

# SUBMISSION TO THE HOUSE OF COMMONS STANDING COMMITTEE ON FINANCE

August 2011 | National Graduate Caucus

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NATIONAL GRADUATE CAUCUS**

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## EXECUTIVE SUMMARY

Funding graduate studies enables the federal government to invest directly in people, the economy, and society, increase the number of highly educated, qualified and innovative citizens and develop the knowledge capacity to deal with economic and social challenges in the future. Students, industries, and the broader economy all stand to benefit from increased funding for research at Canada's public universities. Over the course of their lives, graduate degree holders are much more likely to make it into the higher tax brackets and become the funders of future social services like post-secondary education.

Obstacles faced by current and future graduate students include limited funding options, an increasingly commercialised and restrictive research environment, rising tuition fees, and high levels of student debt.

Leading up to the 2009 budget, there had been some improvements to research funding for the granting councils. However, the cuts made in 2009 and the paltry increases in 2010 stopped the needed growth for Canada to remain competitive internationally. In addition, funding for university research has not kept pace with the rising enrolment of graduate students.

Recent federal budgets have targeted most research funding at the short-term priorities of the private sector, limiting the ability for long-term innovation. The 2009 budget provided funding to the Social Sciences and Humanities Research Council (SSHRC) for additional Canada Graduate Scholarships (CGS), but directed they go to "business-related degrees". This approach of directing research priorities undermines the independence and peer-review standards of SSHRC. Short-sighted research policy of this nature guarantees that Canada will fail to take full advantage of world-class researchers.

### **Recommendation #1**

Increase budgets of the granting councils' basic research by 20% to support the health of long-term innovation and graduate student research.

### **Recommendation #2**

Increase direct funding for graduate students by increasing the funding to the Canada Graduate Scholarship program by \$75 million over three years – consistent with average growth in the program since 2003 – distributed proportionally among the research councils according to enrolment figures.

### **Recommendation #3**

The federal government should, in cooperation with the provinces, implement a federal Post-Secondary Education Act modelled after the principles of the Canada Health Act, accompanied by a dedicated cash transfer that restores federal funding for post-secondary education to 1992 levels.

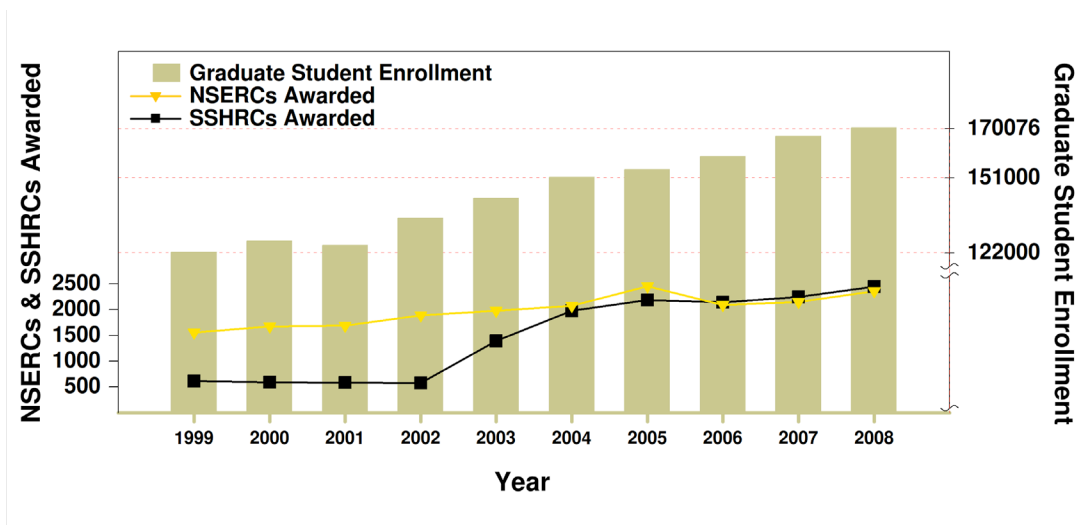
## INTRODUCTION

Since the late 1990s, a number of initiatives have been undertaken to transform public university infrastructure to meet the government's objectives to increase market-driven commercialisation initiatives. This includes requiring publicly funded research to seek direct, private-sector investment. The incentives to commercialise public university research have implications not only for decision-making structures within universities, but also for the direction and accuracy of reporting of research results. Use of tax resources to subsidise and drive commercialisation initiatives in university research is having a negative effect on investment in research and development of private sector research. Government investment in commercialisation removes the incentive for the private sector to invest in research and development. In addition, using graduate students as a cheap labour pool has likely undermined employment opportunities for graduate students post-graduation undermining the labour market value of pursuing a graduate degree.

