

House of Commons Standing Committee on Finance
2022 Pre-Budget Consultation

Submission by :

Science & Policy Exchange / Dialogue Sciences et Politiques

Science & Policy Exchange (SPE) is a non-profit advocacy group run by graduate students and post-doctoral fellows in Montreal, whose mission is to foster the student voice in evidence-based decision making and to bring together leading experts from academia, industry, and government to engage and inform students and the public on issues at the interface of science and policy.



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Recommendations

Science & Policy Exchange recommend that the Government of Canada:

1. Provide funding in the amount of at least \$140M over four years to the Tri-Council Agencies (CIHR, NSERC, and SSHRC) to increase the value of graduate student and postdoctoral awards indexing with inflation.
2. Foster international collaboration and mobility by opening the eligibility of scholarships to international graduate students and allowing mobility of Canadian award holders.
3. Provide funding to federal agencies and community organizations to collect data on the impacts of COVID-19 on young researchers.
4. Provide targeted funding to enable the Tri-Councils and the research community to create a more equitable, inclusive, and diverse research ecosystem.



This past year has underscored the importance of fostering a resilient research ecosystem, one that applies its expertise to improve the lives of Canadians while remaining adaptive in the face of adversity. Over the past six years, this government has demonstrated its commendation of the research and scientific community; Budget 2021 is a welcomed addition to this ongoing commitment with large investments into cutting-edge research sectors such as health research, quantum computing, artificial intelligence, and biotechnology.

However, continued support for research trainees has been lacking over the past decade. While we commend the Government's \$115M investment to increase the number of post-secondary student fellowships in Budget 2019, as well as Budget 2021's proposed changes to RSSP filing for postdoctoral fellowship income, we are disappointed by the absence of financial support to increase the value of individual scholarship and fellowship awards, of targeted support for historically marginalized groups and for international research trainees, and of changes to improve the international portability of awards.

Supporting research trainees is an investment that builds the capacity of highly-qualified personnel (HQP) to become Canada's next innovators and leaders. Graduate students and postdoctoral fellows (PDFs) make up a significant portion of researchers and must be adequately supported to fuel innovation, especially in light of our improved understanding of the landscape of post-graduate employment in Canada^{1,2}. As an important stakeholder in this discussion, Science & Policy Exchange **propose the following specific recommendations for supporting research in Budget 2022:**

(1) Provide funding in the amount of at least \$140M over four years to the Tri-Council Agencies (CIHR, NSERC, and SSHRC) to increase the value of graduate student and postdoctoral awards indexing with inflation.

Budget 2019's increase in the number of Tri-Council Masters' and Doctoral scholarships was a much-needed step towards equilibrating the available federal funding to the proportion of enrolled graduate students. However, the value of awards provided by federal granting councils has not kept pace with inflation^{3,4}. A lack of financial resources for research trainees can impact the quality of research and training by forcing award recipients to supplement their income outside their program work. These consequences prevent trainees from concentrating on their career development and can have a significant impact on their financial security or ability to start families. Our 2018 survey⁵ of over 1000 research trainees in Canada found that:

- 66% of individuals who received Tri-Council awards required additional funding to support themselves. Respondents also indicated that the value of awards was not reflective of varying costs of living.
- 79% of respondents valued increasing the monetary value of the average award.

To guide this recommendation, we propose the following amendments to the current graduate and postdoctoral level awards:

- **Harmonize all postdoctoral fellowships to \$50K, for 2-3 years.** PDFs are now considered by institutions as employees, thus paying full taxes on their fellowships and salaries, which reduces their take-home. To reinstate the value of fellowships, we recommend harmonizing them to at least \$50K per year (as per durations established in the different finding agencies).



- **Harmonize all doctoral scholarships to \$35K per year, for 3 years, without reducing the total number of awards available.** This is the current value of Doctoral Canada Graduate Scholarships (CGS-D) for CIHR, NSERC, and SSHRC. Many PhD students receive only \$20-21K per year under other doctoral scholarship programs at SSHRC and NSERC, whereas others receive over twice this stipend via the “elite” Vanier CGS awards valued at \$50K per year. Harmonizing reduces inequalities by providing more trainees with a living wage that reflects their role as the workforce of science in Canada. Additionally, eliminating elite high value awards like the Vanier will liberate funds to harmonize all award values without sacrificing the total number of awards distributed annually, thereby reducing the federal investment required to do so.
- **Harmonize all Master’s scholarships to \$22K, for one year.** We consider this to be a fair and overdue increase for all Master’s CGS, which are currently set to \$17,500. Like the doctoral awards, this has not kept up with inflation for the last 15 years.

The harmonized values proposed above are the median values suggested by respondents to our 2018 survey, and align with a recent calculation of the values these awards should have attained if indexed with inflation, from 2004 to 2021^{4,5}.

