

2019 PRE-BUDGET SUBMISSION

The University of Toronto's 2019 Pre-Budget Submission to
the House of Commons Standing Committee on Finance



BUDGET RECOMMENDATIONS:

Preparing Canadians for Jobs of the Future

- Invest more resources towards graduate scholarships and fellowships and deliver the funding based on efficient, responsive and merit-based allocation and adjudication.
- Enhance Canada’s innovation ecosystem by supporting the construction of U of T’s Partners in Innovation & Entrepreneurship Complex (PIE-C). This building will house the expanding Vector Institute, research labs for approximately 100 researchers engaged in research-based commercialization, lab space for 60 start-ups based at U of T on-campus accelerators and leased space for up to 20 innovative companies.
- Support the expansion of university-led equity, diversity and inclusion initiatives including enhancing direct student funding and institutional programs and partnerships for Indigenous student access and success.
- Extend global opportunities to all students through the “Go Global Canada” initiative to support a national goal of 25% of students gaining international experience.
- Invest to meet the Business and Higher Education Roundtable’s (BHER) goal of ensuring that 100% of post-secondary students have access to a work integrated learning opportunity, building on past government investments in programs like the Student Work-Integrated Learning Program and Mitacs internship programs.
- Ensure the significant funding the Government of Canada has earmarked for the Future Skills Centre is effectively delivered through a pan-Canadian strategy to engage stakeholders and deliver programs that will ensure Canadians have the skills they need to succeed in the labour market of the future.

Recognizing the Full Cost of Research

- Address the funding gap in the Research Support Fund to ensure that Canada’s leading research universities can continue to provide world-class research and training environments.

Placing a National Focus on Urban Issues

- Support the “School of Cities” in developing applied research to promote solutions and best practices that address the foremost challenges of Canada’s growing urban populations.



1 | INTRODUCTION

Canada is facing an inflection point in its economy and universities are key partners to ensuring our future prosperity. In recent months, the traditional pillars of Canada's success have been called into question:

- Liberalized trade is challenged across the globe and particularly in the United States amid growing unrest over the unequal distribution of benefits from globalization.
- New technology is changing the way we work and the skills needed to flourish.
- NAFTA, Canada's most important trade agreement, is currently in an uncertain state placing greater pressures on our commodity exporting regions and firms.
- Tax changes across the border have stripped Canada of a previously held competitive advantage.

In short, Canada's future prosperity is at risk and these global headwinds could jeopardize Canada's ability to attract investment, create jobs, and stall our commitments towards inclusive growth.

The Government of Canada has demonstrated a keen awareness of these phenomena by making historic investments in fundamental research, expanding work integrated learning programs, and funding five business-led innovation superclusters in previous budgets. These investments set a clear path towards Canada's future prosperity in these uncertain times.

Budget 2019 represents an opportunity to build on our efforts to strengthen Canada's global position. At this critical juncture, Canada's universities must remain key partners in facing these challenges together by enhancing Canada's inclusive and highly talented workforce, supporting globally significant research and fostering unique university-led partnerships that will benefit all Canadians.



Minister Duncan Speaks at U of T's Go North Youth Event.

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PREPARING CANADIANS FOR JOBS OF THE FUTURE

Investments in innovation and skills development are the key components to maintaining a thriving economy in uncertain times. As technologies such as artificial intelligence and automation are disrupting industries worldwide, Canada has chosen to make strategic investments to lead in the world in emerging sectors and leverage the knowledge and talent in Canada's universities through Canada's superclusters strategy and the Pan-Canadian Artificial Intelligence Strategy.

In the coming months and years, Canada's choices will ultimately determine whether the country benefits from the disruptive impact of new technologies and leads in key areas of the global economy, or falls behind.