Graduate studies in Canada have expanded over the last ten years, with enrolment increasing by 46% between 1998 and 2008 (Figure 1) and the number of Canadians with graduate degrees (Master's and PhDs combined) rose by 28% between 2004 and 2009<sup>1</sup>. Despite increased graduate enrolment, there have been only modest funding increases to the granting councils and scholarships that make graduate education both affordable and worthwhile. The lack of commitment shown in the federal government's research and post-secondary education strategy reduces both the quality of graduate education and the return on Canadians' investment in university research. Investing in graduate studies will improve the income potential of individuals, foster long-term innovation, and make Canada more competitive internationally.

## GRANTING COUNCIL FUNDING

Graduate students have limited scholarship and grant options and must seek employment to generate most of their funding. Many have high levels of debt from their undergraduate studies and often they incur further debt during their graduate work. Graduate students are currently excluded from the new Canada Student Grants Program and have limited access to needs-based grants and the 2010 & 2011 budgets offered little to make up for this cut. This, despite most other economies investing more in graduate education. Upon graduation they face an insecure job market, increasingly characterised by part-time or contract employment. According to research conducted by Statistics Canada Ph.D. graduates can only expect to make an average of \$4,000 more per year, over those who hold a master's degree, even though they typically study for additional years on average<sup>1</sup>. The difference in average salary of the working population between master's and PhD graduates is only 7%<sup>2</sup>.



**Figure 1: Graduate student enrolment increases compared to granting council funding for graduate students.**

## Basic and Applied Research Programmes

The government's push to commercialise university research has concerning implications for decision-making structures within universities, and the reporting of research results.

The research community views basic research as the cornerstone of a successful national research program, and necessary for long-term innovation. The government's under-funding of basic university research and researchers is undermining Canada's potential for long-term innovation. In recent budgets, investments in public university research have disproportionately benefited applied research programs that are designed to pursue a commercial agenda over basic research. An increase in the proportion of research funds going to basic research is needed to correct this imbalance.

Imbalanced federal funding increases, geared to a consumer product and market-driven research programs, is leading to an unhealthy corporate dependency on universities for research and the development of innovative products and methods. This corporate subsidy, which undermines in-house research and development, contributes to Canada lagging behind other Organization for Economic Cooperation and Development (OECD) countries in private-sector innovation<sup>1</sup>. At the same time, as investment in research and development shifts from private industry to the university sector, basic research and long-term innovation is undermined as researchers move towards more heavily funded commercially backed research.

## Discovery Grants

A recent study by an international panel examining the National Science and Engineering Research Council (NSERC) Discovery Grants Program found that it is one of the most effective in the world at producing new knowledge. The study concluded by suggesting that in order for Canada to respond to current crises and lead global trends in innovation, more funds need to be allocated to basic research programs.

Graduate students directly aid in the production of nearly all of the high-impact articles published in Canada. However, graduate students often feel stifled by the short-term, carbon copy approach of commercially driven research programs. Federally funded discovery grants that aid curiosity-driven basic research are a strategic investment in graduate students. A renewed focus on basic research will also help attract top graduate students from around the world, and keep the best and the brightest Canadian students in Canada.

### **Recommendation #1**

Increase budgets of the granting councils' basic research by 20% to support the health of long-term innovation and graduate student research.

## GRADUATE STUDENT FUNDING

Employment opportunities are often offered by universities as “funding”, but amount to little more than cheap labour for the institutions and their private sector partners. In these positions, graduate students provide significant research and teaching support, but are not afforded the protections and benefits of full-time employees or researchers. While graduate students may gain experience in teaching and research, academic progress is slowed which results in less time to carry-out research and to publish – two requirements for securing research positions within the competitive labour market.

