

Investing in Canada's Knowledge Infrastructure

Analysis Regarding the 2016/2017 Federal Budget

March 2016

Introduction

After years of austerity measures affecting post-secondary education and research, Canada needed a new direction. In its submission to the Minister of Finance and the House of Commons Standing Committee on Finance, CAUT recommended that the federal government, as part of its 2016 budget, develop a pan-Canadian strategy to boost scientific research and improve access to post-secondary education:

I. Invest to boost Canada's scientific capacity:

- a. Invest an additional \$250 million in 2016-2017, \$350 million in 2017-2018 and \$500 million in 2018-2019 in base funding for basic research through the three research granting councils (SSHRC, NSERC and CIHR);
- b. Ensure research funding provided through Canada's research granting councils and decisions about priorities, projects, programs and scholarships are made using the peer-review process by the scientific community on the basis of merit;
- c. Reinvest in government science in key areas, such as in environment and sustainable development, agriculture, food inspection, freshwater and oceans;
- d. Create a Parliamentary Science Officer (PSO), an independent officer of the Library of Parliament who would report to the Senate and the House of Commons, to provide independent advice and analysis to Parliament about the adequacy and effectiveness of the nation's science policies, priorities, and funding.

II. Improve access to post-secondary education:

- a. Implement a national strategy, in collaboration with provinces, to remove all barriers to access and participation in post-secondary education, including financial barriers, by reducing tuition fees charged to students;
- b. Double the Canada Student Grants Program to provide more assistance for students from low- and middle-income families, significantly improve the Repayment Assistance Plan, and provide full financial assistance for all qualified Aboriginal students in post-secondary education; and

- c. Protect investments made in post-secondary education with the establishment of a *Canada Post-secondary Education Act*, modelled on the *Canada Health Act*, outlining responsibilities and expectations for the federal and provincial governments, establishing pan-Canadian guidelines and principles, and determining long-term and stable funding formulae.

I. Boost Scientific Research: Get Science Right!

In its pre-budget submission, CAUT emphasized the need for the federal government to re-invest in basic research.

For years, CAUT had been raising concerns about the former government's direction in science policy that favoured narrow commercial interests at the expense of basic research and the broader public interest. This approach to research proved shortsighted as it ignored the role that basic research plays in scientific progress and innovation. In the area of medical research, for instance, the obsession with commercial outcomes has placed an emphasis on minor modifications to existing drugs and devices, rather than fundamental explorations of disease prevention and population health. Basic research has led to many key unanticipated innovations such as X-rays, nylon, Teflon, GPS technology, informatics, superconductivity and medical imaging.

In Budget 2016 the Liberal Government is proposing to build Canada as a centre of global innovation. The government is proposing to invest in science and technology and to support innovation and economic growth.

Importantly, the Government is acknowledging the importance of both applied and basic research conducted at post-secondary institutions. The Budget is proposing ways to redesign and redefine how to provide support for innovation and growth, in partnership and coordination with key stakeholders, including colleges and universities.

The Government is planning to unveil a new Innovation Agenda, to replace the previous governments' Science, Technology and Innovation Strategy. CAUT is pleased to see that the new agenda will explicitly recognize the important role of basic research and looks forward to working with the Government in developing this new Innovation Agenda.

Budget 2016 proposes several interim measures to promote research, starting with more investment in discovery-driven basic research.

The Budget provides an additional \$95 million per year, starting in 2016–17, on an ongoing basis to the Canada's research granting councils. These funds will be allocated as follows:

- \$30 million for the Canadian Institutes of Health Research (CIHR);
- \$30 million for the Natural Sciences and Engineering Research Council (NSERC);
- \$16 million for the Social Sciences and Humanities Research Council (SSHRC); and
- \$19 million for the Research Support Fund to support the indirect costs borne by post-secondary institutions in undertaking federally sponsored research.

Budget 2016 also announces that the Minister of Science will undertake a comprehensive review of all elements of federal support for fundamental science over the coming year. The review will:

- Assess opportunities to increase the impact of federal support on Canada's research excellence and the benefits that flow from it;
- Examine the rationale for current targeting of granting councils' funding and bring greater coherence to the diverse range of federal research and development priorities and funding instruments;
- Assess the support for promising emerging research leaders; and,
- Ensure there is sufficient flexibility to respond to emerging research opportunities for Canada, including big science projects and other international collaborations.

The Budget also unveiled up to \$2 billion of investment in research infrastructure at colleges, universities and research hospitals over the next three years. This new Post-Secondary Institutions Strategic Investment Fund will provide up to 50 per cent of the eligible costs of infrastructure projects at post-secondary institutions and affiliated research organizations, in collaboration with provinces and territories. This fund will help modernize research facilities on Canadian campuses, as well as industry-relevant training facilities at college and polytechnic institutions. Funding will also be provided for projects that reduce greenhouse gas emissions and improve the environmental sustainability of these facilities.

In addition to re-investing in the three research granting agencies, Budget 2016 provides the following additional research funding:

- \$32 million over two-years, starting in 2017/18 to the Centre for Drug Research and Development;
- \$14 million over two-years to Mitacs' Globalink program;
- \$237.2 million through 2019/20 for Genome Canada;
- up to \$12 million over two-years for Stem Cell Research
- \$50 million over 5 years, starting in 2017/18 to support the Perimeter Institute for Theoretical Physics;
- Up to \$20 million over three-years for Brain Canada Foundation's Canada Brain Research Fund.

