

RESEARCH REPORT

OCUFA

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Closing the Quality Gap: The Case for Hiring 11,000 Faculty by 2010

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Executive Summary

With the current student/faculty ratio of 24:1, Ontario universities are scraping the bottom of the barrel in comparison to Canadian and US competitors. This study examines how far the province needs to travel in order to bring that ratio down to a more competitive level and close the quality gap in the education its university students receive. It refers exclusively to full-time, tenure-stream faculty positions. The study examines three options: the status quo “bottom-of-the-barrel” scenario, what it takes to bring the ratio to a “middle-of-the-road” scenario, and what it takes to elevate Ontario to the status of North American leader in quality postsecondary education.

A student/faculty ratio of 18:1 would present a middle-of-the-road solution, bringing Ontario back to the level it was at 10 years ago. To replace retiring professors and recruit new faculty as student enrolment grows, Ontario would need to fill 7,194 faculty positions by 2010. To become a North American leader, Ontario would need to bring the student/faculty ratio down to 15:1, which means filling 10,834 faculty positions by 2010 – an increase equivalent to 84% of the number of faculty in Ontario universities today. This finding supports the conclusion made by the Hon. Bob Rae in his Review of Higher Education, who estimated Ontario will need to hire 11,000 faculty by the end of the decade.

The study also quantifies the cost of inaction. Even if the Ontario government decides it is content to remain at the bottom of the barrel with a 24:1 student/faculty ratio, it will need to hire 2,644 faculty by 2010 just to stay at this level. Presented a different way, if Ontario universities currently had a student/faculty ratio of 15:1, they would be richer by 7,925 additional faculty today. Unchecked, the quality gap continues to grow. The study concludes the Ontario government needs to immediately implement a faculty recruitment and retainment strategy or risk an even greater quality gap in future years.

Closing the Quality Gap: The Case for Hiring 11,000 Faculty by 2010

Introduction

For generations, Ontario has played the role of Canada's economic powerhouse. Yet, when it comes to ensuring its universities are functioning at the level of excellence required to draw the best and brightest, there is a yawning quality gap. Simply put, Ontario holds the dubious distinction of maintaining the worst student/faculty ratio in all of Canada. The gap is large: on average, there are 24 students for every university professor on campus. In many classrooms, the gap is much greater. In all three of the university groupings employed by the *Maclean's* rankings, for example, Ontario universities displayed a greater use of large classes than did their counterparts in the rest of Canada. In both 2003 and 2004, more than half of the first- and second-year students at Ontario's Comprehensive and Medical/Doctoral universities were in classes of at least 100. In Ontario's Primarily Undergraduate universities, more than 35% of students were in classes of at least 100 last year, a figure almost three times higher than that for non-Ontario universities in the category.¹ Without a plan to close Ontario's growing student/faculty gap, the quality of university education in Ontario threatens to decline, putting into question our province's economic competitive edge.

The ratio of students to faculty is one of the most widely used quality measures in higher education. After years of chronic government underfunding, Ontario has fallen firmly behind its peer jurisdictions in both Canada and the United States. The number of full-time faculty decreased by 15% over the 1990s while full-time student enrolment increased by 10%.² Since that time, universities have done modest faculty hiring in the face of large enrolment increases; the number of full-time faculty at Ontario universities increased by approximately 10% over the first part of this decade.³ Over the same time period, however, full-time student enrolment increased by 24%, or 76,212 additional students⁴ (Figure 1).

The net result has been an increase in the student/faculty ratio to the level of 24:1 – up from 18:1 in 1995-96. Ontario's ratio is 15% higher than any other Canadian province, and 35% higher than that of public universities in US peer jurisdictions.⁵ Ontario is scraping the bottom of the barrel in comparison.

¹ Michael J. Doucet, "The *Maclean's* Rankings and Ontario Universities: A Comparison of the 2003 and 2004 Results," (March 2005).

² Council of Ontario Universities, "Facts and Figures: A Compendium of Statistics on Ontario Universities," (2000), Tables 4.2.1 and 3.1.1.

