

University of Manitoba: Pre-Budget Submission 2017

INTRODUCTION

The University of Manitoba welcomes the opportunity to provide recommendations to the House of Commons Standing Committee on Finance ahead of its 2017 pre-budget consultation.

Our university plays an integral role in Manitoba, generating at least \$1.8 billion in economic activity annually, supporting more than 20,000 local jobs, and educating the future leaders of our province.

Our strength comes from our place and our people. Currently, more than 29,000 students are enrolled. New learning experiences are giving them the tools they need to take their place as leaders in their chosen fields. Graduate scholars and faculty are making discoveries that expand the economy and improve lives around the world.

In response to the questions outlined in the Committee's request for submissions, we advise the federal government to focus on three priority areas:

- Indigenous achievement, particularly funding for Indigenous post-secondary students and Indigenous post-secondary support programs;
- Continued support to the federal granting agencies, and measures to create more robust university-business research collaborations; and
- Campus infrastructure that enables us to nurture highly qualified personnel, encouraging discovery and promoting economic prosperity.

We strongly encourage the government to enact the recommendations described in the following pages to boost innovation and achieve its economic goals.

INDIGENOUS ACHIEVEMENT

The University of Manitoba commends the federal government for committing \$8.4 billion over five years to First Nations peoples in areas that include education, infrastructure, and skills training.

The \$2.6-billion investment in primary and secondary education on reserves is essential; in Manitoba, only 28 per cent of First Nations people living on reserve graduate from high school, the lowest rate for First Nations in Canada. This financial commitment is a critical first step in improving relations between the Canadian government and its Indigenous peoples.

Encouraging Indigenous peoples to pursue post-secondary studies starts in primary and secondary schools. Ensuring their success, once in university, is just as important. In Canada, only 11 per cent of Indigenous people aged 25 to 34 have a university degree, compared to 33 per cent of non-Indigenous Canadians in the same age group. As a result, Indigenous peoples on average earn less, occupy fewer managerial and professional jobs, and are more likely to be unemployed.

This is a lost opportunity for Canada, which has a sizeable, growing population of Indigenous youth (about 650,000 under age 25). First Nations, Métis, and Inuit youth are the fastest-growing group in Manitoba; indeed, by 2026, Indigenous peoples will make up an estimated 18 per cent of our population. Therefore, they are key to our province's future.

The University of Manitoba is committed to closing the gap between Indigenous and non-Indigenous peoples through education. We have one of the highest self-identified Indigenous student populations in the country, with more than 2,100 enrolled.

Unfortunately, many more do not enter university, as they lack the necessary funds for tuition and related expenses. We are pleased the federal government will lift the two-per-cent cap on funding for education in First Nations communities, including the Post-Secondary Support Program.

However, besides helping first-year students, we also must continue to fund renewable awards, child care, and support programs. Often, Indigenous students enter university with more complex challenges than their peers.

Through tutoring and mentoring, our programs empower students with academic skills and personal coping strategies to help them succeed. Below is a sample of programs offered at the University of Manitoba:

- **Aboriginal Business Education Partners (ABEP)** consists of Indigenous students pursuing a Bachelor of Commerce degree at the I.H. Asper School of Business. ABEP graduates hold key positions at

major corporations and non-profit organizations, and have started their own businesses across Manitoba, Canada, and the world.

- The **Engineering Access Program** (ENGAP) is the country's most successful program of its kind, having graduated more than 100 Indigenous engineers.
- The **Access program**, in cooperation with the Province of Manitoba, provides academic and personal supports for under-represented groups in Manitoba, with particular focus on First Nation, Métis, and Inuit applicants.
- The **Aboriginal Focus Program** offers certificate and diploma programs in First Nations and northern Manitoba communities.

We also reach out to foster youth, the vast majority of whom are Indigenous. Manitoba has one of the nation's highest rates of children in care (more than 10,000 each year), and fewer than 45 per cent finish high school; less than five per cent go on to post-secondary studies.

Although the federal and provincial governments have helped some youth finance their university studies, typically, these awards cover only a small portion of tuition and related expenses, and cannot assist all those who apply.

In May 2014, the University of Manitoba began offering tuition grants that provide up to \$5,000 annually, for a maximum of four years, to cover tuition and ancillary fees. Up to 10 youth, currently or formerly in care, are selected each year. Many more could benefit if we had more funding.

The University of Manitoba recommends:

- Committing to sustained growth in financial assistance for Indigenous students to increase educational achievement and employment;
- Funding Indigenous post-secondary support initiatives, including financial literacy and transition programs, to promote success; and
- Investing in new scholarships to support Indigenous graduate and post-doctoral students, and to build a cohort of Indigenous faculty.

RESEARCH AND DEVELOPMENT

The federal commitment to provide an additional \$95 million per year to the federal granting councils to support discovery research, starting in 2016–17, is a welcome investment in the research community after years of little or no new funding increases. Continued funding is essential to Canadian research and innovation.

In 2014, Canada's universities carried out 40 per cent—more than \$13 billion—of all research and development in this country. Every year, universities spend close to \$1 billion in research for business alone, helping build their competitive advantage. The amount of university research conducted with Canadian businesses has nearly doubled since 2000.

