

Standing Committee on Finance (FINA)

Pre-budget consultations 2012

McGill University

Responses

1. Economic Recovery and Growth

Given the current climate of federal and global fiscal restraint, what specific federal measures do you feel are needed for a sustained economic recovery and enhanced economic growth in Canada?

Universities are key contributors to Canada's knowledge economy; educating and training students, leading in top-flight research and development, providing high-quality jobs and contributing to the health and social well-being of their communities. In addition, universities contribute significantly to Canada's economic growth. A 2010 SECOR study estimated the economic impact of McGill University on the Quebec economy alone at \$5.2B, and it has grown since that time. Foreign students who come to Canada to study contribute economically to Canada's post-secondary education system through tuition fees, and create added value through spending, as do visitors such as friends and family of students, and business visitors who travel to universities for conferences, meetings and more. Institutional expenditures, such as the procurement of supplies and services, salaries, operating expenditures, energy, and travel, also contribute to Canada's economic growth. Over the past 10 years, federal investment in university research has grown, demonstrating the Government's commitment to a strong, innovative nation. As a result universities have improved the quality of their teaching; increased commitment to realizing benefits of research and scholarship; and enhanced general administration and financial management. To maintain Canada's global competitiveness, we must build on this momentum with continued and new investments in research, research infrastructure and internationalization. Research funding – especially the core funding of the research granting councils, the indirect costs of research, and funding opportunities for intersectoral partnerships – is the cornerstone of Canada's innovation agenda. Cutting-edge infrastructure is a necessary prerequisite for innovative research, and for attracting and retaining top talent to Canada. Seminal programs, such as the Canada Foundation for Innovation, are crucial in this regard. Similarly, the successful Knowledge Infrastructure Program made a significant contribution to addressing knowledge infrastructure challenges, and a sustained science and technology-focused infrastructure program would allow for much-needed infrastructure repairs and renewal. Lastly, investments in internationalization – supporting study abroad for Canadian students, providing seed funding to support international research collaborations, funding for bilateral or multi-national initiatives – would enhance Canada's capacity to participate in prestigious global networks, provide invaluable international opportunities for young talent and grow our country's reputation abroad.

2. Job Creation

As Canadian companies face pressures resulting from such factors as uncertainty about the U.S. economic recovery, a sovereign debt crisis in Europe, and competition from a number of developed and developing countries, what specific federal actions do you believe should be taken to promote job creation in Canada, including that which occurs as a result of enhanced internal and international trade?

Universities are contributing to the creation of high-quality jobs, both as educators and as employers. As an employer, McGill University provides exceptional conditions for nearly 14,000 employees, as demonstrated by recent awards: McGill was named one of Canada's Top 100 Employers in 2012 for the fourth consecutive year by Mediacorp Canada, and ranked 3rd as Canada's Most Attractive Employers in

2011 by Randstad. In 2008 alone, McGill University generated some 13,448 job-years and \$59M in Federal Government revenue (through income, sales and other taxes). These are 2008 figures, and the current number of job-years and Federal Government revenue will have increased since. By supporting university research and innovation, the federal government is also supporting the creation of innovative companies and jobs. Since 1999, more than 1,200 companies have spun out of discoveries made at Canadian universities – and our graduates have used the knowledge gained over the course of their degrees to create thousands more. As educators, universities provide crucial international experiences to young talent, developing the leaders of tomorrow. McGill is one of Canada’s most international universities: 20% of students come from 150 countries, research collaborations and internship opportunities exist with countries around the globe, and living alumni are present in more than 180 countries worldwide. This environment provides students with opportunities to interact with, and to learn from people from different cultural, religious and linguistic backgrounds. Similarly, the federal research granting councils are supporting the development of highly qualified personnel at the core of our innovation society. Up to three-quarters of the budget of most grants fund salaries for graduate students and research technicians. Programs also provide students and organizations with opportunities to connect with industry in the workplace, through internships and fellowships, promoting knowledge exchange. Increased support for undergraduate and graduate students, for industry internships and international education experiences, will help to grow the leadership and technology skills of young Canadians, and better prepare them for an increasingly connected and competitive international job market.

3. Demographic Change

What specific federal measures do you think should be implemented to help the country address the consequences of, and challenges associated with, the aging of the Canadian population and of skills shortages?

