



SCIENCE & POLICY EXCHANGE

RETHINKING FEDERAL RESEARCH FUNDING:

Towards More Equitable Funding for Canada's **Next Generation**

Research support for trainees is a critical part of a healthy research and innovation ecosystem¹. In this report, we present selected results of SPE's 2018 scholarship and fellowship survey, which provided insight from over 1100 respondents on their interactions with Canada's federal funding ecosystem.

The survey found that just 68% of respondents had applied for federal research funding through tri-agency scholarships or fellowships and, of that portion, only 52% were successful. Despite the low awardee rate, those who did receive federal support indicated a clear benefit to them and their research (96%), noting that federal awards improved their ability to publish their research and/or allowed them to focus on their research without seeking alternative income. Survey respondents indicated that the primary benefit of these awards was their potential to increase the success of their future grant applications. This demonstrates the cumulative nature of these awards, where federal support to trainees can precipitate future research excellence through increased access to additional funding. This can, unfortunately, lead to inaccessibility if a relatively small number of trainees with demonstrated "excellence" can monopolize a series of awards, leaving the majority unsupported. When asked about the benefits of receiving federal support over indirect support from their supervisor, all respondents cited prestige, better salary security, and autonomy over their research as the most important benefits.

Given the opportunity to guide change and innovate within the federal funding system, respondents valued increasing the total number of awards (91%), increasing the value of awards (79%) and extending eligibility periods for awards (72%). These changes would make awards available to more students and allow students nearing the end of their graduate degrees to access awards.

Conversely, only 17% of respondents valued increasing the value of elite awards (Vanier, Banting). In fact, when asked whether elite awards should remain, given that they provide more value and prestige to select trainees but require a larger investment from the federal funding agencies, 62% favoured the reduction or abolition of these awards in favour of more standard awards. Reducing or eliminating the elite awards would facilitate funding of a greater number of trainees overall, however only elite awards currently have international eligibility or give considerations to leadership and accomplishments beyond academia. These important aspects would need to be retained and integrated into the standard awards. Graduate students and post-doctoral fellows in all disciplines suggested increasing awards to the following values: Master's scholarships valued at \$21,000 per year for one year, Doctoral scholarships valued at \$35,000 per year for three years, and Postdoctoral fellowships valued at \$50,000 per year for two or three years.

Considering Research Across Fields of Study

The increasingly complex technological, environmental, and societal challenges we face today require synergy between the humanities, social sciences, health sciences, and the physical sciences to develop innovative solutions. In the case of federal research support, more trainees from the humanities, social sciences, and interdisciplinary studies felt that their research was not adequately represented by current federal funding opportunities compared to those in Health and Physical Sciences. Respondents

¹ [Canada's Fundamental Science Review](#), Advisory Panel for the Review of Federal Support for Fundamental Science, Apr 10 2017.

from Humanities and Social Sciences also reported requiring more funding than awards provided, compared to respondents from Health and Physical Sciences; accordingly, respondents from Humanities and Social Sciences highly valued harmonizing the values of awards across the three funding agencies. Though there was strong support for increasing the number of interdisciplinary awards across the board, respondents from Humanities, Social Sciences, and Interdisciplinary researchers valued this the most highly.

The COVID-19 pandemic has amplified the necessity to invest in research trainees to ensure the sustainability of Canada's research sector¹. This moment provides an opportunity for funding agencies to revamp their granting processes in order to ensure the equitable and inclusive recruitment, development and retention of a diverse pool of world-class researchers.

Overall, we recommend that federal funding agencies:

1. Abolish or reduce elite awards and redirect their budget towards a greater number of standard-value awards
2. Harmonize award values across disciplines to \$21,000 (Masters), \$35,000 (Doctoral), and \$50,000 (Postdoctoral)
3. Increase the number and value of these harmonized awards
4. Alter merit and eligibility criteria to provide opportunity for support to more trainees, including international trainees. Accounting for:
 - a. Interdisciplinary research
 - b. The diverse ways trainees demonstrate excellence.

