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## ABSTRACT

The elimination of grade 13 will have a significant impact on enrollment in Ontario universities in the next few years, as two cohorts of high school students, graduates of the old (5-year) and new (4-year) curricula seek admission at the same time. Secondary school reform will have its peek effect on overall university enrollments in Ontario between 2003 and 2004. The surge in enrollment extends beyond the double cohort transition period as the population of 18- to 24-year-olds is increasing, and overall participation rates in higher education are on the rise. Over the next 8 years, enrollment in higher education in Ontario will rise by an estimated 90,000 students, a 27% increase over today's levels. By 2010, more than 420,000 Ontarians will be pursuing university education in the province. This will represent the largest surge in university enrollment since the 1960s and will mark a future in which unprecedented numbers of Ontario citizens will have achieved the advanced level of education that is key to economic competitiveness and societal well-being. Higher education in Ontario must adopt a four-pronged approach to meeting these needs by: (1) hiring more faculty; (2) hiring more staff; (3) enhancing facilities; and (4) acquiring more learning resources. (Author/SLD)

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*Ontario universities are on the threshold of the greatest surge in enrolments since the 1960s. Is Ontario ready to meet the expectations of the more than 420,000 students who will be clamouring for educational opportunities at our provincially funded universities during this decade?*

**Access to Excellence:**

# The Double Cohort Countdown: A Progress Report from Ontario Universities

Fall 2002

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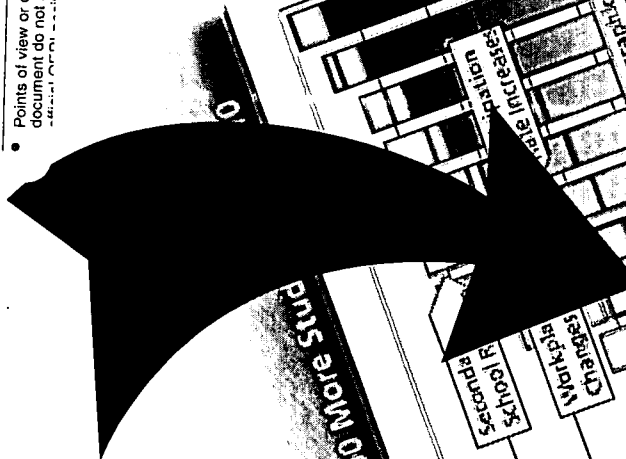
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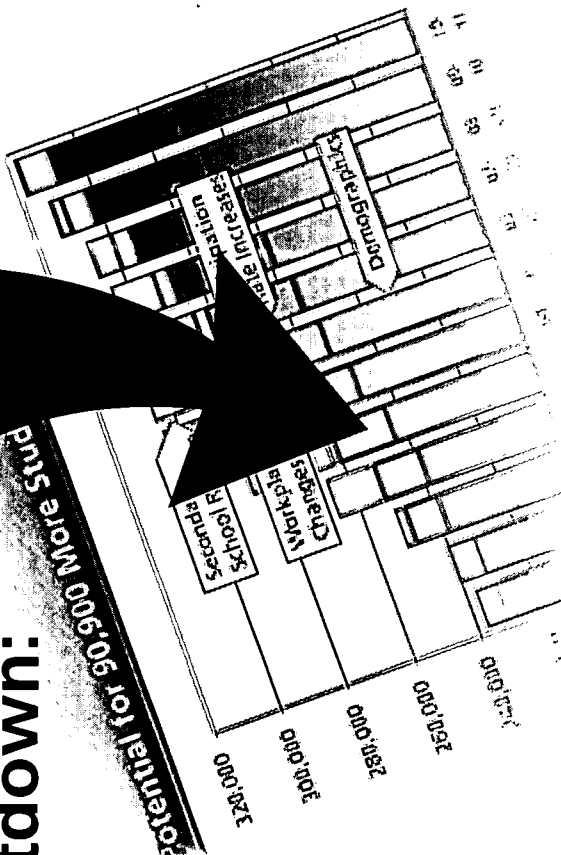
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Potential for 600,900 More Stud



education are on the rise, and workplace demands for increased knowledge and skills are also driving greater demand. Over the next eight years, overall increases in enrolment will swell the student population on Ontario university campuses by an estimated 90,000 additional students – a 27% increase over today's enrolment levels. By 2010, upwards of 420,000 Ontarians will be pursuing university education in this province.

