

INVESTING IN INNOVATORS

Strengthening Graduate Student
Research in Canada



CASA

Canadian Alliance of
Student Associations

ACAE

Alliance canadienne des
associations étudiantes

Investing in Innovators: Strengthening Graduate Student Research in Canada

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CASA Principles

The Canadian Alliance of Student Associations (CASA) believes that all post-secondary students in Canada should have access to an affordable, high quality and innovative education. Accessibility and affordability means eliminating barriers to participation in all aspects of a post-secondary education (PSE), including in research. CASA believes that all students should have opportunities to contribute to the varied and dynamic research that happens in Canada's post-secondary institutions. Some of the best research in Canada is already driven by students across disciplines and at all levels of study. Fully realizing the immense potential of students as researchers and innovators will help make Canadian PSE, and Canadian knowledge creation more broadly, of the highest quality.

Our Vision for Canadian Research and Innovation

The Conference Board of Canada defines research as “a process through which economic or social value is extracted from knowledge – through the creating, diffusing and transforming of ideas – to produce new or improved products, services, processes, strategies, or capabilities.”¹ Innovation, as highlighted by Invest in Canada, is “key to Canada’s success as a global player and investment destination”.² As a driving force for economic growth and technological opportunities, Canada’s research ecosystem is nurtured by Canada’s thinkers, entrepreneurs, academics, and researchers who help develop new ideas, leverage expertise, and generate cutting-edge advancements.

While by no means a new concept, innovation in Canada has recently received renewed attention, with the federal government announcing a series of substantial investments in Budget 2024 designed to place Canada at the “forefront of the world’s advanced economies” and “ensure Canada is a world leader in new technologies for the next generation.”³ These strategic investments in research and innovation serve to support recruitment and retention of top research talent in Canada, including graduate students and postdoctoral fellows, as well as nurture and support Canada’s research ecosystem in the coming years

According to a quote by Maydianne Andrade from the Canadian Black Scientists Network in the Standing Committee on Science and Research’s 2023 report on Canada’s graduate student scholarships, “the majority of the hands-on research [in Canada] is being done by graduate students and post-doctoral fellows in our

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<https://www.conferenceboard.ca/hcp/innovation.aspx-2/#:~:text=The%20Conference%20Board%20defines%20innovation,processes%2C%20strategies%2C%20or%20capabilities.>

² <https://fdi2019.investcanada.ca/canadas-advantage/canadian-innovation>

³ <https://budget.canada.ca/2024/report-rapport/budget-2024.pdf>

system. I can say without hesitation that in the sciences, this is the pattern of every single major research university and lab in the country, every single one. It's graduate students and post-docs who spend most of their time at the bench or in the field. They are the backbone of our science and innovation ecosystem now, and they are the potential for us to be successful in the future.”⁴

Research and innovation at Canadian post-secondary institutions—whether discovery or applied research at colleges, polytechnics, and universities—have consistently proven their value. As Canada’s Fundamental Science Review (hereafter referred to as the “Naylor Report”) aptly puts it, “[w]hile the work of full-time researchers in Canada and abroad is sometimes viewed as arcane, it is grounded in traditions of science and inquiry that have transformed our world for the better in recent centuries. These impacts have often been entirely unpredictable, as diverse discoveries were forged into inventions that catalyzed the creation of whole new economic sectors, or startling insights from social research coalesced into broad shifts in the evidence base for public policy.”⁵

Anticipating growth in the need for innovative and adaptable post-secondary graduates, CASA envisions a future in which more students have access to opportunities to conduct high quality research and participate in the innovative cycle during their studies. CASA encourages the federal government to cultivate more opportunities for students to synthesize and mobilize new ideas and to participate in creative problem solving.

⁴<https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RP12784325/srsrrp08/srsrrp08-e.pdf#page=20>

⁵

[http://www.sciencereview.ca/eic/site/059.nsf/vwapj/ScienceReview_April2017.pdf/\\$file/ScienceReview_April2017.pdf](http://www.sciencereview.ca/eic/site/059.nsf/vwapj/ScienceReview_April2017.pdf/$file/ScienceReview_April2017.pdf)

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The Current Framework for Research and Innovation Support in Canada

The Government of Canada cultivates high quality educational experiences by funding world-class researchers, state-of-the-art facilities, cutting-edge resources, and diverse programs. The primary bodies responsible for administering this funding are the Ministry of Innovation, Science and Economic Development (ISED), which oversees the Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC), and the Canadian Foundation for Innovation (CFI); and the Ministry of Health (Health Canada) which oversees the Canadian Institutes of Health Research (CIHR).^{6,7}

Funding is also directed through joint efforts such as the Canada First Research Excellence Fund (CFREF) which is governed by representatives from Health Canada, ISED, SSHRC, NSERC, CIHR and the CFI through the Tri-agency Institutional Programs Secretariat (TIPS).⁸ There is also a wide variety of other special-purpose initiatives which support Canadian research, such as the Research Support Fund (RSF), Genome Canada, Indspire, Networks of Centres of Excellence of Canada (NCE), the Clean Energy Fund (CEF), the Canadian Foundation for Healthcare Improvement (CFHI), and Polar Knowledge Canada (POLAR).

The core activities of NSERC, SSHRC and CIHR (collectively known as the Tri-Council Agencies) are similar. Each organization provides grants to researchers to support the costs they incur throughout the search for valuable new insights and understanding. Each organization also directs funding through the Research Support Fund (RSF) to support post-secondary institutions (who receive grant funding from the Tri-Council Agencies) with indirect costs related to federally-funded research.⁹

The Tri-Council Agencies further provide funding for personnel at all levels of post-secondary education. The Canada Research Chair Program (CRCP) covers the costs associated with employing over 2,285 research professorships (or “Canada Research Chairs”) across Canada.¹⁰ This program is designed to attract and retain talent while enabling and encouraging a research focus for the most

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<https://ised-isde.canada.ca/site/ised/en/about-us/our-organization/innovation-science-and-economic-development-portfolio>

⁷ <https://cihr-irsc.gc.ca/e/37792.html>

⁸ https://www.cfref-apogee.gc.ca/about-au_sujet/governance-gouvernance-eng.aspx

⁹ https://www.rsfc.gc.ca/about-au_sujet/index-eng.aspx

¹⁰ http://www.chairs-chaire.gc.ca/about_us-a_notre_sujet/index-eng.aspx

promising knowledge creators at the professorial level. Funding with similar purpose is also provided for students and postdoctoral fellows.

The Canada Graduate Scholarships (CGS) program is a competitive, merit-based source of funding for graduate students undertaking significant, research-based programs eventually leading to the completion of a thesis or dissertation.¹¹ Previously, there have been other opportunities for doctoral funding offered by the tri-council agencies (e.g. the SSHRC Doctoral Fellowship and the Vanier Scholarship), which were of higher value than CGS. The breakdown of active graduate student awards by scholarship type and funding agency is broken down in Fig 1. As announced in Budget 2024, however, these scholarships will now all be streamlined into a single CGS program with a single value (\$27,000 for Masters students and \$40,000 for doctoral students).

Fig 1. Major Federal Awards for Graduate Students CGS-M and CGS-D by Funding Agency and Scholarship Type.

Agency	CGS-M (# Active Awards, 2020-2021)¹²	CGS-D (# Active Awards, 2020-2021)¹³	Agency Specific Major Doctoral Awards (# Active Awards, 2020-2021)⁴	Vanier Scholarships (maximum # Active Awards)¹⁵	Estimated total # Active Graduate Student Awards by Agency, 2020-2021
NSERC	945	920	1,128 (NSERC Postgraduate Scholarship-Doctoral)	Up to 167	~3,160
SSHRC	2,226	1,744	1,312 (SSHRC Doctoral Fellowships)	Up to 167	~5,449
CIHR	538	494	68 (CIHR Doctoral Research	Up to 167	~1,267

¹¹ https://www.nserc-crsng.gc.ca/students-etudiants/pg-cs/cgsm-bescm_eng.asp

¹²

https://www.sshrc-crsh.gc.ca/about-au_sujet/publications/evaluations/2023/tri-agency_talent-trois-organismes_talent-eng.aspx

¹³ Ibid

¹⁴ Ibid

¹⁵ https://vanier.gc.ca/en/nomination_process-processus_de_mise_en_candidature_overview.html

			Award/ Doctoral Foreign Study Award)		
Total	3,709	3,158	2,508	Up to 500	~9876

These scholarships are the primary source of federal funding for graduate students, as they are currently ineligible for Canada Student Grants.¹⁶ The numbers above will rise significantly this year, as Budget 2024 commits to increasing both the value and number of awards: 1,720 in total, including 300 additional awards at the master's level and 1,200 at the doctoral level. The remaining awards will go to post-doctoral scholars, who are not considered students for the purposes of this paper and are therefore not included in the table above.

Previously, aside from the Vanier Canada Graduate Scholarship for doctoral students (which only accounts for a maximum of 500 active doctoral awards at any time and is set to expire this year) international students were not eligible for these funding sources. As discussed, however, the government recently announced that the scholarship and fellowship programs administered by all three agencies have been streamlined into a harmonized CGS program. In the new harmonized award system, 15% of doctoral (PhD) awards will be able to be awarded to international students.¹⁷

A 2016 evaluation of the CIHR CGS program found that the immediate benefits of receiving a CGS award were:¹⁸

- Increased incentive for students to enrol in graduate studies in Canada;
- Increased enrolment in graduate studies in Canada;
- Increased incentive for scholarship recipients to complete their degrees within a specific time period; and
- Increased recognition by the research community of the federal government's support for research training.

The intermediate outcomes of receiving a CGS award were:¹⁹

- Increased number of students completing degrees and in a timely manner;

¹⁶ <https://laws-lois.justice.gc.ca/eng/regulations/SOR-95-329/page-6.html#h-974489>

¹⁷ https://www.nserc-crsng.gc.ca/NewsDetail-DetailNouvelles_eng.asp?ID=1518

¹⁸ https://cihr-irsc.gc.ca/e/documents/evaluation_cgs_program_2016-en.pdf

¹⁹ https://cihr-irsc.gc.ca/e/documents/evaluation_cgs_program_2016-en.pdf

- Providing high quality research training, as well as increased ability for Canada to attract and retain experienced researchers;
- Increased capacity to meet the demand for highly qualified personnel (HQP) in higher ed, public, and private sectors in Canada; and
- Improved branding for Canada as a home to research excellence and world-class research centres.

