IN FAVOUR OF BETTER ACCESS TO GRADUATE SCHOLARSHIPS AND POST-DOCTORAL FELLOWSHIPS PROMOTING INNOVATIVE RESEARCH
Brief by the University of Quebec in Abitibi-Témiscamingue on the Government of Canada's graduate scholarship and post-doctoral fellowship programs
July 28, 2023
UQAT UNIVERSITY OF QUEBEC IN ABITIBI-TÉMISCAMINGUE

STUDY ON THE GOVERNMENT OF CANADA'S GRADUATE SCHOLARSHIP AND POST-DOCTORAL FELLOWSHIP PROGRAMS

Adequate, sufficient and predictable funding of the Government of Canada's graduate scholarship and post-doctoral fellowship programs is essential to student success. In a context of inflation and labour shortages, the stagnation of the value of individual research scholarships and grants hinders access to university studies and detracts from the ability of university institutions to achieve their mission of academic instruction, research and development. This chronic underfunding that has been going on for far too long also diminishes the international standing of our universities, and therefore the standing of Canada itself.

From the outset, the University of Quebec in Abitibi-Témiscamingue (UQAT) expresses its full support for the brief submitted by the University of Quebec (UQ). The issues raised in the UQ brief (Recommendations 1, 2, 3 and 4) are essential for meeting the needs of students, promoting their academic success and adequately supporting Canadian university research. There are many challenges involving funding for master's, doctoral and post-doctoral students. Some of these challenges are areas of concern for UQAT in particular, including increasing the value of scholarships to provide a livable income in all of the university's locations, as well as bringing in a scholarship distribution mechanism that is more equitable for universities with a regional focus and their demographics (Recommendations 1.1, 2.1 and 2.2).

Recommendation 1: Increase the annual value of graduate scholarships in Canada by 50% and then index it annually to inflation.

Recommendation 1.1: Provide a supplementary amount for students registered at smaller universities with a regional focus.

Recommendation 2: Double the number of Canadian graduate scholarships offered at the master's and doctoral levels and implement a mechanism to ensure that the additional scholarships are distributed to students from more diverse backgrounds.

Recommendation 2.1: Reform the mechanisms for calculating quotas based on previous funding amounts and floating quotas, which put smaller universities at a disadvantage.

Recommendation 2.2: Expand eligibility criteria to include international students and students with unconventional career paths in order to reflect Canadian demographics and the demographics of smaller universities with a regional focus.

Recommendation 3 Extend the duration of graduate scholarships in Canada from 12 to 24 months at the master's level and from 36 to 48 months at the doctoral level, which represents the anticipated duration of most master's and doctoral programs.

Recommendation 4: That, in addition to the investments required for recommendations 1 to 3, the government increase by at least 10% a year over five years the total base budget of the three major granting agencies in order to support their research grant programs, thereby increasing the capacity of grant holders to improve the financial support offered to students through these grants.

Recommendation 1: Increase the annual value of graduate scholarships in Canada by 50% and then index it annually to inflation.

Receiving a scholarship should mean a student is free to devote all their time to their studies and be more creative and innovative in their research activities. However, Canada's current graduate scholarships of \$17,500 a year for a master's (CGS-M) and \$21,000 a year for a doctorate (CGS-D) do not allow a person to live in dignity, while the enhanced doctoral scholarships (\$35,000) are only slightly above the poverty line for some regions in Quebec. Only the Vanier and post-doctoral scholarships provide enough household income for an individual living alone. Graduate scholarships and post-doctoral fellowships are no longer an incentive for excellence, since they alone are not enough to cover a recipient's living expenses.

According to Statistics Canada's "Market Basket Measure," indexed for 2022, single individuals need a minimum of \$20,796 annually to cover basic needs. This amount includes an adjustable amount of \$1,788, which theoretically could be allocated to take two university credits. The Market Basket Measure, including full-time training for an individual student at a university institution, would be even higher than the amount calculated by Statistics Canada for an individual person. This national indicator that establishes a threshold for basic needs is lower than the livable income indicator, which is the income needed to enjoy a decent quality of life. In Quebec, livable income varies between \$25,000 and \$35,000 annually, based on the to region, for a single individual and is over \$60,000 for a household with two adults and two children in early childhood education programs. Current scholarships do not leave room to support the needs of additional people nor equitably share the costs within a household with children.