In addition to a precarious global economic situation, Canada will need to address looming demographic challenges in years to come. An aging population, combined with a lower birth rate, poses a serious threat to Canadians’ quality of life, as we face increasing demands on health care and social services with a labour force that is shrinking relative to our overall population. In order to maintain and to increase Canada’s prosperity, we must enhance the quality of available jobs, and ensure that we have the skilled applicants required to fill them. Universities are uniquely placed to contribute to the creation of high-quality jobs. Every year, more than 200,000 students graduate and find employment with Canadian organizations, large and small, helping them to prosper. This flow of talent among sectors is crucial to growing the knowledge links between universities, industry and governments: providing industry and governments with access to young talent, and providing established workers with opportunities for lifelong learning. Supporting university interactions with other sectors – through intersectoral research collaborations or industry fellowships and exchanges, for undergraduate and graduate students, postdoctoral fellows and faculty – will strengthen the links between the sectors, contribute to the creation of higher-quality jobs and help train the workforce of the future. Equally crucial is ensuring that qualified workers are being optimally utilized. Canada is under-leveraging its existing talent base, through a lack of alignment in many professions (e.g. engineering, medicine, nursing). For example, new immigrants to Canada, who boast professional designations and could begin to address Canada’s skills shortages, must deal, separately, with various levels of governments, accreditation bodies, and universities. In 2011, a similar challenge was identified by the Ontario-Quebec Private Sector Advisory Committee (which was formed as a part of the Ontario-Quebec Trade Agreement). The Committee noted that the two provinces faced challenges related to labour mobility in the professions and skilled trades. A cohesive approach among all organizations and governments involved, to quickly integrating new talent into Canada, and to allowing for mobility of existing talent,

would be beneficial to all Canadians.

4. Productivity

With labour market challenges arising in part as a result of the aging of Canada's population and an ongoing focus on the actions needed for competitiveness, what specific federal initiatives are needed in order to increase productivity in Canada?

Universities, by their very nature, contribute to increasing productivity. Productivity is about working better and smarter, and requires innovations in processes, products and services. A university such as McGill, with its mission of excellence in teaching, research and service to the community, is a key driver of innovation and prosperity. A 2010 SECOR study estimated that McGill University contributed \$924M, annually, towards increased productivity in Quebec through the enhancement of human capital. That is to say, by educating and training students at the undergraduate and graduate levels, McGill increased the value of these students' earning power, which increased their overall productivity. Each year Canada's universities conduct close to \$1B in direct collaboration with the private sector and another billion with the not-for-profit sector. Overall, the annual economic impact of university research exceeds \$60B. These intersectoral partnerships are key to strengthening Canada's innovative capacity and productivity. For example, in 2009, McGill University and the École de technologie supérieure (ÉTS) embarked in a collaborative initiative, called the Quartier de l'innovation (QI). The QI aims to transform an industrial district in Montreal into a living laboratory for social and technological innovation and action-based research. This project will leverage the capacities of McGill and ÉTS, as well as industry and government partners, to ensure state-of-the-art sustainable urban development; enhance community outreach; provide inter-sectoral research collaboration and training opportunities for students and faculty; and provide industry partners, especially SMEs, with the opportunity to access a large talent pool of students and researchers. Such an innovative initiative depends on sustained and growing funding for basic, as well as targeted research through Canada's three federal granting agencies – the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council. Similarly, the Canada Foundation for Innovation has been crucial in building and supporting the infrastructure necessary for innovative research and development, and for training the next generation of scientists and researchers. However, as with all research funding, the investment must be constant and sustained.

5. Other Challenges

With some Canadian individuals, businesses and communities facing particular challenges at this time, in your view, who is facing the most challenges, what are the challenges that are being faced and what specific federal actions are needed to address these challenges?

The knowledge economy is the economy of the future – contributing to job creation, increased productivity, and economic growth. Universities are both employing workers in, and training the future talent necessary for, this economy, and thus support for university research and training is an important investment in Canada's future. Many of the elements to support research and innovation are in place. However, there are two elements which require additional support: the indirect costs of research, and the knowledge infrastructure. The costs of research are multi-layered. In addition to the direct costs of research (e.g. salaries and stipends for research assistants, equipment, supplies), there are also indirect costs, which include the costs of maintaining critical support to research (libraries, computer networks); managing the research process (grant applications, administration); maximizing the impact of research (intellectual property management, technology transfer); and ensuring regulatory and safety compliance (ethical review, reporting). International and domestic studies demonstrate that true indirect cost rates fall in the range of 50% to 80% of direct costs. In Canada, the Indirect Costs Program provided

reimbursement at an average rate of 21.2% in 2011. The shortfall in Canadian funding of the indirect costs of research is upwards of \$500M per year; universities are using operational funding, intended for supporting teaching and learning, to subsidize the shortfall. Similarly, there is a lack of sustained support for the knowledge infrastructure that is a necessary foundation for conducting research, and many universities are suffering from increasing deferred maintenance challenges. McGill, with two large historic campuses, has a deferred maintenance valued at upwards of \$620M. While the one-time federal Knowledge Infrastructure Program made a significant contribution to beginning to address this problem, there lacks in the current suite of federal government infrastructure programs, funding dedicated to science and technology infrastructure (which is not linked to a specific research project or researcher). The addition of a science and technology element to Canada's infrastructure strategy would support cutting-edge infrastructure, enhancing Canada's capacity for innovative research and for attracting and retaining top talent.