Different groups of students experience the federal funding system in unique ways. You can read more about some of their specific experiences in these other micro-reports.

[Graduate Student & Postdoctoral Fellow Perspectives Across Gender Identities](#)

[Indigenous Graduate Student & Postdoctoral Fellow Perspectives](#)

[Perspectives of International Graduate Students & Postdoctoral Fellows](#)

1 [The Early Impacts of COVID-19 on Graduate Students Across Canada](#), Toronto Science Policy Network, Aug 10 2020.





SCIENCE & POLICY EXCHANGE SURVEY ON CANADIAN SCHOLARSHIPS & FELLOWSHIPS

Science & Policy Exchange (SPE) is a non-profit group aimed at representing the voice of next-generation researchers to policy makers. We asked graduate students and postdoctoral fellows to tell us what they want for the future of scholarships and fellowships in Canada to ensure their voice is heard.



State of Federal Graduate and Postdoctoral Awards

Have you ever applied for a graduate or postdoctoral fellowship through CIHR, NSERC or SSHRC?



If **yes**, were any of your applications successful?

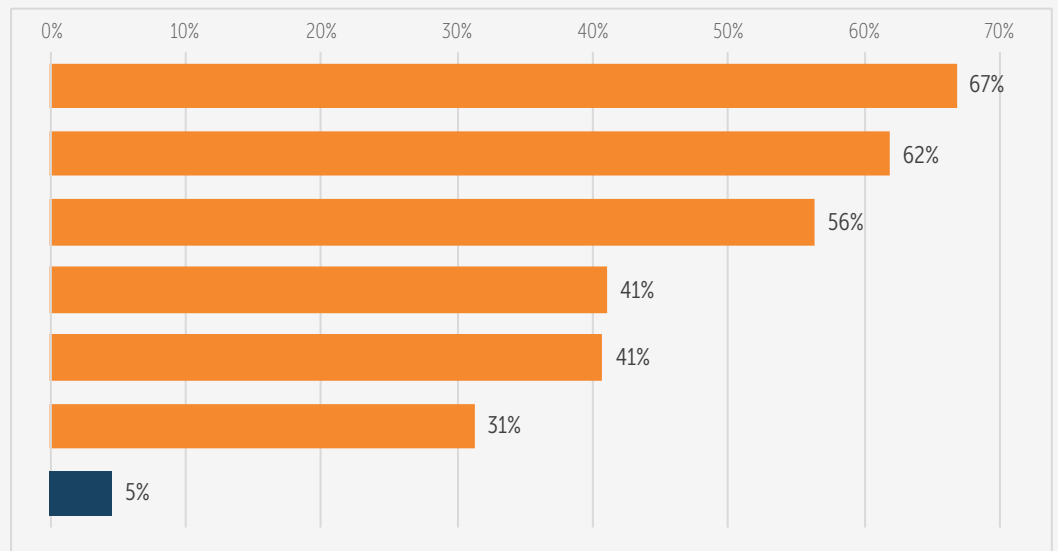


Yes No Prefer not to answer

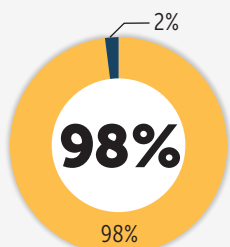


What impact does receiving an award have on you and your research?

- Increased chance of getting awards
- Study without working outside of academia
- Networking, travel, conference opportunities
- Study without a teaching assistantship
- Reduced loans
- Increased publications
- No impact