The evaluation noted that similar trends were observed for NSERC and SSHRC CGS programs, as well as the Vanier CGS.²⁰

CGS awardees may be further funded by the Michael Smith Foreign Study Supplement (MSFSS) which provides up to 250 successful applicants with funding for short-term work abroad as part of the graduate student's studies.²¹ Funding is also available for awards to provide formal recognition of achievements in innovation, public promotion and supporting knowledge mobilization. There are also additional awards and supplements available for certain underrepresented groups, such as Indigenous Scholars holding master's-level awards.²²

Undergraduate student support provided through the Tri-Council Agencies is very limited; the only broadly-accessible direct support provided to aspiring researchers and innovators at the undergraduate level by a Tri-Council Agency member is the NSERC Undergraduate Student Research Awards (USRA) program, which provides up to \$6,000 in funding for approximately 3,000 Canadian students annually.^{23,24} These awards are distributed to encourage undergraduates to participate in innovative work with an academic mentor, and to undertake graduate studies through providing research work experience which complements their studies in an academic setting. In addition, CIHR and SSHRC administer Undergraduate Student Research Awards exclusively for Black student researchers.²⁵

While the existing framework provides valuable opportunities for students, more can be done to ensure that post-secondary education in Canada is truly supportive of students as researchers and innovators, throughout and following their studies.

²⁰ Ibid, pg. 36.

²¹ https://www.nserc-crsng.gc.ca/students-etudiants/pg-cs/cgsforeignstudy-bescetudeetranger_eng.asp

²² Ibid

²³ This funding is often split into two sources: \$6,000 from NSERC, along with a mandatory minimum contribution from the faculty supervisor's research funds. For UToronto, this latter amount is \$1,500.

<https://undergrad.engineering.utoronto.ca/experiential-learning/research-opportunities/nserc-usra/>

²⁴ https://www.nserc-crsng.gc.ca/students-etudiants/ug-pc/usra-brpc_eng.asp

²⁵ https://www.nserc-crsng.gc.ca/Students-Etudiants/UG-PC/USRA-Allocations-BRPC-Quotas_eng.asp

Building on the Canadian Framework

There are 3 key ways that the federal government can support the development of researchers and innovators in Canada:

1. Expand access and opportunities for student engagement with research;
2. Promote accessible learning experiences;
3. Create opportunities for the international exchange of ideas.

1. Expanding Access and Opportunities for Student Engagement with Research

The expansion of knowledge through novel and original research is a core function of post-secondary institutions in Canada. Canadian post-secondary students are often at the leading edge of this research. Students thus must have opportunities and funding to design, plan, implement, assess and disseminate this research.

In order to maximize the potential of students for delivering new and important research, post-secondary accessibility and affordability through student financial aid and Tri-Council Agency support must be improved. Increased funding opportunities are needed to fight financial barriers and to ensure that anyone positioned to make research contributions through post-secondary studies has the financial means to do so. Representation for students in the Tri-Council Agency Governing Councils would bring fresh perspectives and greater diversity to research funding in Canada.

These improvements will allow post-secondary students to further contribute to collective understandings of our country and the world, and will drive the Canadian economy forward through the discovery and harnessing of new ideas and opportunities.

Canada's historic support for research, development, and innovation has been criticized for falling behind OECD competitor nations. While Budget 2024 increased the value of graduate student awards and scholarships, it is important to understand why this charge was previously levied. Critics of past funding levels for research in the post-secondary sector frequently pointed to the risk of a "brain drain," with graduate students highlighting the attractiveness of funding packages in other countries and

business groups noting that a significant portion of recent graduates work elsewhere, due to a lack of funding.^{26,27}

As an illustration, according to the Organization for Economic Co-operation and Development (OECD), Canada's spending on research and development (R&D) as a percentage of GDP was 1.8% in 2022; by comparison, the OECD average was 2.7%.²⁸ Most strikingly, Canada's spending on R&D as a percentage of GDP had nearly consistently *declined* from 2001 to 2023. When comparing the percentage of GDP spent on R&D by the ten most innovative countries in the world, according to the World Intellectual Property Organization's *Global Innovation Index*,²⁹ only Sweden and Finland saw declines like Canada; the rest increased spending as a percentage of GDP over that time period.

Fig 2. Gross domestic spending on R&D among the world's most innovative nations.^{30,31}

GII Rank	Country	2001 R&D Spending (% GDP)	2022 R&D Spending (% GDP)	Percent Growth
N/A	OECD Average	2.2	2.7	+ 0.5
1	Switzerland	2.3 (2000)	3.3 (2021)	+ 1.0
2	Sweden	3.9	3.4	- 0.5
3	United States	2.6	3.6	+ 1.0
4	United Kingdom	2.2	2.7 (2021)	+ 0.5
5	Singapore	2.0	2.2 (2020)	+ 0.2
6	Finland	3.2	3.0	- 0.2
7	Netherlands	1.8	2.3	+ 0.5

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<https://www.theglobeandmail.com/canada/article-lack-of-research-funding-pushes-phd-students-out-of-canada-threatening/>

27

<https://businesscouncilab.com/insights-category/analysis/productivity-part-three-canada-us-productivity-gap/>.

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<https://www.oecd.org/en/data/indicators/gross-domestic-spending-on-r-d.html?oecdcontrol-8027380c62-var3=2022&oecdcontrol-4105a61d69-var1=AUT%7CCAN%7CFRA%7CDEU%7CIRL%7CITA%7CJPN%7CKOR%7CGBR%7CUSA%7COECD%7CAUS>

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<https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2023-en-main-report-global-innovation-index-2023-16th-edition.pdf>

30

<https://www.oecd.org/en/data/indicators/gross-domestic-spending-on-r-d.html?oecdcontrol-8027380c62-var3=2022&oecdcontrol-4105a61d69-var1=AUT%7CCAN%7CFRA%7CDEU%7CIRL%7CITA%7CJPN%7CKOR%7CGBR%7CUSA%7COECD%7CAUS>

31

<https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2023-en-main-report-global-innovation-index-2023-16th-edition.pdf>

8	Germany	2.4	3.1	+ 0.7
9	Denmark	2.3	2.9	+ 0.6
10	South Korea	2.3	5.2	+ 2.9
15	Canada	2.0	1.8	- 0.2

Until Budget 2024's increase in funding, the value of the Canadian government's tri-council graduate scholarships remained stagnant for more than two decades. Since cumulative change to the Canadian Price Index (CPI) over that period has been 55.3 percentage points,³² stagnant Tri-Council funding has in fact seen a significant real cut to graduate student support since 2003. This prompted numerous reports from various agencies and committees in the federal government to sound the alarm and call for increasing the value of Tri-Council grants, including:

- The **Naylor Report** (*Recommendation #7.1*) called for an increase of \$140 million per year increment over four years;³³
- The *Advisory Panel Report on the Federal Research Support System* (i.e. the "Bouchard Report"):
 - called upon the federal government to increase the councils' annual budget by 10% for five years, with additional increases following after further consultation (*Recommendation #5*);³⁴ and
 - Called for graduate student scholarship funding to be increased to "internationally competitive levels" (*Recommendation #6*);³⁵ and
- The *Pursuing a Canadian Moonshot Program Report*, or the "Moonshot Report," (*Recommendation #9*), called for a 25% increase to the value of scholarships with the value subsequently being indexed to inflation.³⁶

In an effort to redress support for research and innovation, and address concerns from stakeholders in the research ecosystem, the federal government announced a number of core investments in research and innovation funding in Budget 2024.³⁷

³² <https://www.bankofcanada.ca/rates/price-indexes/cpi/>

³³

https://ised-isde.canada.ca/site/canada-fundamental-science-review/sites/default/files/attachments/2022/ScienceReview_April2017-rv.pdf, pg. 153.

³⁴

<https://ised-isde.canada.ca/site/panel-federal-research-support/sites/default/files/attachments/2023/Advisory-Panel-Research-2023.pdf>.

³⁵

<https://ised-isde.canada.ca/site/panel-federal-research-support/sites/default/files/attachments/2023/Advisory-Panel-Research-2023.pdf>.

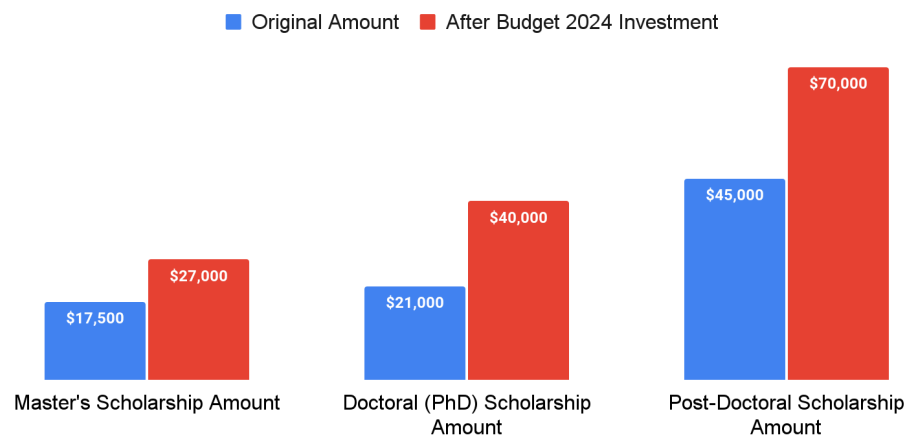
³⁶ <https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RPI2490814/srsrrp04/srsrrp04-e.pdf>.

³⁷

<https://www.canada.ca/en/departement-finance/news/2024/05/budget-2024-supporting-the-next-generation-of-researchers-and-innovators.html>

- Increased Core Funding for Tri-Agencies – The federal government announced it would commit to increasing core funding for Tri-Councils by investing \$1.8 billion over 5 years and \$748.3 million ongoing.
- Investments in Tri-Agency Grant Management System – Furthermore, the federal government committed to investing \$26.9 million over five years, with \$26.6 million in remaining amortization and \$6.6 million ongoing, to the Tri-Agencies to establish an improved and harmonized grant management system. This recommendation to improve the grant management system was intuitively recommended by the 2023 Bouchard report.
- Doubling the Value of Tri-Council Graduate Scholarships – For the first time in over two decades, Budget 2024 allocated \$825 million over five years, starting in 2024-25, with \$199.8 million per year ongoing, to increase the annual value of master's and doctoral student scholarships to \$27,000 and \$40,000, respectively, and post-doctoral fellowships to \$70,000. This investment is a significant doubling in scholarship amounts, which originally were \$17,000 for Master's students, \$21,000 for PhD students, and \$35,000 for post-docs, and follows direct recommendations from CASA to double scholarship amounts.

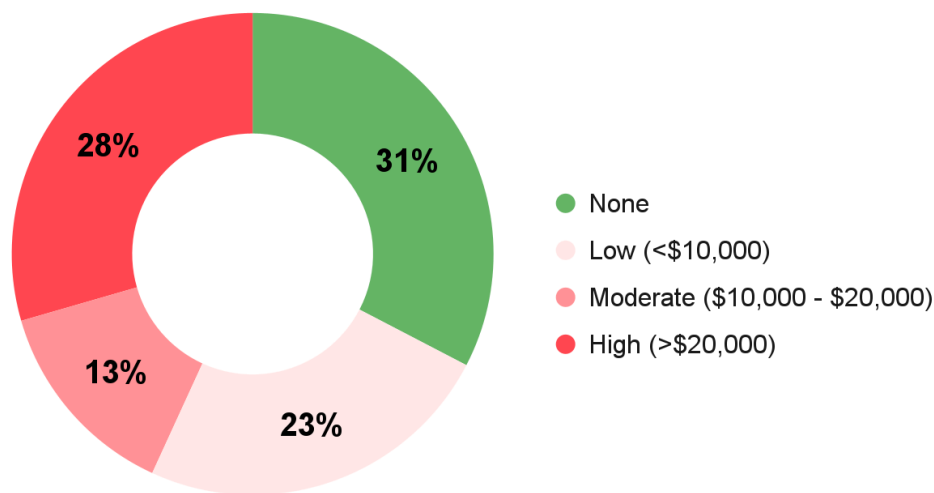
Fig 3. Change in tri-council graduate scholarship value.