Previous Government investments have demonstrated bold leadership and the University of Toronto has been a lead partner in seizing these new opportunities. Universities create the steady stream of globally competitive talent and world-leading research that anchors companies and investment in Canada. For example, U of T has played a key role in landing major investments, including:

- Firms like Google, Facebook, Uber, Tesla, Thomson Reuters, Samsung, LG, Fujitsu Labs, Johnson & Johnson, GE Healthcare, Bayer and others have been drawn to Toronto recently. Meanwhile, Canadian companies like Royal Bank of Canada are investing in sizable R&D labs and networks to take advantage of Canada's emergence in sectors like artificial intelligence. These investments were not prompted by tax incentives but by local concentrations of unique research expertise, highly educated graduates, and high quality of place.
- The decision by Amazon to shortlist Toronto's bid for its 'HQ2' – a bid that offers no tax incentives, but instead focuses on talent, openness to immigration, quality of life and the regional innovation ecosystem – is yet another telling example.
- At the same time, the emergence of promising homegrown start-ups like Deep Genomics, BlueRock Therapeutics, ROSS Intelligence, BenchSci and others leverages the University of Toronto's strengths in emerging fields like machine learning, genomic and regenerative medicine, advanced manufacturing, clean tech, and more.



U of T's Raquel Urtasun on campus for an Uber career fair. Professor Urtasun is one of the world's leading researchers in the field of machine perception. She has taken on a key role leading a new branch of Uber's Advanced Technologies Group in Toronto, Uber's first branch outside the U.S.

These investments would not be possible without the Government's commitment to research and innovation, including investment in the Vector Institute and the Advanced Manufacturing Supercluster. U of T is a lead partner in both of these initiatives. Continuing to develop Canada's innovation ecosystem will ensure our competitiveness and prosperity for the long-term.

Yet investing in innovation alone will not create the society Canada aspires to be. These investments must be inclusive and create opportunities for all to participate. At a time when other jurisdictions are turning inward, Canada is open to the world. This contrast creates great opportunity for Canada to maximize our international advantage as a diverse, welcoming and dynamic country. And while universities are inherently key drivers of social mobility, they must also be leaders in addressing issues of equity, diversity and inclusion. U of T, along with the sector, has taken proactive steps to support these goals including several recent initiatives such as producing an annual employment equity report that captures essential data to benchmark U of T's position and highlight areas for improvement, appointing a director of indigenous initiatives and launching Black Faculty Working Groups.

However, there is more work to do. The sector is engaged in developing a made-in-Canada approach to addressing issues of equity, diversity and inclusion that is flexible and adaptable to campuses across the country and is helping to ensure that everyone shares in Canada's prosperity.

The Government of Canada must continue its leadership role in supporting key economic clusters, creating opportunities for skills development and boosting efforts to enhance equity, diversity, and inclusion.

U of T recommends the Government:

- Invest more resources towards graduate scholarships and fellowships and deliver the funding based on efficient, responsive and merit-based allocation and adjudication.
- Enhance Canada's innovation ecosystem by supporting the construction of U of T's Partners in Innovation & Entrepreneurship Complex (PIE-C). Among other things, this building will house the expanding Vector Institute, research labs for approximately 100 researchers engaged in research-based commercialization, lab space for 60 start-ups based at U of T on-campus accelerators and leased space for up to 20 companies.
- Support the expansion of university-led equity, diversity and inclusion initiatives including enhancing direct student funding and institutional programs and partnerships for Indigenous student access and success.
- Extend global opportunities to all students through the "Go Global Canada" initiative to support a national goal of 25% of students gaining international experience.
- Invest to meet the Business and Higher Education Roundtable's (BHER) goal of ensuring that 100% of post-secondary students have access to a work integrated learning opportunity, building on past government investments in programs like the Student Work-Integrated Learning Program and Mitacs internship programs.
- Ensure the significant funding the Government of Canada has earmarked for the Future Skills Centre is effectively delivered through a pan-Canadian strategy to engage stakeholders and deliver programs that will ensure Canadians have the skills they need to succeed in the labour market of the future.

3 | RECOGNIZING THE FULL COST OF RESEARCH

The path to further economic growth is intrinsically tied to our ability to catalyze research to realize new discoveries. For years, research at the University of Toronto has led to breakthroughs that have solved global problems, created new products, fostered the growth of new companies and improved our society and economy. Strong, publicly assisted research fosters new developments in all fields benefiting us all.