The Budget also announced the creation of two additional Canada Excellence Research Chairs in fields related to clean and sustainable technology, providing \$20 million over eight years, starting in 2018-2019. These Chairs will be selected, in addition to the anticipated 20 new Chairs, as part of the upcoming competition to be launched in the spring of 2016.

The investments in basic research represent a first step in the right direction. While the budget of the research granting councils remains lower than what they were a decade ago, especially so for the Social Sciences and Humanities Research Council, the allocation of \$95

million per year in the next few years will help reduce the gap. More substantive investments in basic research as proposed by the CAUT submission would have closed the funding gap and helped to provide real growth in investments in basic research in Canada.

CAUT will need to play an active role in the planned review of all elements of federal support for fundamental science over the coming year. More support for basic research is needed, with an emphasis on the need for government to respect the peer-review process by the academic community.

As part of its submission and its Get Science Right campaign, CAUT has been calling for a significant reinvestment in government research. The former Conservative government cut about \$1 billion and 4,000 jobs from government science programs. This resulted in particularly serious cuts to Statistics Canada and Fisheries and Oceans Canada.

Budget 2016 announces some restoration of funding for government science, in line with the Liberal electoral platform. As part of a \$3.4 billion investment in government infrastructure over the next five years, the Budget allocates \$139 million for federal laboratories and other federal assets that support research. The government will also invest \$379 million over eight years, starting in 2017-18 for the Canadian Space Agency. Budget 2016 provides \$30 million over six years to Agricultural and Agri-Food Canada to support advanced research in agricultural genomics. The Minister of Agriculture and Agri-Food will develop an approach for additional investments in agricultural science and research, informed by the review of the federal support for fundamental research by the Minister of Science.

Budget 2016 will also provide \$197.1 million over five years to Fisheries and Oceans Canada to increase ocean and freshwater science monitoring and research activities, and for the Experimental Lakes Area (ELA) in Northwestern Ontario. This is welcome news after the former government eliminated funding for the ELA project.

II. Increase Access to Post-Secondary Education

During the election campaign, the Liberal Party proposed to increase the maximum Canada Student Grant for low-income students and improve eligibility by increasing the income thresholds. These investments were to be funded by cancelling the poorly targeted education tax credits.

Budget 2016 enacts these promises. The Canada Student Grant will be increased by 50 per cent for 2016-17 from:

- \$2,000 to \$3,000 per year for students from low-income families;
- \$800 to \$1,200 per year for students from middle-income families; and
- \$1,200 to \$1,800 per year for part-time students

According to the Government's estimates, nearly 100,000 students from middle income families will receive increased assistance each year as a result of this measure. Approximately 247,000 students from low-income families and 16,000 part-time students are also expected to receive more financial assistance.

Budget 2016 also announced that the Federal Government will work with the provinces and territories to expand eligibility for the Canada Student Grants Program. The intention is to replace the existing low- and middle-income thresholds with a single progressive threshold under which grant amounts will gradually decline based on income and family size.

Budget 2016 also provides some relief for students struggling with high debt loads. The loan repayment threshold under the Canada Student Loans Repayment Assistance Plan will be raised to \$25,000 per year.

Rising tuition fees over the past decade have placed a disproportionate burden on Canada's Aboriginal students. Funding provided to band councils to support First Nations students has been frozen while tuition fees have skyrocketed. Consequently, thousands of qualified Aboriginal students remain on waiting lists for funding needed to pursue a post-secondary education.

In the wake of the report of the Truth and Reconciliation Commission, CAUT is pressing the Federal Government to honour its historical and treaty commitments to Canada's First Nations. Education is a treaty right, and the Government has an obligation to provide appropriate funding.

Budget 2016 commits almost \$1 billion over five years to First Nations education infrastructure on reserves. However, there is no increase to the Post-Secondary Education Support Program for Aboriginal students. The Budget indicates an intention of the Government to work with students, parents, educators, and Indigenous groups to explore how to best ensure that students wishing to pursue post-secondary studies have the resources and support they need.

The Budget contains no additional increase to the Canada Social Transfer which provides funding for the provinces in support of post-secondary education and social services. This is unfortunate as the long-term finances of Canada's universities and colleges are inadequate. In 1990, government operating grants made up 80% of total university operating revenues. By 2014, that had fallen to just less than 50%. A major factor behind this decline has been the reduction in cash transfers from the federal government to the provinces that began in the 1990s.

CAUT has proposed that the Federal Government establish a *Post-secondary Education Act*, modelled on the *Canada Health Act*. The *Post-secondary Education Act* should outline responsibilities and expectations for the federal and provincial/territorial governments, establish pan-Canadian guidelines, enact enforcement mechanisms, and determine long-term stable funding formulae. Federal reinvestment in post-secondary education is critical if universities and colleges are to maintain their high quality and accessibility.

Conclusion

Budget 2016/2017 is a first step in the right direction. It includes new funding and a new emphasis on basic research, with a commitment for further consultations on the development of a new science policy for Canada. There remain gaps that will need to be addressed in the near future. In the meantime, it will be important for CAUT to be part of the consultations and ongoing work to rebuild Canada's knowledge infrastructure, and improve access to post-secondary education.