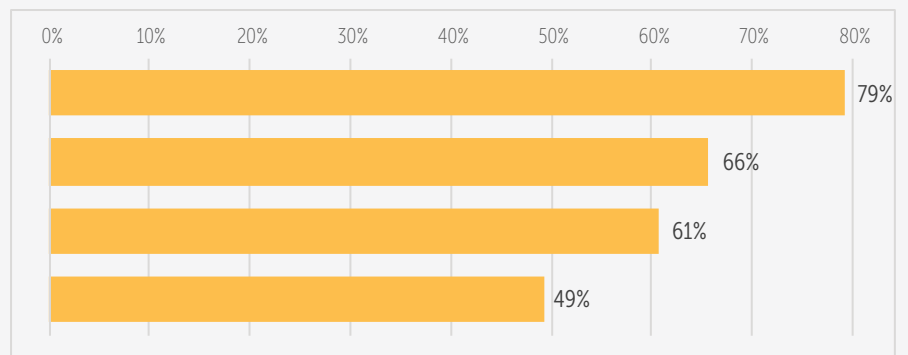


Are there benefits of obtaining funding from federal awards, rather than receiving support via your supervisor's research grants?



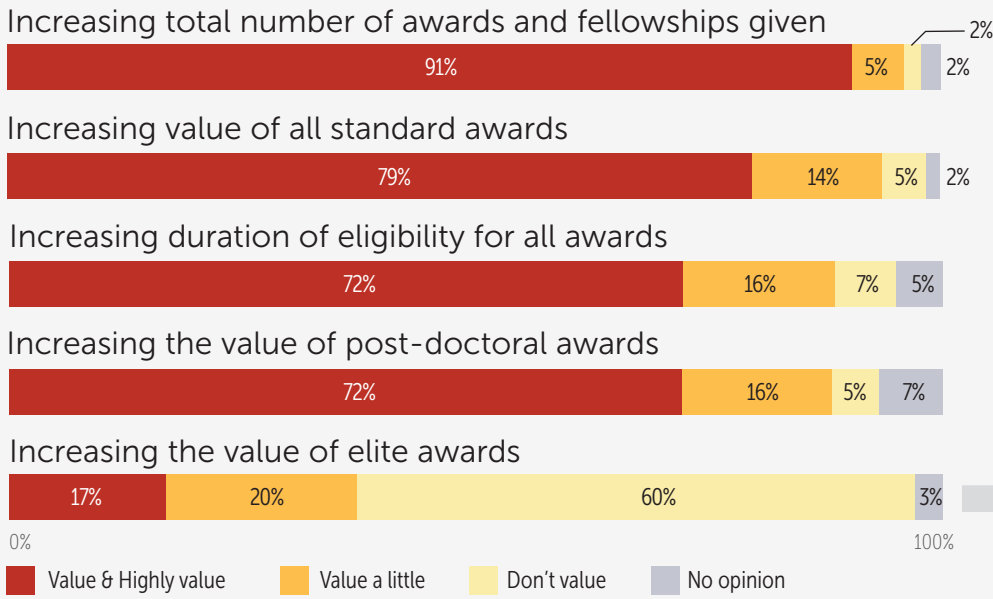
Any benefits
No benefits

- Funding & salary security
- Improved salary
- Prestige & personal recognition
- Greater control over research

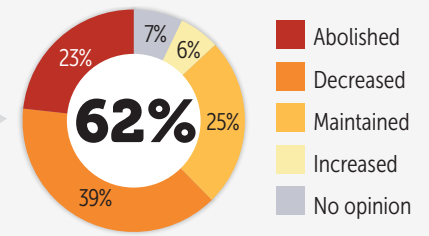


Standard & Elite Award Considerations*

How do you value the following:



In your opinion, elite awards should be:



