

**WRITTEN SUBMISSION FOR THE
HOUSE OF COMMONS STANDING COMMITTEE ON FINANCE
PRE-BUDGET CONSULTATIONS IN ADVANCE OF THE 2020 BUDGET**

**BY:
Canadian Society for Brain, Behaviour, and Cognitive Science**

Recommendations

Recommendation 1: Invest in Canadian laboratories

- We support the recommendation of the Canadian Consortium for Research (CCR) to increase funding by \$85M over the next two years for open competitions to reach the steady-state target identified by the Fundamental Science Review Panel.

Recommendation 2: Invest in Canadian graduate students

- Correct the current limitations of the CGS-M scholarship program by raising the CGS-M scholarship level from \$17,500/year for one year to \$22,000/year for two years
- Adjust the values of all doctoral scholarships (PGS-D/CGS-D) to \$35,000/year
- Re-establish the tradition of allowing students to apply for postdoctoral funding twice rather than once
- Eliminate the number of previous tri-council awards as a criterion for determining university allocations of CGS-M awards

Recommendation 3: Increase Facilities and Administration Costs

- We support the recommendation of the CCR to increase funding by \$100M/year for the next three years to reach the steady-state level proposed by the Fundamental Science Review Panel.

Recommendation 4: Provide data about awards distributions

- We recommend that Tri-Council Agencies provide public data about how awards across career levels (undergraduate, graduate, postdoctoral, & faculty) are distributed over gender



Canadian Society for Brain, Behaviour and
Cognitive Science

Société Canadienne des Sciences du Cerveau,
du Comportement et de la Cognition

The Canadian Society for Brain, Behaviour, and Cognitive Science (CSBBCS) is pleased to provide recommendations as part of the 2020 pre-budget consultation submission to the House of Commons Standing Committee on Finance. CSBBCS represents hundreds of faculty and student scientists from across Canada who conduct basic and applied research on brain, behaviour, and cognition. Work conducted by our members includes brain mapping, delineating the scope and precision of human cognitive abilities, and developing cognitive technologies and machine learning algorithms. Members of the society are funded by the Tri-Council agencies. Therefore, our recommendations are focused on helping the committee understand the relationship between Tri-Council funding and Canada's scientific competitiveness on the international scene.

First, on behalf of the CSBBCS, I want to express our sincere gratitude for the government's recent and positive commitment to Canadian science and its infusion of funds to Canadian laboratories. Those funds are crucial for Canadian laboratories to lead, to let Canadian scientists set their sights on big problems, to foster invention and innovation, and to support Canada's young scientists who will shape the country's scientific and technological landscape.

In keeping with our enthusiasm about recent years, we want to offer four recommendations that will further enhance Canada's competitiveness in science and innovation.

Recommendation 1:

Invest in Canadian laboratories

- *Invest more money in a larger number of Canadian laboratories*

At the recent annual meeting of the CSBBCS, Sarah Overington, Deputy Director, Research Grants, Engineering and Life Sciences at NSERC, reported that funding rates have increased and that more Canadian research laboratories have been funded this year than in the recent past. We applaud these changes and encourage their continuation. We realize, of course, that there is a ceiling on the re-investment. However, additional investment in Canadian science promotes a greater diversity of investigation and consequently innovation from Canadian laboratories.

We support the recommendation of the Canadian Consortium for Research (CCR) to increase funding by \$85M over the next two years for open competitions to reach the steady-state target identified by the Fundamental Science Review Panel.

As a member organization of the CCR, we support the CCR's belief that the themes for Budget 2020 of national research, climate change, and development and innovation, are inter-dependent themes that are critical to the goal of growing and sustaining Canada's prosperity. We also concur with the CCR that: *The federal government is uniquely positioned to play a leadership role in building and supporting the foundation of a science/research ecosystem across Canada with the mandate to find solutions to the many pressing and complex challenges facing Canada and society. Sustained financial investment and leadership by the federal government is essential to ensure that fundamental research needed to achieve global challenges is viable over the long-term.* A leading edge and wide-ranging research community that can comprehensively tackle a variety of significant societal and environmental problems, like climate change, requires strong and stable long-term funding.

- *Establish a Canada Research Chair in Human Behaviour and Climate Change*

We recommend that the focus on research on climate change be broadly defined to include Canadians' perceptions of the challenges that are faced by climate change. People differ with regards to their level of knowledge and concerns regarding climate change. Opinions are often based on biases and emotion rather than on scientific evidence. The cognitive and behavioural scientists of CSBBCS can help understand how people appreciate and evaluate the risks presented by climate change, the psychological barriers that limit individual's climate change action, and responses to misinformation and disinformation regarding climate change, that would help inform government policy and action. In this endeavour, we support the recommendation of the Canadian Psychological Association to establish a Canada Research Chair in Human Behaviour and Climate Change to take advantage of the expertise that psychologists can bring to our understanding of the human behavioural component of climate change.