³ Council of Ontario Universities, "Facts and Figures: A Compendium of Statistics on Ontario Universities," (2005), Table 4.2.1.

⁴ Ministry of Training, Colleges and Universities, "MTCU Enrolment Projections," enrolment adjusted and defined as Full-Time Headcount, eligible and ineligible.

⁵ Council of Ontario Universities, "Comparing Ontario & American Public Universities," (December 2000), p. 1.

The Growing Student-Faculty Gap

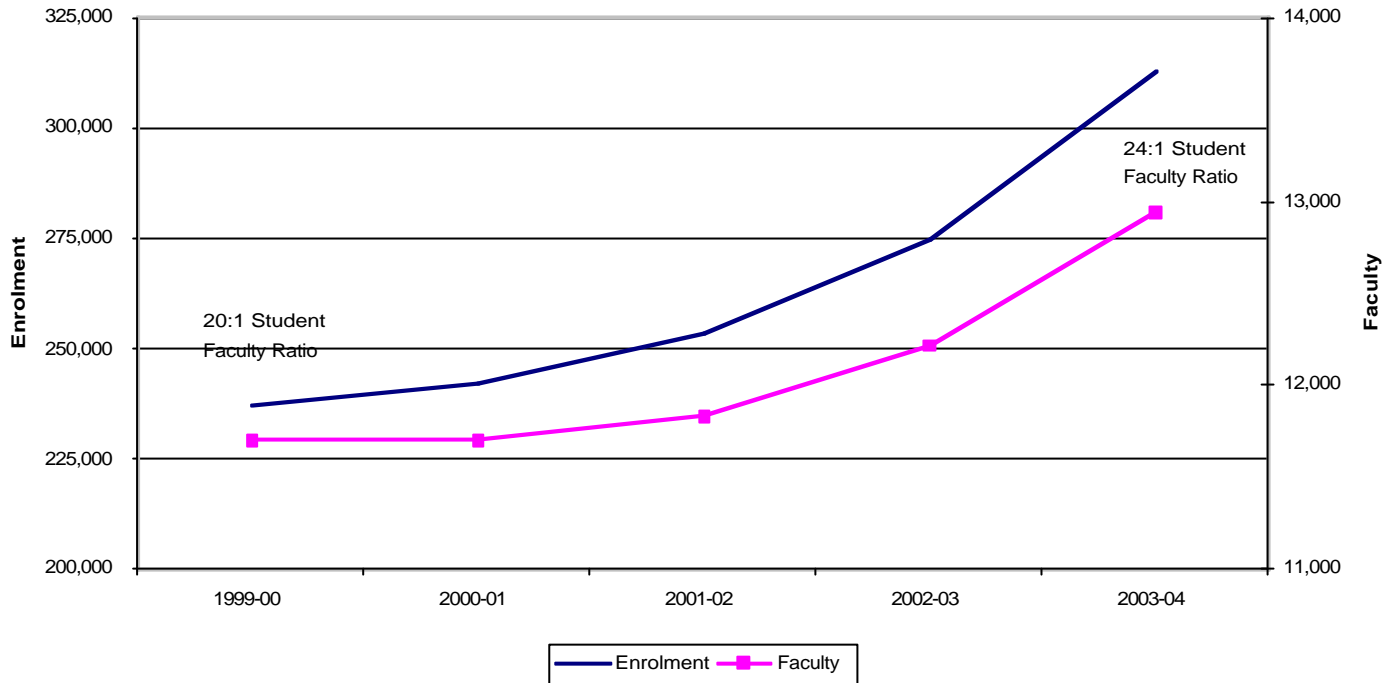


Figure 1 - Data Source: COU Facts and Figures, Table 4.2.1 and MTCU Enrolment Data

Unless the situation is addressed immediately, the faculty gap will continue to grow and the repercussions of continued neglect of the faculty complement in Ontario will have negative consequences for our universities. If universities do not receive funds to implement aggressive faculty recruitment strategies right away, Ontario’s student/faculty ratio will continue to worsen in the face of continued student enrolment increases and projected faculty retirements. In addition to threatening the quality of education and research capacity of our universities, and damaging the province’s overall productivity, Ontario’s competitiveness in the global market is jeopardized by the faculty shortage. The lack of adequate, reliable provincial funding has made it difficult for university administrators to meet hiring needs. To make matters worse, Ontario universities are not currently educating enough graduate students to replace retiring faculty.

