



Queen's University Pre-Budget Submission

January 2018



INTRODUCTION

Universities play a critical role in ensuring Ontario's success in an increasingly competitive global economy. By developing the talent, knowledge, and innovations that will continue to fuel economic growth today and in the future, universities remain important partners in helping the province encourage investment and improve quality of life.

Queen's University provides Canada's definitive student experience. We challenge and support in equal measure, balancing excellence in teaching with innovative research to provide a dynamic living and learning environment. Here, exceptional people create an unrivalled community and an unmatched mix of opportunities – a powerful combination that leads to an unmistakable impact on the world.

Queen's outstanding student experience leads to some of the most impressive educational outcomes in Ontario. For example, Queen's leads Ontario's universities in terms of both its first- to second-year undergraduate retention rate of 94.7 per cent, and leads the nation with an undergraduate graduation rate of 89.5 per cent. At the graduate level, Queen's leads the U15 for its master's completion rate (91.7 per cent) and is second in the U15 for its PhD completion rate (76.8 per cent). Queen's graduates are more likely to go on to further studies (67 per cent compared to the national average of 50 per cent) and they enjoy favourable employment outcomes, with 90 per cent employed six months after graduation. In addition, Queen's graduates earn an average income of \$79,000 five years after graduation from an undergraduate program, compared to an average of \$71,000 for university graduates nationally.

At the same time, Queen's has a long history of research excellence. It is a member of the prestigious U15 Group of Canadian Research Universities and is home to exceptional professors, including Professor Emeritus Arthur McDonald, co-recipient of the 2015 Nobel Prize in Physics. Queen's has established and emerging research strengths in several areas of discovery and innovation that are important for Ontario, including particle astrophysics, environmental science, cancer research, nuclear materials, clean energy and technology, mental health-neuroscience and cybersecurity.

Queen's University is pleased to provide the following recommendations in advance of Budget 2018.

ACCESS TO POST-SECONDARY EDUCATION

Queen's applauds the Government of Ontario for the changes made to the Ontario Student Assistance Program in Budget 2017, which have served to make post-secondary education more affordable for Ontario students – in particular, for those who otherwise might not have had the opportunity to attend.

Queen's is committed to fostering an inclusive educational environment for all students, and to improving access to post-secondary education. At present, eight percent of undergraduates are first-generation students and Queen's has developed a first-generation admissions policy, which offers an alternative pathway to admission and will assist first generation students in accessing financial aid and other resources necessary for a successful transition to post-secondary study.

Queen's has dedicated recruitment staff, support services, and alternative admissions pathways for Indigenous students, to encourage applications from Indigenous communities and assist with the transition to campus life. At Queen's, acceptances from Indigenous students have increased 163% since 2012. The Aboriginal Access to Engineering program at Queen's is committed to increasing the number of Indigenous students engineers in Canada. By promoting math and science to elementary and high school students, supporting the efforts of their teachers, and enabling access to post-secondary study, the program is encouraging more Aboriginal youth to attend university and become qualified engineers.

- **Queen's University recommends that the Government of Ontario continue to offer support for students and institutions in order to improve access to post-secondary education for underrepresented groups.**

INNOVATION

One of Canada's leading research-intensive universities and home to nationally and internationally renowned researchers, Queen's has been at the forefront of preparing the next generation of leaders in science, health care, public service, business and industry for more than 176 years. Discoveries by Queen's researchers have led to more than 500 patents, over 50 spin-off companies and \$1.4 billion in investments – contributing to an innovative and prosperous regional economy.

Universities have a substantial effect on the growth and development of their local economies. In classrooms and lecture halls, labs and workshops, students learn the in-demand skills employers are searching for – preparing to enter the workforce as the next

generation of highly-skilled workers. Moreover, research conducted by faculty and students alike can lead to new technologies or solutions to problems, which can lead to commercialization and the formation of new companies. University-linked incubators are at the leading edge, providing teams of students and researchers with the support they need to bring their ideas to fruition.

Queen's innovation ecosystem provides support and guidance for entrepreneurship activities by students, researchers and regional partners. Established in 2008, Innovation Park at Queen's brings together innovators from the academic, government, industrial and not-for-profit sectors to cultivate ideas, transform research and discoveries, and bring promising technologies to market. Through incubation and acceleration programs, as well as services for high-potential entrepreneurs, startups and SMEs, Innovation Park is at the forefront of the innovation ecosystem of eastern Ontario.

