP		Mean value of RESP (including non-holders)				Has an RESP		Mean value of RESP (including non-holders)			
	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.
Bottom net worth (less RESP) quintile (ref.)												
Second net worth (less RESP) quintile	0.105	**	0.039	6,688	**	2,206	0.105	**	0.039	6,688	**	2,206
Third net worth (less RESP) quintile	0.153	***	0.040	9,023	***	2,200	0.153	***	0.040	9,023	***	2,200
Fourth net worth (less RESP) quintile	0.279	***	0.043	16,895	***	2,378	0.279	***	0.043	16,895	***	2,378
Top net worth (less RESP) quintile	0.341	***	0.040	26,380	***	2,748	0.341	***	0.040	26,380	***	2,748
Bottom after-tax income quintile (ref.)												
Second after-tax income quintile	0.051		0.044	3,606		2,233	0.051		0.044	3,606		2,233
Third after-tax income quintile	0.089	*	0.040	5,091	*	2,077	0.089	*	0.040	5,091	*	2,077
Fourth after-tax income quintile	0.116	**	0.039	5,753	**	2,139	0.116	**	0.039	5,753	**	2,139
Top after-tax income quintile	0.113	*	0.045	9,994	***	2,613	0.113	*	0.045	9,994	***	2,613
Highest parental education is a high school diploma or below (ref.)												
Highest parental education is a non-university postsecondary certificate	0.138	***	0.029	7,124	***	1,916	0.138	***	0.029	7,124	***	1,916
Highest parental education is a university degree	0.268	***	0.037	13,517	***	2,665	0.268	***	0.037	13,517	***	2,665
Oldest parent is less than 30 years old (ref.)												
Oldest parent is between 30 and 39 years old	0.017		0.052	-147		2,667	0.017		0.052	-147		2,667
Oldest parent is between 40 and 49 years old	0.045		0.058	-129		2,714	0.045		0.058	-129		2,714
Oldest parent is 50 years old or more	0.038		0.074	4,137		3,847	0.038		0.074	4,137		3,847
Married or common-law couple	0.038		0.034	2,192		1,814	0.038		0.034	2,192		1,814
Lone-parent (ref.)												
One child (ref.)												
Two children	0.038		0.028	6,498	*	2,649	0.038		0.028	6,498	*	2,649
Three or more children	0.094	*	0.045	12,541	***	3,386	0.094	*	0.045	12,541	***	3,386
Youngest child is between 0 and 4 years old (ref.)												
Youngest child is between 5 and 9 years old	-0.010		0.039	2,501		1,788	-0.010		0.039	2,501		1,788
Youngest child is between 10 and 14 years old	0.008		0.055	5,403	†	3,089	0.008		0.055	5,403	†	3,089
Youngest child is between 15 and 17 years old	0.006		0.077	10,739	†	6,131	0.006		0.077	10,739	†	6,131

	Quintiles based on own year				Quintiles based on 2012 thresholds							
	Has an RESP		Mean value of RESP (including non-holders)		Has an RESP		Mean value of RESP (including non-holders)					
	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.	dy/dx	Bootstrap s.e.				
Oldest child is between 0 and 4 years old (ref.)												
Oldest child is between 5 and 9 years old	-0.003	0.047	-33	2,401	-0.003	0.047	-33	2,401				
Oldest child is between 10 and 14 years old	-0.037	0.061	-553	3,481	-0.037	0.061	-553	3,481				
Oldest child is between 15 and 17 years old	-0.138	†	0.071	-7,380	4,615	-0.138	†	0.071	-7,380	4,615		
Atlantic provinces	0.013	0.030	-63	1,662	0.013	0.030	-63	1,662				
Quebec	-0.122	***	0.034	-8,440	***	2,334	-0.122	***	0.034	-8,440	***	2,334
Ontario (ref.)												
Prairies	-0.008	0.029	-1,870	1,613	-0.008	0.029	-1,870	1,613				
British Columbia	-0.003	0.037	-3,176	1,965	-0.003	0.037	-3,176	1,965				
Urban (ref.)												
Rural	-0.041	0.026	-2,946	*	1,445	-0.041	0.026	-2,946	*	1,445		