There are solutions. With proper commitment and investment, government and the university community can work together to stem the faculty shortage and ensure quality for future students and faculty.

This paper sets out three different quality scenarios for the future of Ontario's universities:

- **Bottom-of-the-Barrel:** The current student/faculty ratio of 24:1 represents where Ontario now sits, at the bottom of the barrel. If Ontario maintains the current student-faculty gap, the problem will only get worse and the province will lose its competitive edge.
- **Middle-of-the-Road:** A student/faculty ratio of 18:1 would present a middle-of-the-road solution, returning Ontario to the quality of education provided 10 years ago. While the 18:1 target is average, it would make significant quality improvements to the system.
- **North American Leader:** In order to rise above mediocrity and become a North American leader in quality postsecondary education, Ontario would need to set a goal of bringing the student/faculty ratio down to 15:1.

The following charts present a visual snapshot of the three different student/faculty ratio scenarios in each of 2010 and 2015. Figure 2 demonstrates the number of hires necessary to reach the three quality levels, as measured by student/faculty ratio, by 2010. Fifteen percent of faculty currently teaching in Ontario are age 60 or over and are projected to retire by 2010— this results in a total of 1,942 faculty positions that will need to be replaced in addition to new positions created by rising student enrolment.

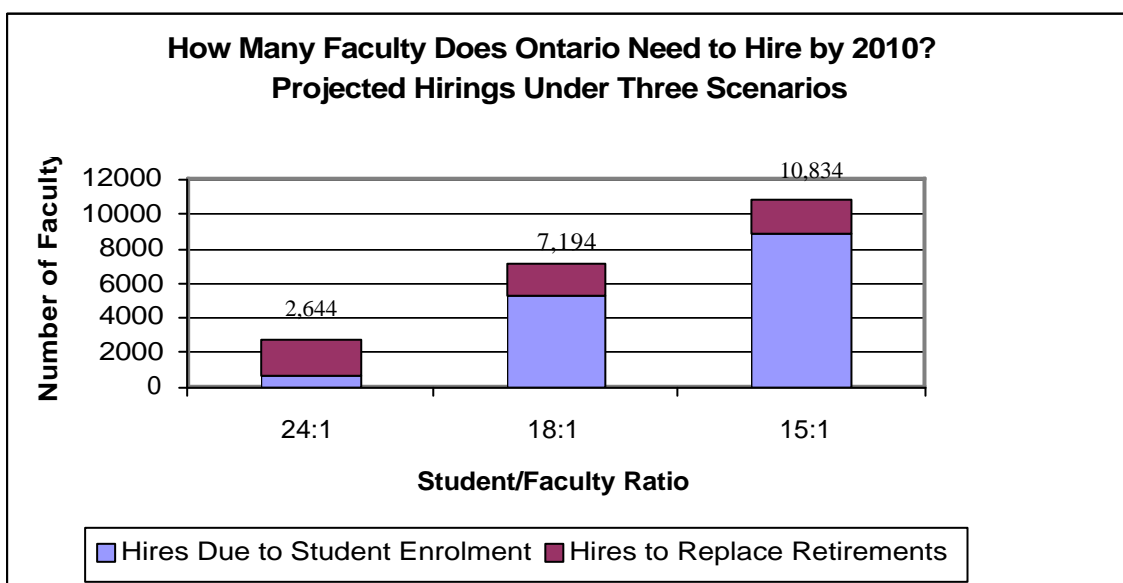


Figure 2

Figure 3, below, presents the number of hires necessary to reach the same three quality levels by 2015. With 32% of Ontario faculty age 55 or over and expected to retire within the next 10 years, this translates into an additional 4,143 faculty needed just to replace retirements. This alone represents a significant hiring challenge for universities.