The University of Manitoba is working successfully with industry to address challenges. Below are some examples:

- High-tech clusters in our Smartpark, such as Emergent BioSolutions, Monsanto Canada, and North Forge, are keeping highly skilled students and researchers in Winnipeg.
- Our new Transformational Partnerships Program gives private-sector partners full control of technology, eliminating lengthy negotiations over royalty payments and control of intellectual property. In 2014-15, we received more than \$2.5 million for university-industry research. Most of the 25 companies involved had never collaborated with a university.
- The new Advanced Satellite Integration Facility (ASIF) at Magellan Aerospace in Winnipeg will bring our experts together to research, develop, and test satellite communication buses and components.

Despite the successes of our university and others across Canada, we need more federal support for research and development, and research partnerships with industry.

In a 2014 report by the Science, Technology and Innovation Council, Canada ranked 26th internationally on business expenditures for research and development as a share of gross domestic product. Building more university partnerships with industry will help prevent Canada from falling further behind.

The University of Manitoba recommends:

- Continuing to fund federal granting agencies that enable universities to conduct trailblazing research. Our efforts will help Canadian industry develop new products, systems, and services, creating jobs and bolstering our national economy.
- Enhancing and promoting tax incentives to small and medium-sized enterprises, to increase university-business partnerships.
- Directly supporting startups, providing tax credits for established businesses, and otherwise encouraging businesses to take risks in developing new technologies and products.

- Expanding the NSERC Engage program to CIHR and SSHRC to encourage more businesses to partner with academic institutions. Currently, businesses in the health or non-NSERC fields lack access to any program that encourages early interactions with universities. Also, existing CIHR and SSHRC programs are ineffective as they do not move at the speed of business.
- Creating more opportunities for industry to present its challenges to groups of academics, who can offer fresh approaches. These “collisions” between industry and academia will help kick start ideas and partnerships.

INFRASTRUCTURE

The success of our economy depends heavily upon the availability of highly educated, skilled, and analytical individuals produced by Canadian universities. At the University of Manitoba, students and researchers are key to driving research and innovation in our province. However, they cannot make discoveries without the proper facilities and equipment.

Cutting-edge places and spaces on our campuses attract the best talent and are essential in supporting discoveries. We are pleased that the federal government acknowledged this in its 2016 budget.

The University of Manitoba welcomes the government’s commitment to support infrastructure at post-secondary institutions across the country. The \$2-billion Post-Secondary Institutions Strategic Investment Fund (SIF) will boost the economy directly and enhance university research and innovation.

Federal support for modern facilities has helped us develop the following:

Manitoba Institute for Materials

Manufacturers are looking for ways to improve everyday items such as cell phones and frying pans, while the aerospace sector wants to make stronger yet lighter airplane parts. Meanwhile, engineers are exploring better materials for bridges, and dentistry students are investigating ways to make dental coatings and fillings last longer.

Research and development in composites and the aerospace industry is growing across Western Canada. Thanks to a federal investment of \$3.5 million, the University of Manitoba purchased three different high-performance electron scanning microscopes to create the Manitoba Institute for Materials (MIM), a centre of excellence for industry, researchers, and both undergraduate and graduate students.

In the first six months of operation, the Institute has trained more than 60 students (undergraduate and graduate) to use state-of-the-art characterization instruments.

Regenerative Medicine Laboratory

The Regenerative Medicine Laboratory in the Max Rady College of Medicine, funded by the Knowledge Infrastructure Program, attracts researchers from across Canada specializing in stem cell research and technologies. In 2013, this group made a major breakthrough in describing how, at the molecular level, a frequently mutated gene causes amyotrophic lateral sclerosis (ALS), a progressive degeneration of motor neurons; further study is underway on treatments to slow the disease's progress.

In addition, a graduate student in this lab has found that Vitamin A plays a significant role in problems associated with Fetal Alcohol Spectrum Disorder (FASD), including cranial malformations and neurodevelopmental abnormalities of the brain.

The scanning electron microscope in the Manitoba Institute for Materials contributed to this finding. FASD is one of the most common causes of neurodevelopmental disorders in Canada, affecting up to two per cent of the population, and costing \$4 billion annually.

Active living and sport

The University of Manitoba is an important recreational hub in Winnipeg, housing several sport facilities for use by the University and close to 200 community groups. Thanks to joint federal and provincial funding of \$20 million under the Provincial-Territorial Base Fund, nearly 3,000 members of the general community use our new Active Living Centre (ALC), and more than 15,000 children and youth participate annually in our Mini U programs.

The Active Living Centre also includes an Applied Research Centre, where scientists from multiple disciplines are examining barriers to exercise—such as chronic disease—and are developing community programs to promote active living and save healthcare costs.

The University of Manitoba recommends:

- Continuing to invest in infrastructure to attract and retain talent that will drive discovery and the economy; and
- Continuing to dedicate specific funds to universities for infrastructure projects.

Conclusion

The University of Manitoba believes strongly in the importance of these issues in driving economic prosperity. Our \$500 million philanthropic campaign, Front and Centre, is about ensuring our province's long-term economic, social and cultural vitality. Support directed to the campaign's five priorities: Indigenous achievement, graduate student support, research excellence, outstanding student experience and places and spaces will put Manitoba on the path to success. An investment in the University of Manitoba is an investment in our province's success.

We thank the Committee for its consideration.