Significance levels: *** = 0.001; ** = 0.01; * = 0.05; † = 0.1

dy/dx = marginal effect; s.e. = standard error

Notes: All variables are measured at the economic family level. All dollar figures are expressed in 2012 constant dollars. Net worth and after-tax income are measured in equivalent dollars, obtained by dividing by the square root of the number of individuals in the economic family. Quintiles from 2012 are applied to all years. A probit model was used to model RESP use and a tobit model was used to model the dollar value of RESP holdings.

Sources: Statistics Canada Custom Tabulations; Statistics Canada, Survey of Financial Security (1999, 2005, and 2012).

Note: Analysis was also completed which includes RESP holdings in net-worth. Tables are available upon request.

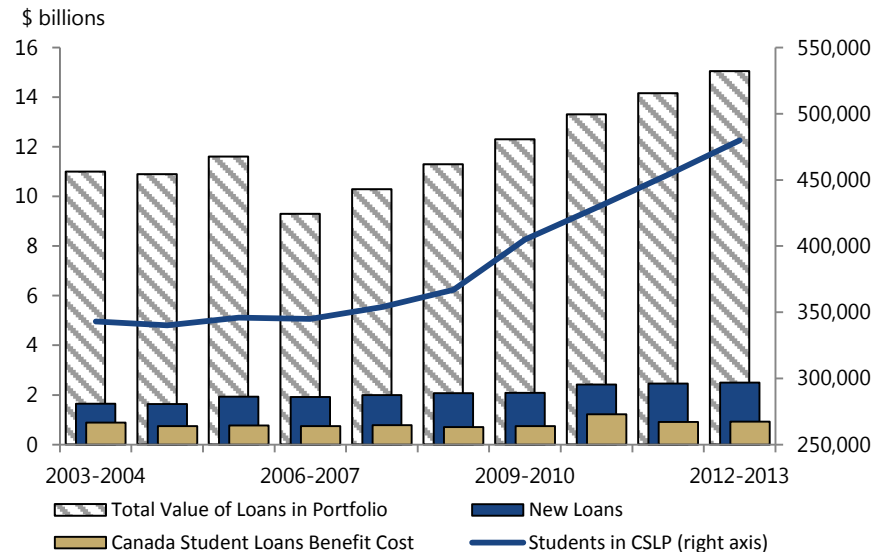
A.3 The Canada Student Loan Program (CSLP) and Student Debt

Canada Student Loans are available to Canadians enrolled in postsecondary education. Eligibility and loan amounts are assessed individually based upon a student’s need and her or his available resources. The program seeks to provide up to 60 per cent of a full-time student’s assessed need up to a maximum of \$210 per week. This \$210-a-week loan limit has been unchanged since the 2005-06 loan year. In 2013-14, about 35.7 per cent of students in the program were borrowing the maximum amount. The loan uptake rate was 39 per cent of full-time students.⁴¹

Students from low-income families can receive **Canada Student Grants** (non-repayable financial assistance) of \$250 per month of study. Students from middle-income families can receive \$100 per month of study. Students with dependents can receive grants of \$200 per month of study per child under 12 or a dependant with a permanent disability. Part-time students from low-income families may also be eligible for financial support.

There are also grants available for students with permanent disabilities of \$2,000 per academic year, with additional funding of up to \$8,000 for students with disabilities who require special services or equipment. In 2013-14, the average grant was \$1,300 for full-time students.

Figure A-6 Canada Student Loan Program Portfolio



Sources: Office of the Superintendent of Financial Institutions Canada, Actuarial Reports on the Canada Student Loans Program 2003-04 – 2013-14.

