

# Faculty At Work

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A Preliminary Report on Faculty Work  
at Ontario's Universities, 2010-2012





# Introducing the Faculty Work Project

Excellent postsecondary education is critical to success in the 21st century—for both individuals and societies. In addition to delivering clear economic returns, higher learning is linked to improved outcomes in areas ranging from health to civic engagement.

Enrolment in Ontario universities has grown by 59% over the past decade. This surging demand tells us that students understand and want to access the benefits of higher education.

Increased university enrolment, carrying the promise of a more adaptive and prosperous society, is great news for Ontario. It also presents a challenge: universities are called to serve thousands more students while maintaining high levels of quality and accessibility, all in a context of constrained resources.

Ontario's university faculty recognize that they have a critical role to play in helping their students and institutions thrive in this changing environment. With this in mind, the Ontario Council of Academic Vice-Presidents (OCAV) has launched the Faculty Work Project, the first study of its kind in Canada.

The Faculty Work Project measures the effort and activities of university faculty, and examines faculty members' contributions to their students, institutions, and communities. Although still in its early stages, the Project lays a strong foundation for understanding those contributions as a key factor that determines the quality of the education delivered to Ontario students.

We believe the Faculty Work Project is a valuable addition to conversations with governments, the public, and our academic colleagues across Canada about the substantial contributions faculty are making to prepare students for success and universities for excellence and sustainability.

We are pleased to share the results of this pioneering study with those who care about post-secondary education in Ontario and beyond. We look forward to working together in the months and years ahead to deliver on the great and enduring promise of higher education.

**Maureen Mancuso,**  
*Chair, Ontario Council of Academic Vice-Presidents*

OCAV wishes to acknowledge the hard work of Melissa Gabler, Michael Kupferschmidt and Glenn Craney in the data collection and analysis for this project.

“The thing about the 21st century economy that distinguishes it most sharply from the economy that preceded it is the central importance of people’s minds and skills.”

**Robert Reich**  
*Labour Economist*

# An Important First Step

**Higher education is a critical driver of Ontario’s prosperity, and yet universities and governments face significant fiscal constraints that are unlikely to improve in the near term. Leaders and the public need to understand the value they are receiving from the work of faculty at Ontario universities.**

Measuring university work is not a straightforward task: the inputs and outputs of higher education are inherently difficult to quantify. Nevertheless, the need to better understand university work is clear—and analyzing faculty work is central to that effort.

As a contribution to understanding university work in Ontario, the Ontario Council of Academic Vice-Presidents has launched the Faculty Work Project.

## Early Stages

Phase 1 (Pilot)	Phase 2	Next
<ul style="list-style-type: none"><li>• 2010-2011</li><li>• 4 Universities</li></ul>	<ul style="list-style-type: none"><li>• 2011-2012</li><li>• 17 Universities</li></ul>	We hope to capture <ul style="list-style-type: none"><li>• all Ontario universities</li><li>• more dimensions of faculty effort</li></ul>

## The Scope Of the Data So Far

To date, the Faculty Work Project has captured:

- 10,867 full-time faculty from 17 Ontario universities, about 77% of all faculty that were reported to Statistics Canada's University and College Academic Staff System (UCASS)
- Institutions serving 76% of full-time student enrolment in the Ontario university sector (77% of undergraduates<sup>1</sup>; 66% of graduate students; 59% of doctoral candidates)
- Faculty who collectively teach 336,448 students, (300,644 undergraduate students; 35,803 graduate students' 11,029 doctoral candidates)
- Faculty whose institutions granted 78% of all degrees (80% undergraduate; 70% master's; 58% doctoral)
- Faculty whose institutions generated 55% of all externally sponsored research in the Ontario university sector

<sup>1</sup> Throughout this document 'undergraduate' refers to bachelor's or first professional students or degrees. This document provides an overview of findings from the Faculty Work Project.



# Ontario University Faculty In Context



Ontario university faculty educate more students with less funding than universities in other provinces receive. As researchers, they have an outstanding record of success both in attracting funding from federal granting councils and in producing relevant and influential research projects.

## Student-To-Faculty Ratios



Ontario had the highest student-to-faculty ratios of all Canadian provinces in all but one year in the past decade.