In addition to improving the international competitiveness of Canadian programs, the Budget 2024 funding increases represent a long-term investment in financial accessibility for graduate students. Studies have investigated the impact of financial hardship and sudden negative income shocks (e.g. a sudden increase in tuition with no offsetting increases in financial aid). A significant portion of this literature has found that tuition and fee hikes *decrease* program enrollment when financial aid does

not increase enough to compensate.^{38,39,40,41} Notably, this research does not differentiate graduate students from undergraduates. This means that the effect of increasing costs on program accessibility is likely underestimated for graduate students, as graduate students tend to be older, less likely to be being supported by their parents, and more likely to have dependants of their own. For instance, one study indicated that American graduate students were more likely to be over 25, and over a fifth being parents, with parents skewing older.⁴²

Fig 4. Graduate Student Debt Expected at Graduation in 2024.⁴³



As shown in figure 4, expected debt at graduation is significant for graduate students. High levels of graduate student debt can lead to premature exits from graduate programs; delays to major degree-related milestones; and can create significant amounts of finance-related stress. This also adversely impacts graduate students attempting to start families, which may be negatively impacted “when they cannot control the balance of their roles, which may ultimately lead to higher levels of stress,

³⁸ https://oaresource.library.carleton.ca/cprn/6230_en.pdf

³⁹

https://www.ssoar.info/ssoar/bitstream/handle/document/5638/ssoar-2003-3-johnstone-cost_sharing_in_higher_education.pdf?sequence=1&isAllowed=y

⁴⁰ https://publications.gc.ca/collections/collection_2009/fin/F21-8-2004-9E.pdf

⁴¹ <https://www.sciencedirect.com/science/article/abs/pii/S0190740912000588>

⁴² <https://journals.sagepub.com/doi/epub/10.1177/15210251211072241>

⁴³ Data from the Abacus Data survey of post-secondary students, commissioned by CASA. Read the full report here:

https://assets.nationbuilder.com/casaacae/pages/4311/attachments/original/1742393499/Research_Report_-_PSE_Students_Struggle.pdf?1742393499

unproductivity of their work, and even drop out of graduate school”.^{44,45,46} There is yet further evidence of a positive relationship between program completion and tuition reductions and a *negative* relationship between program completion and student debt at the graduate level,⁴⁷ showing that a reduction in program cost improves a student’s chances of successfully completing graduate education.

The possibility of graduate students being pushed out their degrees due to insufficient funding will always pose a serious risk to Canada’s research and innovative potential. Given that other nations are poised to increase the gap in R&D funding, and have earmarked significant funds for graduate students, that risk will only be amplified. But investing in students pays social dividends, which means that public investment in students will create public benefits. As the work of Nobel Prize-winning economist Paul Romer has shown, human capital is the primary driver of economic innovation and education is the primary source of human capital.^{48,49,50} Historically, students and recent graduates represent an underappreciated source of new businesses and technology transfer, being “twice as likely as their professors to create spin-off companies,” according to a 2017 report by the House of Commons’ Standing Committee on Industry, Science, and Technology.⁵¹

Given comments by Damrich et. al. about the importance of scholars straddling the line between both academia and industry for maintaining a “crowding-in” effect for R&D funding, as well as additional studies showing the importance of start-ups for commercializing high-impact innovations, students’ ability to participate in academia and facilitate technology transfers for start-ups should not be underestimated.^{52,53} Furthermore, a witness from the private sector added that “[t]he largest intellectual property and technology transfers from academia to Canadian companies occur when one of these innovative companies hires technically well-trained graduating students,” which requires integrating students “into the broader innovation ecosystem in order to do design work, proof of concept and prototyping.”⁵⁴

⁴⁴<https://www.apa.org/pubs/journals/features/tep-tep0000112.pdf>

⁴⁵ <https://files.eric.ed.gov/fulltext/EJ1128619.pdf>

⁴⁶ <https://journals.sagepub.com/doi/epub/10.1177/15210251211072241>

⁴⁷ <https://ir.library.louisville.edu/jsfa/vol40/iss3/1/>

⁴⁸ <https://www.jstor.org/stable/2937632>

⁴⁹ <https://www.sciencedirect.com/science/article/pii/S016722319090028J>

⁵⁰ <https://www.jstor.org/stable/40721841>

⁵¹

<https://www.ourcommons.ca/Content/Committee/421/INDU/Reports/RP9261888/indurp08/indurp08-e.pdf>

⁵² <https://www.sciencedirect.com/science/article/pii/S0048733321001967>

⁵³ <https://www.nber.org/be/20231/startups-drive-commercialization-high-impact-innovations>

⁵⁴ Ibid, pg. 30.

The importance of investing in graduate students to spur innovation only grows in importance when factoring in the challenges associated with “Industry 4.0,” or the widespread adoption of interdependent digital technologies. Jisun Jung, analyzing the South Korean postsecondary system’s preparedness for Industry 4.0, noted that universities must support students as lifelong learners, and facilitate broad and flexible curriculums, in order to take advantage of the possibilities that integrated digital technologies bring.⁵⁵ Muscio and Ciffolilli also emphasize the importance of postsecondary institutions in integrating Industry 4.0 technologies into the broader public sphere.⁵⁶ Without significant Tri-Council support to graduate students, however, this will not be possible, and Canada again risks being outpaced by countries that better support their graduate student population.

Finally, increasing the accessibility of graduate student education can help Canada tackle a longstanding problem: lagging productivity growth. Canada as a whole has produced less output per worker than the United States for over two decades, with the productivity gap between countries increasing between 2000 and 2020;⁵⁷ the COVID-19 pandemic has only exacerbated Canada’s productivity woes.⁵⁸ There are numerous explanations for why this productivity gap exists, but the Business Council of Alberta identifies disparities in advanced education between Canada and the US as the likely culprit. They state that Canada and the US have equally educated populations at the K-12 level, but 38% of Americans have a bachelor’s degree or higher compared to 33% of Canadians, and 2% of Americans have a PhD relative to 1% of Canadians.⁵⁹ Solving the productivity gap also carries with it an additional benefit: increased productivity means less time and resources are needed to produce a specific good, which will lower costs, and lowering costs helps reduce inflation.

1.1 Expanding the Canada Student Grant

Canadian federal and provincial governments offer eligible students various forms of financial aid to make post-secondary education more accessible and affordable. The two main categories of aid are loans (which must be repaid), and needs-based grants (which do not have to be repaid). CASA supports a robust system of needs-based grants in order to ensure that all academically-qualified Canadians who wish to pursue a post-secondary education can do so.

⁵⁵ <https://www.tandfonline.com/doi/full/10.1080/1360080X.2019.1660047>

⁵⁶ <https://www.tandfonline.com/doi/full/10.1080/10438599.2019.1597413>

⁵⁷ <https://bcbc.com/insights-and-opinions/canadas-productivity-performance-over-the-past-20-years>.

⁵⁸ <https://thehub.ca/2023-03-09/trevor-tombe-the-pandemics-lasting-scars-on-canadas-economy/>.

⁵⁹ <https://businesscouncilab.com/insights-category/analysis/productivity-part-three-canada-us-productivity-gap/>.

While graduate students are eligible for loans, they are not currently eligible for needs-based grants under the Canada Student Financial Assistance program (CSFA). Graduate degrees (master's and PhDs) have been shown to improve economic outcomes, with degree holders obtaining higher median incomes and lifetime earnings, and lower unemployment rates.⁶⁰ However, there are concerns about the accessibility of these programs, particularly for students coming from low income backgrounds.

According to the 2024 CASA survey administered by Abacus Data, nearly 2 in 3 graduate students graduate with debt (62%), with the most common source being government student loans.⁶¹ According to the same survey, the proportion of graduate students graduating with large debt (over \$20,000) has increased significantly, to currently a third of all graduate students (28%).⁶² Between 2021-22 and 2020-21, average debt levels increased by \$1,836 for doctoral students and \$3,470 for master's students.⁶³ Fear of more student debt can dissuade highly capable and talented students from pursuing graduate studies: nearly 1 in 3 students graduating from undergraduate programs have reported that financial concerns impacted their decision to attend graduate school.⁶⁴ Financial strain can also lead students to leave their studies before obtaining their degree.⁶⁵ The Conference Board of Canada rates Canada's PhD graduation rate as a "D," placing second-last among 16 peer competitor countries.⁶⁶

Fig 5. Affordability challenges of graduate students in 2024.⁶⁷

⁶⁰ <https://imic-cimt.ca/data-dashboards/post-secondary-graduate-earnings/>

⁶¹ Data from the Abacus Data survey of post-secondary students, commissioned by CASA. Read the full report here:

https://assets.nationbuilder.com/casaacae/pages/4311/attachments/original/1742393499/Research_Report_-_PSE_Students_Struggle.pdf?1742393499

⁶² Ibid.