The data reflect both increasing need and increasing unmet need. These needs result from several factors. Growing numbers of students participate in postsecondary education through both traditional and non-traditional paths. A traditional path would be a student who graduates from secondary school and then immediately enrolls in a full-time two-year or four-year program and finishes the program within that time frame. Non-traditional paths include: part-time students, older or returning students, students with dependents and students who combine periods of work with full-time study. Non-traditional paths often result in longer completion timelines.

A second factor is the result of increasing expenses both for tuition and living. A third factor, which relates particularly to the level of unmet need, is that loan and grant limits for full-time students remain fixed at \$210 per week and \$250 per month, respectively. These ceilings effectively control total program costs (especially in light of growing participation), but result in higher levels of unmet need.

Box A-1 – Under-represented groups

In addition to students from low-income families, other underrepresented groups in post-secondary education include: student parents, students with disabilities, students (especially male students) who do not live within commuting distance of a post-secondary institution, students who are the first generation to attend post-secondary education, and First Nations, Inuit and Metis students.

Often students belong to more than one underrepresented group. For example, First Nations students living on reserve are more likely to also be in a low-income household, live far away from a post-secondary education institution, be the first in their generation to attend postsecondary education, and have lived with a disability.

The **Repayment Assistance Program** assists borrowers with limited income to repay their loans within a reasonable time period and is administered in two stages. During stage one, borrowers who are unable to afford the required monthly payment make affordable payments only on the loan principal. The government is responsible for the interest amount.

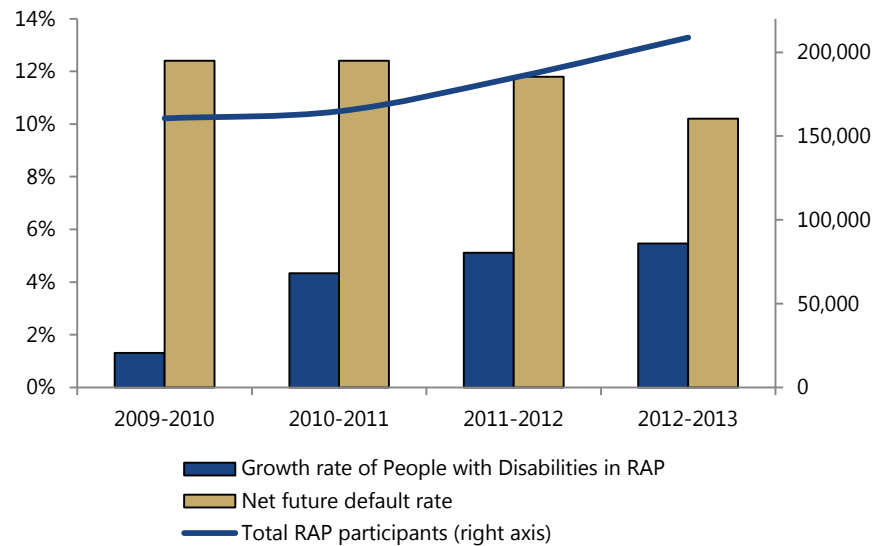
A borrower in stage one for more than five years during a 10-year period will automatically enter stage two. In stage two, the borrower continues to make affordable payments, but the government will also begin to cover a portion of the principal as well. This process is accelerated for borrowers who can demonstrate that they have a permanent disability.

Recent data on loan defaults show that 67 per cent of defaults occurred in the first three years following consolidation and 76 per cent occurred in the first four years. Loan consolidation occurs after the student has graduated or withdrawn from school and all loans taken out during the study period are

lumped together for repayment. There is a six-month grace period between the end of study and repayment.