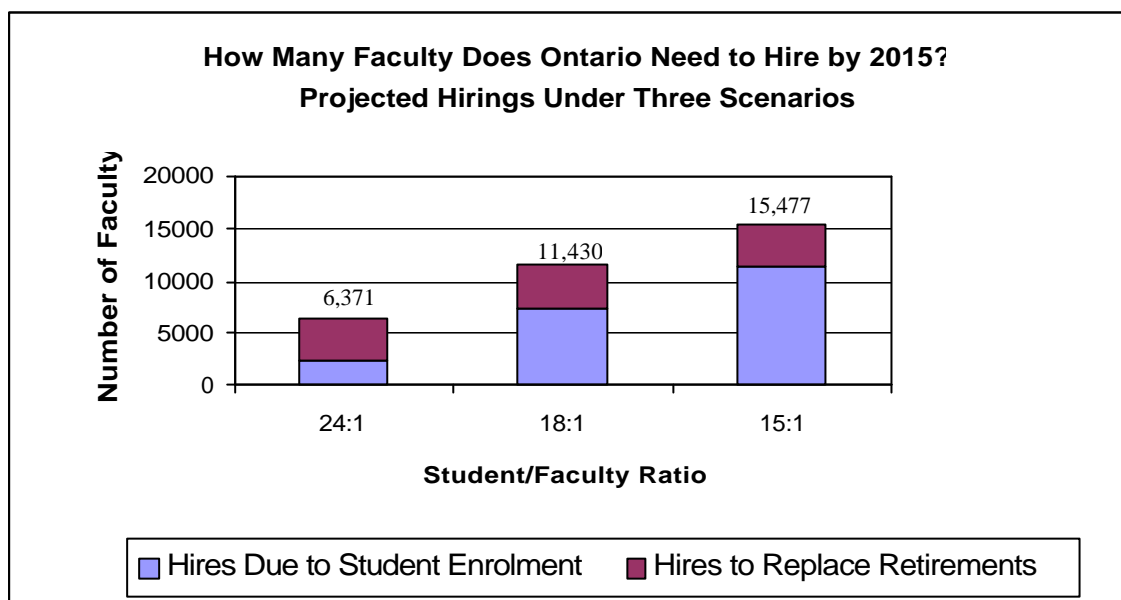


Figure 3

Bottom-of-the-Barrel Scenario (24:1)

Universities are about molding bright minds and preparing the next generation to become innovative thinkers and future leaders. Quality interaction between student and faculty is the cornerstone of an excellent postsecondary education, and is key to ensuring every generation of university students gets the best experience possible before moving into the paid marketplace.

One of the most widely used quality measurement tools, the ratio of students to faculty, is critical to both the learning experience of the student and the teaching effectiveness of the faculty member. The quality of the relationship with faculty is regularly cited in student surveys as vitally important. Students who have ready access to their professors and the opportunity for a quality exchange of ideas in the classroom will rate their university experience higher than those who don't.

For students, the current student/faculty ratio of 24:1 translates into large classes where some students are forced to sit on the floor for lack of space, and limited contact with the professor as graduate teaching assistants take on more responsibility. According to *Maclean's*, 16 of Ontario's 17 universities surveyed in 2004 offered first - and /or second-year classes with at least

250 students, and six offered classes with more than 500 students in them.¹ When students miss out on the opportunity to meet and speak with their professors, they miss out on an important benefit of higher education. For faculty, the current ratio means increased teaching and marking loads, as well as diminished opportunity to mentor and tutor students. The relationship between student and professor is important to encouraging students to pursue advanced study and to consider a career in academe.

The current reality is stark, and with continued government neglect, the quality gap will continue to grow. Worst case scenario: if the provincial government fails to increase funding to reduce the student/faculty ratio, and the current ratio of 24:1 continues, Ontario will remain at the bottom of the barrel. Growing enrolment, coupled with anticipated baby boom retirements, will continue to add pressure on the system. The student/faculty ratio was 24:1 in 2003-04; just to maintain that status quo, Ontario will need more than 2,200 new faculty positions by 2015. When retirement replacements are considered, the number of faculty that need to be hired by 2015 to maintain a student/faculty ratio of 24:1 grows to more than 6,300 (Figure 3). Inaction will most certainly lead to continued erosion of quality education in Ontario's universities.