⁶³

<https://www.canada.ca/content/dam/canada/employment-social-development/programs/canada-student-loans-grants/reports/student-financial-assistance-statistics/2021-2022-student-financial-statistics-en.pdf#page=18>

⁶⁴ https://cusc-ccreu.ca/wordpress/?page_id=32&lang=en

⁶⁵

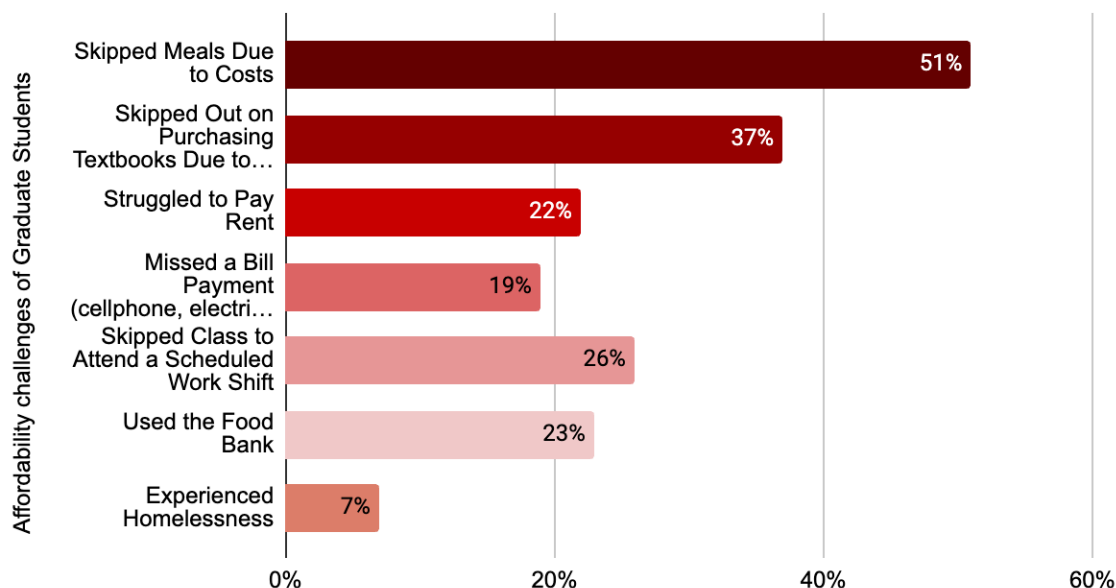
<https://www.universityaffairs.ca/opinion/in-my-opinion/what-universities-can-do-to-keep-students-from-dropping-out/>

⁶⁶ <https://www.conferenceboard.ca/hcp/phd-graduates.aspx/>

⁶⁷ Data from the Abacus Data survey of post-secondary students, commissioned by CASA. Read the full report here:

https://assets.nationbuilder.com/casaacae/pages/4311/attachments/original/1742393499/Research_Report_-_PSE_Students_Struggle.pdf?1742393499

Affordability challenges of Graduate Students, 2024



Beyond debt concerns, the high cost of education is a major hindrance to graduate students' success. According to the CASA–Abacus Data survey, graduate students disproportionately experience poverty concerns, including skipping meals due to costs (51%, versus the 40% national student average), using foodbanks (23%, versus the 19% average), and experiencing homelessness (7%, versus the 4% average).⁶⁸

Opening the Canada Student Financial Assistance program to graduate students would help ensure that no student will be dissuaded from pursuing a graduate degree or face disproportionate financial concerns while doing so. It will maximize the number of students who learn advanced research methods and who, subsequently, can make important contributions to knowledge development. It would likely also increase the overall accessibility of graduate post secondary education.

CASA recommends expanding the Canada Student Financial Assistance program to allow master's and doctoral students to access Canada Student Grants.

1.2 Increasing, Indexing, and Diversifying Tri-Agency Granting Opportunities

The Canada Graduate Scholarships (CGS) programs, administered through NSERC, SSHRC and the CIHR, provide thousands of master's and doctoral students with invaluable funding for their research pursuits during graduate studies. Those students

⁶⁸Data from the Abacus Data survey of post-secondary students, commissioned by CASA. Read the full report here:

https://assets.nationbuilder.com/casaacae/pages/4311/attachments/original/1742393499/Research_Report_-_PSE_Students_Struggle.pdf?1742393499

with CGS support enjoy greater financial stability and are less reliant on student loans to fund their education, meaning that future generations of researchers are less burdened by debt. This translates into improved access to these programs and improved research outcomes: for instance, recipients of CGS are less likely to leave their program without completing their degrees.⁶⁹ The mechanism behind CGS creating better research outcomes is easy to outline: students with CGS funding have more time to focus on their research rather than hunting for alternative sources of funding, which allows students to become more innovative, creative, and productive in their work while continuing to learn from scholars within their research community. As has been argued earlier in this paper, these improved research outcomes create social dividends: the research projects that are facilitated through CGS lead to new ideas for curing diseases, solving social problems, improving productivity, and competing in the world economy.

Fig 6. *Percentage of Students Receiving Major Federal Graduate Awards by Funding Agency*

Agency	Total enrolled graduate students, domestic and international, 2021–2022⁷⁰	Estimated percentage of enrolled graduate students with a federal award active, 2021–2022^{71,72}
NSERC	43,530	7.3%
SSHRC	106,188	5.1%
CIHR	59,316	2.1%

As such, governments need to carefully weigh what the optimal number of Tri-Council scholarships distributed to students should be. While the prestige of the awards imply some level of exclusivity—and the increased monetary value of the awards post-Budget 2024 will increase the final price-tag of any expansion in the number of distributed awards—having too few awardees per year could restrict the amount of innovative graduate student research being generated in Canada. It could also lead to long-term structural problems in labour markets for careers that involve research.

⁶⁹ https://cihr-irsc.gc.ca/e/documents/evaluation_cgs_program_2016-en.pdf

⁷⁰

<https://www150.statcan.gc.ca/t1/tbl/en/tv.action?pid=3710001801&pickMembers%5B0%5D=2.2&pickMembers%5B1%5D=5.12&pickMembers%5B2%5D=7.2&pickMembers%5B3%5D=4.6&pickMembers%5B4%5D=6.1&cubeTimeFrame.startYear=2020+%2F+2021&cubeTimeFrame.endYear=2020+%2F+2021&referencePeriods=20200101%2C20200101>

⁷¹ Compared against data in Fig. 1

⁷² Note: some of the data used in this calculation includes an estimate based on the maximum total possible Vanier Scholarships held by each agency, so the actual percentage may vary slightly from this illustrative percentage.

Recommendation 9 of the *Pursuing a Canadian Moonshot Program* calls upon the federal government to increase the total number of awards distributed to graduate students.⁷³ The report argues that expanded granting opportunities are not only necessary to avoid the development of a skills-gap between graduate school-educated professionals, but to ensure that Canada can leverage a diverse knowledge-base to become research leaders in strategically valuable fields, such as artificial intelligence or green technology.

Indeed, making the Tri-Council scholarships overly exclusive could disincentivize high-quality applicants from applying for the awards, as they might not feel it worth their time or effort to submit an application when there is only a small chance of being successful (and especially if their applications receive no feedback from which they can learn, as we will discuss in a later section). Some universities make it mandatory for students to apply to the Tri-Council competitions, or at least will restrict funding for those students that do not apply;⁷⁴ but this is not an efficient solution to the funding squeezes faced by graduate students, nor is it a particularly effective way to generate high-quality research proposals.

The number of graduate awards as a proportion of enrolled students that are distributed per year has remained low in recent years, as demonstrated in Figure 6. Budget 2024 promised to increase the number of graduate and postdoctoral awards by 1,720 in total.⁷⁵ Given that graduate student enrollment tripled for full-time Master's students and quadrupled for full-time Doctoral students between 1980 and 2010⁷⁶—a trend that is likely to have only accelerated—it is highly probable that the ratio of awards to full-time graduate students will decline in the near-future despite the recent increase to the total number of awards. As the *Moonshot Report* makes clear, if Canada wants to become a leader in strategically valuable fields, it must do more than simply keep pace with the rest of the world—it must consistently do *better* at generating high-quality, diverse research inside academia and out. Thus, the likelihood that granting opportunities for graduate students will decline threatens Canada's ability to become a strategic leader.

To reverse this situation, policymakers must index the number of awards given to graduate students to enrollment. It must also ensure that the funding levels of each of the three granting agencies are indexed to enrollment to match the needs of a growing student population.

⁷³ <https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RPI2490814/srsrrp04/srsrrp04-e.pdf>

⁷⁴ <https://arts.ucalgary.ca/political-science/current-students/graduate/program-policies/program-funding-fee-and-payment-policies#:~:text=All%20students%20are%20required%20to,apply%20for%20Tri%2DCouncil%20Scholarships>

⁷⁵ <https://budget.canada.ca/2024/report-rapport/chap4-en.html#s4-1>

⁷⁶ <https://www.univcan.ca/wp-content/uploads/2015/11/trends-vol1-enrolment-june-2011.pdf>

While indexing the number of granting opportunities to enrollment growth, policymakers must also be cognizant of how the value of these awards can erode via inflation. Students had to wait over twenty years before seeing an increase in these bursary amounts, which unnecessarily placed the student research population in a financially precarious position. Consequently, policymakers must also make sure that the value of these (ideally expanded) granting opportunities are indexed to inflation to ensure that Canada remains competitive within the research and post secondary landscape.

In addition, the federal government should consider the proportion of awards allotted to each funding agency. The Naylor Report highlights that the available funding for the Tri-Council agencies, and the subsequent funds available for CGSs, is highly unequal. Using a rough estimate from Statistics Canada's distribution of enrolled students by field of study as well as the estimated awards active outlined in Fig. 6, we can see that the percentage of CIHR graduate students receiving a federal research scholarship is significantly lower than students either from the SSHRC or NSERC (*Fig. 6*).

To ensure that more qualified students can pursue their valuable research projects across all disciplines, unhindered by insurmountable debt loads:

CASA calls upon the federal government to increase the number of Canadian Graduate Scholarships available in Canada so that a minimum of 10% of all eligible graduate students may receive Tri-Council support;

CASA calls upon the federal government to index the total number of Canada Graduate Scholarships (CGS) awards to the growth of the graduate student population, to maintain the 10% rate on an ongoing basis;

CASA calls upon the federal government to equalize the ratio of awards to students for each of the tri-council funding agencies in order to rectify the unequal distribution of awards;

The federal government maintain competitive Canadian Graduate scholarship (CGS) and Post-Doctoral Fellowship funding levels by indexing awards to inflation

1.3 Providing Feedback for Tri-Council Agency Applications

The CGS program from the Tri-Council Agencies represents an essential opportunity for students to fund their research-based graduate studies. Despite the importance of applying for CGS scholarships, however, there currently exists no feedback

mechanism for students to understand why their applications were, or were not, successful.

A feedback mechanism should be developed to allow students to receive valuable feedback regarding their applications. This mechanism would help students to improve their likelihood for success in future applications. There is potential for this feedback mechanism to mimic the feedback professors and scholars get when applying for larger tri-council agency funding. When researchers apply for research grants from the tri-council agencies, they receive valuable feedback on their applications if they are unsuccessful. This feedback ranges from constructive criticism of the proposed research program to simply letting the researcher know that their research was well designed but not within the scope of the agency's funding priorities. This feedback is critical and necessary for professors, researchers, and would be significantly valuable graduate students as well.

CASA recommends that the Tri-Agencies update their evaluation protocol for applications to include a status update for applicants.

CASA advocates that the Tri-Agencies include a feedback mechanism in their application process so that unsuccessful students can receive critical and necessary feedback on their application.

1.4 Bringing Student Representation to the Tri-Council Agencies

Despite graduate student scholarships representing a significant portion of each agency's annual expenditures, there are no reserved spots for graduate students at the council, executive, or program committee levels for any of the three Tri-Council Agencies. As a result, students are frequently impacted by Tri-Council Agency policies in which they have no say. For example, changes in the Tri-Council Agency Framework for the Responsible Conduct of Research, which governs research ethics, impact university-level research ethics policies, which, in turn, affect all student research that undergoes ethics reviews. However, students continue to lack a voice within the administrative bodies that approve these changes.