Recent data show lower defaults and higher recoveries than expected. The future default rate net of recoveries is estimated to decrease from 11.8 per cent of future consolidations in 2011-12 to 10.2 per cent in 2013-14.⁴² Data on the **repayment assistance** suggest that since its introduction in 2009, increasing numbers of clients are participating, including significant uptake among borrowers with disabilities. (Figure A-7)

Figure A-7 Repayment Assistance and Net Future Default Rates

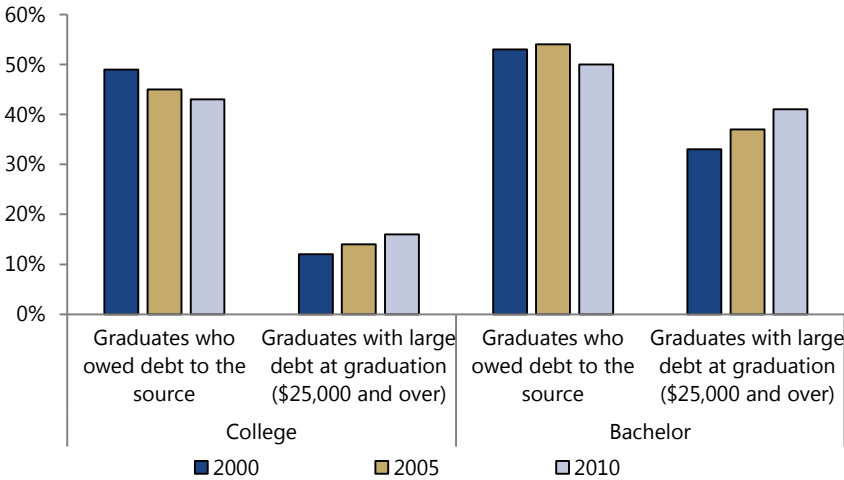


Sources: Office of the Superintendent of Financial Institutions Canada, Actuarial Reports on the Canada Student Loans Program 2009-10 – 2013-14; Canada Student Loan Program Annual Reports, 2010-11 – 2012-13

What is Happening to Student Debt Levels?

Tuition fees began rising faster than the rate of inflation in the mid-1990s and have affected student debt levels. Among unattached individuals with student debt (the most common family formation among recent postsecondary graduates), the average amount of debt rose 28 per cent from \$14,500 in 1999 to \$18,600 in 2012.⁴³

Figure A-8 Recent Graduates with Student Debt

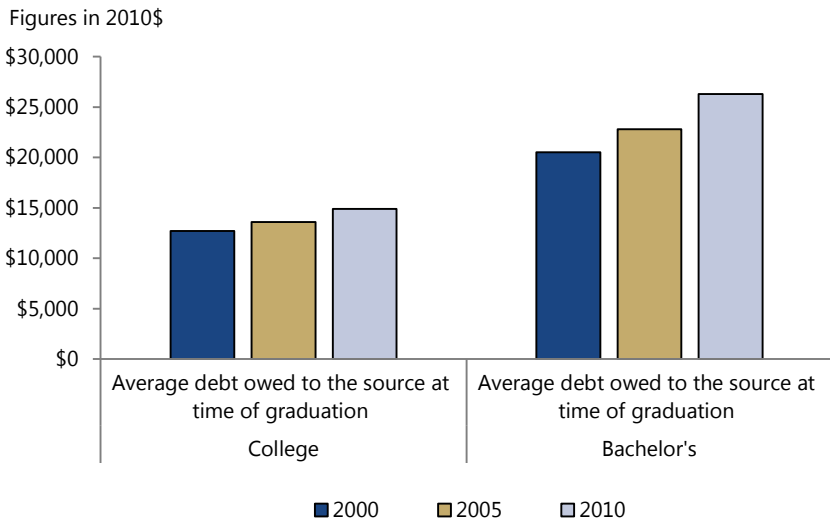


Source: Statistics Canada, National Graduate Survey 2000, 2005, 2010.

In addition, the data suggest a growing divide among the postsecondary student population. The overall percentage of recent graduates with student debt has actually declined slightly. Yet the percentage of recent graduates with large amounts of debt is growing, along with the average amount of debt owed at graduation. This is especially true of university graduates. The trend amounts to fewer students holding larger average debt at graduation.