Recommendation 2:

Invest in Canadian graduate students

- *Align the term of the CGS-M scholarship program with the duration of Master's programs and current costs of living by raising the CGS-M scholarship level from \$17,500/year for one year to \$22,000/year for two years*

The CGS-M scholarships fund Master's students at a rate of \$17,500 for one year. There are two problems with this policy. First, the rate of CGS-M funding has not changed for 15 years and, therefore, has not kept up with increases in the cost of living. Second, CGS-M funding is granted for a duration of one year whereas the duration of a Master's degree in most Canadian

Universities is two years. The consequence is that Canada's best Master's students, those who win Canada's most prestigious Master's level award, are only funded for half of their degree and they are funded at the same rate they would have been 15 years ago. We recommend that CGS-M funding be increased from \$17,500 to \$22,000 to match increases in cost of living since 2003 and that CGS-M funding be awarded for two years rather than one (i.e., to fund graduate students over the actual duration of their degree).

- *Adjust the values of all doctoral scholarships (PGS-D/CGS-D) to \$35,000/year*

Doctoral scholarships are awarded at two rates: PGS-D awards provide \$21,000/year and CGS-D provide \$35,000/year. There are two problems with the current model. First, it sets up a caste system in a market where the value of a student's research is yet to be determined. Second, funding of \$21,000 was given 15 years ago and does not reflect changes in cost of living. We recommend standardizing the value of all doctoral awards at \$35,000/year for all students. Doing so would reflect a realistic adjustment of award values in relation to inflation and address the inequities that the current system imposes on doctoral students in Canada.

- *Re-establish the tradition of allowing students to apply for postdoctoral funding twice rather than once*

NSERC changed its policy in 2012 from allowing PhD students to apply twice to its postdoctoral funding program to only allowing PhD students to apply once. The rationale was that the agency had insufficient resources to adjudicate repeated postdoctoral applications. This change of policy has been controversial for several reasons. First, it forces students to take a high-risk gamble: it is generally true that if a PhD graduate does not secure a postdoc they will not secure a tenure track position. Second, it is feasible that an applicant might fail to win a postdoctoral award on the first attempt but win one on the second: this is true for many of our more senior members who graduated under the two-shot rule. Third, the one-shot rule encourages students to remain in their PhD programs longer than they otherwise might, until they feel competitive for postdoctoral awards, a situation that taxes graduate programs and delays students' careers and personal lives. We recommend that the one-shot decision be repealed so that PhD students are once again permitted to apply two times for postdoctoral funding. It makes very little sense to invest in funding PhD students up to the moment that they graduate only to limit their development and opportunities after they graduate.

- *Eliminate the number of previous tri-council awards as a criterion for determining university allocations of CGS-M awards*

Currently, universities' allocations of CGS-M awards are determined in part by the number of tri-council awards received by the institution. As a result, universities who were initially allocated a small number of awards following harmonization are systematically disadvantaged because future allocations are limited by past allocations. We recommend eliminating the use of number of previous tri-council awards received to determine universities' allocations of CGS-M awards.

Recommendation 3:

Increase Facilities and Administration (F&A) Costs

- *We support the recommendation of the CCR to increase funding by \$100M/year for the next three years to reach the steady-state proposed by the Fundamental Science Review Panel*

The Fundamental Science Review Panel report recommended increasing the support given to institutions to maintain research facilities and equipment, administer research grants and awards, and deal with overall operational research costs. The Canadian Government contributes toward F&A costs on a sliding scale that gives much higher percentage payments to small institutions, whereas larger institutions with higher total values for operating grants get lower percentages of reimbursement.

As the CCR notes, average audited F&A costs in Canadian institutions typically run over 50 cents for each direct operating dollar. Many large institutions, however, are receiving only 20-25% as an F&A rate. The Fundamental Science Review Panel recommended raising the floor for reimbursement to 40% of the value of eligible operating grants awarded to a given institution, while still continuing the higher rates for small institutions because of their inherent diseconomies of scale.

CSBBCS strongly supports the recommendation of the CCR to increase funding by \$100M per year for the next three years to reach the steady-state level proposed by the Fundamental Science Review Panel.

Recommendation 4:

Provide data about awards distributions

- *We recommend that the Tri-Council provide public data about how awards across career levels (undergraduate, graduate, postdoctoral, & faculty) are distributed over gender*

In 2015, NSERC kindly provided seed funds for the creation of a new society of relevance to our membership – Women in Cognitive Science Canada (WiCS-C). At the 2016 annual meeting of our society, this group presented data obtained from the public NSERC awards database suggesting that women cognitive scientists in Canada are especially vulnerable at the transition from student to postdoc/faculty and beyond (see Titone, Tiv, & Pexman, 2018). We request that NSERC and the other Tri-Council Agencies provide easily accessible public data about awards distributions as a function of gender so that this situation may be better monitored and addressed in the coming years.

The CSBBCS extends its appreciation to the House of Commons Standing Committee on Finance for inviting input as part of the 2020 pre-budget consultation. Please do not hesitate to contact me if you would like any additional information.

Sincerely,



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