Scholarships from granting agencies should be considered incentives for excellence and a standard in funding faculty research teams. However, the trend observed by UQAT is that more research grants are awarded by research divisions, and sometimes they are even higher than the scholarships from the granting agencies. What is more, most CGS-M and CGS-D scholarship recipients need to obtain extra funding to cover their living expenses, quite often by taking a job in addition to their studies. Quebec's student financial aid program also provides more money than the CGS-M and CGS-D scholarships to cover the basic needs of full-time students. Recipients of scholarships from granting agencies have to go into debt to pursue their education if they do not manage to find extra funding outside of Quebec's student financial aid program. The *Fonds de recherche du Québec* is already following suit by granting an extra \$2,500 annually to scholarship recipients at the master's level and \$5,000 more to doctoral students.

¹ Labrie, V., Nguyen, M., and Posca, J. (2022), "Le revenu viable 2022 en période de crises multiples." IRIS.

² Ibid.

Recommendation 1.1: Provide a supplementary amount for students registered at smaller universities with a regional focus.

Reinvesting in the graduate scholarship and post-doctoral fellowship programs is key to promoting innovation through fundamental research and training the next generation of scientists across Canada. Universities located outside of major centres, including in Canada's provincial north, provide opportunities for graduate studies and innovation alongside those in major centres.³ Graduate scholarships and post-doctoral fellowships have become retention measures that are complementary to accomplishing this mission since they help reduce the number of young people migrating to major centres.⁴ Following the example of the *FRQNT Research Support for New Academics* by providing roughly 30% more money to students registered at universities outside of major centres would make graduate studies more accessible and encourage students to remain in the regions. Furthermore, this extra funding would cover additional expenses associated with living remotely, such as transportation and housing. This incentive is already being used by some faculty members at the Institut de recherche sur les forêts (IRF) and the Institut de recherche en mines et environnement (IRME), the two departments at our university with the highest research volumes.

Recommendation 2: Double the number of Canadian graduate scholarships offered at the master's and doctoral levels and implement a mechanism to ensure that the additional scholarships are distributed to students from more diverse backgrounds.

UQAT currently has 19 Canada graduate scholarship recipients at the graduate and doctoral levels and two post-doctoral fellows funded by the three agencies—the Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR). This represents a total of roughly \$350,000 for a student population of around 500 people at these levels. Since UQAT does not have the means to offer universal scholarship programs, it relies partly on this funding for recruiting graduate students. This amount is less than the amount granted annually by the UQAT foundation, which is \$500,000. By increasing the number of federal scholarships, it would be possible to fund more people within our institution and thereby enhance the quality of the research produced.

Approximately 4% of the student population at the graduate levels receive financial aid from one of the federal programs. The majority of these scholarships are awarded in the fields of natural sciences and engineering (8) and of social sciences and the humanities (10), and two of them are in the field of health. These two CIHR scholarships are only the 5th and 6th ones in 15 years awarded to UQAT. For one of the rare times in its history, a student from UQAT earned a Vanier scholarship, considerably increasing the annual amount of scholarship funding at the institution. Two doctoral students also received an additional doctoral scholarship of \$14,000 a year, increasing their annual amount to \$35,000, one of whom was a CIHR scholarship recipient. At the post-doctoral level, only two of the 25 post-doctoral fellows receiving funding had their fellowship funded by one of the granting agencies. Most scholarship recipients are at the master's level, with nearly 5% of registered students receiving a CGS-M. This is also the only competition where we have a number of scholarships to award during an internal competition.

³ Zarifa, D., Hango, D., & Pizarro Milian, R. (2018). "Proximity, prosperity, and participation: examining access to postsecondary education among youth in Canada's provincial north." Rural Sociology, 83(2), 270-314. https://doi.org/10.1111/ruso.12183

⁴ Hillier, C., Sana, Y., Zarifa, D. and Haan, M. (2020), "Will They Stay or Will They Go? Examining the Brain Drain in Canada's Provincial North." Canadian Review of Sociology/Revue canadienne de sociologie,57: 174-196. https://doi.org/10.1111/cars.12276

Therefore, in order to obtain a fair share of scholarships, it seems that a distribution mechanism between the institutions is needed. The most competitive scholarships or those without an internal quota mechanism are the categories where small universities generally do not perform well. An increase in the number of scholarships associated with a mechanism would prevent the scholarships from being concentrated within the same universities, as well as preventing the overrepresentation of major Canadian cities.

Recommendation 2.1: Reform the mechanisms for calculating quotas based on previous funding amounts and floating quotas, which put smaller universities at a disadvantage.

As mentioned above, a distribution mechanism is essential for scholarships to be divided evenly between the universities throughout their locations, regardless of the size and focus of these institutions. This also requires constant monitoring by the Government of Canada to overcome the biases against small universities within the evaluation criteria.