Tri-Council Agency governing councils are responsible for strategic directions, goals and policies, performance evaluations, budgeting, ministerial and parliamentary advice and collectively representing the research communities they serve. They include representation from the public sector (i.e. universities, hospitals and government) and private sector (i.e. for-profit and not-for-profit enterprises) but not from students, despite the long-term impact their decisions have upon student research. Tri-Council Agency selection committees make decisions on all awards,

including granting programs for students. Granting decisions are normally based on peer-review and are supposed to include diversified expertise in the research areas covered by each committee. However, the peer-based component is lost since students are not included in the decision-making process.

Student perspectives must be taken into account during the consideration of the strategic direction of publicly-funded programs that engage students. CASA echoes recommendation six of the 2023 “Government of Canada’s Graduate Scholarship and Post-Doctoral Fellowship Programs” report of the House of Commons Standing Committee on Science and Research (SRSR), which calls for amendments to the associated Acts “to include student representatives on the governing councils of these three institutions.”⁷⁷ Besides representing an important stakeholder group, students are the next generation of researchers, innovators and professors and they will undoubtedly approach research projects in ways that are different from previous generations. As highlighted in the Bouchard report, graduate students are best positioned to understand the current realities of research, and develop innovative solutions to emerging new challenges⁷⁸.

Furthermore, the historic lack of student representation on federal research funding agencies has historically been a significant factor in why research grant maximums stagnated over the past two decades. Additional testimony at the SRSR committee hearings found that “the fact that the student advocacy is not incorporated into the governing councils of the three granting councils is one of the reasons why grant amounts have not increased”.⁷⁹ This testimony suggests that the heads of the federal granting agencies are aware of the significant impact this lack of representation can have on the student research community.

The Bouchard report called for the federal government to create a new organization designed to help address system challenges, preserve the Tri-Agencies, and foster investigator-initiated research. Acting on this recommendation, Budget 2024 announced that a new capstone research organization would be created to help coordinate, support, and advance mission-driven research in Canada through the Tri-Agencies, to be led by an executive Board of Directors. Student representation must be ensured on all existing and new decision-making bodies within the capstone organization and the ongoing tri-council agencies.

⁷⁷ <https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RP12784325/srsrrp08/srsrrp08-e.pdf>

⁷⁸ <https://ised-isde.canada.ca/site/panel-federal-research-support/sites/default/files/attachments/2023/Advisory-Panel-Research-2023.pdf>

⁷⁹ <https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RP12784325/srsrrp08/srsrrp08-e.pdf#page=50>

CASA recommends that the Government of Canada reserve at least three seats for those from the student research community—one for each of the federal tri-agencies—on the Board of Directors of the new research capstone organization

CASA recommends that the federal government reserve at least four additional seats for the student research community in the governing councils of the TriAgencies and in the governing council of the multidisciplinary research unit of the new research capstone organization.

CASA recommends that the federal government reserve spaces for those from the student research community on every existing Tri-Council standing and advisory committee, as well as any that arise as part of the new research capstone organization, including the proposed advisory Council on Science and Innovation.

1.5 Expanding Opportunities for Under-Supported Graduate Students

There are many demographics who are underrepresented in the tri-council graduate scholarship program. Here, we choose to focus on two such groups for whom targeted policy responses from the federal government could make a significant difference: Indigenous graduate students and Francophone graduate students.

Expanding Opportunities for Indigenous Graduate Students

In 2022, the Government of Canada launched the Indigenous Scholars Awards and Supplements Pilot Initiatives “to provide financial support to Indigenous master’s students in social science, humanities, natural science, and engineering programs. Qualifying Indigenous applicants will receive a \$17,500 award as well as a \$5,000 supplement as part of the current Canada Graduate Scholarships—Master’s program offered by the Social Sciences and Humanities Research Council (SSHRC) and the Natural Sciences and Engineering Research Council (NSERC).”⁸⁰ In March 2025, it was confirmed that this initiative will be expanded to CIHR as well.⁸¹ Since the Budget 2024 increases in award values, the Indigenous Scholars Awards and Supplements is \$27,000 / \$5,000. These are awarded to applicants to the CGS-M program who self-identify as Indigenous. There is no easily accessible information, however, about the number of applications or awards offered for this funding stream.

According to SSHRC’s own data, in the 2018 to 2023 competition years for the Canada Graduate Scholarships (both Masters and Doctoral) and the SSHRC Doctoral Awards,

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<https://www.canada.ca/en/social-sciences-humanities-research/news/2022/08/government-of-canada-launches-pilot-initiative-to-further-support-indigenous-masters-students.html>

⁸¹ https://www.nserc-crsng.gc.ca/NewsDetail-DetailNouvelles_eng.asp?ID=1518

Indigenous students represented 4.2% of applicants, 4.8% of awardees, and 6.1% of funding. Concerningly, the success rate for applicants to SSHRC Doctoral Awards was lower for Indigenous applicants (22.6%) compared to non-Indigenous applicants (24.7%).⁸²

Given that Indigenous people face greater barriers and costs associated with accessing post-secondary education—let alone graduate research degrees—than their non-Indigenous peers, CASA believes it paramount that the Tri-Councils expand their investments in Indigenous graduate students. This should include expanding the Indigenous Scholars Awards and Supplements Pilot Initiatives to students enrolled in CIHR-related programs as well as for students enrolled in doctoral programs, and ensuring that the number of awards available are sufficient for helping to address the severe graduate degree attainment gap between Indigenous and non-Indigenous populations (see Fig. 7). Such dedicated funding streams would help to encourage more Indigenous students to apply for graduate school and ensure they are properly supported when they do so, thus contributing to fulfilling the inherent and Treaty right to education.

In addition, the Indigenous-student specific pilot funding streams are currently assessed in the same system as general CGS-M scholarships. Though identifying information is currently removed, meaning that potential unconscious biases by the evaluation committees is theoretically lessened, evaluators should be trained to ensure recognition of the value and validity of Indigenous research methodologies in CGS applications.

Fig 7. *Highest Level of Education Obtained for those 15 years or older at the time of the 2021 Census.*⁸³

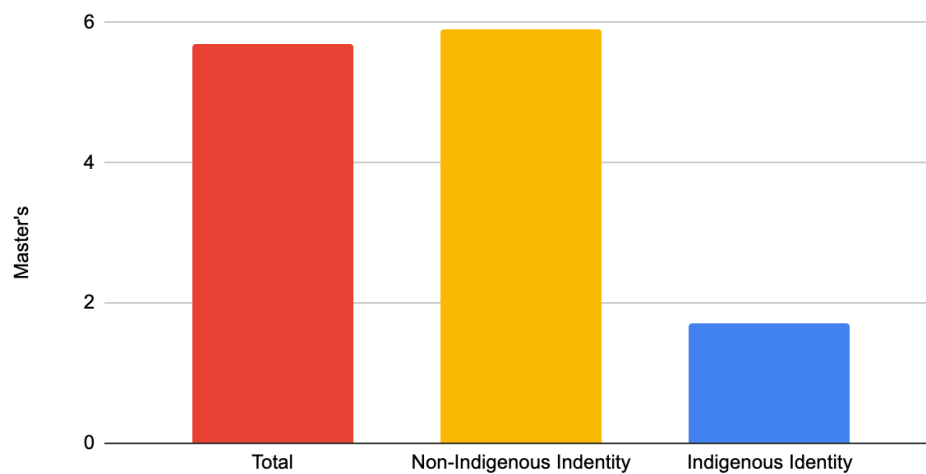
⁸²

<https://app.powerbi.com/view?r=eyJrIjoieWUzNTYzZWItNmMINy00NjY0LTg3OTktYjxMjAlZTE4N2FkliwidCI6ImZiZWYwNzk4LTlwZTMtNGJlNyliZGM4LTM3MjAzMjYxMGY2NSJ9&language=en-ca>

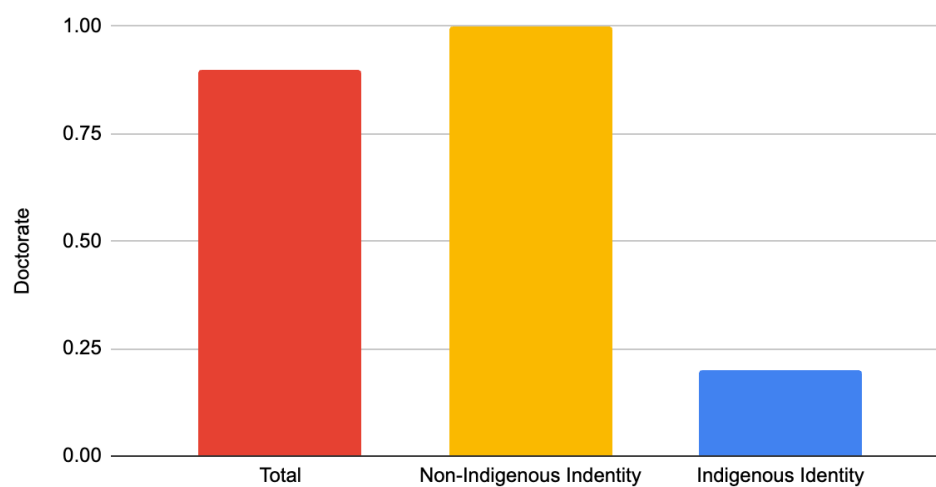
⁸³

<https://www150.statcan.gc.ca/t1/tbl/en/tv.action?pid=3710001801&pickMembers%5B0%5D=2.2&pickMembers%5B1%5D=5.12&pickMembers%5B2%5D=7.2&pickMembers%5B3%5D=4.6&pickMembers%5B4%5D=6.1&cubeTimeFrame.startYear=2020+%2F+2021&cubeTimeFrame.endYear=2020+%2F+2021&referencePeriods=20200101%2C20200101>

The Indigenous Masters Degree Attainment Gap, by % of 2021 census population



The Indigenous PhD Degree Attainment Gap, by % of 2021 census population



More broadly, federal graduate student scholarship distribution policies should be aligned with the spirit of Truth and Reconciliation Commission of Canada's Call to

Action 65, emphasizing support for Indigenous-led research initiatives.⁸⁴ In addition, CGS should prioritize funding for community-driven research, especially projects supporting reconciliation and preserving Indigenous cultures, as part of CGS criteria. Further, Indigenous scholars should be involved in every stage of policy development discussions and reforms related to graduate student scholarship programs, including in the proposed Capstone organization.

Expanding Opportunities for Francophone Graduate Students

Urgent action needs to be taken to address the underfunding of Francophone research in Canada, including for student researchers. As found in the House of Commons Standing Committee on Science and Research (SRSR)'s 2024 report on the *Distribution of Federal Funding among Canada's Post-Secondary Institutions*, Francophone researchers are receiving a declining share of funding, falling below their demographic representation.⁸⁵ This is a concern for student awards specifically: for Social Sciences and Research Council of Canada (SSHRC) awards for masters, doctoral, and postdoctoral scholars offered in the 2014–2023 program years, just 18.1% of awards were given for French-language research.⁸⁶ This low percentage has remained relatively consistent each year, suggesting the program does not sufficiently attract or evaluate Francophone applicants.