Statistically, the increase represents the largest surge in university enrolments since the 1960s. More importantly, it points to a future in which unprecedented numbers of Ontario citizens have achieved the advanced level of education which, as every high-performing jurisdiction in North America has demonstrated, is the key to economic competitiveness and societal well-being.

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## Executive Summary

In a few short months, the first graduating class of double cohort students will join the 330,000 full- and part-time students currently studying at Ontario universities. The surge in enrolment extends far beyond the double cohort transition period. Ontario's population of 18- to 24-year-olds (the traditional university band age) is increasing. At the same time, overall participation rates in

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**Impressive progress has been made toward ensuring that there will be "a place for every qualified, motivated student."**

Through three years of joint university-government collaboration, much progress has been made toward ensuring that every qualified, motivated student in the province who wishes to attend a postsecondary institution in Ontario will have the opportunity to do so. Universities are increasing their intake of secondary school graduates, and the government has committed to increasing operating grants to universities in amounts proportional to their projected enrolments through to 2003-2004. The provincial SuperBuild program has enabled the universities to expand and/or upgrade their classroom and lab space to accommodate more students. As of fall 2002, the ratio of applications-to-acceptances is holding steady with previous years, despite a sharp escalation in demand.

**The unmet challenge: Ensuring that learning quality is not compromised as student populations grow.**

In planning for growth, we must ensure that Ontario universities can continue to deliver educationally effective experiences across the full range of disciplines at both undergraduate and graduate levels. What defines an "effective educational experience"? Extensive research indicates that certain educational experiences are viewed as "effective" by virtually all students. Quality measures include challenging interaction with highly qualified professors; up-to-date classrooms, labs, and libraries; a wide choice of courses and programs; and a supportive campus environment that is adequately staffed, serviced, and maintained.

**What can be done to maintain educational quality for the double cohort?**

To ensure that "access to university" remains synonymous with "access to excellence" for the double cohort generation, our approach to university expansion must be four-pronged. We must:

- Hire more faculty.
  - Hire more staff.
  - Enhance facilities.
  - Acquire more learning resources.
- Meaningful additions to base budgets for specified quality-improvement initiatives or benchmarks would help to ensure that double cohort students receive the quality education that they deserve. The Council of Ontario Universities would be pleased to work with government to design such a funding mechanism, and to develop appropriate accountability measures.

An investment that supports high-quality teaching, learning, and research in our universities is an investment in the economic well-being of Ontario. The enrolment surge, which is now underway, is an opportunity to lay the foundation for our future prosperity. During this decade, a critical mass of young people will be seeking the opportunity to develop their knowledge and skills to the highest possible levels.

We must respond to their aspirations by providing them with access to excellence.