The annual amount granted to UQAT by NSERC and SSHRC has varied quite a bit over time (Figure 1). However, the number of graduate and post-doctoral students is on the rise. Some years, such as in 2011 and 2014, no scholarships were awarded by either granting agency.

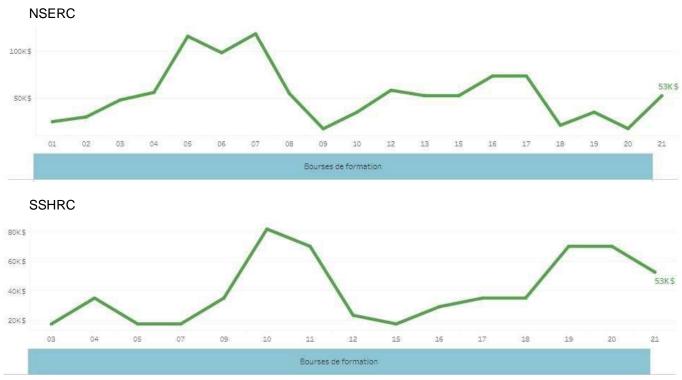


Figure 1. Annual values of scholarships obtained by UQAT in the past two decades at NSERC and SSHRC

The difference between the share of faculty members at the Canadian level and the share of funding obtained annually always puts small universities at a disadvantage, as seen by the example of UQAT (Figure 2). In our opinion, the imbalance in the system needs to be corrected at the point when people are studying at the graduate level, instead of being reproduced. As far as UQAT is concerned, this system means that no Vanier scholarship can be awarded in the area of health, even though this field is growing at our institution and the number of scholarship recipients in the province is on the rise. This mechanism could be replaced by a new allocation method where 25% of the scholarships available in every program would also be distributed in each institution regardless of past results of grant competitions.

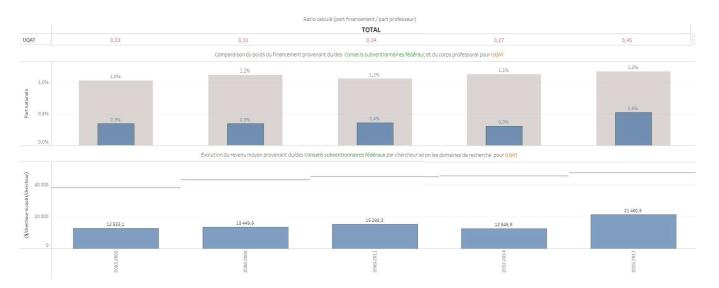


Figure 2. Comparison of the weight of funding from granting agencies and the weight from UQAT faculty over the past two decades and the evolution of the average income from the granting agencies per member of UQAT faculty

The floating quota mechanism for grant applications currently in place for Vanier scholarships is also very problematic. This system discriminates against individual students who will not have a chance to submit an application during their years of study. As a consequence of the three-year quotas, a person registered to do a doctorate might not have an opportunity to submit an application if their institution selected someone in a recent year. It is impossible to predict the quality of candidates three years out. The support and organization of local competitions over this period is not an adequate solution. The quotas for candidate submissions should be abolished to allow at least one application per field per year at every institution.

Recommendation 2.2: Expand eligibility criteria to include international students and students with unconventional career paths in order to reflect Canadian demographics and the demographics of smaller universities with a regional focus.

Over the years, UQAT has set an example in incorporating mechanisms that promote equity, diversity and inclusion. These efforts are reflected in the composition of its student population, which includes many people from abroad and a large number of people going back to school or attending school part time. Many other universities that are part of the UQ network are in similar situations. Therefore, a considerable increase in the number of scholarships for small universities might not produce the desired

results unless it is accompanied by expanded criteria. The risk of scholarships from Canada being concentrated only within the minority with a Canadian nationality could create significant inequity within the student population and thereby undermine the efforts of the past years to reduce the gaps with marginalized groups.

By the same logic, it is essential to provide financial support that is adapted to help other groups overcome their challenges and succeed in their studies, such as Indigenous students, first-generation students or even individuals with a low academic performance score during their university admission. To avoid selecting based on social discrimination and to give everyone a fair chance, specific funding programs or expanded eligibility criteria for these groups could be key levers for the universities.

Recommendation 3 Extend the duration of graduate scholarships in Canada from 12 to 24 months at the master's level and from 36 to 48 months at the doctoral level, which represents the anticipated duration of most master's and doctoral programs.

Current scholarships do not cover the duration of the programs offered by Canadian university institutions. Master's scholarships should last as long as the majority of the programs, which is six university semesters. This change would help support more master's students by reducing the amount of time they spend looking for funding, thereby increasing the amount of time they can spend on research activities.