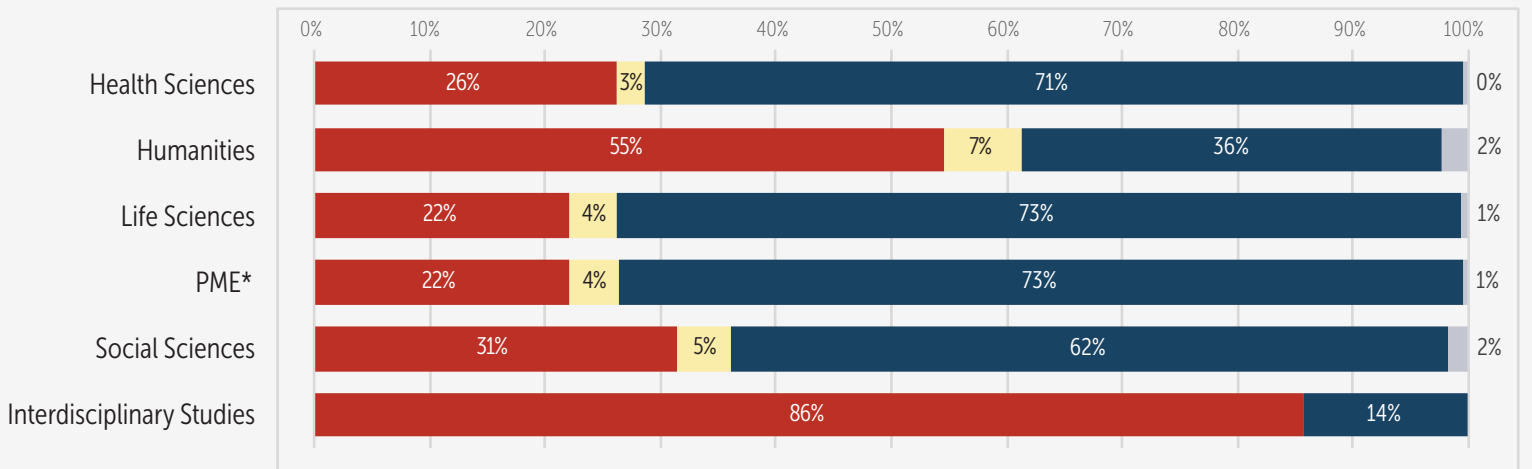
62% believe elite awards should be decreased or abolished.

* Elite awards refer to the Vanier Scholarship and Banting Fellowships

* Standard awards refer to all other Masters, Doctoral and Postdoctoral awards

Awards Opportunities Across Fields of Research

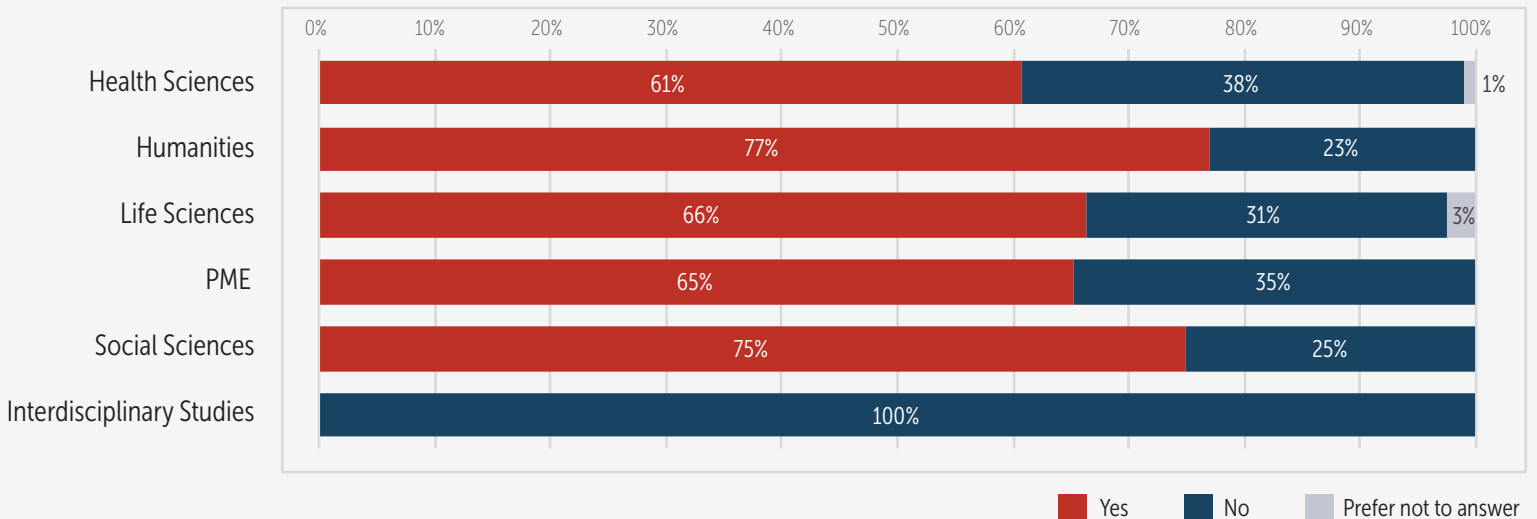
Do you think your field of research is not adequately represented by the awards opportunities available from CIHR, NSERC, or SSHRC?