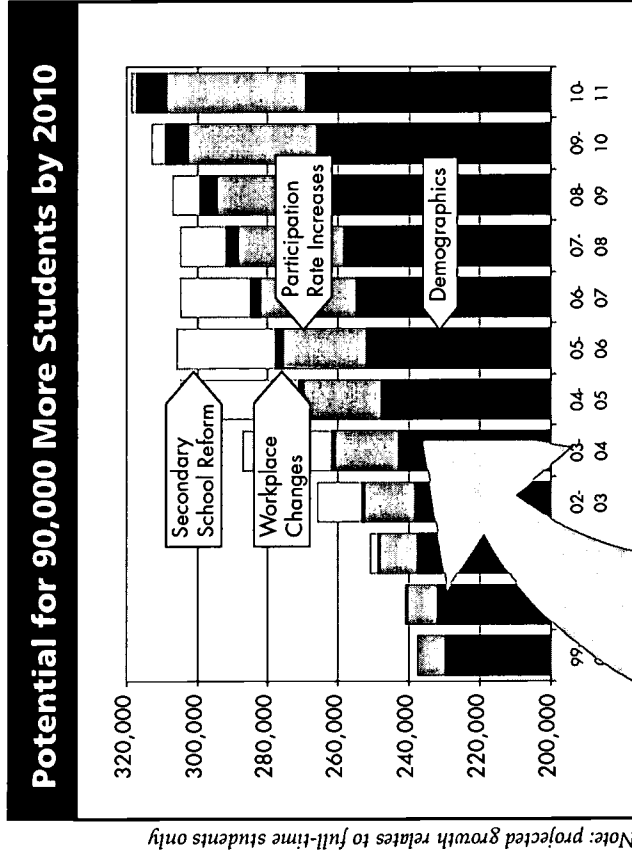
## First Wave of Double Cohort Students Arrives Next Fall

Today, more than 330,000 full- and part-time students are studying at Ontario universities. That number is currently projected to rise to 420,000 by 2010. Several factors are combining to swell the numbers of university-bound students during this decade:

**Secondary school reform / the double cohort:** The elimination of Grade 13 will have a significant impact on university enrolments for the next few years, as two cohorts of high school students – graduates of the old (five-year) and new (four-year) curricula – both seek admission at the same time. Secondary school reform will have its peak effect on overall university enrolments between 2003 and 2004.

**More Ontarians seeking university access:**

Ontario's population of 18- to 24-year-olds (the traditional university age band) is increasing, and may grow by as much as 12% by 2010. At the same time, overall participation rates in higher education are on the rise in Ontario, similar to other jurisdictions in the world as the reality of knowledge-based economy spurs demand for university education. Changes in the workplace are also driving enrolment growth, as more employed adults return to school to upgrade their knowledge and skills or meet new standards



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of educational attainment. These factors will maintain the upsurge of the double cohort years and create a continuing demand for university education for a larger overall student population.

The greatest surge in Ontario university enrolments since the 1960s will begin in fall 2003. This surge will see the student population on Ontario campuses swell by some 90,000 additional students – a 27% increase in total student numbers – by 2010.

Already, universities are experiencing the first effects of the oncoming rush.

- Enrolment growth in 2001-2002 was more than double previous forecasts. This confirms that the rate of 18- to 24-year-old participation in university education continues to accelerate at the high end of participation ranges that had been considered in the late 1990s.

- According to September figures from the Ontario Universities' Applications Centre (OUAC), the number of applications from Ontario secondary school students applying directly to university for admission in fall 2002 was 16.4% higher than in 2001. This increase was largely due to an anticipated increase in the number of fast-trackers who accelerated through the former five-year program to secure a place before next year's enrolment boom begins

- In May 2002, the government updated its earlier enrolment projections for the double cohort years, to take account of the increased participation rates. The updated projection anticipates an increase in enrolment by 16.7% from 2002 to 2004.

- In spring 2003, Ontario's secondary schools will graduate their first double cohort class, comprising graduates of both the former five-year curriculum and the revised four-year curriculum. These students are applying for admission to university in fall 2003.

The increases are good news because they mean that ever-growing numbers of Ontarians are motivated to achieve the high level of education that is key to Ontario's economic competitiveness and societal well-being. Yet with months remaining before the onset of the demand surge, it is timely to ask: Is Ontario ready to meet the expectations of the 420,000 students who will be clamouring for educational opportunities at our provincially funded universities during this decade?