Innovation Park is also home to valued commercialization partners for Queen's, such as GreenCentre Canada, a green chemistry accelerator that works with industry and academia, including several leading Queen's researchers, in order to commercialize their discoveries.

- **Queen's recommends that the government continue to provide stable funding to accelerators like GreenCentre Canada, which is a vital partner in the eastern Ontario innovation ecosystem.**
- **Queen's recommends that the government support programs aimed at fostering job creation, economic growth, and innovation in eastern Ontario.**

The Dunin-Deshpande Queen's Innovation Centre also works to support the innovation activities of students, professors, entrepreneurs, regional and Canadian companies through incubators, accelerators, workshops, internship opportunities, seminar series, conferences and business plan competitions for students, such as the Queen's Innovation Centre Summer Initiative (QICSI). Through the Foundry program – an option within QICSI – student-led startups have the opportunity to license commercially-viable IP developed by Queen's researchers to develop their business and bring cutting edge technologies to market.

However, the positive effects of research cannot make their way into the community at large unless the ideas formed in the lab can be turned into real-life products and solutions. The creation of a dedicated pool of funding directed at research commercialization would help researchers to convert discoveries made in the lab to real-world solutions. Moreover, support for commercialization will provide innovative companies the opportunity to

leverage homegrown research to bring about a more productive and economically sustainable province.

- **Queen's recommends the creation of a dedicated funding stream aimed at assisting researchers in commercializing their discoveries, as well as increased support for student entrepreneurship and innovation activities through programs, such as the Campus-Linked Accelerators.**

DEVELOPING TALENT FOR ONTARIO

Through its undergraduate and graduate programs across the arts and sciences, as well as engineering, law, business, education and the health sciences, Queen's is helping to prepare the highly skilled workforce of the future. To ensure student success, Queen's is committed to providing the highest quality of education, including through the adoption of innovative approaches to teaching and learning.

In June 2017, Queen's launched an Experiential Learning Hub to provide a central contact point for faculty, students and community partners interested in experiential learning – a skills-focused approach that focuses on hands-on learning beyond the classroom setting. The Hub offers resources on best practices and mechanisms for faculty interested in implementing and assessing experiential learning programs, as well as resources for students to learn about experiential learning opportunities. Eighty-two per cent of Queen's students report involvement in experiential learning, including the more than 40 per cent who report participating in an internship or co-op placement.

- **Queen's applauds the government for its recent investments in experiential learning and skills development, including through the Career Ready Fund and the Skills Catalyst Fund, and encourages further investment to assist universities and their partners in scaling up experiential learning and skills development opportunities.**

The university has also embedded explicit learning outcomes into 100 per cent of its programs, to promote the effective development of transferable skills, such as critical thinking, problem solving and communication. In partnership with the Higher Education Quality Council of Ontario, Queen's is conducting a multi-year examination of learning outcomes. By measuring students from first to fourth year on four key skills – critical thinking, problem solving, written communication and lifelong learning – Queen's has been able to quantify student achievement of transferable learning outcomes and develop reliable and sustainable means of assessing student learning. Queen's is now entering the second phase of this project, which will allow the university to measure and track more

regularly the development of skills – quantifying the value-add in higher order skills of undergraduate education. This research will shed new light on the development of adaptable, interdisciplinary skills that match the demands of the modern workplace – helping Queen’s graduates succeed in a changing employment landscape.

Queen’s continues to attract and retain top-tier student talent. Despite a declining provincial demographic, Queen’s has seen strong demand, with application numbers continuing to grow. Students recognize the quality of education they will receive at Queen’s, including the skills and career opportunities that they will acquire upon graduation.

- **Queen’s encourages the government to allow universities the flexibility for modest, funded enrolment increases through current and future Strategic Mandate Agreement cycles.**

This would allow Queen’s to deliver on its exceptional educational outcomes for even greater numbers of students and to contribute to the economic growth and prosperity of Ontario.

