Brief on the Government of Canada's Graduate Scholarship and Post-Doctoral Fellowship Programs

Institut national de la recherche scientifique (INRS)

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Brief Submitted to the House of Commons Standing Committee on Science and Research



Introduction

In 1969, the Government of Quebec approved the creation of the Institut national de la recherche scientifique (INRS) and tasked it with an ambitious mandate: "The mission of Institut national de la recherche scientifique ('INRS') is to conduct fundamental and applied research, to offer graduate degree programs and to train researchers. As part of that mission and while pursuing the aims specific to university research, INRS directs its activities in particular towards Quebec's economic, social and cultural development and transfers knowledge and technology towards all the fields in which it carries out activities."

Contrary to the discipline-based organizational structure of traditional universities, INRS was arranged into four interdisciplinary, theme-based centres to effectively execute its mission, with each centre directing its fundamental and applied research and its training towards issues of strategic importance to Quebec.

Accordingly, INRS's primary mission is to train future scientists. Over 900 students attend INRS every year and play a key role in its research activities. All professors can rely on master's and doctoral students to support their high-level research. The student community's well-being and graduation success are therefore priorities for the institution. INRS also recognizes financial well-being as a critical factor in student success. For that reason, INRS offers institutional financial support to every member of its student community who has not received a merit scholarship from provincial or federal agencies. This explains why, for many years now, INRS has proudly reported the highest doctoral graduation rate in Quebec.

INRS therefore fully endorses the calls for an increase in financial support for graduate students and post-doctoral fellows. Such an increase requires strong action by the federal government to substantially increase the funding available to its federal granting councils. It is regrettable that the Government of Canada has not indexed its graduate scholarships to the rising cost of living in more than 20 years. A joint statement by the INRS executive director and student associations, recently published in the newspaper *Le Devoir*, criticized the meagre financial support allocated to graduate students and post-doctoral fellows.¹

In submitting this brief to the House of Commons Standing Committee on Science and Research (SRSR), INRS aims to contribute to the national debate surrounding the financial support available to graduate students. In this way, INRS hopes to join the many stakeholders calling for the Government of Canada to increase funding for the graduate scholarships, post-doctoral fellowships and research grants awarded by its granting councils. INRS supports increased investment in research, including more generous scholarships from Government of Canada granting bodies and more substantial contributions by Canadian researchers to providing financial support to students without a scholarship. In our view, the future of Canadian innovation and research is directly dependent on the financial support provided to persons who choose to pursue graduate education.

¹ Giraldeau, Luc-Alain, Association étudiante du Centre Urbanisation Culture Société (AEUCS), Association étudiante en santé biotechnologie de l'INRS (AESBI), Comité des étudiants de l'INRS en sciences des matériaux et de l'énergie (CEISME) and Fédération étudiante de l'INRS (FE INRS). Opinion — Manger de la misère pour créer la science de demain ? | Le Devoir.

Concern for the well-being of our students should be one of the government's priorities if Canada is genuinely interested in developing strong, dynamic, prosperous and world-class research capacity.

Students' Vital Contribution to Research

As mentioned in the introduction, monies set aside for students enrolled in some of the Government of Canada's graduate scholarship and post-doctoral fellowship programs have not been indexed since 2003. The effects of inflation have forced students to get by with gradually diminishing resources over the past two decades, making the prospect of graduate studies in Canada increasingly unappealing to Canadians.

Obviously, the dollar amount of scholarships and fellowships must increase.

However, such a move would raise issues unless it included an increase in federal investments in the granting councils to also index grants. It is important to bear in mind that only a minority of students enrolled in graduate studies receive graduate scholarships or post-doctoral fellowships. This means that most students receive no scholarship from the Government of Canada granting councils. Nevertheless, they require financial support. This support comes out of the professors' research grants. Canada's granting councils allow grantees to use their research funds to financially support their students and post-doctoral fellows. Increasing the dollar amount of merit scholarships would put pressure on researchers to increase the financial support they provide to their students. Unless the dollar amount of their grants change, researchers will be forced to reduce the number of students they supervise, to the detriment of Canada's scientific future. In our view, it would be counterproductive to increase the value of scholarships without also increasing the value of grants.

The merit scholarship amount is also used to determine the maximum financial support that a grantee can provide to their student as financial aid, although more could be provided. The value of Canada graduate scholarships amounts to \$17,500 at the master's level (CGS M) and \$21,000 at the doctoral level (CGS D). Post-doctoral fellowships have not increased in value since 2015. Based on the amounts provided for master's and doctoral merit scholarships, a minority of the students who are among Canada's best and brightest are condemned to live below the poverty line, and most students without a merit scholarship are even worse off. Is this really the best way to attract top talent to train Canada's future scientists?

