

August 2, 2019

The Hon. Wayne Easter, P.C., M.P.  
Chair, House of Commons  
Standing Committee on Finance  
House of Commons  
Ottawa, Ontario  
K1A 0A6  
By Email: [Finapbc-cpb@parl.gc.ca](mailto:Finapbc-cpb@parl.gc.ca)

Dear Mr. Easter,

Thank you for the opportunity to provide our submission to the House Standing Committee on Finance's consultations on the Government of Canada's 2020 Budget.

York University recommends that the 2020 federal budget make bold investments in Canada's postsecondary education system to ensure that universities continue to conduct the cutting-edge research that seeks to solve some of Canada's most complex issues, including climate change, while also reducing greenhouse gas emissions on-campus.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Rhonda L. Lenton". The signature is fluid and cursive, with a large initial "R" and "L".

Rhonda L. Lenton, PhD  
President & Vice Chancellor

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Encl: York University's 2020 Pre-Budget Submission

*Recommendations:*

- *Continue to invest in international research collaboration to ensure that Canadian universities can contribute to interdisciplinary research being undertaken internationally to address the challenges created by climate change.*
- *Offer another P-SIF round focused on investments in retrofitting existing PSE infrastructure and building new green spaces to support world class research and continue to reduce universities' carbon emissions.*
- *Create a new knowledge mobilization fund to better support research impact, particularly in response to societal issues such as climate change.*
- *Invest in university sector cybersecurity to ensure the security of Canadian research, data, and intellectual property.*
- *Support Indigenous students by providing direct student financial support, investing in wrap-around supports that contribute to their success while attending university and funding for indigenous research.*

## **York University**

### **Pre-Budget Submission to the House Standing Committee on Finance**

**August 2019**

York University is Canada's 3<sup>rd</sup> largest university with 52,000 students including nearly 6000 graduate students, one of the largest graduate student cohorts in the country. York is ranked among Canada's top 10 research universities for Sciences, Engineering, Social Sciences and Humanities when measured by impact. By combining excellence in research and teaching with careful stewardship of public funds, York is equipping the next generation for success in an increasingly globalized and knowledge-based economy while also delivering world-class research with real-world applications and impacts. York University is a leader in environmental research in areas that directly respond to challenges created or exacerbated by climate change. York's Advanced Disaster, Emergency and Rapid-response Simulation (ADERSIM) facility was created by an interdisciplinary team of over 30 researchers from across Canada, building on our long history of operating Disaster & Emergency Management (DEM) programs. ADERSIM focuses on evaluating and enhancing disaster and emergency planning and rapid emergency response strategies by governmental, non-governmental and private sector organizations in Ontario, across Canada and around the world. In addition, for over 40 years our Faculty of Environmental Studies (FES) has been at the forefront of cutting-edge environmental research and thought leadership. FES is home to the first environmental studies program in Canada, as well as the only PhD program of its kind in Canada, producing world-renowned applied research in climate change, ecology, environmental policy, green business and indigenous studies, among others.

York University believes that investments in international research collaboration, green post-secondary infrastructure, and knowledge mobilization are key to supporting collective action on the challenges posed by climate change. Canada's current and future economic success relies heavily on our ability to react to the climate crisis and respond with new ways of doing things that result in greater efficiency and less damage to the environment. At the same time, investment in university cybersecurity and increased post-secondary access and success for Indigenous students is needed. Together, investments in these areas complement government funding in post-secondary education, unlocking the full potential of investment in Canada's universities.

#### **Expand Investments in International Research Collaboration**

York is one of Canada's most diverse universities, with more than 70 per cent of our undergraduates identifying their ethno-cultural background as non-white compared to 50 per cent for the rest of the sector. The international character and global leadership of York is reflected through our student population and in our partnerships. York has 11,820 international students from 178 countries, and the University has over 170 international research partnerships. We understand the crucial role international research collaboration plays in developing solutions to the most complex issues facing society, including climate change.

For example, York's Disability Rights' Promotion International (DPRI) project, Asian Workplace Approach that Respects Equality (AWARE), focuses on understanding the key labour market causes of chronic unemployment and poverty of persons with disabilities primarily living in urban areas in three countries: Bangladesh (Dhaka), India (Hyderabad) and Nepal (Katmandu). Given that climate change will exacerbate economic and social issues across the globe, investments in international research

collaboration are required for Canada to partner with other countries in putting forth the best solutions to the systemic challenges we collectively face.

While other international jurisdictions have invested in international mobility for their students, Canada has fallen behind – only 2-3 per cent of York students have an international learning experience during their undergraduate degree, primarily being those students who can afford it. While we commend the government for creating the New Frontiers in Research Fund in Budget 2018, continued strategic investment is necessary to sustain increased international collaboration and especially pertinent given the issues driven by climate change that we collectively face.

*Recommendation:*

*Continue to invest in international research collaboration to ensure that Canadian universities can contribute to interdisciplinary research being undertaken internationally to address the challenges created by climate change.*

### **Reinvesting in State-of-the-Art Green Post-Secondary Infrastructure**

If Canada is to meet its climate goals while attracting the best and brightest researchers from around the world, training the next generation of researchers at leading-edge facilities, and translating their knowledge into solutions for societal problems that Canadians face, further investment is required for the renovation and renewal of research infrastructure. Previous investment made by the federal government through the Post-Secondary Strategic Investment Fund (P-SIF) has had a significant impact on facilitating research and improving the student learning environment while simultaneously curbing campus emissions.