In the census year 2010-2011, Ontario universities' student-to-faculty ratio of 25.9 was 15.8% higher than the Canadian average<sup>2</sup>.

## Degrees Granted

In the past decade, the Ontario university sector has granted more degrees per full-time faculty member than the average for the rest of Canada.<sup>3</sup>

All Degrees - 24.3%

Undergraduate - 26.2%

Master's - 18.1%

Doctorates - 12.6%

**Proportion by which degrees granted by the Ontario university sector—per full-time faculty member—exceeded the national average (census year 2010-2011)**

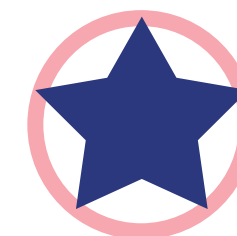
## Externally Sponsored Research

For the past decade, the Ontario university sector has exceeded the national average in terms of externally sponsored research per full-time faculty member.

# 9.5%

In the past 5 years reported (2005/06-2010/11), research proposals from Ontario faculty have attracted 9.5% more funding from Federal Granting Councils (as measured in dollars awarded per full-time faculty member). On this measure Ontario has grown at over 8 times the rate for the rest of Canada.<sup>4</sup>

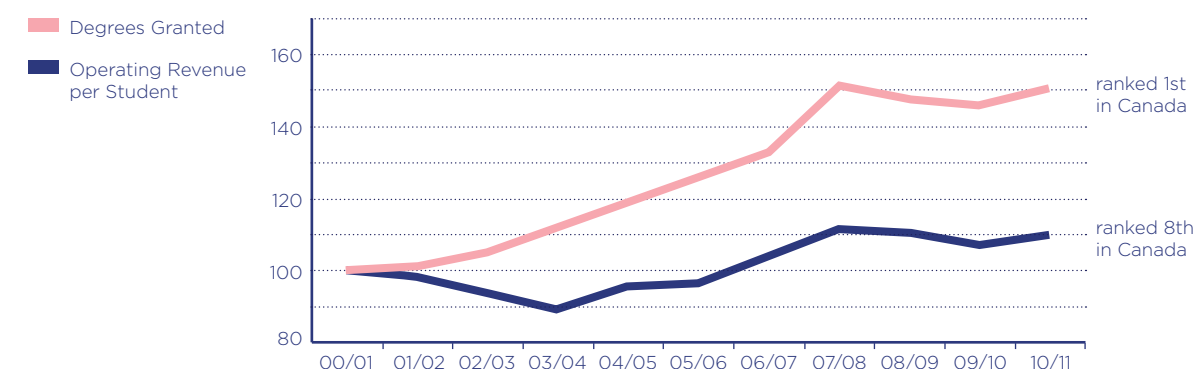
## Research Impact



Ontario's faculty have the highest H-index scores in the country. (The H-index is designed to reflect the positive impact of an academic's work on his or her scholarly community.)<sup>5</sup>

## Leading Outputs from Lagging Inputs

(Growth Indices- Ontario - 2000/01 = 100)<sup>6</sup>



2-3 The source of the degrees granted data is Statistics Canada.

4 Council of Ontario Universities calculations based on data from Canadian Association of University Business Officers (CAUBO) and Statistics Canada.

5 Higher Education Quality Council of Ontario (HEQCO) (2012) The Productivity of the Ontario Public Postsecondary System Preliminary Report.

Toronto: HEQCO. <http://www.heqco.ca/SiteCollectionDocuments/HEQCO%20Productivity%20Report.pdf>

6 Council of Ontario Universities (2012) Interprovincial Comparison of University Revenue. June. <http://cou.on.ca/publications/reports/pdfs/interprovincial-comparison-june-14-12-fn>



# Academic Life Cycle

In university life, as in other careers, the composition of people's work changes as they gain experience and take on more leadership responsibilities. Accordingly, junior faculty devote more time to teaching while senior faculty tend to spend more time on research and leadership. The findings of the Faculty Work Project reflect these moderate shifts in emphasis over time, while affirming that the typical faculty member – at any career stage – is involved in all three aspects of academic work: teaching, research, and service.



## Myth

Full professors focus almost exclusively on research; they do very little teaching, and have minimal contact with undergraduates.