On the doctoral side, although the programs vary between 36 and 48 months, the data on program duration at UQAT indicate that the majority of doctoral studies take between 45 and 51 sessions. What is more, the proportion of doctoral students who apply for a scholarship under UQAT's own doctoral thesis support fund, which seeks to support doctoral students in their final year of study so that they can devote all of their time to their research project, has increased significantly. The criteria for this scholarship require that the doctorate be completed in less than five years (unless circumstances prevent it) and that no other support be provided by the department or an external agency. This financial support is increasingly becoming necessary for students receiving scholarships from the granting agencies that, in the absence of a livable income outside of their funding period, decide to take internal or external contracts, thereby extending the duration of their studies and reducing the time devoted to writing their thesis. Increased funding (Recommendation 1) for a longer duration would allow doctoral students to remain focused on their research by reducing the risk of running out of financial support at the end of their program and needing to get a job.

When faculty members submit research grant applications, the team at the Office of the Dean of Research and Creation at UQAT strongly advises them to have financial support for two years for master's programs and four years for doctoral programs. As a result, people receiving scholarships from federal granting agencies not attached to projects funded by their research department receive shorter-term support than those whose funding comes from research grants. The incentive to apply for scholarships is tied only to the prestige the scholarships may provide. For people with unconventional profiles—for example, those from diverse backgrounds or those with dependant children—the extra burden of putting together an application can be a deterrent unless there are more tangible benefits, such as increased financial support.

Recommendation 4: That, in addition to the investments required for recommendations 1 to 3, the government increase by at least 10% a year over five years the total base budget of the three major granting agencies in order to support their research grant programs, thereby increasing the capacity of grant holders to improve the financial support offered to students through these grants.

The primary source of financial support for individual students comes from research grants provided to faculty members. By increasing these amounts, a larger proportion of the student body would be offered optimal studying conditions. During the 2022–2023 school year at UQAT, 248 graduate students received scholarships through research grants from granting agencies obtained by their research departments. In total, roughly \$2 million from these grants was paid directly to students from these funds. This amount is far higher than the grants from granting agencies through the scholarship program.

Of this number, 30 people received more than they would have through the CGS-M and CGS-D scholarships. All those who received more than \$17,500 a year at the master's level and \$21,000 a year at the doctoral level were from the field of natural sciences (the Institut de recherche sur les forêts and the Institut de recherche en mines et environnement), the two UQAT institutes with the most grant holders and the largest grants. This suggests that increasing the granting agencies' budget may have a positive impact on the entire student population by granting more generous scholarships.

It is imperative that this increase include all three granting agencies to allow the humanities sector to also increase the number and value of research scholarships awarded to individual students from funds at their research department.

UQAT

The University of Quebec in Abitibi-Témiscamingue (UQAT) is a human-centred, creative and bold university that has demonstrated dynamism in teaching, research and creation for nearly 40 years in the region where it is based. UQAT is active in Abitibi-Témiscamingue, in the Nord-du-Quebec region, in Nunavik, in the Upper Laurentians, in Montreal, on the North Shore and internationally, and UQAT is a key driver in social, cultural and economic development in Quebec.

UQAT offers a range of high-quality programs rooted in the community's needs and guided by the job market in various sectors including education, health, engineering, management, psycho-education, social work, art therapy, Indigenous studies, digital creation, forestry, mining, groundwater and the environment.

UQAT has a significant impact on graduation rates by offering students the opportunity to pursue graduate studies without having to leave their community; whether through in-person learning at one of its eight campuses and centres, or through remote learning. The very diverse student population allows a multitude of individuals to access a quality university education while living close to their support network. Since 1983, this accessibility has been enhancing participation and the graduation rate in the region, in turn contributing to local socio-economic development.

In research, UQAT plays a major role in advancing knowledge and resolving problems that affect the region it serves. The research has international application and reach. UQAT researchers run innovative research projects that are relevant in each of its fields of study, especially in areas such as natural resources (mines, forests) and the environment, agriculture, Indigenous affairs, autism, telecommunications, etc. This research work contributes to stimulating regional economic development, supporting industries and providing lasting solutions to issues specific to the region, Quebec and abroad.

In 2021 and 2022, UQAT ranked number one for research funding obtained in partnership with businesses according to *Research Infosource inc.* and second in Canada when it comes to research intensity per professor among Canadian universities in the general university category. Its volume of research has grown steadily, reaching \$18 million in 2022, and it supports 17 research chairs and 11 research departments.