



Skills and Innovation: Where's the money?

Institute of Fiscal Studies and Democracy
at the University of Ottawa



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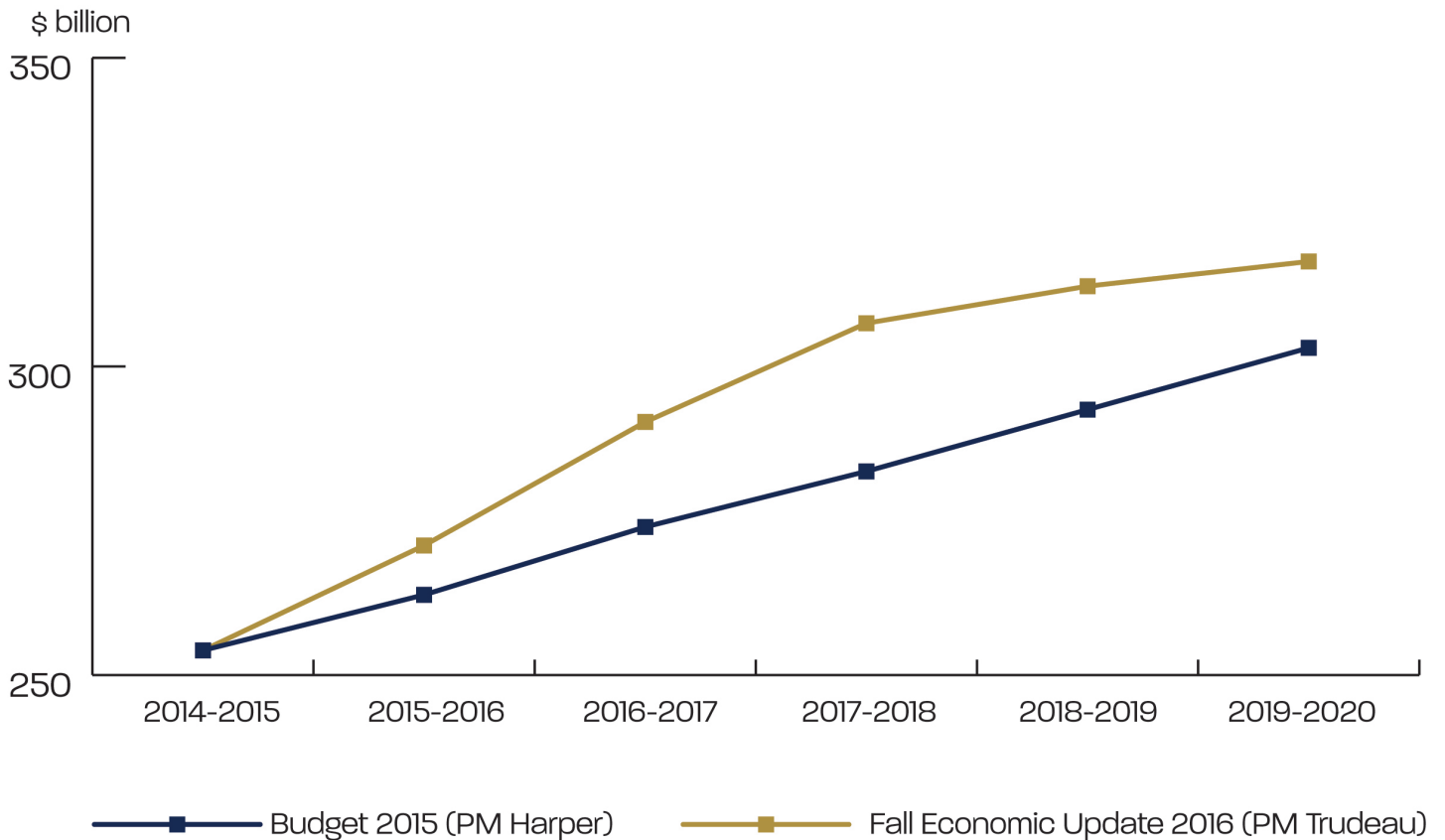


Introduction

There is consensus among the federal and provincial governments that investing in innovation and skills development and training is an important contributor to a productive and growth-oriented economy. Canada's premiers established the Economic Productivity and Innovation Working Group through the Council of the Federation to support the development of a skilled workforce and innovation for long-term sustainable development. The federal government has also emphasized innovation as a key policy area, notably through promises for increased spending in last year's budget.