## Fact

The Faculty Work Project found that 87% of full professors taught undergraduate students. Among full professors, 40% taught undergraduates only, while 47% taught both undergraduate and graduate students.

## Research

Senior faculty are more active in research—and attract markedly more external funding—but at all levels, at least three-quarters produced research outputs.<sup>7</sup>

Full professors- 68%



Associate professors- 54%



Assistant professors- 52%



Proportion generating external research funding

Full professors- 91%



Associate professors- 86%



Assistant professors- 86%



Proportion generating research outputs<sup>8</sup>

## Teaching

The vast majority of faculty of all ranks are active in undergraduate instruction. Graduate instruction varies more sharply by faculty rank, with lecturers and assistant professors least likely to teach both graduate and undergraduate students.<sup>9</sup>

Full professors- 87%



Associate professors- 91%



Assistant professors- 95%



Proportion teaching undergraduate students

Full professors- 47%



Associate professors- 48%



Assistant professors- 40%



Proportion teaching both undergraduate and graduate students

## Service

Senior faculty are more strongly engaged in administration, program design, governance, and other leadership roles. Junior faculty are more active in other forms of service.<sup>10</sup>

Full professors- 80%



Associate professors- 83%



Assistant professors- 81%



Proportion active in service

Full professors- 25%



Associate professors- 24%



Assistant professors- 12%



Proportion receiving course releases<sup>11</sup> for administrative work

<sup>7</sup> Based on 15 institutions reporting.

<sup>8</sup> Research outputs reported by institutions include the following activities in the reporting year: a) journal articles/publication records; b) peer-adjudicated conference presentations; c) creative work, including contributions in the performing and creative arts (e.g. exhibitions). Books or book chapters published in the reporting year or in the following year were counted as outputs. Faculty members serving as members of an editorial board and/or editing a journal in the reporting year were counted as having produced a research output.

<sup>9</sup> Based on 5 institutions reporting.

<sup>10</sup> Based on 16 institutions reporting.

<sup>11</sup> See page 11 for more information about course releases.

# Research

The standard faculty member in Ontario **devotes 40% of work effort to research**, supporting universities’ vital contributions to our province’s knowledge economy.

Together, universities and their faculty members produce innovations that enrich society in many ways: seeding businesses, solving problems, saving lives. They participate in global scholarly communities that are advancing the frontiers of human knowledge in areas ranging from neurobiology and ocean chemistry to Renaissance sculpture and quantum computing. Universities and faculty also provide the tools, environments, and leadership that help the great minds of tomorrow find their purpose and lay the foundation for future breakthroughs.



The Faculty Work Project finds Ontario faculty to be hard at work discovering and mobilizing new knowledge. This work is primarily measurable through research outputs (such as peer-reviewed articles, books, and chapters) and through the attraction of external funding with relevant, timely project proposals. While the FWP has been able to establish some important benchmarks in this early phase of its work, a number of key aspects of research productivity are excluded from the data presented here. These include:

- Work on research funding proposals
- Time spent keeping up with others’ disciplinary and interdisciplinary research
- Multi-year external funding covering—but not generated in—year of study
- Research projects active—but not published—in year of study
- Data on whether research-inactive professors are devoting more time to service or long-term research publications
- Research impact measures

## Teaching & Research

Faculty who did not produce research in the year measured taught more courses and students than those who produced research.

### Research-active faculty:



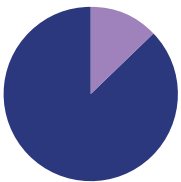
### Research-inactive faculty:



## Publications

87%

of faculty (6,569 professors<sup>12</sup>) produced research outputs<sup>13</sup> in the year measured



13% (982 professors) produced no research output

## Funding

57%

attracted external research funding



## Variations By Discipline

Science faculty are more likely to have research outputs and external funding; this reflects the larger pools of funding available for science disciplines:

Discipline	Generated Research Outputs	Attracted External Research Funding
Sciences	92%	79%
Social Science & Humanities	85%	43%

<sup>12</sup> All mentions of faculty refer to tenured or tenure-track faculty unless otherwise noted.  
<sup>13</sup> All Faculty Work Project findings on research productivity are based on data from 15 reporting institutions.



