

# Written Submission for Pre-Budget Consultations in Advance of the 2023 Budget

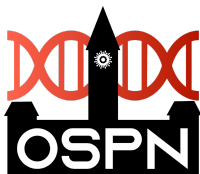


## Support Our Science

Support Our Science is a grass-roots organization advocating for increased pay for graduate students and postdoctoral scholars in Canada. We represent tens of thousands of graduate students, postdoctoral scholars and faculty in Canada advocating for increases in funding and the elimination of poverty wages for students on the front line of innovative and transformative research.

### Signatories to this submission:

Ottawa Science  
Policy Network



Toronto Science  
Policy Network



Science & Policy  
Exchange



Anti-racism  
Student  
Association



Canadian  
Association of  
Postdoctoral  
Scholars



## **LIST OF RECOMMENDATIONS**

**Recommendation #1:** That the government provides funding to the Tri-Council agencies so that the value of graduate student scholarships for masters students (e.g., NSERC CGS-M) are increased by 48% to address inflation since 2003. Tri-Agency masters student scholarships are currently valued at \$17,500 per year and would increase to \$25,900 per year.

- NSERC CGS-M: \$8,400 per award x 840 existing awards = **\$7.06M**
- SSHRC CGS-M: \$8,400 per award x 1280 existing awards = **\$10.8M**
- CIHR CGS-M: \$8,400 per award x 886 existing awards = **\$7.4M**

**Recommendation #2:** That the government provide funding to the Tri-Council agencies to equalize the values of NSERC and SSHRC Post-Graduate Scholarship Awards (e.g., PGS-D) to the Canada Graduate Scholarships for Doctoral students (e.g., CGS-D) at \$35,000 per year.

- NSERC PGS-D: value would increase from \$21,000 per year to \$35,000 per year
  - Increase of: \$14,000 per award x 342 existing awards = **\$4.79M**
- SSHRC PGS-D: value would increase from \$20,000 per year to \$35,000 per year
  - Increase of: \$15,000 per award x 430 existing awards = **\$6.5M**
- CIHR PGS-D: NA

**Recommendation #3:** That the government provides funding to the Tri-Council agencies so that the value of Postdoctoral Fellowships awards are increased by 48% to address inflation since 2003.

- NSERC PDF: value would increase from \$45,000 per year to \$59,200 per year
  - Increase of: \$14,200 per award x 150 existing awards = **\$2.13M**
- SSHRC PDF: value would increase from \$45,000 per year to \$59,200 per year
  - Increase of: \$14,200 per award x 151 existing awards = **\$2.14M**
- CIHR PDF: value would increase from \$45,000 per year to \$59,200 per year
  - Increase of: \$14,200 per award x 158 existing awards = **\$2.24M**

**Recommendation #4:** That the government implements a policy to provide on-going funding to the Tri-Council agencies to index award values to inflation based on a long-term average of 2.1%.

**Recommendation #5:** That the government provide additional funding to the Tri-Council agencies to increase the number of post-graduate scholarships provided annually by 50%.

- NSERC: from 1524 awards to 2226 awards, increased cost per year: **\$22.85M**
- SSHRC: from 2140 awards to 3210 awards, increased cost per year: **\$24.10M**
- CIHR: from 1227 awards to 1841 awards, increased cost per year: **\$17.4M**

**Recommendation #6:** That the government provide additional funding to the Tri-Council agencies to double the number of Postdoctoral Fellowships awarded annually.

- NSERC: \$59,200 x 150 new awards = **\$8.88M**
- SSHRC: \$59,200 x 150 new awards = **\$8.88M**
- CIHR: \$59,200 x 150 new awards = **\$8.88M**

## **ANTICIPATED OUTCOMES**

**Contributing to growing a more resilient economy** - Research is the foundation of innovation in Canada. Investing in the financial stability of early career researchers will return immediate and long-term benefits in the R&D sector by enabling individuals to pursue these careers as financially viable options. This will ensure the Canadian economy will continue to benefit from its investments in research by drawing more people into these sectors and keeping them in Canada via competitive compensation.