### THE GOAL: A PLACE FOR EVERY QUALIFIED STUDENT

During the past three years, the government and universities of Ontario have worked together to prepare for the arrival of the double cohort. The joint planning process has been guided by the principle that *every qualified, motivated student in the province who wishes to attend an Ontario postsecondary institution should have the opportunity to do so.*

The objective is to ensure that the number of spaces available tallies with the anticipated demand, based on government projections. Each university has developed an enrolment growth plan that includes an agreement to accept a specified number of secondary school graduates in fall 2003. In 2001 and again in 2002, the government committed to increasing operating grants to universities in amounts proportional to their projected enrolments through to 2003-2004. The provincial SuperBuild program has enabled the universities to expand and/or upgrade their classroom and lab space

to accommodate more students.

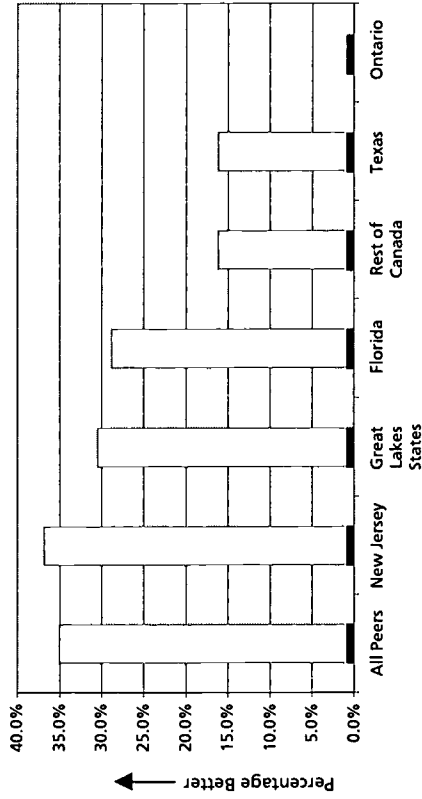
As of fall 2002, the ratio of applicants-to-acceptances is holding steady with previous years, despite a sharp escalation in demand.

### CAN EDUCATIONAL QUALITY BE MAINTAINED?

A second goal is to maintain the standard of educational excellence that has brought distinction to Ontario's postsecondary sector and prosperity to the province. Universities are still grappling with the challenge of ensuring that "access to university" remains synonymous with access to a truly effective learning environment.

*One of the most pressing issues is the urgent need to recruit large numbers of faculty and staff to serve a growing student population and maintain Ontario's edge as a high-quality, competitive educational jurisdiction.*

■ **Faculty-Student Ratios Are Better in Other Jurisdictions (selected jurisdictions 1999-2000)**



■ **As student numbers are growing, faculty numbers are declining.**

Ontario universities must recruit at least 13,500 faculty during this decade: 7,500 to replace record numbers of retirees, 4,200 to meet the enrolment expansion, and 1,800 to improve faculty-student ratios. This is more than the total number of faculty teaching at Ontario universities today.

■ **The Ontario university sector must more than double its current complement of faculty to maintain educational quality.**

The difficulty of recruiting large numbers of faculty, quickly, is compounded by the fact that universities throughout North America are losing unprecedented numbers of their faculty to retirement during this decade. Ontario is in competition with virtually every jurisdiction on the continent in its efforts to attract top-calibre

professors and withstand continuous attempts to lure talented faculty away from its campuses.

■ **Faculty-student ratios are a key indicator of educational quality.**

Faculty-student interaction tops the list of internationally recognized benchmarks for quality in education. Study after study indicates that faculty-student interaction outranks every other factor in influencing the quality of the learning experience. In a random sample of 20,000 first-year, direct-entry students to Ontario universities, the 2002 University Applicant Survey found that *emphasis on teaching and small class size* are key factors that influence the decision to attend university, while *declining access to professors* is one of the top three concerns of double cohort students (COU/Acumen Research Associates).