# Teaching

Teaching is at the heart of Ontario universities’ missions—and therefore at the heart of faculty work. Professors share with students not only deep knowledge of their fields, but research methods, disciplinary standards, and perspectives on where their work fits into the wider landscape of social, economic, and cultural life in Ontario and beyond. A standard Ontario faculty member **devotes 40% of work effort to teaching.**



The Faculty Work Project finds Ontario university faculty to be teaching large numbers of students and courses. In addition to substantial in-class activity, faculty perform many other teaching tasks not captured in this phase of the study. These include:

- Student contact hours outside of class time
  - mentorship
  - research supervision
  - graduate student supervision
  - office hours
  - email and other online student support such as posting lecture notes
  - faculty advising
  - attendance at student events, formal university events, and ceremonies
- Program and course design
- Conducting independent reading/project courses
- Preparations for lectures, labs, seminars
- Grading
- Professional development

## Courses

33,600

Faculty taught 33,600 undergraduate and graduate courses.



The number of courses most frequently taught per professor varied across institutions, ranging from 3 to 8. The mean was 3.64. The teaching workload per faculty member also varied depending on the assigned distribution of effort between teaching, research and service.

## Students

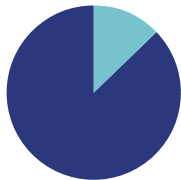


Faculty taught 1.5 million students<sup>14</sup>.

1:178

The average number of students taught by each professor was 178.

## Overload Teaching



At 15 institutions that reported on overload teaching, 13% of faculty took on overload teaching.

10%

Faculty Work Project calculations suggest that the added teaching capacity from overload work is equivalent to about 10% of all full-time students at the 17 participating universities.

## Student Credit Hours (SCH)

2.1  MILLION

Among 9 institutions that reported on student credit hours: Faculty taught 2.1 million SCH.<sup>15</sup>

421

The average SCH per professor was 421.

## Variations By Discipline

Social science and humanities faculty teach more courses (while science faculty are more likely to have research outputs):

Discipline	Average Courses / Faculty Member	Average Students / Faculty Member
Sciences	3.12	172
Social Science & Humanities	3.97	182

All teaching activity reported on this page refers to a single reporting year. Unless otherwise noted, all numbers on this page refer to faculty at the 16 institutions reporting and only to those faculty who were expected to teach.

When considering aggregated data on teaching work in Ontario universities, it bears noting that teaching loads vary substantially across institutions (depending on their missions) and among individual faculty members (depending on their disciplines and other duties).

<sup>14</sup> Throughout this document, the term “student” refers to one enrolment in one course. A single student taking two courses with a professor would be counted twice in the professor’s total number of students taught. Please note that this measure of students per professor divides the number of course enrolments by the number of faculty who are expected to teach. The overall student-to-faculty ratio reported on page 3, by contrast, is defined as the average number of full-time students per full-time faculty member.

<sup>15</sup> Student credit hours (SCH) for a course are typically calculated by multiplying the number of students enrolled by the number of classroom hours necessary to complete the course.



# Service

In Ontario today, a standard faculty member **devotes about 20% of work effort to service.** Whether they are advising legislators in a new democracy on the drafting of a constitution or sharing their research data with a federal government department studying pandemics, every day thousands of Ontario university faculty put their knowledge and insights to work in the service of their communities—institutional, local, national, and global.



## Service Work

81%

of faculty participated in service work of some kind

## Variations By Discipline

At 5 institutions reporting, social science and humanities faculty were more likely to engage in service work than were science faculty.

Discipline	Service Work
Sciences	75%
Social Science & Humanities	85%

## Limited Data

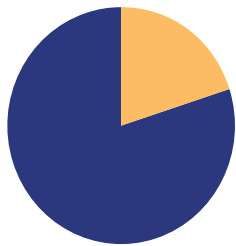
Only 5 institutions of the 17 that participated in the Faculty Work Project gathered data on faculty service work. Service estimated to constitute about a fifth of a standard faculty member’s work—is not consistently measured across the Ontario university sector. Better information needs to be collected in subsequent phases of the project.

