Pre-Budget Submission to the House of Commons Standing Committee on Finance

August 2018



## The University of Alberta recommends that the Government of Canada:

- **1.** Increase funding for successful work-integrated learning programming with a focus on expanding participation of underrepresented groups.
- 2. Continue to expand programs that promote and support student mobility abroad.
- **3.** Expand granting council scholarships and fellowships available for graduate students, doctoral students and post-doctoral fellows.
- **4**. Further increase funding to the Research Support Fund as part of the ongoing implementation of Fundamental Science Review Report recommendations.
- **5**. Consider funding a Post-Secondary Institutions Strategic Investment Fund follow up program, targeted at post-secondary facility renewal and maintenance.

The Government of Canada continues to take critical steps toward reinvigorating Canada's science and research ecosystem, including Budget 2018's announcement of the most new funding for fundamental research through the granting councils in Canadian history. These investments—among many others—put Canada on a clear path to build a more equitable, innovative and prosperous country. To maintain momentum and remain competitive, Canada must continue to invest in building productive, thriving communities, where Canadians are able to get ahead.

Canada's universities are key strategic partners in providing the opportunities and training to build an internationally competitive workforce capable of driving growth in an ever-evolving global economy. In pursuit of sustainable and inclusive growth, the University of Alberta presents the following recommendations for consideration in advance of Budget 2019.

## CANADA'S COMPETITIVE ADVANTAGE: A 21<sup>ST</sup>- CENTURY WORKFORCE

Global technological shifts—in artificial intelligence (AI), automation and digitization— demographic pressures and rapid globalizing forces across sectors are changing the nature of how we live and work. To adapt to these shifts and thrive amidst disruptive innovation, Canada's workforce needs to be highly educated and equipped with a diverse set of marketable and relevant skills and competencies.

## **WORK-INTEGRATED LEARNING**

In recognition of the evolving nature of the global job market, employers are demanding more from their workforce today. A recent survey from the Business Council of Canada<sup>i</sup> showed that while employers are generally satisfied with the quality of post-secondary education in Canada, they increasingly expect graduates to be highly adaptable, have capacity to readily acquire new skills and demonstrate resilience in the face of unforeseen technological changes.

Work-integrated learning (WIL) provides these skills by offering students meaningful practice-based learning opportunities to prepare graduates to thrive in the working world. By integrating curricular learning into non-classroom settings, WIL delivers enhanced understanding of the labour market, builds connections to the professional workforce in their chosen field and bridges the daunting gap between theory and the practical demands of the modern workplace.

The practical benefits of a WIL experience are widely acknowledged. In a 2016 Abacus Data survey of post-secondary students and recent graduates, an overwhelming majority of respondents (more than 85 per cent) reported that WIL eases the transition from school to the labour market and provides an advantage in finding employment after graduation.<sup>ii</sup>

Recognizing these benefits, the number of WIL collaborations between private and public sector partners and post-secondary institutions is on the rise, with 83 per cent of leading Canadian employers working with post-secondary institutions to provide WIL opportunities—a seven per cent increase from 2016. For example, the U of A has introduced professional development as a requirement for all graduate students and has hundreds of partnered experiential opportunities between students and external partners, including Indigenous-led community organizations.

Through funding programs including the Student Work Integrated Learning Program (SWILP) and Mitacs, the federal government has also recognized the necessity of WIL. However, despite mounting demand from an increasingly diverse student population, the availability and accessibility of WIL opportunities is not keeping pace. This is particularly true for students in the social sciences and humanities. To bridge this gap, post-secondary institutions, private sector partners and government must work in tandem to accelerate widespread integration of WIL as a

fundamental component of any university program. The U of A recommends that the Government of Canada increase funding for successful WIL programming with a focus on increasing participation of underrepresented groups.

### INTERNATIONAL EXPERIENCE

Meaningful international experience builds a globalized, future-ready workforce that has a distinct competitive advantage in an integrated international economy. Global engagement provides students with opportunities to challenge and expand their worldviews and gain indemand skills including resilience, adaptability, communication and problem solving. Further, when used by diverse student populations—particularly those from less-advantaged backgrounds—international experiences can translate into social mobility and truly inclusive growth, with multiplier effects across future generations.

As detailed in the report of the Study Group on Global Education, numerous studies show measurable benefits of going abroad, including significant positive correlation with higher academic scores, degree completion and employment rates as well as larger average salaries after graduation. Students with a study abroad experience as part of their degree are also far more likely to seek out further international experiences during and after program completion.

Canada's global competitiveness and prosperity depends on a globally aware, internationally connected citizenry. Investments in the intercultural skills and global competency of our future workforce advances Canada as an influential voice for inclusive growth on the international stage, while encouraging deeper relationships and networks in established and emerging markets.

Other nations have recognized this competitive advantage and have invested in strategies to enhance the accessibility and utilization of study abroad opportunities for their post-secondary students, with impressive resultant increases in outbound student mobility. However, while the Government of Canada has committed to ambitious increases in the number of international students studying in Canada, there is no comparable strategy to grow the number of Canadian students studying abroad.

Further, despite rising demand, the rate at which Canadian post-secondary students study abroad lags behind that of other leading nations, with this gap continuing to widen as other nations increase their efforts in this regard. According to survey data from the Canadian Bureau for International Education, although 86 per cent of Canadian students are interested in an education abroad experience, they face a number of financial and other barriers, with only nine per cent of respondents able to go abroad without financial assistance.