*PME refers to physical sciences, mathematics or engineering

Yes Not certain No No opinion

Did you require other sources of funding during the duration of your award?

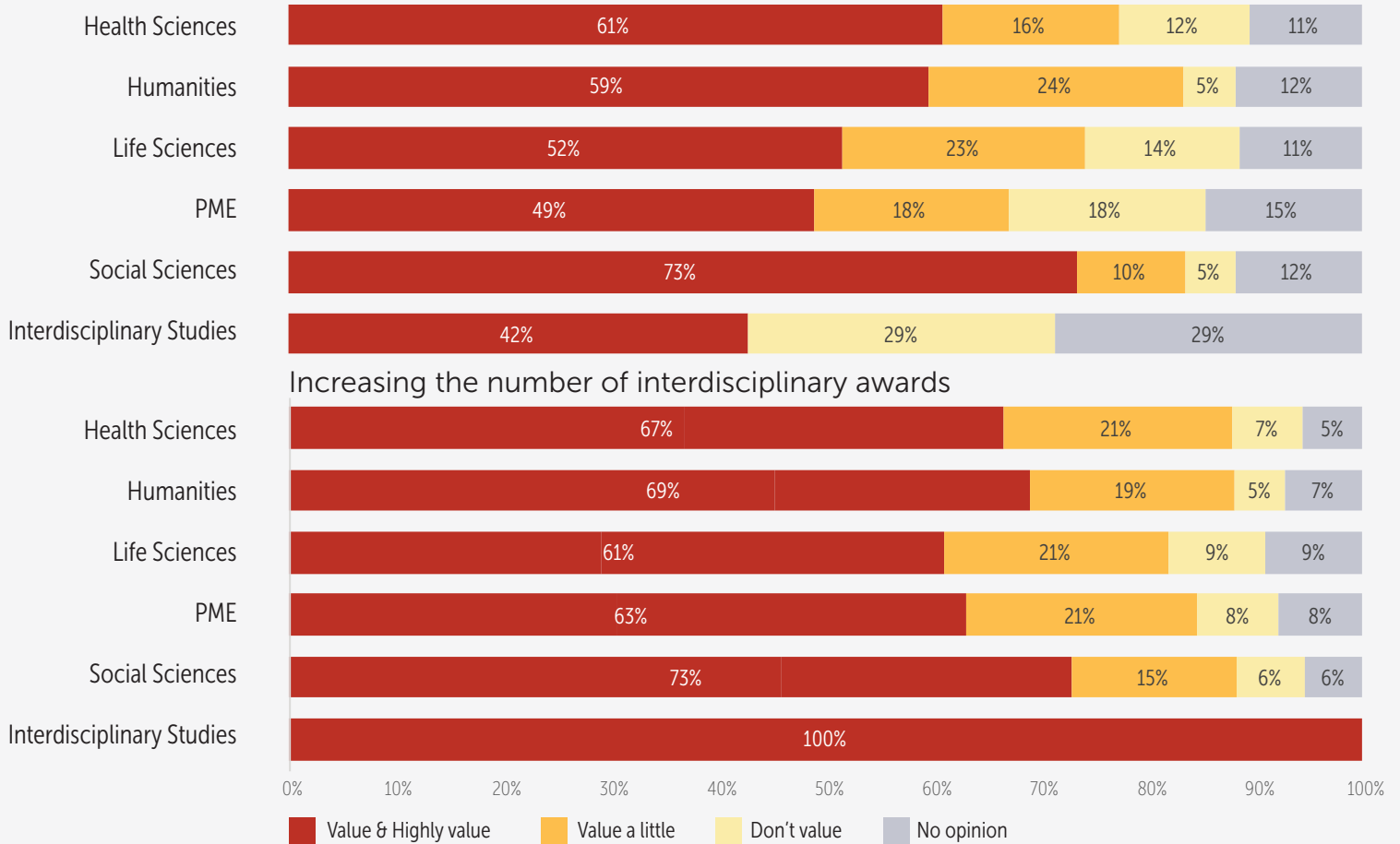


Yes No Prefer not to answer

Award Considerations by Field of Research

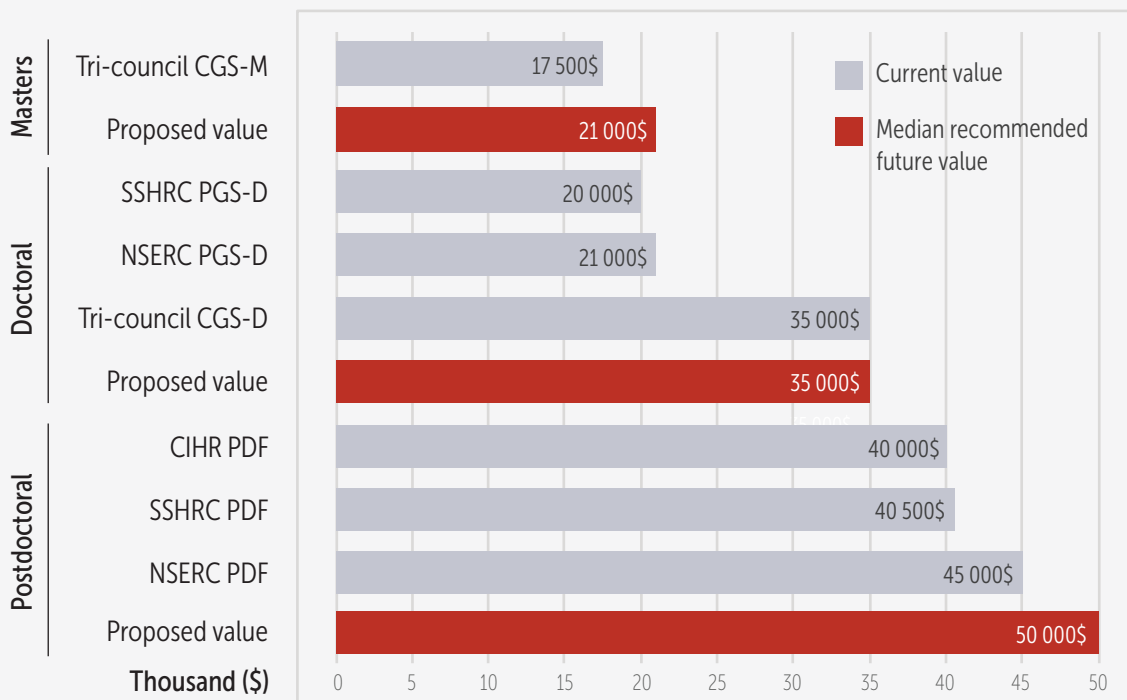
If there were an increase in the total federal budget for graduate and postdoctoral awards, indicate how much you value the following:

Harmonizing value amount of awards across CIHR, NSERC, SSHRC



Future Award Recommendations*

Keeping in mind funding limitations, what would you consider optimal values for Masters, Doctoral and Postdoctoral awards?



1100+
STUDENTS
& FELLOWS
SURVEYED
FR&EN

*This survey refers only to awards from CIHR, NSERC, and SSHRC.

Abbreviations:

CIHR: Canadian Institute of Health Research
NSERC: Natural Sciences and Engineering Research Council
SSHRC: Social Sciences and Humanities Research Council
CGS: Canada Graduate Scholarships
PGS: Postgraduate Scholarships
PDF: Postdoctoral Fellowships