## Collegial Administration and Governance



To a great extent, universities are organized, administered, and governed by faculty. The administration of universities is a vital contribution and a significant part of faculty members’ work lives. Accounts of faculty work that do not account for this important work are incomplete.

## Course Releases



21% of faculty members (1738 professors) had a course release<sup>16</sup> for administrative purposes.

79% (6622 professors) had no course release.

25%

Course releases were more common among tenured full professors, about 25% of whom had releases for administrative work.

Notably, there were no differences by discipline in the proportions of faculty with course releases.

## What Is Service?

Service to others has been part of the university faculty job description for centuries—but it is the aspect of faculty work that is least understood. Service varies widely by institution and discipline, but can include:

- reviewing and adjudicating the work of scholarly peers, such as manuscripts, articles, and creative expressions
- sharing expertise in practical community matters (for instance, participating in urban design processes or helping with engineering challenges in Canada or abroad)
- advising governments and nonprofits
- participating in professional societies, accreditation bodies, and quality-assurance processes
- curating or contributing artwork to public exhibitions
- volunteering with bodies (such as SSHRC and NSERC) that award research funding
- strengthening academic disciplines by organizing conferences, editing journals, fostering networks, digitizing resources

<sup>16</sup> When faculty are asked to make substantial contributions to the administration of their universities—for instance, by serving as department chairs or undertaking the leadership of a major collaborative research centre—they are typically offered a ‘course release’: a portion of their teaching load is removed to offset their added responsibilities elsewhere.



# Next Steps for Ontario

## Ontario University Faculty: Partners In Building 21st Century Institutions

Ontario's universities are working hard to simultaneously contain costs, maintain or improve quality and accessibility, and reinvent themselves for the 21st century.

University faculty are a critical resource and partner in this work. The Ontario Council of Academic Vice-Presidents believes faculty are working hard to help build successful and sustainable universities for the future. As instructors, administrators, and members of scholarly and professional communities, faculty contribute richly to the higher-education system in Ontario and beyond. In order to maximize that contribution, institutions and governments must better understand faculty work in all its dimensions.

Teaching and learning are not simple commodities, and just as more parenting does not necessarily result in better children, or more government in better societies, more teaching does not necessarily result in more learning. It is the quality, not the quantity, of education that is most important to Ontario universities and the people they serve. This is why our Quality Assurance Framework is committed to the importance of assessing learning outcomes like skills and competencies, not just inputs like time spent sitting at a desk.

To measure university faculty by the standards of other professions—for instance, by calling for more teaching hours while ignoring the work professors do to foster research communities, mentor students informally, or serve society and their disciplines—is more than an error. It risks forgoing the immense economic, social, and cultural benefits university faculty are delivering to their students and communities.

We believe that in order for Ontario to maintain leadership in the knowledge economy, it must understand the unique contribution of its primary knowledge workers. It must understand the unique composition and evolution of academic careers—and the personal and collective, economic, and social benefits that flow from all aspects of faculty work: teaching, research, and service.