CASA supports several SRSR recommendations to mitigate these challenges, as outlined in Report 5: *Revitalizing Research and Scientific Publication in French in Canada*.⁸⁷ These include establishing a French-language science office to oversee federal support for French-language research and adjusting funding allocation criteria to eliminate the over-reliance on bibliometric tools for assessing research excellence. Shifting toward qualitative evaluations and broader measures of impact can better reflect the significance of French-language research.

⁸⁴ “We call upon the federal government, through the Social Sciences and Humanities Research Council, and in collaboration with Aboriginal peoples, post-secondary institutions and educators, and the National Centre for Truth and Reconciliation and its partner institutions, to establish a national research program with multi-year funding to advance understanding of reconciliation.” – This is currently in progress, see: https://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/reconciliation_action_65-en-g.aspx. Aside from this specific initiative, however, the Tri-Councils can do more to ensure their funding programs are aligned with reconciliation.

⁸⁵ <https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RPI3470065/srsrrp12/srsrrp12-e.pdf> p. 22

⁸⁶ This relates to the preamble to Bouchard report Recommendation #21: <https://app.powerbi.com/view?r=eyJrIjoIM2QxZDc1M2MtN2QyNi00MDI5LTk3ZGMtZjQyY2Y0YWFiYjE2liwidCI6ImZiZWYwNzk4LTlwZTMtNGJlNyliZGM4LTM3MjAzMjYxMGY2NSJ9&language=en-ca>

⁸⁷ <https://www.ourcommons.ca/Content/Committee/441/SRSR/Reports/RPI2528119/srsrrp05/srsrrp05-e.pdf>

CASA also advocates for reforms to enhance linguistic equity, including dedicated funding streams for Francophone researchers. Additional measures such as restructuring the criteria for research excellence to provide incentives for researchers, including graduate students, to produce knowledge products in both official languages could expand the reach and linguistic inclusivity of federally funded research.⁸⁸

Improving data collection on studying and working in French at Canadian post-secondary institutions is another priority. Comprehensive data would enable evidence-based policy-making, addressing inequities and ensuring adequate support for French-language research across academic levels.

CASA calls for the Tri- Council Agencies to be tasked with reporting available data on applications, awards, and outcomes for Canada Graduate Scholarships (CGS) recipients—including data on demographic categories such as Indigenous status—so as to allow greater transparency around the program, and facilitate further reforms as needed.

CASA calls upon the Tri-Council Agencies to expand the Indigenous Scholars Awards and Supplements Pilot Initiatives to Indigenous students enrolled doctoral programs, and to continue to expand funding for Indigenous student researchers in the spirit of the Truth and Reconciliation Commission's Call to Action 65;

CASA calls upon evaluators for Tri-Council graduate scholarships to be trained to ensure recognition of the value and validity of Indigenous research methodologies and forms of knowledge mobilization in CGS applications;

CASA calls on the Tri-Council Agencies to prioritize funding for community-driven research, especially projects supporting reconciliation and preserving Indigenous cultures, as part of CGS criteria;

CASA calls upon the federal government to create dedicated funding streams for Francophone student researchers;

CASA calls upon the federal government to enact the recommendations of the Standing Committee on Science and Research's Report 5: Revitalizing Research and Scientific Publication in French in Canada.

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<https://ised-isde.canada.ca/site/panel-federal-research-support/sites/default/files/attachments/2023/Advisory-Panel-Research-2023.pdf> p. 57.

1.6 Improving the Indirect Stream of Graduate Student Funding

Currently, in large federally funded granting programs such as SSHRC Insight Grants and NSERC Discovery Grants, training of highly qualified personnel (HQP)—undergraduate and graduate students as well as postdoctoral scholars—is considered an important component of the evaluation of research excellence and potential. However, in the evaluation criteria, this element is evaluated alongside other criteria such as impact, feasibility, and challenge. This lack of a distinct, standalone evaluation criterion for talent development risks its significance being obscured within the broader scope of the grant application, thus diminishing the focus on the quality and quantity of training opportunities provided to students.

By establishing a standalone "talent development" section in grant applications, the tri-agencies would emphasize the critical role of HQP training in fostering the next generation of scholars and innovators. This criterion would specifically evaluate both the quantity and quality of opportunities for graduate and undergraduate students involved in research, ensuring that talent development is given the attention it deserves. This would also promote more intentional planning for student involvement, helping to ensure that students are trained as integral contributors to the research project.

CASA also advocates for a regulatory measure that would require recipients of large tri-agency grants, such as NSERC Discovery and SSHRC Insight Grants, to ensure that graduate students receiving salaries from these projects are compensated adequately for the years they are supported by the project.

A significant portion of the budgets of these grants (32% for SSHRC and 37% for NSERC) is currently allocated for graduate student salaries.⁸⁹ The tri-agencies consider this the "indirect stream" for supporting talent development through federal research funding, as opposed to the "direct stream" which includes Canada Graduate Scholarships. More than 75,000 graduate students, or 30% of the population, are estimated to receive some level of financial support from these grants annually. This indirect stream of funding is thus much more widespread than the direct stream, which currently funds less than 10% of graduate students.

⁸⁹

https://www.sshrc-crsh.gc.ca/about-au_sujet/publications/evaluations/2023/tri-agency_talent-trois-organismes_talent-eng.aspx

In 2020–2021, each student funded through indirect stream grants received an average of \$5,704 per academic semester from this source.⁹⁰ The rest of a student's stipend usually comes from institutional supports, such as teaching assistantships and institutional scholarships. In 2023, the average annual stipend for master's students in Canada was \$19,000, and for PhD students, it was \$24,000—though this can vary greatly depending on the institution and the student's status.⁹¹

Despite the significant role of the indirect stream in funding students, faculty applicants for these grants are currently not required to disclose the total annual income of the students and postdocs they support. By requiring that research grant recipients ensure that the total annual compensation (indirect stream plus institutional supports and private industry funding) for graduate students salaried through tri-council grants meets an agreed-upon level,⁹² this recommendation would help ensure that federal funding directly contributes to fair and competitive compensation for graduate students. This would prevent the misuse of federal research funding as an institutional subsidy and ensure that research grants contribute meaningfully to a student's income, training, and professional development.

Recognising that the value of Canada Graduate Scholarships (CGSs) reflects not only the cost of living but the prestige of the awards, CASA believes the minimum total compensation for students supported through their supervising professor's tri-council grants should be set around \$35,000 for doctoral students and \$22,000 for master's students (\$5,000 below the relative CGS levels). However, the precise level should be decided through consultations with stakeholders including post-secondary institutions, grant recipients, and students.

While we welcome recent increases to Canada Graduate Scholarships announced in Budget 2024, these awards support less than 10% of graduate students in Canada. By implementing this regulatory measure, the government can provide a scalable, high-impact solution for fair student researcher compensation, without additional budgetary spending.

⁹⁰ Ibid

⁹¹

<https://www.chemistryworld.com/news/canadas-graduate-students-crippled-by-wages-that-havent-risen-since-2003/4017008.article>

⁹² This recommendation specifically targets graduate students receiving salaries as part of these research grants and does not apply to undergraduate students or temporary research assistants.

CASA calls upon the Tri-Council Agencies of Canada to create a standalone “talent development” section criterion for federally funded granting programs for researchers, including but not limited to SSHRC Insight Grants and NSERC Discovery Grants;

CASA calls upon the federal government to mandate a condition that total annual compensation for graduate students supported under federally funded research programs, when combined with institution-funded supports, should meet a satisfactory value that is decided through consultations with stakeholders including post-secondary institutions, grant recipients, and students.

2. Promoting Accessible Learning Experiences

2.1 Supporting the Development of Open Educational Resources

Open-education resources (OERs) are teaching, learning, and research materials that are part of the public domain under an intellectual property license that allows them to be used and repurposed freely.^{93,94} OERs include full courses, course materials, modules, textbooks, streaming videos, tests, software and any other tools, materials, or techniques used to support access to knowledge.⁹⁵

The wider creation and adoption of OERs would create more affordable education for students. According to Abacus Data, educational materials including textbooks and other materials cost on average \$5,619.60 annually.⁹⁶ In British Columbia, the BCcampus program, a provincial grant program facilitating and encouraging the use of OERs, has over 369 open textbooks in its collection across 41 institutions.⁹⁷ The result of these adoptions equate to \$20 million in student savings, up 131% since the previous year, according to the 2020-21 Annual Report.⁹⁸

The flexibility of OERs allows for quality information to be more accessible, which in turn promotes wider participation in higher education. OERs are also a factor in breaking down the barriers between formal and non-formal learning. The method

⁹³ <https://www.unesco.org/en/open-educational-resources>

⁹⁴ <https://open.bccampus.ca/what-is-open-education/what-are-open-educational-resources/>

⁹⁵ http://www.hewlett.org/wp-content/uploads/2016/08/OER%20White%20Paper%20Nov%2022%202013%20Final_0.pdf

⁹⁶ Data from the Abacus Data survey of post-secondary students, commissioned by CASA. Read the full report here:

https://assets.nationbuilder.com/casaacae/pages/4311/attachments/original/1742393499/Research_Report_-_PSE_Students_Struggle.pdf?1742393499

⁹⁷ <https://bccampus.ca/wp-content/uploads/2022/03/Annual-Review-2020-2021.pdf>

⁹⁸ <https://bccampus.ca/2020/10/31/20-million-in-2020/>

by which OERs are produced encourages lifelong learning, and, due to the nature of the product, they push the development and use of emerging technologies.⁹⁹ Taken together, the adoption of OERs offers a significant opportunity to grow the educational potential of a community or classroom. Adoption of OERs in place of traditional textbooks in post-secondary settings has been correlated with increased student performance and increased student retention from having a better, customized learning resource and more flexible access.¹⁰⁰

CASA recommends that the Government of Canada should establish an OER repository through the Tri-Council Agencies.

CASA calls upon the federal government to promote the advancement of OER development across the country.

CASA further recommends that the Government of Canada should establish funding through the Tri-Council Agencies to support the development of high-quality and widely adopted OERs.