Even with increased debt loads, the data and research indicate that borrowers who complete their education fare better than those with less education and have similar labour force outcomes as non-borrowers.

Figure A-9 Average Debt from 2000 to 2010



Source: Statistics Canada, National Graduate Survey – figures in 2010 dollars

In Canada, there is a wide range of postsecondary education programs with large cost differences. There are important differences in student characteristics depending upon the price of the college, CEGEP, or university program, suggesting that affordability is a function of both program price and family income.

University programs both have higher tuition fees and are longer in duration than college or CEGEP. The issue of affordability of postsecondary education may be more nuanced than participating or not participating. Students with limited means may be choosing lower priced or shorter programs that do not align well with their interests and abilities because they are affordable.

(Table A-3)

In turn, students in the most expensive programs tend to be at university and are more likely to have parents with postsecondary education and higher incomes. University graduates also tend to have greater earnings post-graduation.⁴⁴

Table A-4 Participation by Program Type, Family Income and Parental Education Level

	Less expensive PSE programs %	Moderate %	Most expensive %	All %
Estimated parental income				
Less than \$30,000	25	19	18	20
\$30,000 to \$54,999	20*	25	23	23
\$55,000 to \$79,999	26	21	22	22
\$80,000 or more	23	33	35	32
Parents highest level of Education				
One or both with PSE	63	69	74	69
Neither with PSE	26	22	20	22

Sources: Ouellette (2006), Postsecondary Education Survey (2002).

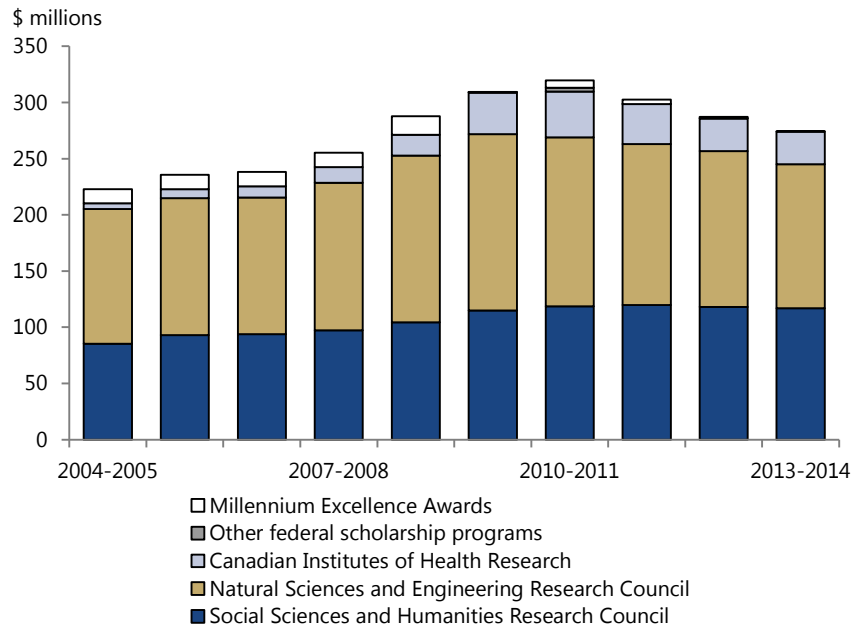
Note: * Interpret with caution

A.4 Merit Based Grants, Indigenous PSE and Employment Programs

Merit-Based Grants to Students

Total expenditures related to merit based grants and scholarships grew from nearly \$223 million in 2004-05 to \$319 million in 2010-11. Total expenditures then began to decline and are estimated to be \$274 million in 2013-14.

Figure A-10 Total Merit Based Grants Expenditures



Sources: Departmental Performance Reports 2004-05 - 2013-14; Annual Reports 2004 - 2014 (SSHRC, NSERC, CIHR, Millenium Scholarship Foundation); PBO calculations.