**Promoting diversity and inclusion** - The Tri-Agencies have noted the importance of Equity, Diversity and Inclusion (EDI) (e.g., NSERC EDI statement<sup>1</sup>) for research excellence in Canada. Increasing the value and number of scholarships and fellowships awarded to graduate students and postdoctoral scholars would reduce existing financial barriers to participating in research. This financial support would help achieve the stated goals of promoting diversity and inclusion in higher education and retaining high-calibre researchers in these innovative fields.

**Retaining and attracting top talent** - Investing in scholarships and fellowships for graduate students and postdoctoral scholars will attract individuals to Canada's innovative research environment, and retain them for eventual careers in industry, government, and academia. The Tri-Agency awards set the standard for graduate student and postdoctoral scholar pay in research sectors across Canada - this means an increase in award values will also improve conditions for the majority of individuals who are not successful in winning a Tri-Agency award. These changes would be most significant for students from low-income families and other underrepresented groups who have limited support and opportunities to pursue research careers in the current system. The benefits of increasing the value and number of Tri-Agency scholarships and fellowships would be felt across Canada.

**Contributing to solving current and future challenges** - Investing in graduate students and postdoctoral scholars means investing in pandemic control, climate action, sustainable technology, green jobs and more. Our recommendations focus on improving the living standards for the next generation of researchers across Canada to ensure we are prepared to meet these challenges. Without this investment, Canada risks falling further behind other G-7 and OECD countries in research and innovation. Increasing the value and number of graduate student awards and postdoctoral fellowships will encourage more students to remain in research and pursue scientific careers which will help Canada become a leader in innovation, with the concomitant economic benefits that will ensue from such leadership.

## **CONTEXT**

### **Graduate Students and Postdoctoral Scholars are the Lifeforce of Discovery and Innovation**

Graduate students and postdoctoral scholars drive the science and innovation that keeps Canada competitive on the global stage. Investing in training these highly skilled individuals is a Canadian priority to bolster innovation and the economy. Without ensuring graduate students and postdoctoral scholars are consistently supported with increased funding, we cannot ensure that the front line of research remains optimal for innovation, entrepreneurship, and business development. Meeting the challenges of the future means investing in maximizing our capacity to take on these challenges and ensuring entry into programs for graduate students and postdoctoral scholars has no financial barrier for prospective students, which starts with investing in the next generation of researchers.

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<sup>1</sup>[https://www.nserc-crsng.gc.ca/InterAgency-Interorganismes/EDI-EDI/Grants-Awards\\_Subventions\\_et\\_Bourses\\_eng.asp?wbdisable=true](https://www.nserc-crsng.gc.ca/InterAgency-Interorganismes/EDI-EDI/Grants-Awards_Subventions_et_Bourses_eng.asp?wbdisable=true)

## The Next Generation of Researchers Face Significant Financial Challenges

Funding for graduate students and postdoctoral scholars comes from one of the three federal granting agencies; the Natural Sciences and Engineering Research Council of Canada (NSERC), the Social Sciences and Humanities Research Council of Canada (SSHRC), accountable to the Minister of Innovation, Science, and Economic Development, and the Canadian Institutes of Health Research (CIHR), accountable to the Minister of Health. Students and postdoctoral scholars are funded either directly through graduate student scholarships and postdoctoral fellowships, or indirectly from their supervisors' research grants.

**Recommendations #1 & #2:** Despite being a core component of the Canadian funding landscape, award amounts have been stagnant for nearly 20 years and have not kept pace with inflation. This means that the vast majority of **federally funded graduate scholarships amount to less than minimum wage**. Currently, master's students receive \$17,500/yr (CGS-M) and PhD students awarded PGS-D scholarships receive \$20-21,000/yr (SSHRC and NSERC, respectively). Therefore, we recommend the value of masters' student awards (CGS-M) increase by 48% in 2023 to meet inflation rates since 2003 and to standardize the value of the two major doctoral awards CGS-D and PGS-D at \$35,000.

**Recommendation #3:** Postdoctoral scholars, who have completed a 4 or 5-year doctoral degree, receive fellowships that amount to a salary of \$45,000/yr. This value is a modest increase of \$5K since 2003. We recommend the value of postdoctoral awards be increased to at least \$59,200 to match 48% inflation since 2003. This increase in postdoctoral fellowship values will significantly advance Canada's mandate to "secure a supply of highly qualified Canadians with leading-edge scientific and research skills for Canadian industry, government and academic institutions."