Budget 2018 investments in fundamental research have put Canada on good footing for years to come. However, challenges to realizing the benefits of these investments remain. The most pressing is the gap between research funding and funding for the institutional costs of research, such as faculty costs and equipment, through the Research Support Fund (RSF).

The University of Toronto, Canada's highest ranked university and a top 10 public institution globally, has the lowest RSF funding rate in Canada at 19.2%. In comparison, 121 institutions receive more than 25% in RSF funding and 109 institutions receive more than 40%, representing an RSF funding gap. This challenge puts the U of T's competitiveness and ability to provide world-class research environments at risk.



Students at UTSC Chemistry Lab

U of T recommends the Government:

- Address the funding gap in the Research Support Fund to ensure that Canada's leading research universities can continue to provide world-class research and training environments.

4 | A NATIONAL FOCUS ON URBAN ISSUES



Talented workers are increasingly gravitating to the city-regions that are most livable. Canada's cities have an enviable reputation, but they currently face some major challenges that could undermine this advantage. Foremost among these is the trend towards increasing income polarization, declining affordability of housing, and the pressing need for major investments related to transportation and other key urban services.

The most complex problems on our planet affect the majority of people living in urban environments. Whether it is climate change, food security, challenges to economic prosperity, or global security, the world's cities are the epicentre of these challenges and thus present the greatest source of opportunities.

The United Nations Department of Economic and Social Affairs estimates that, by 2050, 66 per cent of the world's population will live in urban areas, up from 54 per cent in 2014. In Canada, trend towards urban locations is even more pronounced. According to Census 2016, over 82% of Canadians now live in urban areas, with roughly 35% of our population now residing in Canada's three largest metropolitan areas alone. The challenges associated with this global movement towards cities require a systematic and interdisciplinary approach to ensure that multiple vantage points and world class experts have a forum to come together to tackle these problems.

The University of Toronto is taking a global leadership position in identifying challenges and realizing solutions to the complexities around urban issues. Through the first-of-its-kind School of Cities, the University is bringing together over 220 faculty members at U of T conducting urban-focused research, drawn from 40 different disciplines, and will further integrate researchers from across the country and around the world.

The school has three main pillars of activity:

- **Research:** The *Urban Innovation Lab* will bring together teams of faculty, students, industry and government partners to identify challenges and seed project ideas. The most promising of these will develop into *Major Urban Challenge Projects*.
- **Education:** The School will launch a suite of professional development courses designed to enhance the skill sets of urban practitioners in a range of fields. Subsequently, a new, interdisciplinary Master's program will support the mission of the school with a globally recognized degree.
- **Outreach:** The School will build strong relationships throughout the GTA, Canada and internationally with governments, industry and organizations to bridge the gap between academic research and policymaking with the ultimate goal of ensuring that evidence-based policy is implemented to improve the world's cities. It will form a national hub for applied research and the promotion of best practices addressing the foremost challenges of Canada's largest cities.

U of T recommends the Government:

- Support the School of Cities in developing applied research to promote solutions and best practices that address the foremost challenges of Canada's growing urban populations.

5 | CONCLUSION

Canada's path to continued prosperity in these uncertain times requires a continued and enhanced commitment to innovation and skills, enabling research and supporting unique partnerships that will solve the most complex problems Canada faces. Universities remain strong partners of the Government and are engines of social mobility, prosperity and growth.

The talent-based approach we propose is aligned with the Government of Canada's inclusive approach to enhancing the resilience of our workforce and encouraging lifelong learning and skills development, as advocated by the Barton Advisory Council on Economic Growth. A talent-focused strategy relies on skills development and innovation; the livability of our urban regions, a Canadian strength on the world stage; and quality learning environments for top talent, who serve as the engine of growth and prosperity. Budget 2019 provides an opportunity to build on complementary investments to these areas and propel Canada forward in a competitive and rapidly changing economy.

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