2.3 Open Access to Scholarly Publications

Open access (OA) is a movement to provide free and unconstrained access to academic research. Open access publication is defined as the “free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself.” The statement allows for one copyright restriction: to preserve the author’s “control over the integrity of their work and the right to be properly acknowledged and cited.”¹⁰¹

Generally, OA articles have a much bigger, broader impact than those published behind paywalls, meaning researchers who publish OA can be more influential.¹⁰² OA also enables those without institutional library access or funds to pay to read articles out-of-pocket—such as citizen scientists,¹⁰³ nonprofits, prospective PSE students, and small businesses—access to peer-reviewed academic knowledge. OA can thus create a more robust democracy by empowering people outside of higher education to be cognisant of and participate in the Canadian research

⁹⁹ <http://www.oecd.org/edu/eri/38654317.pdf>

¹⁰⁰ <http://www.eurodl.org/?p=current&article=533>

¹⁰¹ <http://www.soros.org/openaccess/read>

¹⁰² <https://link.springer.com/article/10.1007/s11192-023-04894-0>

¹⁰³ <https://science.gc.ca/site/science/en/citizen-science-portal>

ecosystem, ensuring not only increased, more diverse research productivity, but also more informed decision making and innovation in sectors beyond academia. The societal importance of OA became particularly apparent during the COVID-19 pandemic, when the Office of the Chief Science Advisor, alongside a global coalition, made a call for Canadian researchers and publishers to make COVID-19 related-research freely accessible.¹⁰⁴ Experts argue that the move to OA in this and other health contexts can better international collaboration, research productivity, and even economic and health outcomes.¹⁰⁵

Considering the high research output of Canada, its proportion of 30% of research articles published gold open access is relatively low. Experts have postulated that “the fundamental reasons for the slow uptake of open access in Canada are (1) the lack of coordinated funding to support OA publishing, and (2) barriers that researchers face to publish in OA.”¹⁰⁶ Currently, the 2015 Tri-Agency Open Access Policy on Publications requires that tri-agency grant recipients “ensure that any peer-reviewed journal publications arising from Agency-supported research are freely accessible within 12 months of publication”.¹⁰⁷ However, this policy is currently under review, and the renewed policy to be released by the end of 2025 intends to require “that any peer-reviewed journal publications arising from agency-supported research be freely available, without subscription or fee, at the time of publication.”¹⁰⁸

CASA is encouraged by the tri-agencies’ move towards the greater accessibility of federally-funded research results. We note that this policy will be particularly beneficial for students at institutions with lower financial capacities for wide-ranging journal subscriptions. The number of library subscriptions at Canadian academic institutions can vary significantly depending on their size, budget, and membership to research consortiums. Access to the full scholarly record, whether for assigned readings, research for a term paper, or literature review for a dissertation, is fundamental to a comprehensive learning experience at all academic institutions, and the new proposed requirements for tri-agency funded research may help to address these institutional inequalities. As well, this policy could be particularly helpful for students who are on leave or recently

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<https://science.gc.ca/site/science/en/office-chief-science-advisor/initiatives-covid-19/call-open-access-covid-19-publications>

¹⁰⁵ <https://link.springer.com/article/10.1186/s12874-021-01304-y#citeas>

¹⁰⁶ <https://universityaffairs.ca/opinion/in-my-opinion/is-canada-ready-for-open-access/>

¹⁰⁷

<https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/tri-agency-open-access-policy-publications-2015>

¹⁰⁸

<https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/presidents-canadas-federal-research-granting-agencies-announce-review-tri-agency-open-access-policy>

graduated who want to continue to consume and produce academic work within the Canadian research ecosystem, as these individuals usually lose access to journal subscriptions via their institutional libraries while on leave or upon graduation.

However, we share some of the concerns put forward by the “What we Heard Report: Engagements on the review of the Tri-Agency Open Access Policy on Publications (2024),” particularly:

1. This policy could unduly introduce barriers to publication for early-career researchers, equity-deserving researchers, and others who have a lower financial capacity or institutional support to pay Article Processing Charges for OA.¹⁰⁹ Without sufficient author funds or diamond/ green OA routes available (see Table 1), immediate OA mandates could thus result in fewer publications being produced by these individuals, slowing down Canada’s research productivity, diversity, and innovation.
2. The rising costs of APCs combined with a requirement for immediate OA for tri-agency grant recipients may significantly decrease the amount of grant funding available for researchers to spend on other costs of research, including student support.¹¹⁰ Paid opportunities to work on tri-agency funded projects can be a transformative opportunity for both undergraduate and graduate students to gain research skills and work experience for their future careers. In addition, these opportunities can directly fund graduate students to undertake research as part of the broader project, and are thus an indirect source of federal graduate student funding outside of individually-awarded Canada graduate scholarships. As APCs continue to spiral upwards (often amounting to thousands of dollars)¹¹¹, a requirement of immediate OA could unduly limit these opportunities for student employment and upskilling.
3. The policy currently only addresses peer-reviewed articles, which does not reflect the diversity of knowledge mobilization products and activities undertaken by Indigenous researchers.¹¹² Additionally, it does not consider the range of knowledge products published by humanities researchers more generally, such as monographs and forms of Research-creation.¹¹³ These various other forms of research products are a critical and growing

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<https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/what-we-heard-report-engagements-review-tri-agency-open-access-policy-publications-2024#4>

¹¹⁰

<https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/what-we-heard-report-engagements-review-tri-agency-open-access-policy-publications-2024#4>

¹¹¹ <https://www.science.org/content/article/pay-publish-model-open-access-pricing-scientists>

¹¹²

<https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/what-we-heard-report-engagements-review-tri-agency-open-access-policy-publications-2024#4>

¹¹³ <https://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/definitions-eng.aspx>

part of the Canadian research ecosystem, which would be reflected as a modernized and inclusive AI policy.

In addition, CASA notes that individual graduate student recipients of tri-agency funding through Canada Graduate Scholarships are currently exempt from the 2015 Tri-Agency Open Access Policy on Publications.¹¹⁴ Though we agree that students should remain exempt from these requirements due to the financial burdens of gold OA, we recognise that OA articles often have a much higher, wide-ranging impact than those behind paywalls, and we believe that student researchers should also have fair access to these impactful publication opportunities¹¹⁵. We also recognise that graduate student researchers are a vital part of the Canadian research ecosystem—producing research of crucial interest to students and other research readers—and, where possible, the research published by these individuals should also be made available OA, in service of the greater accessibility and impact of Canada-funded research.

CASA calls on the federal tri-agencies (SSHRC, NSERC, CIHR) to extend the 2015 exemption of graduate students and postdoctoral fellows to the 2025 Tri-Agency Open Access Policy on Publications.

CASA calls upon the federal tri-agencies to create adequately funded Open Access author funds for grant recipients to release their research Open Access, including individual graduate student scholarship recipients who are exempt from Open Access requirements.

CASA calls on the federal tri-agencies to support and fund the establishment and ongoing operations of Open Access repositories and Diamond Open Access platforms.

CASA calls upon the federal tri-agencies to consult further with tri-agency Indigenous advisory bodies to ensure the Open Access policy reflects the diversity of knowledge mobilization/activities produced by and in support of Indigenous communities.

CASA calls upon the federal tri-agencies to continue to consult with stakeholders, including post-secondary students, to ensure that the 2025 Open Access policy reflects the diversity of knowledge products produced by grant recipients in general, including monographs and Research-creation offerings.

114 Government of Canada. "Frequently Asked Questions." Accessed October 23, 2024. <https://science.gc.ca/site/science/en/interagency-research-funding/policies-and-guidelines/open-access/frequently-asked-questions#9>

115 Chun-Kai Huang, Cameron Neylon, Lucy Montgomery, Richard Hosking, James P. Diprose, Rebecca N. Handcock & Katie Wilson. "Open access research outputs receive more diverse citations." *Scientometrics*. 129 (January 2024): 825-845. <https://link.springer.com/article/10.1007/s11192-023-04894-0>

3. Creating Opportunities for the International Exchange of Ideas

Cultural exchange is a simple and effective way to experience new ways of thinking, to develop different understandings of challenges and to engage with a larger community. Many studies have demonstrated the educational benefits of studying abroad.^{116,117,118} These benefits should be experienced by more Canadian students. Just as study abroad benefits Canadian students, providing opportunities to engage with a larger community of international students benefits all students at Canadian post-secondary institutions. CASA believes that international students who graduate from Canadian post-secondary institutions should be given high priority in applications for permanent residency. Speaking about international students, the Honorable Sean Fraser, former Minister of Immigration, Refugees and Citizenship, stated “The international student program is extraordinary. It serves Canada’s interests, it contributes tens of billions of dollars to our GDP, and it provides a pipeline of young and talented people who will be Canadian one day.”¹¹⁹

4.1 Expanding the Graduate Student Pathway to Permanent Residency

Attracting and retaining highly educated and skilled graduate students is a driving force for innovation and economic development in Canada. Immigration, Refugees and Citizenship Canada (IRCC) must continually expand and improve the Federal Skilled Worker Program and Canada Experience Class stream to provide more flexibility and allow for a greater pool of qualified individuals to obtain residency in Canada, including for international students.

The Science, Technology and Innovation Council (STIC) found that the number of individuals possessing a doctoral degree is a key indicator of a labour force’s ability “to engage in cutting edge research and training over the next generation.” This research is the fuel which drives innovation and economic development, enabling Canada to maintain and strengthen its global economic and social status. However, Canada continues to produce fewer doctoral candidates per capita than many other

¹¹⁶ <https://files.eric.ed.gov/fulltext/EJ1135354.pdf> ;
https://www.researchgate.net/profile/Judith-Borras/publication/334719554_Re-examining_the_impact_of_study_abroad_on_L2_development_a_critical_overview/links/638f0195484e65005be83b19/Re-examinin-g-the-impact-of-study-abroad-on-L2-development-a-critical-overview.pdf

¹¹⁷ <https://journals.sagepub.com/doi/10.1177/1028315313497589>

¹¹⁸ <https://openaccess.city.ac.uk/id/eprint/26602/1/> ;
https://books.google.ca/books?hl=en&lr=&id=dhDJEAAAQBAJ&oi=fnd&pg=PA1965&dq=benefits+study+abroad&ots=POMyzElj-V&sig=Ztw3iygvlf2vEUiKqooLIYewr_4#v=onepage&q=benefits%20study%20abroad&f=false ; <https://link.springer.com/article/10.1007/s11162-021-09629-9>

¹¹⁹ <https://www.ctvnews.ca/politics/is-a-cap-on-international-students-coming-amid-housing-crunch-mini-ster-says-it-s-an-option-1.6529546>

Organizations for Economic Co-operation and Development (OECD) countries.¹²⁰ STIC further noted that “with a limited population and thus a relatively small pool of domestic talent, Canada needs to be competitive in connecting with the “best and the brightest throughout the world.”¹²¹ Similarly, the Naylor Report recently observed that “Canada’s domestic talent pool is deep, but small as contrasted with the many millions of brilliant young people around the world who are looking to pursue tertiary studies abroad in any given year.”¹²² To increase the available talent pool, Canada has turned to international students, and in doing so, has reaped the rewards of the novel ideas, approaches and cultures international scholars bring with them.