Budget 2017 is expected in the coming weeks. New spending on innovation and skills is anticipated, signalled by the Minister of Finance's Council on Economic Growth (see, for instance, its reports on innovation and skills) and from the June 2016 cross-country consultations by the Minister of Innovation, Science and Economic Development. To boost growth and promote innovation, the federal government appears prepared to invest in six policy areas, including the promotion of an entrepreneurial and creative society, supporting global science excellence, building world-leading clusters and partnerships, growing companies and accelerating clean growth, competing in a digital world, and improving ease of doing business (Government of Canada, 2016).

Chart 1: Projected Program Expenditures (Harper vs. Trudeau)



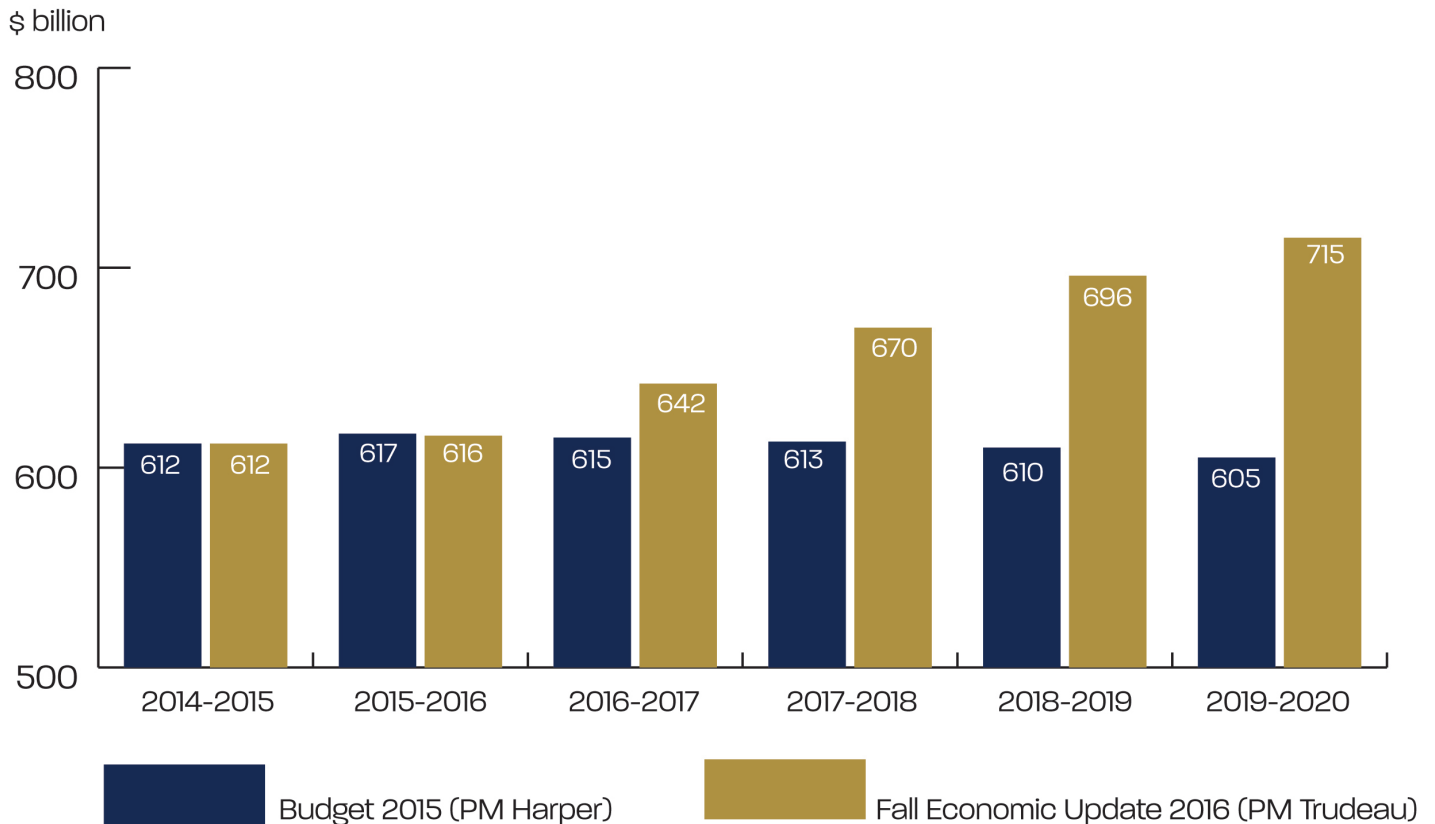
Sources: Budget (Department of Finance Canada, 2015), Fall Economic Statement (Department of Finance Canada, 2016a), Institute of Fiscal Studies and Democracy.