Middle-of-the-Road Scenario (18:1)

To show how far Ontario has fallen in terms of excellence, it has been 10 years since the student/faculty ratio was what would be considered average, or middle-of-the-road. In 1995-96 the student/faculty ratio at Ontario universities was 18:1.² For Ontario to return to the middle-of-the-road, the provincial government would need to invest heavily in faculty hiring to reach the 18:1 target of yesteryear.

If universities had the funding available today, OCUFA estimates that they would need to hire 4,446 additional faculty – 34% of the current faculty complement – to close the quality gap between the middle-of-the-road target ratio of 18:1 and the current status quo of 24:1. If not addressed immediately, the gap continues to widen, resulting in a “deficit” of 5,059 full-time, tenure-stream faculty – or 39% of the current faculty complement – by 2015.

When retirement replacement hiring is factored into the equation and one looks at the situation in terms of actual faculty members that need to be recruited, the challenge to universities becomes even greater. By the end of the decade Ontario universities will need to recruit and hire a total of 7,194 faculty members just to return to the middle-of-the-road quality scenario of 10 years ago (Figure 2). By 2015, the number of hires required to achieve a middle-of-the-road level of quality reaches 11,430 (Figure 3).

¹ Michael J. Doucet, “The *Maclean's* Rankings and Ontario Universities: A Comparison of the 2003 and 2004 Results,” (March 2005).

² Council of Ontario Universities, “Facts and Figures: A Compendium of Statistics on Ontario Universities,” (2005), Table 3.5.

North American Leaders (15:1)

In his February 2005 report to the Ontario government, the Hon. Bob Rae advocates that government and others send a “clear signal that Ontario is a place that values higher education ... and wants to be a leader in North America and the world.”³ To become a North American leader in postsecondary education, which is the best way to close the quality gap, Ontario would need to significantly invest in bringing down the student/faculty ratio to the gold standard of 15:1.

Why 15:1? A number of public universities in US peer jurisdictions⁴ boast student/faculty ratios of 15:1. In an increasingly global marketplace, with an emerging reliance on the knowledge economy, there can be no doubt that Ontario’s future prosperity will be linked with its commitment to compete with top-notch institutions. Underinvesting in higher education is hurting Ontario’s economy. Ontario’s own government-appointed *Task Force on Competitiveness, Productivity and Economic Progress* predicted a growing productivity gap between North America’s leading jurisdictions and Ontario if the province maintains its current course. The main contributing factor is the level of investment in higher education, particularly in graduate education.⁵

With every year of government inaction, the quality gap in Ontario keeps growing. If Ontario universities currently had a student/faculty ratio of 15:1, they would be richer by an additional 7,925 faculty, or 61% of the current faculty complement. When retirement replacements are taken into consideration, universities will need to recruit faculty to fill 10,834 positions by 2010 (Figure 2). To be a leader among peer jurisdictions in terms of educational quality, Ontario will need to recruit and hire what amounts to 84% of the current faculty complement by the end of the decade. This supports findings from the Hon. Bob Rae in his Review of Higher Education that Ontario will need to hire 11,000 faculty by the end of the decade.⁶

By 2015, to maintain an excellent student/faculty ratio of 15:1, the need for faculty – including retirement replacements and additional positions to address rising student enrolment – will necessitate the hiring of more than 15,000 professors (Figure 3).

³ Postsecondary Review, “Ontario A Leader in Learning: Report and Recommendations,” (February 2005), p. 7.

⁴ Including University of Michigan, North Carolina State University, University of Iowa as per US News America’s Best Colleges, 2005 Edition.

⁵ Task Force on Competitiveness, Productivity and Economic Progress, *Closing the Prosperity Gap*, First Annual Report, (November 2002).

