

CAUT Response to the 2015/2016 Federal Budget

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The 2015 Federal Budget is a disappointment for Canada's academic and research community. The government continues to ignore vital investments in basic, discovery-driven research in favour of short-term, market-driven projects.



With continuing economic uncertainty, increasing unemployment and growing income inequality, the federal government must invest in building a sustainable path for growth by focusing on boosting employment through programs like education and research. The federal government has the fiscal room to do so. The federal debt level is amongst the lowest in the G7, as is the corporate tax rate. Furthermore, the federal government can borrow at a very low cost, if needed, to invest. In this context, it is time to give back to communities and invest in our collective future, including the post-secondary and research sector, to help create a better future for all.

Throughout the year, CAUT has made several representations to both the Finance Minister and the House of Commons Standing Committee on Finance about what can be done to improve Canada's fiscal, social and economic performance. CAUT recommended that the federal government develop a pan-Canadian strategy to boost scientific research and improve accessibility and quality of post-secondary education.

The key elements of this strategy should include:

- an increase of \$500 million in funding for non-targeted basic research provided through SSHRC, NSERC and CIHR;
- 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; and
- the expansion of the Canada Student Grant Program to provide more assistance for students from low- and middle-income families and the provision of full financial assistance for all qualified Aboriginal students.

Investing in Scientific Research

CAUT continues to call on the federal government to invest in peer-reviewed, basic research and to reverse the decline in base funding to the granting agencies. SSHRC's base funding declined by over 12.9% in real terms since 2007; NSERC's funding is down 4.1%; and core support for CIHR dropped by 7.2%.

While providing inadequate support for basic research, the government has targeted new investments for research appearing to hold the promise of near immediate commercial value. The federal government's 2014 Science, Technology and Innovation Strategy, and the Canada First Excellence Research Fund announced in the 2014 federal budget, are examples of the federal government's tendency to bypass the peer review process, shift money away from discovery-driven research, and direct it toward the service of industries.

This explains why Canada's university-based researchers remain disturbed by the government's increasing tendency to place undue restrictions on research funding and bypass the peer review process. Rather than allow the scientific community to determine what research is most worth funding, the government increasingly requires granting agencies to direct funding toward specific projects and topics.

CAUT is also alarmed by reports that \$1 billion has been cut from government science programs and 4,000 scientists laid-off since 2006. We are concerned about the lack of commitment to independent and reliable data provided by government scientists.

The federal government must reinvest in its own research programs and free its scientists to provide the public with reliable and independent scientific knowledge and advice.

The 2015 Federal Budget & Research Funding

The 2015 federal budget continues with the overriding focus of the federal government's approach to science: to support industry in the commercialization of ideas and knowledge under an umbrella called "innovation", while undervaluing basic, discovery-driven research.

The 2015 federal budget will invest only \$10 million of new money this year, with additional spending provided through a reallocation of funding. One new research initiative includes \$4 million for a new automotive supplier innovation program. Reallocated funding announced includes \$60 million per year over two years to foster industry-driven R&D at the National Research Council; \$24 million this year (for a total of \$243 million over 10 years) for Canada's participation in the Thirty

Meter Telescope; and \$21 million per year over 5 years for supporting a high-speed research network that provides access to Canadian businesses to free cloud resources.

One of the key announcements on science and research funding made in this budget is the investment of \$1.33 billion over six years to the Canada Foundation for Innovation. This funding, however, will start only in 2017/18, with a modest investment of \$97 million the first year. The bulk of new money will be invested after 2018, averaging \$220 million per year. It should be noted that some of this funding is already allocated to targeted projects announced in the 2015 budget. For instance, the fund will help pay for the up-front cost of a \$100 million digital research infrastructure introduced in this budget.

Importantly, no new money has been allocated to the granting councils in the 2015 fiscal year. The granting councils will receive extra funding of \$46 million per year starting in 2016/17, but most of the new funding is already allocated to market-driven research partnerships. \$15 million per year will be provided to the Natural Sciences and Engineering Research Council, of which \$10 million will be directed to collaborations between businesses and post-secondary researchers under a new program entitled “Strengthening the Delivery of Business Innovation Programs”. This new funding will target research areas already announced in the S&T strategy, such as natural resources and energy, advanced manufacturing, and environment and agriculture. The balance of \$5 million per year will be directed to industry-driven research initiatives at Canada’s polytechnics and colleges through the College and Community Innovation Program.