Fiscal Context

There is a well-established relationship between a growing economy and a highly educated, skilled, and trained workforce capable of adaptation and innovation (Conference Board of Canada, 2011; Organisation for Economic Co-Operation and Development, 2011).¹ The government's plans to support innovation and skills are timely as the country confronts persistent weak multifactor productivity trends and aging demographics. How these initiatives are financed, however, should be carefully considered.

Since Prime Minister Harper's 2015 Budget, program expenses and accumulated debt levels in Canada have risen dramatically. For 2017-18, projected program spending is now estimated to be \$24 billion or 8% higher than projected by Prime Minister Harper's 2015 Budget (see Chart 1). The magnitude of the government's two-year program spending increase (2017-2018 vs. 2015-2016) is unprecedented in modern times with a 12% increase in spending over this period. The lone exception was the 14.7% emergency spending increase introduced in 2009 during the financial crisis and economic recession. In 2019-20, the federal debt is estimated to be \$715 billion—\$110 billion or 18% larger than that projected in 2015 (see Chart 2). The fiscal landscape has changed; the fiscal outlook has deteriorated significantly.

Chart 2: Projected Federal Debt (Harper vs. Trudeau)



Sources: Budget (Department of Finance Canada, 2015), Fall Economic Statement (Department of Finance Canada, 2016a), Institute of Fiscal Studies and Democracy.

¹ In partnership with the United States National Governors Association (NGA), the IFSD hosted a symposium on skills and innovation with experts from Canada, the United States and Germany to explore best practices. You can read the summary of proceedings [here](#).

With the current context of low growth and low productivity, Canadians should be concerned about ongoing deficit-financed activities. With low interest rates, borrowing more money may seem easy and appealing. The devil, however, is in the details. If interest rates increase or economic growth further weakens relative to planning assumptions, young people will be paying dearly for today's deficit-financed activities.

So, where else can we find money to fund policy areas like innovation and skills development that are imperative for Canada's future growth? The Government of Canada spends roughly \$296 billion annually on its activities, people, and capital. With the current government's ambitious agenda, spending is increasing at a rate faster than the growth of the economy. When new agenda items arise—especially given our fiscal context—a review should precede any new or increased spending. A spending review is an opportunity for a government to understand *what* money is being spent and *how* it's being spent, with the opportunity to repurpose existing spending to better align with its priorities. With the attention on innovation and skills development and training, a review of current spending through program activities and tax expenditures could offer the government an opportunity to make targeted, outcome-oriented policy and spending decisions in support of a more productive and innovative economy.

To encourage review, debate and fiscal transparency, the IFSD has compiled a list of current program activities related to innovation and skills development and training. The data tables are available on [the IFSD website](#) for public access, enabling others to make their own assessments using the information.