**Recommendation #4:** As the cost of living has steadily increased, the unchanged values of graduate student scholarships and postdoctoral fellowships provide inadequate support for these researchers, who often have families, prior student loans, and other financial responsibilities. For graduate students, tuition fees have also steadily increased from \$5,387 in 2006 to \$7,437 in 2022 - a 38% increase<sup>2</sup>. This is why it is imperative that all graduate scholarships and post-doctoral fellowships are indexed to the consumer price index moving forward. By ensuring values increase with the cost of living, the awards will be internationally competitive and provide an incentive for students and postdoctoral scholars to pursue education and careers in Canada. This will also ensure a sustainable model where scholarships and fellowship values do not become underfunded in the future.

**Recommendations #5 & #6:** Canada continues to be a world leader in research and innovation. Canada is proud to be the OECD member nation with the highest share of university or college graduates and first in the G-7 for higher-education sector R&D performance<sup>3</sup>. **However, the number of federal scholarships being offered has not kept pace with the number of graduate students attending Canadian universities and the number of available postdoctoral fellowships has actually decreased.** This means an increasingly smaller percentage of highly qualified applicants benefit from the opportunities these awards provide. To secure Canada's future as a global leader in research and innovation, we recommend the federal government increase the number of scholarships and fellowships.

Receiving a federal scholarship or fellowship can change an individual's career trajectory. While in

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<sup>2</sup><https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710004501&cubeTimeFrame.startYear=2006+%2F+2007&cubeTimeFrame.endYear=2022+%2F+2023&referencePeriods=20060101%2C20220101>

<sup>3</sup><https://www.tradecommissioner.gc.ca/innovators-innovateurs/strategies.aspx?lang=eng>

graduate school, scholarships reduce the need for trainees to take on additional work which allows them to focus on their cutting-edge research. A recent survey of 1300 students by the Ottawa Science Policy Network (OSPN) found that almost 40% of current graduate students have concerns about their ability to pay rent and buy groceries. Over 30% have considered dropping out of their programs due to financial concerns. Nearly half say they do not have enough money to cover their monthly expenses. In addition, a survey<sup>4</sup> of over 450 University of Toronto graduate students indicates that 44% of students report taking on additional employment to meet their financial needs. Students who receive awards are less likely to abandon their studies and accumulate less debt<sup>5</sup>. These students therefore have more time to devote to research allowing them to publish more peer-reviewed publications and present at more conferences. Graduate students who hold a scholarship are more likely to win future awards, find employment in a position closely related to their degree program, and earn a higher salary<sup>5</sup>. It is imperative that the government supports graduate students and postdoctoral scholars, or we risk Canada's strong research and innovation-based economy atrophying.

Our recommendations to increase the value of scholarships and fellowships are in line with previous recommendations by the Tri-Council. In SSHRC's report, "Revitalization of Graduate and Postdoctoral Scholarships", they ask the Government of Canada to increase the value of graduate scholarships and postdoctoral fellowships and index the award values to the consumer price index. This sentiment is further echoed in NSERC's 2030 Strategic Plan<sup>6</sup> and in this year's Standing Committee on Science and Research's report on "Successes, Challenges and Opportunities for Science in Canada"<sup>7</sup>. "Building a resilient economy means investing in people."<sup>8</sup> By increasing the value of scholarships and fellowships, we can ensure we retain the talented and innovative minds in Canada who will lead international discoveries and secure a strong economy.

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<sup>4</sup>[https://drive.google.com/file/d/1TlqjJdtBT2hijKke\\_q90T2fu5W9J0LRC/view](https://drive.google.com/file/d/1TlqjJdtBT2hijKke_q90T2fu5W9J0LRC/view)

<sup>5</sup><https://cihr-irsc.gc.ca/e/50081.html>

<sup>6</sup>[https://www.nserc-crsng.gc.ca/NSERC-CRSNG/NSERC2030-CRSNG2030/report-rapport/index\\_eng.asp#6](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/NSERC2030-CRSNG2030/report-rapport/index_eng.asp#6)

<sup>7</sup><https://www.ourcommons.ca/DocumentViewer/en/44-1/SRSR/report-1>

<sup>8</sup><https://www.canada.ca/en/privy-council/campaigns/speech-throne/2021/speech-from-the-throne.html>