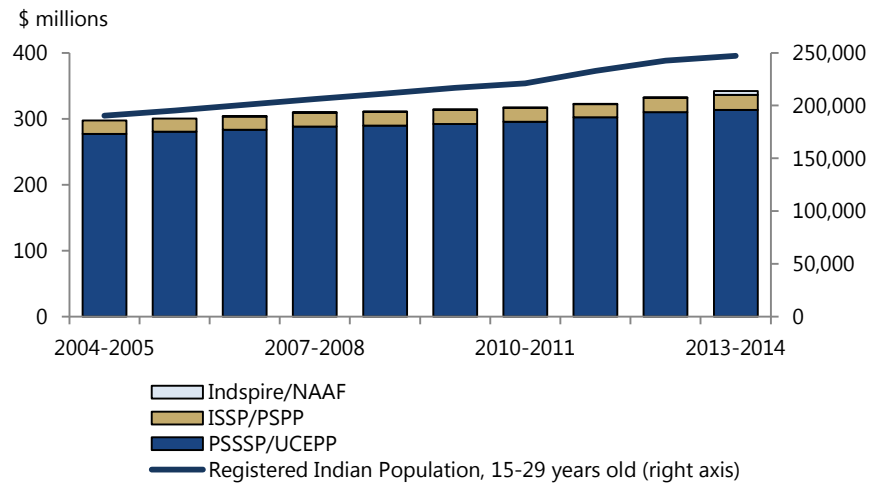
Indigenous Postsecondary Support

Support for indigenous postsecondary education is delivered through two primary streams of programming. The biggest, the Postsecondary Student Support Program (PSSSP), helps eligible students pay for tuition, books, transportation and other living expenses. The funding is administered by Band Councils, Tribal Councils or regional indigenous education organizations.

A second program area, the Postsecondary Partnerships Program (PSPP), previously the Indian Studies Support Program, provides funding to Canadian postsecondary institutions to develop programs and courses to respond to the education needs of indigenous students.

Since 2006-07, the government has also provided funding for **Indspire** (previously the National Aboriginal Achievement Foundation). Indspire is an indigenous-led charity that aims to inspire and support indigenous educational achievement.

Figure A-11 Total Expenditures for Indigenous Postsecondary Education



Sources: Indigenous and Northern Affairs Canada; PBO calculations.

Total expenditures for Indigenous postsecondary education grew modestly in nominal terms from \$297 million in 2004-05 to \$342 million in 2013-14. When adjusted for inflation, annual targeted funding for indigenous postsecondary education actually declined slightly over the period.

This occurred as the Registered Indian population of postsecondary age increased 29.8 per cent during the same period.⁴⁵ There was also a significant gap in educational attainment. In 2011, 9.8 per cent of the Aboriginal population had a university degree compared to 26.5 of the non-Aboriginal population.⁴⁶

Without any change in policy direction, PBO estimates total federal expenditure on Indigenous postsecondary education at \$365 million in 2020-21. In inflation-adjusted terms, this represents a 6.7 per cent decline in annual total spending from 2013-14 levels.

The continuation of present expenditure trends will result in total expenditures on merit-based grants and scholarships declining to a level of \$152 million in 2020-21.