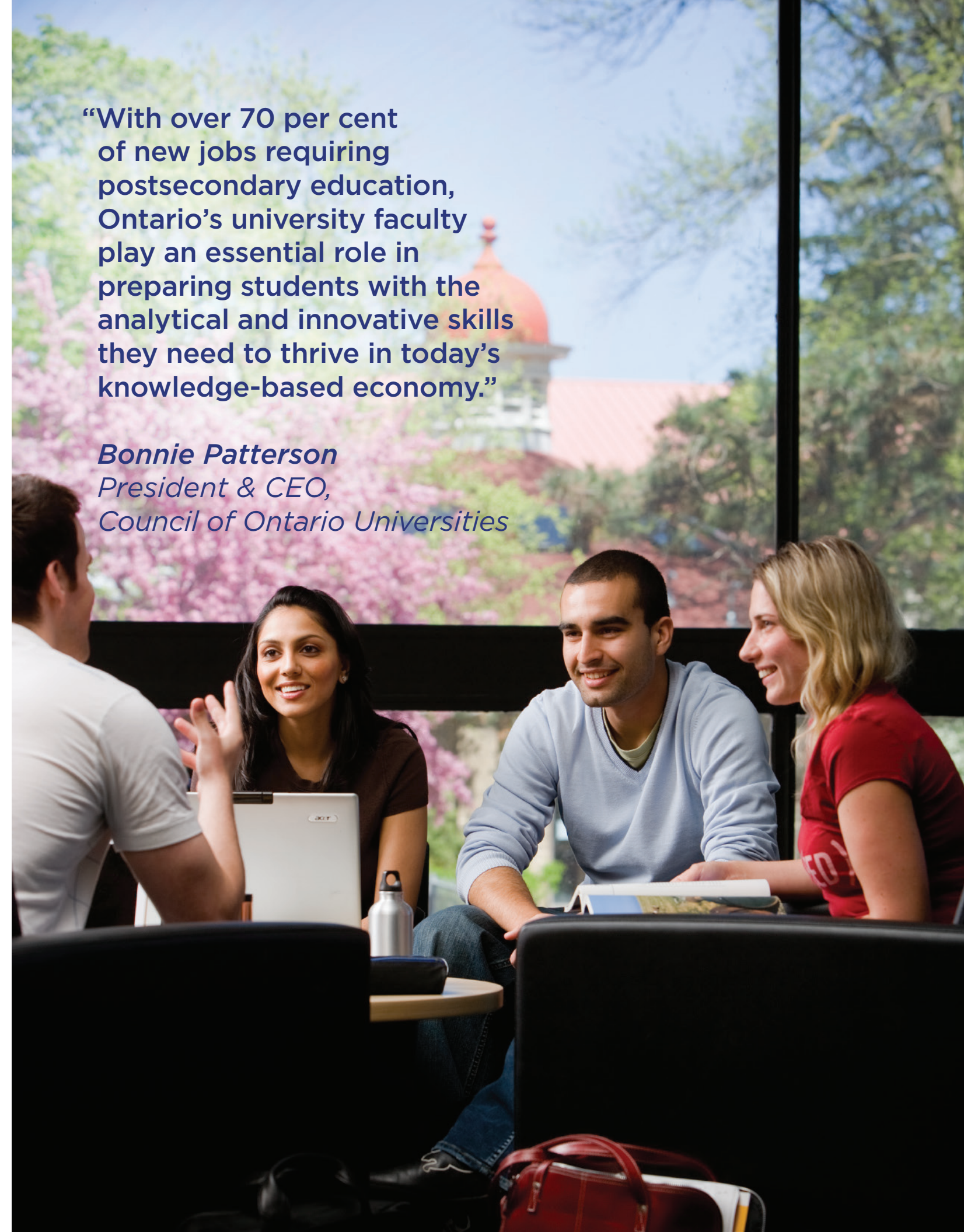
### To further advance our knowledge of Ontario faculty work, in the near term we plan to:

- Collect data from more Ontario universities
- Have all institutions report in the same census year
- Encourage participating institutions to report on all indicators
- Capture the full range of non-classroom and unassigned teaching activities, including graduate student advising
- Refine our measurement of research outputs to gain a more detailed picture of faculty research efforts
- Gather longitudinal data so we can track trends over time

In the longer term, the Faculty Work Project hopes to deepen our understanding of faculty work by incorporating more qualitative elements into the study—by tracking student success, for instance.

“With over 70 per cent of new jobs requiring postsecondary education, Ontario’s university faculty play an essential role in preparing students with the analytical and innovative skills they need to thrive in today’s knowledge-based economy.”

**Bonnie Patterson**  
*President & CEO,  
Council of Ontario Universities*





## Join Us

In our conversations with university colleagues across Canada and internationally, the same challenges and sources of optimism surface again and again.

Rising enrolment, constrained resources, rapid technological and economic change, and evolving student demands are affecting university faculty across jurisdictions. Other features of faculty life are also shared: faculty members' commitment to supporting their students, advancing their disciplines through research, and participating in scholarly, professional, local, and institutional communities.

OCAV hopes that the findings from the Faculty Work Project will mark the beginning of a national conversation about faculty work in Canadian universities—a conversation fueled by sound evidence from more jurisdictions, capturing more dimensions of academic work. We invite our counterparts across Canada and beyond to join us in gathering and interpreting this data. Let's chart an informed and ambitious course together.

