



**Canadian Consortium for Research
Consortium Canadien pour la Recherche**

2675 promenade Queensview Drive, Ottawa, ON, K2B 8K2
Tel (613) 820-2270 - Fax (613) 820-7244 www.cpa.ca/ccr

**A Brief to the House of Commons
Standing Committee on Finance**

Presented by the:

**Canadian Consortium for Research
Consortium Canadien pour la Recherche**

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Chair

Chemical Institute of Canada

Steering Committee Members

Canadian Association of Physicists
Canadian Association of University Teachers
Canadian Federation for the Humanities and Social Sciences
Canadian Federation of Biological Societies
Canadian Psychological Association
Chemical Institute of Canada

PART ONE - THE CANADIAN CONSORTIUM FOR RESEARCH:

The Canadian Consortium for Research (CCR) is a coalition of 15 national organizations representing over 670,000 individuals on the front lines of research and study in Canada. Our members are from the public and private sectors and engage in basic and applied research, study and practice in the humanities and the natural, health and social sciences.

PART TWO – INTRODUCTION and SUMMARY OF RECOMMENDATIONS

The creation and application of new knowledge in all fields of human endeavour -- from resource extraction to criminal justice to understanding the basic physical laws of our universe -- is necessary for our social well-being and economic prosperity. Successive governments have recognized this and worked to implement policies that will enhance our research capability. The CCR acknowledges the attention given to this issue by the government in its report "Mobilizing Science and Technology to Canada's Advantage". We are also pleased with a number of specific recent efforts, including the initial Canada Social Transfer allotment to post-secondary education

as well as increases in funding for the granting councils, Canada Graduate Scholarships, agencies and programs such as the Canadian Foundation for Innovation and the indirect costs of research. The Consortium, reflecting the views of Canada's front-line researchers, urges the government to build on these steps and:

1. **Increase funding for the core operating costs of post-secondary education institutions through the creation of a dedicated federal/provincial transfer.**
2. **Increase the budgets of the federal granting agencies.**
3. **Re-invest in government research infrastructure including government science-based departments and agencies.**

These steps require the expenditure of public funds and are therefore dependent upon a tax system that equitably gathers the revenue necessary to support world class research infrastructure in Canada.

PART THREE - RECOMMENDATIONS

- **Recommendation One:
Create a Dedicated Federal/Provincial Transfer Mechanism to Increase Funding for the Core Operating Costs of Post-secondary Education**

The success of the research enterprise in Canada depends on the post-secondary education (PSE) sector fulfilling two important responsibilities.

The first responsibility is as the source of basic research, the vision-directed work that produces paradigm-shifting discoveries from which new theories and practical tools flow. Government support for this role is crucial because, as noted in the "Mobilizing Science" report, the long time lines and commercial uncertainties inherent in basic research discourage private sector involvement ("Mobilizing Science and Technology to Canada's Advantage" Government of Canada, 2007, Page 39, see also "Out of Dusty Labs" The Economist, March 1, 2007). Some areas of basic research can also have high societal value, but no commercial application, again making government support a necessity. In areas of inquiry where basic research has directly resulted in practical advances, but private industry interest has not yet materialized, the PSE sector may also have to undertake applied research to move the discovery forward.

The second PSE responsibility is to prepare new researchers. Through classroom experience and participation in faculty research projects, Canada's universities and colleges work to ensure that their students can meet the future researcher needs of Canada's public and private sectors. Beyond research skills, the PSE sector is also more broadly preparing students to fill the creative, critical-thinking functions necessary to manage and build Canada's economy, society and international competitiveness.

Despite these critical contributions, the PSE sector was seriously damaged by the decline in the amount of dollars transferred to the provinces for PSE that began in the 1990s, and the lack of transparency and accountability in the transfer. Steps have been taken to rectify the situation, including the government's nominal "earmarking" of funds for postsecondary education in the Canada Social Transfer (CST) in 2008-09, and the provision to negotiate greater transparency and accountability requirements. These are positive steps that must be built upon. For fiscal 2007-08, approximately 25 percent or \$2.4 billion of the CST has been identified as support for post-secondary education. This figure is well below the \$2.9 billion recorded in 1992-93 under the

CST's precursor funding mechanism. When adjusting for inflation and population growth, to restore the CST to 1992-93 levels requires an immediate increase of nearly \$2.0 billion for a total PSE transfer of around \$4.4 billion.