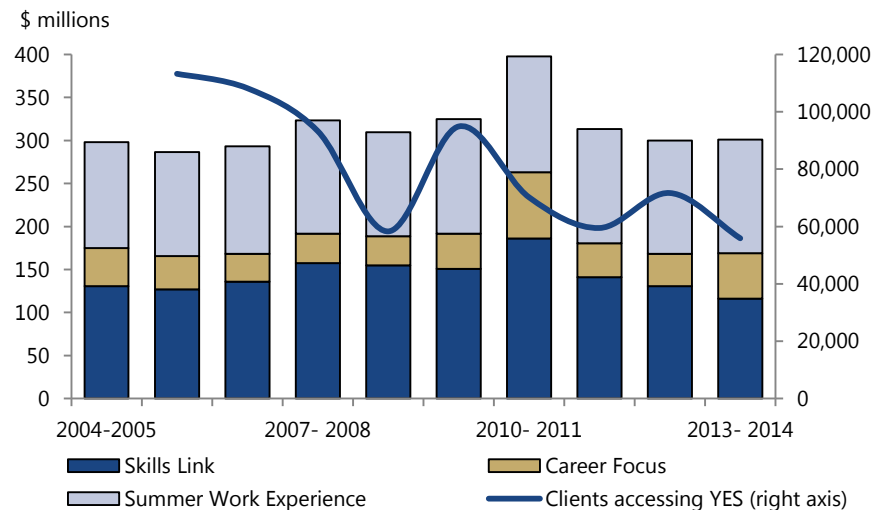
Youth Employment Strategy

The Youth Employment Strategy (YES) involves 11 federal departments and agencies; it assists youth, especially those facing barriers to employment, to gain the information, skills and job experience needed to make a successful transition to the workplace. YES consists of three programs:

- Skills Link: helps young people overcome barriers to labour market participation;
- Career Focus: provides postsecondary graduates with career-related work; and
- Summer Work Experience: subsidizes wages for employers

Figure A-12

Total Expenditures on the Youth Employment Strategy Program Streams



Sources: Administrative Data from Employment and Social Development Canada; PBO calculations.

Funding for YES increased from \$290 million in 2004-05 to a record high of \$398 million in 2010-11. Total funding then declined to just over \$300 million in 2013-14. In 2005-06, 113,262 Canadians participated in at least one program stream, including 77,579 summer work students. In 2013-14, there were 55,873 participants, 39,757 of whom were summer work students.

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Notes

1. Frenette et al. (2010); Finnie et al. (2008); Friedman (1955)
2. Standing Senate Committee on Social Affairs, Science and Technology (2011)
3. The scope of this project has been limited to federal spending that relates to the activities of universities and degree-granting colleges. This includes direct and indirect financial support to students and faculty, notional post-secondary education transfers to the provinces, spending on infrastructure, knowledge creation and capacity building. This approach aligns with recent Government of Canada Budget documents which address postsecondary education. Federal investments related more broadly to training programs, apprenticeships, lifelong learning plans, and labour market agreements will be explored in a follow-up report. Government of Canada. (2015a)
4. Recent announcements include those made in Budget 2016, the 2015 Speech from the Throne and 2015 Ministerial mandate letters.
5. Grants and donations are made by individuals, business enterprises and non-for-profit organizations.
6. Office of the Superintendent of Financial Institutions (2016)
7. Statistics Canada (2015d)
8. Statistics Canada (2015b)
9. Organisation for Economic Co-operation and Development (2014)
10. Department of Finance Canada (2011). The CST postsecondary allocation supports broadly provincial postsecondary education systems and reflects the Government's commitment to ensure that conditional transfers provide equal support for all Canadians.
11. Tax expenditures related to exempt bursary, charitable donations to colleges and universities from individuals and corporations and Goods and Services Tax rebate are outside the scope of this analysis. In 2013, these combined tax expenditures ranged between \$290 million and \$390 million. While not insignificant, published data is inadequate to arrive at a more accurate estimate.
12. Affordability is one of several barriers to participation in postsecondary education.
13. Estimates for the exempt scholarship, fellowship, and bursary income were revised to "not available" by the Department of Finance in its most recent Report of Federal Tax Expenditures.
14. Tax Expenditures related to the deferral of income from RESPs will be discussed in the Canada Education Savings Program section.

15. This total includes tax expenditures related to the deferral of income from RESPs will be discussed in more detail in the Canada Education Savings Program section.
16. Tax expenditures also went toward two smaller credits. **Student loan interest credits** are non-refundable credits that can only be carried forward for up to five years and cannot be transferred. Expenditures on this credit decreased from \$58 million in 2004-05 to \$40 million in 2013-14, partially reflecting reductions in that period of the interest rate, to which student loan interest is highly sensitive.

