



IMPROVING SUPPORT FOR THE NEXT GENERATION OF SCIENTISTS

BRIEF TO THE STANDING COMMITTEE ON SCIENCE AND RESEARCH FOR THE STUDY ON THE GOVERNMENT OF CANADA'S GRADUATE SCHOLARSHIP AND POSTDOCTORAL FELLOWSHIP PROGRAMS

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The mission of the Quebec Student Union (QSU) is to defend the rights and interests of the student community, its member associations and their members by promoting, protecting and improving the situation of students, locally and internationally.

The QSU represents more than 91,000 members from university campuses across Quebec. It is the main point of contact on the issues of access to higher education and the living conditions of students for various governments and social groups.

Summary of recommendations

RECOMMENDATION 1

That the federal government increase funding for graduate students through scholarships from granting agencies.

RECOMMENDATION 2

That scholarships from granting agencies provide funding for the largest number of students possible.

RECOMMENDATION 3

That the Government of Canada commit to increasing the budget for student research scholarship programs to catch up on the lag resulting from the cuts from 2011 to 2015.

RECOMMENDATION 4

That the three federal granting agencies reserve at least one seat on their respective boards of directors for a representative of the graduate student community based on peer recommendations.

1. Accessibility to student funding

1.1 INSUFFICIENT SCHOLARSHIP AMOUNTS AND NUMBERS

The value of student scholarships provided by the Social Sciences and Humanities Research Council (SSHRC), the Natural Sciences and Engineering Research Council of Canada (NSERC) and the Canadian Institutes of Health Research (CIHR) has remained unchanged since 2003. However, the Bank of Canada reports that inflation totalled 50.63% between 2003 and 2023 (Bank of Canada 2023). While the cost of living increases, students conducting research have found themselves penalized and seen their income stagnate. Canada should follow the example of other countries, such as Australia, which indexes student scholarships to inflation annually (Khoo 2021). This would preserve the value of the scholarships and protect the recipients' purchasing power. Quebec recently announced an increase in the value of the Fonds de recherche du Québec (FRQ) master's and doctoral scholarships from \$17,500 to \$20,000 (a 14.29% increase) and from \$21,000 to \$25,000 (a 19.05% increase) respectively (Fonds de recherche du Québec 2023). Although this investment remains insufficient, Quebec's increases approximate the 16.85% inflation recorded since the last scholarship increases in 2018 (Bank of Canada 2023). Thus, the QSU urges Canada to follow suit and increase the value of its student scholarships.

Between 2011 and 2015, the Government of Canada significantly cut federal granting agency budgets. This reduced spending on student scholarship programs and thus shrunk the number of research grants available (Quebec Student Union n.d.). In 2017, the Naylor report denounced the fact that the number of core grants, the Canada Graduate Scholarships (CGS), had remained unchanged since 2007 and had not been adjusted based on the increase in student enrolment. Since 2015, the government has made significant investments in federal granting agency budgets, thereby enabling general funding to catch up or surpass inflation relative to 2010 (Quebec Student Union n.d.). However, student scholarship programs did not benefit from these investments despite undergoing the above-mentioned cuts.

Following the advocacy work by the QSU and the Canadian Alliance of Student Associations (CASA-ACAE), and the QSU's *Fair Share for Student's Research* campaign in January 2019, the Government of Canada attempted to correct the situation in its 2019–2020 budget by announcing a gradual reinvestment in the granting councils' budget for master's and doctoral fellowships. That

budget included a \$114-million investment over five years and a \$26.5-million investment annually thereafter (Government of Canada 2019). The 2019 investment increased the number of CGS by 20%. However, between 2007 and 2019, according to Statistics Canada, the increase in the number of master's and doctoral students was approximately 45% (Statistics Canada 2023). The 20% increase is therefore far from matching the increase in student enrolment. In addition, investments are not sufficient to make up for the budget cuts from 2011 to 2015. Following the 2011–2012 competitions, prior to the cuts, the percentage of the federal granting agencies' budget allocated to scholarship programs was 16.9% for SSHRC, 6.3% for CIHR and 13.3% for NSERC. After the 2019–20 competitions, student funding fell to 13.0% of SSHRC's budget, 5.5% of CIHR's budget and 8.3% of NSERC's (Quebec Student Union n.d.). As a result, Canada needs to invest to increase not only scholarship amounts but also the number of scholarships to support the vast next generation of scientific talent. In their 2023–2024 pre-budget applications, the QSU and CASA-ACAE called for an investment of at least \$345 million annually to increase the amount and number of scholarships (Canadian Alliance of Student Associations and Quebec Student Union 2022).

RECOMMENDATION 1

That the federal government increase funding for graduate students through scholarships from granting agencies.

RECOMMENDATION 2

That scholarships from granting agencies provide funding for the largest number of students possible.

1.2 SCHOLARSHIP DURATION

In 2013, the master's scholarship program (CGS-M) was harmonized. However, the doctoral level has not been harmonized, which means that every granting agency manages the CGS-D program independently. In addition, there is one additional program per council. As a result, there are disparities in funding amounts and durations. CGS-D scholarships are worth \$35,000 per year for three years, CIHR scholarships for students studying abroad are worth \$35,000 per year for three years, NSERC scholarships are worth \$21,000 per year for three years and SSHRC scholarships

are worth \$20,000 per year for four years (Naylor et al. 2017, 159).