For instance, past P-SIF funding has enabled York to modernize the Central Utilities Building, by updating the chiller, steam and electrical power generation, which has provided more capacity to meet the University's need for greater energy demand, while also providing power more efficiently and reducing our greenhouse gas emissions. In addition, P-SIF also supported the construction of the Rob and Cheryl McEwen Graduate Study and Research Building as part of our internationally-acclaimed Schulich School of Business. This new building has provided ample space for student collaboration across 10 research labs and 4 Centres of Excellence, while also demonstrating our commitment to environmental sustainability with extensive green roofs, a rainwater recapture system, a solar chimney, and a low-energy design strategy for a building that was built to LEED Gold standards.

These investments would not have been possible without the partnership of the federal government. As York continues to become more comprehensive, there remains a need for additional infrastructure investment, specifically with respect to providing energy-efficient spaces for research and learning while also actively lowering greenhouse emissions.

*Recommendation:*

*Offer another P-SIF round focused on investments in retrofitting existing PSE infrastructure and building new green spaces to support world class research and continue to reduce universities' carbon emissions.*

### **Enhance the transfer of research knowledge**

Researchers at York are working to find innovative solutions to complex societal issues that Canadians collectively face, but without proper support, these solutions often have difficulty being deployed for

the benefit of society. Knowledge mobilization is key for taking research conducted at Canada's universities and applying it to the real-world problems that Canadians face. Unfortunately, Canada has moved away from supporting PSE knowledge transfer by ending the Intellectual Property Mobilization program in 2009. Research conducted by York, along with the University of Lincoln (UK), has demonstrated that institutions are the primary mechanism for linking government policy with research projects that create an impact in local communities. Investment in knowledge mobilization at universities, therefore, is crucial in maximizing the utility of research impact for Canadians, especially when attempting to address the issues that arise from climate change.

The research being conducted at York is of paramount importance to addressing climate change. Professor Carla Lipsig-Mummé is currently the principal investigator of the "Adapting Canadian Work and Workplaces to Climate Change" project, which is supported by a SSHRC Impact Award. Her work has brought together 56 individual researchers and 25 partner organizations and unions across seven countries, focusing on what adaptations to work and the workplace will slow global warming. In addition, Dr. Usman Khan at the Lassonde School of Engineering has been researching water resources engineering, which includes flood risk assessment, sustainable water resource management and the impact of climate change on water systems. Dr. Khan has worked with Municipal governments, applying his research to solve problems related to storm water, watershed management and urban hydrology projects. Both researchers are conducting groundbreaking work that seeks to address issues that arise from climate change. Investing in knowledge mobilization through grant funding ensures that their research will be maximally applied to benefit everyday Canadians.

*Recommendation:*

*Create a new knowledge mobilization fund to better support research impact, particularly in response to societal issues such as climate change.*

**Invest in university cybersecurity**

As the world addresses climate change, Canada can generate economic opportunities with new innovations and technologies, but they will need to be safeguarded against malicious cyber threats. York's efforts to improve cybersecurity face many challenges that are characteristic of higher education, including: a culture of openness and open networks; distributed information technology and support structures; valuable research data and other forms of intellectual property that are stored or processed by decentralized systems managed by researchers with little or no cybersecurity experience, and large, high-performance networks and systems that are attractive targets for malicious activity.

York's automated cyber defense systems block over 6 million attacks per day. Over the past year, the University's Information Security department has detected and blocked over 500 compromises of staff, faculty, and student computing accounts. Given that these threats will only increase in frequency and complexity in the future, we recommend that investments be made to harden University infrastructure against new threats by hiring and training additional cybersecurity professionals and providing investment for existing or new collaborative cybersecurity initiatives across the sector.

*Recommendation:*

*Invest in university sector cybersecurity to ensure the security of Canadian research, data, and intellectual property.*

## **Support efforts to enhance Indigenous student access and success**

Unlocking the full potential of universities requires that we do not leave talent behind. We need to not only increase the percentage of our population who attend university but also the diversity of our student population. While Indigenous learners are increasingly accessing post-secondary education, only 10.9 per cent of Indigenous people aged 25-64 have a university degree, compared to 29.3 per cent for the non-Indigenous population. To meet the complex challenges faced by our society, including those created by climate change, Canada will need to ensure that all eligible members of its population seeking access to a university education are able to do so.

At York, the rate of graduation among Indigenous students is 80 per cent. The University has affirmed a commitment to respectful and relevant Indigenous-led scholarship, research and creative activities within the University's Strategic Research Plan for 2018-2023, and continues to bolster the University's Indigenous research culture by offering internal funding to support the development of research grant applications related to Indigenous priorities and needs. While the University has seen the positive impact of this work, more needs to be done. By providing additional funding to strengthen Indigenous student access to university education through direct student financial support, as well as funding wrap-around supports such as reimbursing students for travel to their home communities, providing funding for cultural spaces on campus, and providing flexible programming for mature students, universities can make real progress on becoming more accessible to Indigenous learners and better support their success.

### *Recommendation:*

*Support Indigenous students by providing direct student financial support, investing in wrap-around supports that contribute to their success while attending university and funding for indigenous research.*