Results

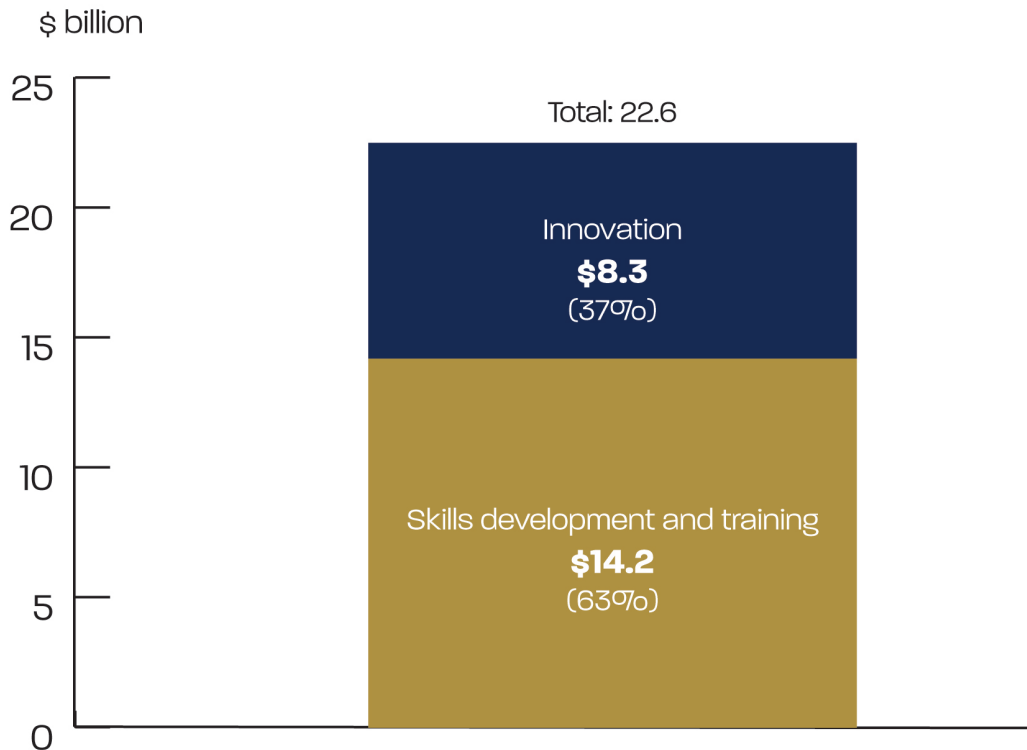
Using the government's own publicly available data, program descriptions, cost and performance details were captured on program activities from the 2014-15 Departmental Performance Reports (DPRs) published in 2016 (Treasury Board of Canada Secretariat, 2016). The Department of Finance's Report on Federal Tax Expenditures (2016) provided the latest available estimates of 2014 tax expenditure information credited to individuals and businesses (Department of Finance Canada, 2016b).

Program and tax expenditure entries were classified into two categories: 1) innovation (i.e. anything meant to grow the economy, produce new breakthroughs, or reapply existing knowledge in new ways); and 2) skills development and training (i.e. anything that trains citizens, supports their transfer between jobs, prepares them for new jobs, etc.).

The data suggest that the government is spending approximately \$22.6 billion on innovation and skills development and training across 147 activities (programs and tax expenditures) (see Chart 3). Over 60% of the money (\$14.2 billion) is spent on skills development and training activities (see Chart 4). These include well-known programs like the Youth Employment Strategy (\$207.7 million) that's used to support the transition of youth into the workforce, the Canada Student Loans Program (\$1.7 billion) that provides loans (repayable) and grants (non-repayable) to students to finance post-secondary education, as well as funding through the labour market agreement that exclusively targets skills (\$2.1 billion).²

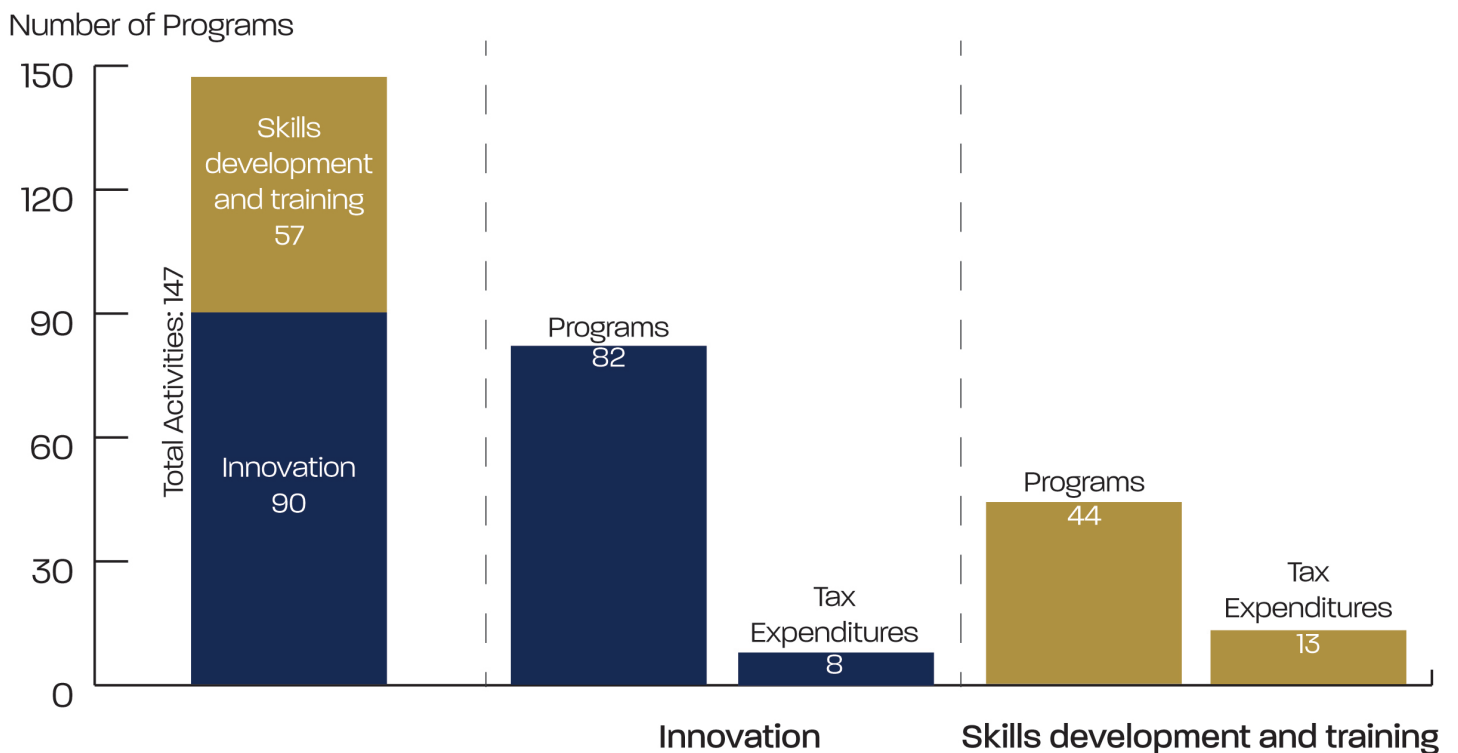
²Employment insurance (EI) and related 'safety net' programs were not included in this calculation. In 2014-15, employment benefits were valued at approximately \$16.2 billion.