The Canada Graduate Scholarship was established in 2003 to provide direct funding to individual graduate students, to make up for the lack of funding available to the expanding graduate population. The growth in the Canada Graduate Scholarship program seen since 2003 has been approximately \$25 million per year, which is sufficient to provide funding to only approximately 3% of graduate students.

Since 2006, federal budgets have provided little in the way of up-front support for graduate students. The tax-free status of scholarships introduced in the 2006 budget will improve the financial situation for only a small number of graduate students. In addition, graduate students are ineligible for any needs-based grants through the Canada Student Grant Program, further limiting their financial options.

The imbalanced funding allocation of the Canada Graduate Scholarship program started with the 2008 budget and continued in budget 2009 with allocations based on industry priorities, not graduate enrolment. The increase of \$88 million over three years in the 2009 Budget directed only \$17 million to students in the Social Sciences and Humanities. Furthermore, the increase in the number of CGS under SSHRC in the 2009 budget were directed only to “business-related” degrees. By targeting scholarships in this way,

over 90% of students eligible under SSHRC were excluded from the funding, and the independence of the peer-review process was effectively undermined. Budget 2011 made no specific mention of direct graduate student funding.

### **Recommendation #2**

Increase direct funding for graduate students by increasing the funding to the Canada Graduate Scholarship program by \$75 million over three years – consistent with average growth in the program since 2003 – distributed proportionally among the research councils according to enrolment figures.

## POST-SECONDARY EDUCATION ACT

Government investment is essential to maintain a stable high-quality post-secondary education system. High tuition fees and limited funding opportunities mean that students are being forced to take on significant costs at a time when they are least capable of doing so. Debt from undergraduate degrees, high up-front costs such as tuition fees and the costs of research materials, serve to limit access to graduate programs. A more efficient system with reduced downward pressure on the long-term health of the economy should have a post-secondary education that is publicly financed through a progressive income tax system.

Public investment in post-secondary education by the federal government is best provided through a dedicated cash transfer to the provinces, guided by a federal post-secondary education act that would place conditions that the provinces need to fulfil in order to receive funding. The act would be based on principles similar to those of the Canada Health Act: public administration, accessibility, comprehensiveness, transferability, and mobility. In return for upholding these principles, provincial governments would receive increased and predictable funding from the federal government. Such a transfer would provide the funding stability and accountability needed for improving access and infrastructure at universities and colleges in Canada.

### **Recommendation #3**

The federal government should, in cooperation with the provinces, implement a federal Post-Secondary Education Act modelled after the principles of the Canada Health Act, accompanied by a dedicated cash transfer of \$1.3 billion that restores federal funding for post-secondary education to 1992 levels.

## CONCLUSION

The federal government's emphasis on commercialisation of publicly funded research has exacerbated an already imbalanced national research agenda. Although there have been small increases to funding to the granting councils in recent years, the councils have never fully recovered from the cuts of the 1990s, nor has funding kept pace with the rising enrolment of graduate students. The federal budget cut \$148 million to the granting councils at a time when most countries were investing heavily in their post-secondary education research capacity. Increases in Canada Graduate Scholarships did not keep pace with previous stimulus investments, and were directed by government instead of through established independent, peer-review processes. With new funding targeted for projects in a narrow range of commercial fields, disparity is growing between funding for commercialised and that required for basic research.

The Canadian academic system of peer-reviewed funding for basic research ranks among the top in the world. However, funding for basic research grants in the social sciences and humanities lags far behind the applied sciences. This harms Canada's ability to produce the research needed to provide policy options to address the social, economic, strategic, and political challenges of the future. The social sciences and humanities enhance our understanding of complex social interactions and are essential for informed policy decisions. Without adequate levels of funding and support for graduate students, Canada's research and innovation capacity will continue to fall behind that of other countries. An investment in graduate students will help produce the necessary high-skilled labourers that Canada needs to explain and respond to current and future economic, political, and social challenges.

## SOURCES

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