As the accompanying graph shows, the faculty-student ratios in universities elsewhere in Canada and in the U.S. are superior to the ratio in Ontario universities. In these jurisdictions, such as peer institutions in New Jersey, professors teach smaller classes and spend more time with individual students.

■ **Ontario universities do not have adequate numbers of support staff to serve a larger student body.**

In addition to faculty, universities rely on many skilled individuals to create a high-quality environment for students in the class-room and beyond. These are the people who

- Staff libraries and provide academic, technical, and computing support.
- Counsel students and deliver learning-assistance programs.
- Administer financial aid programs.
- Ensure accuracy in admission and



- student records.
- Staff residences and food service operations.
- Maintain classrooms, laboratories, and physical plants.
- Ensure sound academic planning and fiscal management.

*"The postsecondary sector will face many challenges as it tries to handle the record number of students who will soon enter the system – institutions are aging, faculty are retiring, and technology requirements are up.... To fully meet the vision for postsecondary education, these pressures and others will need to be addressed."*

Government-Appointed Investing  
in Students Task Force

**To provide growing numbers of students with access to excellence, our approach to university expansion must be four-pronged.**

**We must:**

- Hire more faculty.
- Hire more staff.
- Enhance facilities.
- Acquire more learning resources.

The enrolment surge, now on our very doorstep, provides a strong incentive for all stakeholders in higher education to ensure

that Ontario students will continue to have access to a university education that matches or surpasses international benchmarks.

An investment that supports high-quality teaching, learning, and research in our universities is an investment in the economic well-being of Ontario. Statistics Canada consistently reports that university graduates enjoy the highest employment rates and average personal incomes of graduates from all postsecondary sectors. The university community shares the benefits of quality learning and research with the whole province. A recent report by Enterprise Canada Research has found that Ontario universities and their graduates stimulate over \$10 billion in economic activity annually. They contribute \$3.2 billion in taxes and other revenue to the province every year – \$1 billion *more* than Ontario's direct annual investment in the university sector. Our universities also attract key investment capital to Ontario through their R&D initiatives.

The level of excellence that generates this kind of productivity and innovation must be maintained for future generations of students.

How far have we progressed in the past three years in preparing for the coming enrolment surge? What remains to be done to keep the promise that every qualified, motivated student in Ontario will have access to a high-quality university education?



## A Progress Report from Ontario Universities

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Students, as well as their parents and families, are following the changing landscape of postsecondary education with acute interest. While they were once focused on the question of what program to take and eligibility for admission to their university of choice, they are now more likely to be focused on questions such as: Will there be enough well-qualified professors and experienced academic support staff? Will classrooms and laboratories be reasonably maintained and adequately equipped? Will there be sufficient technological resources to go around? How will universities be able to stock libraries to keep up with demand? Will there be enough residence space? Will our campuses continue to be safe?

### ENSURING ACCESS AND EXCELLENCE FOR GROWING NUMBERS OF STUDENTS

Through three years of joint planning for the accommodation of vastly larger numbers of students, the province and the universities have been guided by the principle of "access for every qualified and motivated student." As we look to the implications of the projected enrollment increases – whether as parents, students, representatives of government, or university administrators – we agree on a second principle of equal importance:

**Learning quality must not be compromised as student populations grow.**

In planning for growth, we must ensure that Ontario universities can continue to deliver educationally effective experiences across the full range of disciplines at both undergraduate and graduate levels.

What defines an "effective educational experience"? Extensive research indicates that certain educational experiences are viewed as "effective" by virtually all students. Common benchmarks include the level of academic challenge, an active learning process, interactions with faculty, enriching educational experiences and resources, and a supportive campus environment.

In *Perceptions of Quality*, a COU-commissioned public opinion survey, Ontarians identified the factors that, in their view, have the greatest influence on the quality of a student's educational experience. The study found that high-level teaching skills, a wide choice of courses and programs, well-equipped classrooms and laboratories, and well-stocked libraries that make use of leading-edge technology stand at the top of the list.