The Social Sciences and Humanities Research Council will receive \$7 million per year for its Partnership Grants, which support collaborations between academic researchers, businesses and other partners.

Finally, \$15 million per year will be allocated to the Canadian Institutes of Health Research, of which \$13 million is for the expansion of the Strategy for Patient-Oriented Research to advance partnerships with provincial governments, research institutions, and the private and not-for-profit sectors, with a view to increasing the effectiveness and efficiency of the health

care system. The balance of \$2 million per year will support additional research to study health challenges posed by anti-microbial resistant infections.

In addition, \$9 million per year will be provided to the Research Support Fund to support indirect costs borne by post-secondary institutions in undertaking federally sponsored research.

The government also announced funding of \$42 million over 5 years for a Canadian Centre for Aging and Brain Health Innovation, and \$14 million over two years to provide targeted support for innovation in health systems.

Many of the projects are politically driven and located in targeted electoral areas, or are for market-driven research and infrastructure initiatives. Out of the \$1.35 billion in advanced research money allocated in this budget, at least half of it will go to market-driven research initiatives, and most of it will not be available until after 2018.

Finally, the budget added \$56.4 million over 4 years to fund Mitacs to support an extra 1,500 internships per year for new graduate-level R&D narrowly focused on business-related challenges. Going forward, Mitacs’ Accelerate program will become the primary delivery agent for federally supported graduate-level industrial research and development internships, as the Natural Sciences and Engineering Research Council’s Industrial Postgraduate Scholarships Program will be wound down following the fulfillment of current commitments. This is further confirmation of the federal government’s orientation to hand off money to the private sector to fund market-driven research instead of investing in publicly funded discovery-driven research initiatives.

The 2015 federal budget was another disappointment for Canada’s academic researchers. CAUT has been calling for an increase in basic research funding by \$500 million for Canada’s three granting councils. The 2015 federal budget falls well short of that objective with no new money for the coming year. This represents another real cut to granting council base budgets when adjusted for inflation. The promised funding for 2016/17 is only \$46 million, and most of it is already targeted to market-driven research, leaving basic research behind.

Improving Federal Support of Post-Secondary Education

Public funding of Canada's universities and colleges remains inadequate. For instance, in 1990/91 government operating grants made up 80% of total university operating revenues. By 2012/13, that had fallen to just less than 53%.

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. While the current government restored some of the funding, federal cash transfers for post-secondary education remain well below previous levels when inflation and population growth are considered.

Current cash transfers provided within the Canada Social Transfer (CST) for post-secondary education — approximately \$3.8 billion in 2014-15 — are more than \$500 million short of matching 1992-93 funding levels (adjusting for inflation and population growth). Moreover, CST funding is set to increase by just 3% per year, a rate of increase that does not adequately reflect rising costs and increased demand for post-secondary education. This escalator falls short of provincial needs.

The federal government must remedy this funding imbalance. At a minimum, the federal government must consider an increase in the escalator to more accurately reflect growth in the post-secondary education sector.

The ability of the federal government to address the under-funding of Canada's universities and colleges is hampered by fundamental flaws in how it provides cash transfers to the provinces in support of post-secondary education. The current CST is an unconditional block fund. Where, how or even if the money is spent, let alone spent on post-secondary education, is left entirely to provinces. This contrasts with the funding of health care, provided through a separate funding envelope — the Canada Health Transfer — and governed by national standards in the *Canada Health Act*.

CAUT recommended that the CST be replaced by separate stand-alone funds for social services and post-secondary education. A newly established Post-

secondary Education Transfer should be governed by 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, determine long-term stable funding formulae, and provide for a post-secondary education advisory council on which provinces would be represented.

The 2015 federal budget doesn't address any of these issues. Despite growing needs in post-secondary education, federal transfers will grow by only 3% per year. The federal government refuses to engage with provinces to establish a pan-Canadian strategy to improve the quality and accessibility of post-secondary education, and to replace the CST by separate stand-alone funds for social services and post-secondary education.

Improving Access to PSE

Increasingly, a university or college education is a basic requirement in order to participate in today's labour market. More Canadians are looking to upgrade their skills and pursue further studies at universities and colleges. However, many are unable to afford rising fees and living expenses, and finding a good job to pay for student debts is now more difficult with fewer and lower paid jobs available to graduating students.