As a result, universities are increasing efforts to expand education abroad experiences for students. For example, through initiatives like the Canada Learning Initiative in China (CLIC), the U of A has seen a steady rise in the number of students going abroad. However, to keep pace internationally, Canada needs a nationally coordinated strategy to encourage and support outward mobility of a diverse range of students throughout the course of their post-secondary program. Recognizing the multitude of advantages an international educational experience provides, the U of A recommends that the government continue to expand programs that promote and support student mobility abroad.

# RESEARCH AND INNOVATION EXCELLENCE SCHOLARSHIPS AND FELLOWSHIPS

Canada's highly trained graduate and doctoral students and post-doctoral fellows (PDFs) are indispensable to the functionality of the innovation and research enterprise, advancing Canada's capacity to discover novel solutions to complex social, cultural and economic challenges. Equipped with the proper support matching their advanced skills and training, this cohort is the key to Canada's prosperity in the face of global and technological shifts.

Recognizing this, universities continue to advance efforts to close Canada's long-standing gap in graduate degree attainment as compared with other OECD countries. Canada's graduate and doctoral student enrollment and PDF population are on the rise, including at the U of A, where graduate applications are at an all-time high, particularly among international and First Nations, Métis and Inuit (FNMI) graduate students.

However, the number and value of graduate, doctoral and post-doctoral awards delivered through the granting councils has not kept pace with rising demand and is stagnating behind leading comparator nations. While universities provide support in addition to existing valuable sources of federal funding, including the Vanier Canada Graduate Scholarship and the Banting Postdoctoral Fellowships, demand for financial support far exceeds available funds.

In recognition of this gap, the Fundamental Science Review (FSR) recommended a total base increase of \$140 million over four years to revitalize Canada's scholarship and fellowship programs. In alignment with FSR, the U of A recommends expanding granting council scholarships and fellowships available for graduate students, doctoral students and PDFs.

This expansion will not only allow Canada to attract and retain the best and brightest across disciplines at the highest levels, but will encourage a larger and more diverse cohort of Canadians to pursue graduate and post-graduate studies. This is critical, as it is widely demonstrated that diverse perspectives are necessary to produce research outcomes and innovations that answer the needs of all Canadians. Any expansion of funding opportunities should reflect the need to enhance representation of all groups at the highest levels of the academic pipeline.

### **RESEARCH SUPPORT FUND**

The Research Support Fund (RSF) assists universities with expenditures essential to the operation of the research enterprise not covered through most direct granting council funding, including research and IT infrastructure maintenance, basic operating costs, IP and technology transfer, and research administration costs.

These hidden costs often account for over half of the value of a research grant. However, due to an allocation formula that has not changed in more than a decade, research-intensive universities receive on average less than 21 per cent RSF reimbursement—with the U of A's recovery rate sitting at approximately 20 per cent. Institutions absorb the remaining expenditures through redirecting funds from operating budgets and other revenue sources, placing stress on institutional teaching and student support missions. Canada's RSF allocation, particularly for research-intensive institutions, is also incongruous with indirect cost coverage in other innovative nations, like the United States, which reimburses institutions in the 50 to 60 per cent range. VI

Recognizing this, the FSR report strongly advocated for RSF increases approaching \$478 million by the end of their phased plan—one of the most significant funding recommendations contained within the report. The RSF increase announced in Budget 2018 is critical to beginning to close Canada's gap in coverage for the full costs of research. However, to fully leverage existing investments and bring Canada in line with international competitors, greater action is necessary. The U of A recommends that the federal government further increase funding to the RSF as part of the ongoing implementation of FSR report recommendations.

#### **CUTTING-EDGE INFRASTRUCTURE**

The Government of Canada answered the calls of the post-secondary community with investments through the Post-Secondary Institutions Strategic Investment Fund (PSI-SIF). Through this funding, the U of A was able to undertake 10 projects with a combined value of \$131.9 million, facilitating the advancement of learning and research excellence.

For example, the PSI-SIF funded Research Network Infrastructure Upgrade project has upgraded infrastructure in more than 60 buildings, creating new skilled technical employment and enhanced IT environments for researchers—particularly those working with large data sets, like the U of A's AI and machine learning researchers.

PSI-SIF funding is helping the university to continue providing cutting-edge innovation and research spaces to our campus community, while also improving energy efficiency and sustainability of facilities. Given its success, the U of A recommends that the government consider funding a PSI-SIF follow up program, targeted at post-secondary facility renewal and maintenance.

<sup>&</sup>lt;sup>1</sup> Business Council of Canada, *Navigating Change: 2018 Business Council Skills Survey*, 2018. As accessed at http://thebusiness council.ca/publications/2018skillssurvey

<sup>&</sup>lt;sup>ii</sup> Abacus Data, Work Integrated Learning and Post-Secondary Education: What Students Think, 2016. As accessed at http://bher.ca/publications/what-students-think-an-abacus-data-study-on-work-integrated-learning

iii Business Council of Canada, Navigating Change: 2018 Business Council Skills Survey, 2018. As accessed at http://thebusiness council.ca/publications/2018skillssurvey

<sup>&</sup>lt;sup>iv</sup> The Study Group on Global Education, *Global Education for Canadians: Equipping Young Canadians to Succeed at Home & Abroad*, November 2017. As accessed at http://goglobalcanada.ca

<sup>&</sup>lt;sup>v</sup> Canadian Bureau for International Education, A World of Learning: Canada's Performance and Potential in International Education, 2016. As accessed at https://cbie.ca/what-we-do/research/library

vi Advisory Panel for the Review of Federal Support for Fundamental Science, *Investing in Canada's Future: Strengthening the Foundations of Canadian Research*, April 10, 2017. As accessed at http://www.sciencereview.ca/eic/site/059.nsf/eng/home