(2) Foster international collaboration and mobility by increasing awards for international graduate students and allowing mobility of Canadian award holders.

Research is highly mobile¹, and Canada needs a workforce skilled in problem-solving, communication, collaboration, creativity, and adaptability⁶. International experiences improve these skills, as well as fostering heightened cultural awareness and higher employment rates^{7,8}. Canadian research trainees studying abroad contribute to establishing and retaining international networks for idea exchange and innovation, thereby broadening Canada’s sphere of influence as a leader in scientific research and reinforcing our values of openness and inclusion. Moreover, there are also challenges for international trainees, who are recruited to Canada but lack adequate support to manage the higher tuition fees and the costs associated with international relocation. Support for international trainees helps attract the best and brightest talent to Canada. Therefore, we recommend to:

- **Make all Tri-Council scholarships portable internationally.** Currently, the only Tri-Council training awards that are portable outside of Canada are the doctoral postgraduate scholarships (PGS-D) and the PDF awards.
- **Allocate a percentage of scholarships to international graduate students, reflecting the proportion of international applicants.** Currently, except for the Vanier Graduate Scholarship, international students are not eligible for Tri-Council training awards. Enabling proportional allocation of awards to international students promotes fairness and enables greater diversity and inclusion in Canadian laboratories.
- **Provide supplemental funding or tax exemption for the first two years for international PDFs to help defray the costs of relocation and immigration.** Furthermore, information on postdoctoral salaries, benefits, and taxation should be more readily available for international PDFs looking to move to Canada.



(3) Provide funding to agencies and organizations to collect data on the impacts of COVID-19 on young researchers.

Not all trainees have equal access to research opportunities⁹. The pandemic has further exposed and exacerbated these inequalities, as researchers paused their work and pivoted to working from home. COVID-19 has increased the burden on caregiver trainees with young families, or with limited resources and support, to cope with such changes. Underrepresented minorities and international students were especially impacted. Comprehensive data will be key to developing appropriate policies to combat the long-term social, economic, and health effects of this pandemic on the Canadian population. To this end, we recommend that the Government:

- **Earmark funding for data collection initiatives by StatsCan and the Tri-Council agencies to assess the impact of COVID-19 on students to mitigate its long-term impacts.**
- **Invest in support for data collection by community organizations** by enabling StatsCan and Tri-Councils to allocate funds directly to these organizations.

(4) Provide targeted funding to enable the Tri-Councils and the research community to create a more equitable, inclusive, and diverse research ecosystem.

Budget 2021 committed \$12M over three years to SSHRC to fund academic research into systemic barriers facing diverse groups. This is a commendable investment that will provide important data and knowledge to address barriers faced by historically marginalized groups. However, Canada already holds a wealth of knowledge on many issues that can be addressed immediately.

Quebec's 2017-2022 Research and Innovation Strategy identified the need to facilitate pathways for women to enter research and innovation sectors, and therefore outreach initiatives and created targeted funding streams to support women in STEMM. Similar initiatives should be adopted by the Government of Canada, which already recognizes the value of directly supporting underserved and historically marginalized communities entering postsecondary education. We recommend extending these resources to research trainees, as follows:

- **Collaborate with NGOs and community groups to address specific needs.** The Tri-Council Agencies should provide additional resources to the many professional and academic societies already working towards improving EDI within their local communities.
- **Support financial support for outreach initiatives** through NGOs to encourage participation in research and innovation sectors from underserved and historically marginalized communities.
- **Provide targeted investments to underrepresented trainees and early career researchers.** Underrepresented researchers face unique barriers throughout their careers that can be mitigated through direct financial investments.
- **Support Indigenous peoples** through dedicated funding opportunities, such that Indigenous researchers and Indigenous communities can access and equitably participate in the Canadian research ecosystem. This aligns with findings from the Council of Canadian Academies' report¹⁰.



Final Considerations

Sustaining Canada's economic recovery requires a workforce trained to confront the unexpected. Research trainees play a crucial role in shaping Canada's future, and today's commitments will pave the path forward towards a perennial and equitable research ecosystem. Support for Canadian and international graduate students and PDFs, as well as specific actions to increase the international exchange of ideas and improve outcomes for historically marginalized groups are still needed to maintain a productive research ecosystem that benefits the Canadian economy. We encourage the Government of Canada to further their commitment to the next-generation of researchers and of highly qualified personnel in Budget 2022 according to our recommendations.

We commend the efforts made by the Government on the COVID-19 response, and their demonstrated commitment to the research trainees who will bring their expertise to diverse careers. We also look forward to continued engagement with the Government to ensure that training the next generation of researchers remains a priority, and that their voices are heard in these matters.

Sincerely,

The Science & Policy Exchange Team



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