In addition to the restoration of funding, an equally important step is the creation of an accountability mechanism that ensures provincial governments actually spend the transfer on the core operations of post-secondary education. To be successful the transfer should:

- be governed by nationally established principles that ensure quality, academic integrity and equitable opportunity for access to all Canadians;
- contain binding enforcement mechanisms (including a claw back mechanism activated if provincial/territorial spending on PSE does not increase by an agreed upon amount); and
- to avoid perennial federal provincial disputes over the transfer amount, be set at a fixed percentage of GDP (a target of 0.5% GDP would restore federal funding to that of the late 1970's).

In the absence of these reforms the quality of research and education in Canada will decline. Necessary repairs to the physical infrastructure of universities and colleges will not occur. Student tuition and debt load will increase and, under these circumstances, more students will fail to pursue undergraduate and graduate studies, diminishing the number of new researchers and, more broadly, skilled personnel - at a time when Canada desperately needs more, not less, such people to remain globally competitive.

- **Recommendation Two:
Increase the Budgets of the Federal Research Granting Agencies**

To sustain and strengthen the discovery and application of knowledge in Canada the CCR encourages the government to increase funding to the three federal granting agencies - the Social Sciences and Humanities Research Council (SSHRC), the Natural Sciences and Engineering Research Council (NSERC) and the Canadian Institutes for Health Research (CIHR).

At universities and colleges across Canada, faculty members are being encouraged to increase their engagement in research activities, and they are doing so. As a new generation of academics begins their careers, new and promising lines of inquiry are being opened. Programs such as the Canadian Foundation for Innovation and the Canada Research Chairs have provided partial support for a growing range of projects. This flurry of activity has placed great strain on the financial capacity of the three agencies and the success rate of grant applicants, and average grant size, is falling. As a result, Canada is losing opportunities as talented people and important projects are under-funded or un-funded - a waste of the very skills and energy that Canada needs to progress.

Funding increases for the agencies are necessary to absorb the demands of increased research activity, maximize the efficient use of new and existing human talent and infrastructure, support graduate studies, facilitate inter-agency collaboration and assist emerging areas of inquiry. Increases at or below the rate of inflation will not allow Canada to maintain pace with international competitors who are aggressively investing in their research sectors.

The CCR cautions against the imposition of external targeting measures on the granting agencies. Canada can wisely invest in strategic areas of social and economic importance; but it is imperative that the research community be an integral part of the decision-making process. It is the foresight of researchers in determining the direction of their work, free of commercial,

political or religious concerns, that has led to the fundamental breakthroughs in understanding that have led to economic and social progress.

- **Recommendation Three:
Re-invest in Government Research Infrastructure**

Increased support for post-secondary institutions and the research granting agencies is essential, but the government must also re-invest in its own research infrastructure – infrastructure that underpins regulatory decisions, protects the health and safety of the public, maintains national databases and supports both basic and applied research in the service of sound public policy. In addition to a myriad of day to day policy choices, Canada also faces major challenges on environmental protection, energy, pandemic response, food and drug safety, national security, mental health, etc. To make evidence-based decisions on the vast array of policy issues, it is imperative that the Government have its own reliable and unbiased capacity for research and knowledge generation that underpins sound advice and policy development. Government departments and agencies, such as Natural Resources Canada, Environment Canada, Fisheries and Oceans Canada, Health Canada, Agriculture and Agri-Food Canada, the Public Health Agency of Canada and the National Research Council (NRC) have traditionally filled this role. However, since “program review” in the 1990s many of these departments and agencies have lost capacity to fulfill this essential function.

Despite the extraordinary service these departments and agencies have rendered to Canadians, they suffer from infrastructure decay and in many cases human resource deficits brought about by lack of necessary financial support. For example, basic quantitative data on Canada’s economy, population and education systems is becoming increasingly difficult to access as Statistics Canada struggles with chronic under-funding. This is a tragedy. Statistics Canada is a world renowned organization that supplies Canada’s decision makers and citizens with invaluable data of a short term and longitudinal nature that is crucial to informing public policy and legislation. To correct this particular situation, and the broader problem, the Government must direct attention to assessing and supporting the research expenditure needs of its own departments and agencies.

PART FOUR - CONCLUSION

Structural factors in the Canadian economy, notably a high level of foreign ownership and a reliance on resource extraction, mean that a large proportion of the research conducted in Canada is performed in the public sector. Because of this, and the direct relationship between a research intensive society, a modern, productive, internationally competitive economy and a strong civil society, the Government of Canada must generously fund Canada’s research capabilities. The Canadian Consortium for Research recommends that the Government:

1. **Increase funding for the core operating costs of post-secondary education institutions through the creation of a dedicated federal/provincial transfer.**
2. **Increase the budgets of the federal granting agencies.**
3. **Re-invest in government research infrastructure including government science-based departments and agencies.**