ENSURING STUDENT SUCCESS

As important as it is to improve access to post-secondary education, it is equally important to ensure that students have the supports necessary for success once they arrive. Queen’s is proud to offer supports and guidance for students – through Student Accessibility Services, Student Wellness Services, the Four Directions Aboriginal Student Centre and other on-campus groups – to provide accommodations for students with disabilities, physical and mental health initiatives, and cultural programs and peer support to help students thrive. The new first-generation student admissions policy also includes supports for applicants from Pathways to Education, and the Boys and Girls Club’s Raising the Grade programs, as well as youth who are Crown wards.

With respect to mental health, we encourage those needing help to seek it, and work to reduce stigma through many initiatives and programs. The Innovation and Wellness Centre (currently under construction) will provide a new home for Student Wellness Services, including counselling services, in a central campus location that uses co-location with other programs to reduce the stigma of accessing mental health and wellness services.

Queen’s will continue to improve its student support services, working with community partners and others in the post-secondary sector to inform best practices and expand service provision. However, this process cannot take place in a vacuum. Queen’s echoes the

recommendations of the Council of Ontario Universities report on student mental health, in calling for a “whole of community” approach to student mental health. There is an important role for government and community health care providers to play in developing a holistic mental health and wellness strategy. Through these partnerships, universities can work with health care providers and community groups to ensure that all students have access to adequate mental health support services.

Queen’s takes pride in being a leader in supporting the health and wellness of its students and in the delivery of mental health supports for students. However, the primary mission of the university is excellence in education and research. Mental health is a complex topic, requiring a multi-sector approach – including the provincial government, universities, and health care agencies – to ensure individuals receive appropriate care.

- **Queen’s University recommends the province partner with – and provide appropriate investments for – universities, health providers, community groups and relevant stakeholders, to develop a comprehensive mental health services strategy for Ontario students.**

RESEARCH

Queen’s welcomed the release of Canada’s Fundamental Science Review and is grateful to both the Government of Canada for commissioning the report, as well as to the advisory panel for their hard work – including Queen’s own Nobel laureate, Dr. Arthur McDonald. Queen’s echoes the support of universities across Canada for the report and encourages the government to implement its recommendations. Renewed investment in fundamental research will support an innovative and globally competitive Canadian economy.

In addition to working with the federal government to encourage implementation of the report’s recommendations, there are steps the Government of Ontario can take to strengthen the province’s research capacity – particularly within its universities. Increasing funding available to researchers through the Ontario Research Fund will send a strong signal that Ontario is willing to invest in the discoveries that will shape our province’s future. It will also support the education of the next generation of highly-skilled workers by providing opportunities for learning with leading researchers.

- **Queen’s recommends that the province increase its support for fundamental research through the Ontario Research Fund and that it work with its federal counterparts to implement the recommendations of the Fundamental Science Review.**

COUNCIL OF ONTARIO UNIVERSITIES RECOMMENDATIONS

Queen's University works closely with the Council of Ontario Universities (COU) to advance university education, research and innovation in Ontario. Queen's would like to echo the following recommendations of the COU for Budget 2018.

Support strong post-secondary institutions for a strong Ontario

- Increase operating funding on an ongoing annual basis to recognize cost escalation and fulfil the important goals set out through the funding formula and Strategic Mandate Agreements.
- Provide new sustained funding to achieve a 25 per cent increase in STEM graduates over the next five years.
- Provide ongoing funding to scale up Indigenization initiatives, experiential learning programs, entrepreneurship programs and incubators, improvements in teaching and learning, and more.
- Provide funding for university costs associated with implementation of Bill 148.

Modernize learning environments for students, faculty, researchers and staff

- Invest \$360 million annually in capital renewal funding to support improvements in the learning environment for students and the capital infrastructure that supports research and innovation.

Build a clean and green Ontario

- Continue investing in the Post-Secondary Greenhouse Gas Campus Retrofits Program (GGRP) to improve energy efficiency and reduce emissions, with annual investments of at least \$500 million.
- Of that \$500 million in GGRP funding, provide \$400 million to universities in 2018-19 to reflect the universities' share of emissions, and continue to base future allocations on share of emissions.

CONCLUSION

Queen's supports the Ontario Government's plan to invest in measures that promote economic growth and create fairness and opportunity during this period of rapid economic change. We strongly believe that the investments proposed above will allow Queen's and universities across the province to provide students with the necessary skills for success and to provide researchers with the resources needed to foster new discoveries and innovations. We thank the Ministry of Finance and the Government of Ontario for the opportunity to provide input for Budget 2018.