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## **PROGRESS TO DATE: PUBLIC INVESTMENT IN ONTARIO UNIVERSITIES FROM 2000 TO 2002**

*See Appendix A for specific highlights of Budgets 2000, 2001, and 2002.*

Through university-government collaboration, significant strides have been made in responding to the access challenge. Measures announced in the Ontario budgets for 2000, 2001, and 2002 represent substantive investments in postsecondary education.

**New Capital Investments - SuperBuild:** On February 22, 2000, the Ontario government launched the SuperBuild investment program for the postsecondary sector. SuperBuild represents the largest public capital investment in Ontario's colleges and universities in more than 30 years. To date, SuperBuild has allocated \$891 million to help colleges and universities construct new academic buildings and upgrade existing teaching facilities to accommodate the growing numbers of students. In 2002, responding to revised, higher enrolment projections for the double cohort years, the government announced a new round of SuperBuild proposals to increase the number of student spaces where they are needed.

**Investments in University Research:** Recent Ontario budgets have built on the government's strong record of investment in university research, increasing opportunities for Ontario students to participate in the culture of innovation that research fosters. Budget measures reflect the priorities that universities and government identified through the joint Working Group on University Research. The province has expanded successful programs and recognized the overhead

costs associated with research activity.

**Investments in Student Assistance:** Recent budgets have demonstrated the government's commitment to the principle that lack of financial resources should not limit a student's opportunity to gain a postsecondary education. Improved income exemptions now allow students to keep more of the money they earn. An expansion of the Ontario Work-Study Program, and an increase in the number and value of Ontario Graduate Scholarships, are helping students meet their education costs. To help universities and colleges provide financial assistance to some 420,000 students over the next decade, the government has announced a second phase of the Ontario Student Opportunity Trust Fund, to be designed in consultation with postsecondary institutions and students.

**Investments in Operating Grants:** Budget 2001 committed to providing full funding for larger numbers of students through multi-year operating grant increases "directly proportional to enrolment growth." By May 2002, however, revised projections showed that student numbers were climbing higher than forecast, with the result that actual and projected enrolments were exceeding the estimates on which Budget 2001 based its funding figures. In Budget 2002, the government addressed the shortfall by increasing its operating grant commitment based on its revised enrolment projections. The province will now augment operating grants to colleges and universities by \$368 million by 2003-2004. The funding provisions of Budget 2002 will ensure that the double cohort students will be accommodated in Ontario universities.

**Expansion plans must assure both access for qualified students and a quality learning environment.**

**Despite the progress that has been made to increase enrolment capacity, more needs to be done to ensure that quality does not decline as student numbers rise.**

**Educational effectiveness remains at risk.**

### WHY IS EFFECTIVENESS AT RISK?

Given the government's significant investments and multi-year commitment to full funding for every newly enrolled student, how can educational quality still be at risk?

Ontarians need to know where the problems lie. The answers become clear as we examine the cost of educating a student in the context of the quality inputs noted earlier and consider some historical facts concerning government funding.

**Multi-Year Funding Shortfalls:** Funding levels, past and current, fall short of past, current, and projected cost increases. Ontario universities continue to be stretched to the limit by the carry-forward effects of the funding constraints of the 1990s, which saw operating grants decline while base operating costs increased –

inevitably, given the rising cost of essential acquisitions such as library holdings, lab equipment, and information technology. These past shortfalls have adversely affected the universities' ability to plan for enrolment growth.

Most universities are still introducing cost-cutting measures this year, on top of those implemented during the previous decade of cutback. Operating grants have simply not kept pace with the growing base costs that universities *must* incur to fulfil their core mandate to provide students with an advanced education that has personal, economic, social, cultural, and intellectual value.

**Funding Inequities:** As a consequence of funding restraints, provincial grants have not been provided for almost 6% of the students enrolled in Ontario universities. This grant inequity has affected more than half of Ontario's 17 universities. The result is a system-wide base funding shortfall of \$100 million – over one-third of the funding committed for growth.