Chart 3: Total Spending on Innovation and Skills Development and Training by Percentage and Dollar Value



Source: Institute of Fiscal Studies and Democracy.
 Note: Numbers may not add up due to rounding.

Chart 4: Number of Innovation vs. Skills Development and Training Activities



Source: Institute of Fiscal Studies and Democracy.

There are numerous existing government programs that align with the six action areas identified by the government. Consider, for instance, the Natural Sciences and Engineering Research Council's (NSERC) over \$1.1 billion in grants, scholarships, and other funding for the promotion of science research (*global science excellence*). Similarly, consider Industry Canada's over \$600 million in support of technological advancement and design in numerous sectors from medical devices to construction (*growing companies and accelerating clean growth*). As well, the Scientific Research and Experimental Development Investment Tax Credit paid out \$3.0 billion in credits to businesses for eligible expenses related to scientific research and experimental development (*promotion of an entrepreneurial and creative society*). These, among many other programs, support innovation.

The government should want to know if it's getting value for the public money being spent on such activities and whether they are effectively evaluated to optimize outcomes. To assess program performance, a simple two-part test was used in this review. Performance metrics were considered strong if they contained both a value for money assessment and a requirement for evaluation. Anything else was considered weak. This framework was designed to assess the robustness of the performance system, not to reapply the current output-focused evaluation framework that the Treasury Board of Canada Secretariat applies.³ The simple framework suggests that the majority of activities do not actively assess both value for money and the need for evaluation.

Of the 147 activities, it should be noted that the 21 tax expenditures do not have any publicly available performance metrics. Of the remaining 126 program activities, we found only a small number with strong performance metrics.

Conclusion

The current government promised in its 2015 electoral platform to use data in their decision-making and that they would “stop funding initiatives that are no longer effective and invest program dollars in those that are of good value” (Liberal Party of Canada, 2015). We're about to spend more money on an innovation and skills agenda. The mapping exercise shows that the current spend is significant, with a minority of programs connected to strong performance frameworks. The government has an opportunity and fiscal obligations to align its current spending to its policy priorities while maximizing the efficiency of program spending.

Knowing both what money is being spent and how is the first step in fulfilling a promise for better decision-making. The innovation agenda is an opportunity to invest in people and their skills to support the sustained development of a growing economy. [The information is sorted and available:](#) there's no better time to use it.

³The Treasury Board of Canada Secretariat's (TBS) guide to developing performance measurement is available [here](#). While the guide emphasizes the importance of output evaluation, there is no clear requirement to assess the value of money spent.

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