⁶ Postsecondary Review, “Higher Expectations for Higher Education: A Discussion paper,” (Fall 2004), p. 18.

Meeting the Need - What Can Be Done

The first and most important step to address the faculty shortage is for the Ontario government to commit to increased funding for higher education. Government and the university community must work together to create a pro-active approach to address faculty renewal, recruitment and retention.

Large numbers of faculty cannot be found and recruited overnight. A concerted and sustained initiative is required to address the hiring needs of our universities. Increasing recruitment efforts is an essential component for reducing the faculty shortage. Historically, two-thirds of doctoral degree recipients have pursued careers outside of academe.⁷ Ontario universities must redouble their efforts to attract and maintain excellent professors. Nevertheless, the provincial government ultimately holds the mandate to ensure quality university education in Ontario. For its part, it must provide the necessary resources and work with universities to implement a creative faculty recruitment and retention strategy – in essence, a “Brain Gain Recruitment Strategy.”

Meeting the need for future faculty will also require a commitment to significantly expand graduate programs. It is estimated that demand for graduate education will increase from approximately 11,200 master’s degree students in 2002-03 to 22,000 in 2013-14. Demand for a Ph.D. is projected to increase from 2,300 in 2002-03 to 4,700 in 2013-14.⁸ On today’s campuses, these enrolment increases would present significant capacity and logistical challenges. Without increased postgraduate enrolment, the pool of qualified academics will not be large enough to fill the looming abundance of vacant faculty positions. Adequate funding and policies are necessary to assist students in obtaining advanced degrees and encouraging them to remain in academe. Without them, Ontario will continue to lag behind others in terms of productivity, innovation, and economic growth.

Conclusion

Faculty are the lifeblood of a university. Their work as teachers, mentors, and researchers drives the institution, and student interaction with professors is the most important element of a high quality education. Ontario is facing a shortage of faculty at the same time as increasing numbers of new students plan to attend postsecondary institutions. University administrators, staff and student groups recognize that the need is acute, but government has an important role to play in providing adequate, long-term funding to ensure that universities can achieve a workable ratio of students to faculty, and hire adequately for the future. The consequences of even higher student/faculty ratios are decreased quality of education for students and increased strain on faculty.

⁷ Council of Ontario Universities, “Advancing Ontario’s Future Through Advanced Degrees,” (November 2003), p. 9.

⁸ Council of Ontario Universities, “Advancing Ontario’s Future Through Advanced Degrees,” (November 2003), p. 1.

Endnote - Background and Methodology

In March of 1999, PriceWaterhouseCoopers published a study commissioned by the Council of Ontario Universities (COU) entitled “Will there be room for me?” The study reported on the capacity of Ontario universities to respond to record student demand for university education, and focused on the increasing number of faculty that would be needed to educate those students. That report was important in terms of generating interest in and commitment to addressing the situation presented by demographics, the double cohort, and faculty retirements.

More than six years after the release of that report, today seems an appropriate time to examine how far universities have come in terms of ensuring quality education by maintaining an adequate full-time, tenure-stream faculty complement in the face of enrolment increases. For this reason, OCUFA has chosen to present data analysis starting from academic year 1999-00, the year when administrators and government alike could no longer ignore the fact that a faculty shortage would become a reality if unchecked. The most recent student enrolment projections, representing full-time headcount, from the Ministry of Training, Colleges and Universities (MTCU) extend to academic year 2015-16, which has been used as the end point to OCUFA’s analysis. The base year for determining “to date” calculations is 2003-04, the last year for which actual faculty data is available.

OCUFA represents some 13,000 members of faculty associations at Ontario universities. OCUFA’s mandate is to express the views of university professors and academic librarians to the government and public, to maintain the quality of higher education in Ontario, and to advance the professional and economic interests of teachers, researchers, and librarians at Ontario universities. Figure 3, below, presents the number of hires necessary to reach the same three quality levels by 2015. With 32% of Ontario faculty age 55 or over and expected to retire within the next 10 years, this translates into an additional 4,143 faculty needed just to replace retirements. This alone represents a significant hiring challenge for universities.