In January 2015, Citizenship and Immigration Canada (now Immigration, Refugees, and Citizenship Canada or IRCC) introduced a new system for processing applications from skilled immigrants, called “Express Entry.” Under this system, points are awarded to applicants based on a number of factors including age, education, skills, work experience and language abilities. Candidates who accrue more points are given a higher priority for permanent residence, on the basis that these factors all play a crucial role in an immigrant’s economic success once they have arrived in Canada.¹²³

International student graduates in Canada traditionally have found it difficult to get an invitation to apply for permanent residence through Express Entry. Fortunately, improvements to the program were introduced in November 2016. One notable change is that Express Entry applicants now receive additional points for having studied at a Canadian post-secondary institution.¹²⁴ This is a policy that CASA advocated for previously, given that international students who graduate from Canadian institutions have already lived and worked in Canada and have shown they have the skills to successfully continue living here. If the goal of the Express Entry system is to identify skilled immigrants with the highest chance of thriving in Canada, it makes sense to recognize the value of studying in Canada. CASA is monitoring the Express Entry reforms closely, with the goal of ensuring that the international students benefit from the changes as advertised.

Recent caps on permanent and temporary residency, including study permits for graduate students, have had a major impact on the post-secondary sector in

¹²⁰

http://www.stic-csti.ca/eic/site/stic-csti.nsf/vwapj/10-059_IC_SotN_Rapport_EN_WEB_INTERACTIVE-good.pdf

¹²¹[https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/Seizing_Moment_ST_I-Report-2014-eng.pdf/\\$file/Seizing_Moment_ST_I-Report-2014-eng.pdf](https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/Seizing_Moment_ST_I-Report-2014-eng.pdf/$file/Seizing_Moment_ST_I-Report-2014-eng.pdf)

¹²²

[http://www.sciencereview.ca/eic/site/059.nsf/vwapj/ScienceReview_April2017.pdf/\\$file/ScienceReview_April2017.pdf](http://www.sciencereview.ca/eic/site/059.nsf/vwapj/ScienceReview_April2017.pdf/$file/ScienceReview_April2017.pdf)

¹²³<http://www.cic.gc.ca/english/express-entry/criteria-crs.asp>

¹²⁴<http://www.cic.gc.ca/english/department/media/notices/2016-11-19.asp>

Canada. For current international students, including doctoral students, there is a concern that decreasing permanent residency spots will make it difficult to settle in Canada after graduation. As permanent residency spots become increasingly scarce, the remaining spots become more and more competitive. The current Comprehensive Ranking System (CRS) awards only 15 to 30 additional points for Canadian post-secondary credentials, representing just 2.5% of the total maximum CRS score. This marginal benefit fails to sufficiently distinguish Canadian-educated international graduates from other applicants in an increasingly competitive PR system, resulting in a potential loss of highly skilled talent.

Newcomers who have obtained Canadian post-secondary education tend to achieve greater success in the job market within five years of arriving in Canada compared to those without such experience.¹²⁵ This advantage often holds even when compared to individuals with similar qualifications from institutions abroad. Over a decade after immigrating, the positive impact of Canadian education becomes even more pronounced, demonstrating its lasting and transformative benefits. This trend persists regardless of the specific type or duration of post-secondary studies completed. In the 10 to 11 years following immigration, individuals who studied in Canada for two to five years before immigrating earned between 9% and 12% more than those without Canadian educational experience.¹²⁶ As a result, these individuals tend to enjoy a higher standard of living, make greater contributions to the tax system, and rely less on social services. This is likely even higher for graduates of post-graduate degrees. These findings highlight the importance of Canadian educational experience as a key consideration when evaluating candidates for permanent residency.

Within the context of a limited number of permanent immigration spots, it is important those spots go to those most primed to succeed. Doubling CRS points for Canadian post-secondary credentials—30 points for one- or two-year programs and 60 points for three-year or longer programs—gives those with proven educational and work experience in Canada the assistance to succeed. Recognizing and rewarding the contributions of international graduates is essential for maintaining Canada's reputation as a welcoming destination for top talent and securing the consequent long-term economic and social benefits.

Another concern is regarding international doctoral students specifically. Currently, hours worked by international students during their enrollment at Canadian post-secondary institutions do not count toward the work experience requirements for the Canadian Experience Class (CEC) Express Entry stream for Permanent Residency. While we do not wish to encourage students to prioritize excessive work over their studies, PhD students represent a unique case. Unlike typical post-secondary learners, PhD students are scholars who contribute significantly through research, lab

¹²⁵ <https://www150.statcan.gc.ca/n1/pub/36-28-0001/2022002/article/00004-eng.htm#a7>

¹²⁶ Ibid

management, teaching, and mentoring. Many of these activities, such as teaching and research assistantships, are undertaken under formal employment contracts and align with the skilled work typically recognized under the CEC stream, but currently do not qualify for CEC eligibility.

Under current policies, international PhD graduates must accrue an additional year of work experience outside their studies before becoming eligible for the CEC Express Entry stream for permanent residency. This creates unnecessary barriers and delays for these highly qualified individuals, potentially discouraging them from pursuing permanent settlement in Canada and applying their expertise here. By allowing hours worked in formal employment during their studies to count toward the CEC requirements, Canada can better support the retention of top-tier talent and foster long-term contributions from international PhD graduates.

CASA calls on the federal government to double the Express Entry Program immigration points in Part D of the Comprehensive Ranking System to 60 points for a three or more year Canadian post-secondary credential, or 30 points for a one or two year Canadian post-secondary credential, to retain those most likely to economically succeed in Canada.

CASA calls on the federal government any in-Canada employment hours a PhD student works during their degree towards Canadian experience for Canadian Experience Class PR stream, to ensure we retain top-tier talent in the country.

CASA also has several other recommendations for the federal government to adopt measures that better support international students in their education and in their opportunities to contribute to Canada's innovation, productivity, and competitiveness, in response to the recent changes to the international student program, as outlined in our 2024 brief to the [Standing Committee on Citizenship and Immigration](#).

Summary of Recommended Changes

CASA recognizes and supports the growing investments that the Government of Canada has made in research and innovation. CASA believes that providing more opportunities for students to participate in research and innovation will help Canada develop into a nation of problem solvers and creative thinkers. CASA advocates for the further development and support of student driven research in partnership with student representatives who can guide their effective implementation. Through the adoption of this paper's recommendations, the federal government can bring a global diversity of thought and experience to Canada and build a more prosperous and innovative nation for years to come.

Expanding Access and Opportunities for Student Engagement with Research

- CASA recommends expanding the Canada Student Financial Assistance program to allow master's and doctoral students to access Canada Student Grants.
- CASA calls upon the federal government to increase the number of Canadian Graduate Scholarships available in Canada so that a minimum of 10% of all eligible graduate students may receive Tri-Council support;
- CASA calls upon the federal government to index the total number of Canada Graduate Scholarships (CGS) awards to the growth of the graduate student population, to maintain the 10% rate on an ongoing basis;
- CASA calls upon the federal government to equalize the ratio of awards to students for each of the tri-council funding agencies in order to rectify the unequal distribution of awards;
- CASA calls upon federal government maintain competitive Canadian Graduate scholarship (CGS) and Post-Doctoral Fellowship funding levels by indexing awards to inflation;
- CASA recommends that the Tri-Agencies update their evaluation protocol for applications to include a status update for applicants;
- CASA advocates that the Tri-Agencies include a feedback mechanism in their application process so that unsuccessful students can receive critical and necessary feedback on their application;
- CASA recommends that the Government of Canada reserve at least three seats for those from the student research community—one for each of the federal tri-agencies—on the Board of Directors of the new research capstone organization;
- CASA recommends that the federal government reserve at least four additional seats for the student research community in the governing councils of the TriAgencies and in the governing council of the multidisciplinary research unit of the new research capstone organization.
- CASA recommends that the federal government reserve spaces for those from the student research community on every existing Tri-Council standing and advisory committee, as well as any that arise as part of the new research capstone organization, including the proposed advisory Council on Science and Innovation.
- CASA calls for the Tri- Council Agencies to be tasked with reporting available data on applications, awards, and outcomes for Canada Graduate Scholarships (CGS) recipients—including data on demographic categories such as Indigenous status—so as to allow greater transparency around the program, and facilitate further reforms as needed.
- CASA calls upon the Tri-Council Agencies to expand the Indigenous Scholars Awards and Supplements Pilot Initiatives to Indigenous students enrolled doctoral programs, and to continue to expand funding for Indigenous student researchers in the spirit of the Truth and Reconciliation Commission's Call to Action 65;

- CASA calls upon evaluators for Tri-Council graduate scholarships to be trained to ensure recognition of the value and validity of Indigenous research methodologies and forms of knowledge mobilization in CGS applications;
- CASA calls on the Tri-Council Agencies to prioritize funding for community-driven research, especially projects supporting reconciliation and preserving Indigenous cultures, as part of CGS criteria;
- CASA calls upon the federal government to create dedicated funding streams for Francophone student researchers;
- CASA calls upon the federal government to enact the recommendations of the Standing Committee on Science and Research's Report 5: Revitalizing Research and Scientific Publication in French in Canada;
- CASA calls upon the Tri-Council Agencies of Canada to create a standalone "talent development" section criterion for federally funded granting programs for researchers, including but not limited to SSHRC Insight Grants and NSERC Discovery Grants;
- CASA calls upon the federal government to mandate a condition that total annual compensation for graduate students supported under federally funded research programs, when combined with institution-funded supports, should meet a satisfactory value that is decided through consultations with stakeholders including post-secondary institutions, grant recipients, and students.

Promoting Accessible Learning Experiences

- CASA recommends that the Government of Canada should establish an OER repository through the Tri-Council Agencies.
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Indigenous advisory bodies to ensure the Open Access policy reflects the diversity of knowledge mobilization/activities produced by and in support of Indigenous communities.

- CASA calls upon the federal tri-agencies to continue to consult with stakeholders, including post-secondary students, to ensure that the 2025 Open Access policy reflects the diversity of knowledge products produced by grant recipients in general, including monographs and Research-creation offerings.

Creating Opportunities for the International Exchange of Ideas

- CASA calls on the federal government to double the Express Entry Program immigration points in Part D of the Comprehensive Ranking System to 60 points for a three or more year Canadian post-secondary credential, or 30 points for a one or two year Canadian post-secondary credential, to retain those most likely to economically succeed in Canada.
- CASA calls on the federal government any in-Canada employment hours a PhD student works during their degree towards Canadian experience for Canadian Experience Class PR stream, to ensure we retain top-tier talent in the country.

About CASA

The Canadian Alliance of Student Associations (CASA) is a non-partisan, not-for-profit advocacy organization representing students at 27 student associations across the country. Through our partnership with the Quebec Student Union/Union étudiante du Québec, CASA represents 390,000 students across Canada. CASA advocates for accessible, affordable, innovating and high quality post-secondary education in Canada. For nearly 30 years, CASA has done so successfully through policy and research development, awareness campaigns, government relations efforts, and partnerships with other stakeholders in the education sector. Part of this work is ensuring that conversations surrounding post-secondary education are undertaken with the most up-to-date information and with direct feedback from students and other leading advocacy stakeholders across the country.

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CASA
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Student Associations

ACAE
Alliance canadienne des
associations étudiantes

Our Members



Together, we represent 390,000 students