The Naylor report denounced the fact that the duration of federal granting agencies' scholarships does not coincide with the actual length of studies. Master's scholarships are for a one-year period, whereas most research master's take at least two years to complete. The Naylor report estimated that an additional year of funding for the master's program would cost about \$44 million annually (Naylor et al. 2017, 162). Doctoral fellowships fund one student for three years, whereas a doctorate generally takes more than three years, across all disciplines. Some studies have even shown that doctorates take more than five years on average (Tamburri 2013). The exact cost of increasing the duration of funding for doctoral programs was not quantified by the Naylor report, but it did explore the idea of increasing the duration of funding from three to four years. To help students graduate, it is important not to terminate their financial support a few months before they complete their studies. Cutting off funding at the end of their program leaves students trying to find alternative sources of funding, delays their graduation and may even lead them to abandon their studies and research projects. By way of comparison, FRQ scholarships last two years for the master's degree and four years for the doctorate. The QSU urges the Canadian government to follow the example of funding durations in Quebec. If the Government of Canada moves forward with increasing the duration of scholarships, it is essential that the annual funding received by the student population not decrease.

RECOMMENDATION 3

That the Government of Canada commit to increasing the duration of funding for their student research grant programs to reflect the actual duration of studies, without reducing the annual amount of scholarships.

1.3 UNDERFUNDING AND STUDENT MENTAL HEALTH

Funding from NSERC, SSHRC and CIHR is intended to enable students to focus on their studies. However, given that the value of scholarships is insufficient, they have to find other ways to support themselves, resulting in significant financial stress. The *Sous ta façade* survey of student mental health, which surveyed 23,881 students in 2018, revealed that 58% of Quebec students struggled with a high level of psychological distress, compared with 20% of Quebec's general

population (Quebec Student Union 2019). The data collected show that financial insecurity is one of the most significant factors contributing to the psychological distress, depressive symptoms and emotional exhaustion of graduate students. More recently, an Ottawa Science Policy Network study found that 85.7% of the 1,178 graduate students surveyed experienced financial stress or anxiety (Ottawa Science Policy Network 2023, 17). Adequately funding researchers can reduce financial insecurity and mental load, and therefore psychological distress.

2. Making research and innovation a priority

The current situation is critical. Canada is the only G7 country that has reduced its investments in research and development over the past 20 years. Yet other countries have recognized this as a priority and set ambitious research targets. Recently, the report of the Advisory Panel on the Federal Research Support System (“Bouchard Report”) indicated that Germany plans to increase research investment to 3.5% of GDP by 2025 and Finland to 4% of GDP by 2030. Meanwhile, Canada is at about 1.6% of GDP (Bouchard 2023, 50). This is clearly insufficient to compete on the international stage. The Bouchard report explains that research funding has not kept pace with the pressures exerted to compete internationally over the past 20 years, the growth in research activities or inflation.

To ensure better research funding, the Bouchard report recommends a first major step in the form of an annual increase of at least 10% for five years in the federal granting agencies’ core budget. The report also calls for further investments following the implementation of a new structure for the federal research support system. The QSU agrees with the report and believes that the federal government should make substantial investments in research and innovation, particularly for the next generation of scientists.

Canada is lagging behind in research, science and innovation and, even though it should, does not see the issue as a priority. By failing to invest in the next generation of scientists, Canada is encouraging the brain drain and thus losing talent in the midst of a skills shortage. Not only must the amount and number of scholarships awarded by federal granting agencies be increased, but so must grant funding. Indeed, most of the research student population is funded not by student scholarships, but by faculty grants. It is also important to note that the student community is essential to research activities and the great strides being made in universities.

According to Vincent Larivière, Canada Research Chair in the Transformations of Scholarly Communication at the Université de Montréal, students who receive funding are more likely to earn a degree than those who do not (Larivière 2013, 28). The QSU therefore believes it is necessary to fund students doing research in order to value the important work that is being done. To do so, the Canadian government must be a model and act on both fronts—scholarships and grants—to enable Canada to have highly qualified researchers in every field.

RECOMMENDATION 3

That the Government of Canada commit to increasing the budget for student research scholarship programs to catch up on the lag resulting from the cuts from 2011 to 2015.

3. Student representation

SSHRC, NSERC and CIHR have a board of directors consisting of 15, 19 and 18 members, respectively, appointed by the federal government. However, none of the seats are reserved for a student under the three statutes governing the composition of the agencies. Those boards of directors set the strategy and broad direction of the granting agencies, review and evaluate their performance, and are responsible for allocating their budgets, including for student programs. Student representation on those decision-making bodies is essential if the student community is to obtain its fair share of federal research funding. To achieve that, Canada could draw on what is being done in Quebec with the FRQ's intersectoral student committee (CIÉ). The CIÉ is a joint committee of the boards of directors of the three FRQs. Its role is to advise the chief scientist of Quebec and the three boards of directors to, among other things, promote the next generation of researchers and student access to scholarship programs. At the federal level, the Chief Science Advisor's Youth Council was set up in 2020. Ideally, the Youth Council's mandate would be linked to the granting agencies, as is the case with the CIÉ.

RECOMMENDATION 4

That the three federal granting agencies reserve at least one seat on their respective boards of directors for a representative of the graduate student community based on peer recommendations.

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