Tax on **Registered Education Savings Plan (RESP)** investment returns are deferred until the beneficiary of an RESP cashes its benefits for their intended purpose. Since the beneficiary is a student, it is expected that the investment returns will be taxed at much lower rate than that of the contributor. Tax expenditures related to this deferral are a function of the aggregate value of RESP accounts, interest rates, and the performance of financial markets. In 2004-05, the annual value of this tax expenditure was \$150 million. By 2014-15, Department of Finance estimates place the value of this tax expenditure at \$155 million.
17. Tuition tax credits can be carried forward from previous years. These figures only include individuals who have had tuition expenses in that same tax year.
18. Not all students who are entitled to claim tuition credits on their tax returns do so, so that this figure is lower than Statistics Canada enrollment figures.
19. Student Loan Interest Credits are non-refundable tax credits. They are discussed more fully in Appendix A.1.
20. Financial Administration Act, Revised Statutes of Canada (1985, c. F-11). Section 42.1 of the *Act* states that: (1) Subject to and except as otherwise provided in any directives issued by the Treasury Board, every department shall conduct a review every five years of the relevance and effectiveness of each ongoing program for which it is responsible. (2) In this section, program means a program of grants or contributions made to one or more recipients that are administered so as to achieve a common objective and for which spending authority is provided in an appropriation Act.
21. Canada Education Savings Act, Revised Statutes of Canada (2004, c. 26)
22. Data on combined annual CESG and A-CESG expenditures are up to \$30 million higher in the Annual Statistical Reviews compared with the Public Accounts. In both cases the trends observed are the same. PBO based its analysis on data from the Annual Statistical Review because it breaks down CESG payments into Basic CESG and Additional CESG payments.
23. Human Resources Development Canada. (2003)
24. This analysis reached similar conclusions to research that was conducted prior to the introduction of the Canada Learning Bond and the Additional Canada Education Savings Grant. See Milligan (2004).
25. Based upon Probit and Tobit analysis, quintiles own year, excluding RESP holdings in net worth. See Appendix A.2. for complete data tables.
26. Family income and wealth are highly correlated. See Appendix A.2.

27. Human Resources and Skills Development Canada (2009). Program evaluators had access to unpublished administrative data.
28. Other significant factors in predicting participation are the level of education of the parents and living outside Quebec.
29. Human Resources and Skills Development Canada (2009)
30. Department of Finance Canada (2009)
31. Department of Finance Canada (2008).
32. Financial Administration Act, Revised Statutes of Canada (1985, c. F-11)
33. Federal-Provincial Fiscal Arrangements Act, Revised Statutes of Canada (1985, c. F-8) (2016)
34. This is the planned roll out of infrastructure investments outlined in *Budget 2016*.
35. Human Capital Investments include: Tax Expenditures, CESP, CSLP, Employment Programs, Indigenous Postsecondary Education, Merit Grants. More information on Employment, Indigenous PSE and Merit is contained in Appendix A.4.
36. Statistics Canada (2016a); Neill (2013)
37. Comparing enrollment data to the number of tax filers claiming credits leaves room for a large margin of error (e.g. some students may be enrolled in more than one school and thus double counted in enrollment figures). Most colleges and universities require students to access and download appropriate tuition, education, and textbook tax receipts from school websites. This process combined with the complexity and general lack of experience with the tax system may contribute to numbers of students being unaware of these supports. More research is needed on this subject.
38. Finnie (2014); Frenette (2014)
39. Milligan (2004)
40. Employment and Social Development Canada. (2015b)
41. Office of the Superintendent of Financial Institutions Canada. (2016). Note that Quebec, Northwest Territories, and Nunavut administer separate student loan and grant programs and have negotiated alternative funding arrangements with the federal government.
42. Ibid
43. Statistics Canada. (2014b)
44. Ouellette (2006)
45. Indigenous and Northern Affairs Canada (2015) and PBO calculations. PSSSP is only available to Registered or Treaty Indians.
46. Statistics Canada (2016a)