Why should we provide financial support to graduate students? Could they not simply find a summer job or part-time work to make ends meet? To get by, students are increasingly turning to the part-time job market, off campus. Although part-time work is possible for undergraduate students, it is a different story for graduate students. For them, part-time work is often impossible, or a significant impediment to their academic progress. Considering how intense and time-consuming graduate studies are, part-time work can even lead to burnout. Graduate studies require an unreserved commitment. Students are therefore faced with the dilemma of living below the poverty line, seeking part-time employment or dropping out of their graduate studies program to join the workforce. This can have major consequences on perseverance and success more generally, thereby depriving Canada of the best available research talent. It may also explain why all Canadian universities are having difficulty in recruiting graduate students.

Financial vulnerability can seriously affect the health of students. A 2016 study of student mental health conducted by the Université de Montréal identified financial vulnerability and debt as causes of student stress. The study found that people who report living in financial vulnerability are more likely to report

experiencing symptoms of depression, psychological distress, burnout, suicidal ideation and attempted suicide.² Financial insecurity can have negative consequences on people's ability to function in a learning environment. Insufficient research funding could therefore generate additional costs for the provinces (health care, mental health care, etc.).

Lastly, prompt action is needed to correct this underinvestment and allow the granting councils to increase the value of research grants and scholarships. At stake is Canada's capacity to support its top talent through their learning process and success. Failure to provide sufficient support to this top talent will ultimately affect Canada's research capacity as it endeavours to meet this century's emerging issues.

Institutional Financial Aid for Non-Scholarship Students

At INRS, approximately 10% of graduate students receive merit scholarships from Quebec and Canadian granting agencies. This means that roughly 90% of INRS students are forced to rely on the grants paid to professors for their financial support. Considering this situation and the fact that grants to professors have been stagnating for years, INRS and many other Canadian institutions decided to help professors financially support their students. Without this kind of institutional contribution, the number of graduate students in Canada would drop dramatically. Although a few institutions are fortunate enough to be able to raise such support from philanthropic sources, INRS has to pull the necessary funds from its operating budget, which shows how important financial support for graduate students is to INRS. With the combination of funds from professorial grants and from the institution, the INRS contributes \$18,960 in financial support to master's students writing a dissertation, and \$22,065 to doctoral students enrolled in a health science or pure and applied science program.

In the four INRS centres combined, 89% of full-time doctoral students receive over \$26,000 in financial support on average. More than 73% of full-time master's students receive financial support, amounting to approximately \$18,500 on average. This policy provides the entire student community with more support than is available from the major programs operated by the Quebec and federal granting agencies on a competitive basis, although it costs INRS 7% of its operating budget. This decision necessarily generates funding shortfalls for other INRS activities.

Significantly, although the proposed length of INRS scholarships is four semesters at the master's level and eight semesters at the doctoral level, a clear majority of students receive scholarships for longer periods of time.

² Fédération des associations étudiantes du campus de l'Université de Montréal (FAECUM), October 2016, p. 52: https://www.faecum.qc.ca/ressources/documentation/avis-memoires-recherches-et-positions-1/enquete-sur-la-sante-psychologique-etudiante.

³ INRS. Scholarships for students enrolled in a health science or pure and applied science program: https://inrs.ca/les-etudes/bourses-d-etudes/repertoire-des-bourses-d-etudes/bourses-d-etudes-pour-etudiants-programmes-en-sciences-de-la-sante-et-en-sciences-pures-et-appliquees/.

Conclusion

In a knowledge-based society like ours, research and innovation are crucial for ensuring the public's well-being and quality of life. All knowledge-based societies are therefore explicitly dependent on their ability to train future scientists who are capable of rising to the many new challenges facing society. Canada's prosperity, and the prosperity of its people, depend on it. The country cannot stand idly by while new talent decides to join the workforce instead of pursuing graduate studies. We cannot condemn future scientists to poverty.

The Government of Canada should make the well-being of Canada's future scientists a priority.

INRS is therefore proposing three recommendations to the House of Commons Standing Committee on Science and Research concerning the graduate scholarship and post-doctoral fellowship program:

- 1. Increase investments in all federal granting councils to put researchers in a position where they can channel more financial support to their students and fellows.
- 2. Increase the value of graduate scholarships and post-doctoral fellowships to make up for the shortfall of the past 20 years and then index this value to inflation.
- 3. Award more federal grants for enhanced accessibility.

About INRS INRS is an academic institution dedicated exclusively to graduate-level research and training. Since its creation in 1969, it has actively contributed to Quebec's economic, social and cultural development. INRS is the top institution in Quebec in terms of research intensity. It is composed of four interdisciplinary research centres located in Quebec City, Montreal, Laval and Varennes. Their activities centre on the following strategic sectors: Water, Earth and Environment; Urbanization, Culture and Society; Health and Biotechnology (Armand Frappier Institute); and Energy,

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and staff.

Materials and Telecommunications. The INRS community includes over 1,500 students, post-doctoral fellows, faculty