The 2014 federal budget provided almost no relief for students struggling with heavy debt loads, rising tuition fees and other costs. For CAUT, the federal government should have made improvements to the Canada Student Grant Program a priority in Budget 2015. The level of assistance provided to low-income students is just \$2,000 per year — not even enough to cover half the cost of tuition in most provinces. CAUT had recommended raising the maximum grant to \$6,000, a level closer to average Canadian undergraduate tuition fees.

The 2015 federal budget introduced a few minor changes and proposals to increase access for low and middle-income families to post-secondary education, but mostly students will pay the price in the form of increased debt loads.

Beginning in 2016, Canada Student Grants will be made available to qualifying low- and middle-income students enrolled in educational programs with a minimum duration of 34 weeks. Currently, students must be enrolled in an educational program with a minimum duration of 60 weeks to qualify. The expansion would help approximately 42,000 additional students per year, including 20,000 students at public colleges who become eligible for Canada Student Grants. The majority of students benefiting from this change, however, are those attending private career colleges. The changes will cost \$184 million over four years.

The 2015 federal budget also proposes to provide \$119 million in repayable loans over four years, starting in 2016–17, to reduce the expected parental contribution under the Canada Student Loans Program needs assessment process. Another \$116 million of loans over four years, starting in 2016–17, will be added with the elimination of in-study student income from the Canada Student Loans Program needs-based assessment process. According to the Canadian Federation of Students, changes to the Canada Student Loans Program proposed in the 2015 federal budget will leave almost 200,000 students with more debt upon graduation.

The 2015 federal budget adds just \$4 million per year over three years in funding for Aboriginal education to raise education outcomes and provide for post-secondary scholarships for First Nations and Inuit students delivered by Indspire. According to the Assembly of First Nations, this money follows a similar investment made in 2013, and most of the announcements in the 2015 budget are simply the continuation of money already allocated in previous budgets.

Other Measures

Budget 2015 allocates one-time investment of \$65 million over four years, starting in 2016–17, to business and industry associations to support partnerships between employers and “willing” post-secondary institutions. According to the budget, groups of employers and industry organizations will work through these partnerships with willing institutions to develop curricula and programs that are aligned with the specific skills needs of the labour market, giving businesses more resources and power to dictate curricula.

Conclusion

Today, many policy-makers, both federally and provincially, believe that if public investments in research are realigned from discovery-driven research toward market-driven research, it will stimulate private investments in R&D, lead to more innovation, and to economic growth and job creation. The forced marriage between post-secondary institutions and market needs in a few key sectors of the economy as a condition to get federal research funding lets politicians and CEOs decide what gets funded and undermines discovery-driven research. This short-sighted vision simply has not produced the promised economic outcomes.

On the input side to the creation of innovation, investments in research and development in Canada are decreasing, not growing as promised. Statistics Canada’s latest figures on spending show a decrease of 7.7%, or from \$30 to \$27.7 billion dollars, in R&D between 2006 and 2013, after inflation. The government’s policy did not stimulate business investments either. Business investment in R&D has decreased drastically, from \$17 to \$14 billion after inflation between 2006 and 2013. That represents a drop of 17.7%, dropping Canada from 16th to 22nd place out of 34 OECD countries in terms of business investment in R&D. On the output side, a recent study shows that the aggregate number of patent applications to the Canadian Intellectual Property Office has decreased significantly since 2007. (Source: CD Howe Institute, e-brief 191, Figure 1).

In Canada, thousands of scientists are trained and ready to work to discover new knowledge and engage in innovative public research. But the federal government’s support to conduct discovery-driven research in Canada has stalled. The base budgets of Canada’s three granting councils — the Canadian Institutes for Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), and the Social Sciences and Humanities Research Council (SSHRC) — are well below levels recorded in 2007 when adjusted for inflation.

Meanwhile, insufficient provincial funding and decisions made by administrators are forcing many college and university teachers to work from contract to contract, in precarious positions, preventing them from doing

research in their field of expertise. If we continue on this path, we risk seeing fewer Canadian innovations in years to come, with dramatic consequences for our economic, social and environmental progress.

Now should be the time to develop a new direction in science and technology. Undervaluing discovery-driven research, cutting government investments in R&D, muzzling scientists and subsidizing market-driven research that should normally be paid by the private sector has not produced the outcomes Canadians deserve. We should support our post-secondary researchers with the job security they need to take risks and discover tomorrow's innovations. This new direction should include a strong re-investment in discovery-driven research performed in post-secondary institutions that leads to real innovation. To achieve this, scientists, not politicians and CEOs, must decide what projects deserve funding.