**Rising Operating Costs:** The operating grant increases announced in 2001 and 2002 do not take account of rising costs, and the impact of this is significant.

**Aging Facilities:** Current estimates of deferred maintenance in Ontario universities run as high as \$1.3 billion. An annual infusion of \$156 million would be needed simply to prevent further deterioration of the existing physical fabric. The government increased funding for facilities renewal to \$26.7 million for the past few years, and in 2001 made an additional one-time allocation of \$66.7 million to address maintenance backlogs. These monies are used effectively by the universities, but there is a significant gap relative to the documented need.

## PARENTS AND STUDENTS ARE ASKING

**Q** "Will SuperBuild guarantee that Ontario universities have the capacity to accommodate 90,000 additional students by 2010?"

**A** SuperBuild, combined with the efforts of Ontario universities, will help expand the universities' physical capacity by some 58,000 spaces by 2003, the double cohort year. A new round of SuperBuild funding will create additional spaces.

It is important to remember, however, that physical space is not the only measure of capacity. "Capacity" is also measured by reasonable faculty-student ratios, sufficient numbers of qualified support staff, strong student services, and adequate resources for teaching, learning, and research across the full spectrum of academic disciplines.

SuperBuild addresses one critical component of the overall challenge we face.

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## **COSTS VERSUS REVENUE – THE BALANCE SHEET**

The challenges are clear. More students demand more faculty, more academic support and administrative personnel, and expansion of the many services and learning resources that constitute an effective learning environment. The difficulties associated with recruiting and retaining the best faculty will be influenced by several factors. At the same time, library resources, equipment, and supplies are in urgent need of renewal, repair, replacement, or augmentation. Fiscal restraints curtail the capacity of universities to enhance students' learning opportunities through the strategic use of technology.

## **HOW MUCH DO UNIVERSITIES SPEND ON STUDENTS?**

Currently, Ontario universities spend an average of **\$13,850 per full-time student per year** on activities and services designed to provide the best possible learning environment with the funds available. The money to support the spending comes from provincial grants (55%), tuition (35%), and institutional sources of revenue such as private giving, endowment

income, investment income, and private partnerships (10%). Donations from private giving and private partnership have doubled since the beginning of the 1990s.

## **HOW MUCH DOES GOVERNMENT SPEND ON STUDENTS?**

Over the past decade, provincial operating grants decreased from **\$7,580 to \$6,270** on a per-student basis in nominal terms – a 17.3% reduction.

In real terms, when one adjusts for a decade of inflation, provincial operating grants on a per-student basis actually decreased by 30.1%.

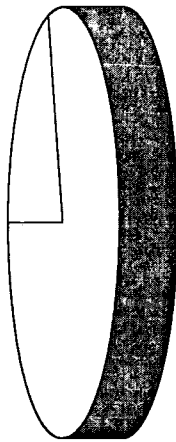
If one adds tuition income to provincial operating grants (and adjusts the tuition income for government-mandated student assistance that must be funded from the tuition increase), funding per student has decreased by 5.7% in nominal terms since 1990-91.

Ontario's investment in its universities lags behind other jurisdictions. Per-student funding levels in comparable American universities are 31% higher, using purchasing power parity comparisons, than in Ontario (*see chart, page 5*). That funding advantage translates into better faculty-student ratios with all the attendant benefits for the learning environment. Today, Ontario's public universities receive approximately 55% of their operating revenue from the government. Ten years ago, the provincial investment was 75%.

# WHERE THE DOLLARS GO

## ■ Operating Spending per Full-Time Student by Functional Area

- Institutional Support 20.3%
  - Physical Plant
  - Institutional Services
  - Public Affairs/Alumni and Fundraising



- The Learning Environment 79.7%
  - Academic Programs
  - Library
  - Student Services
  - Academic Support
  - Information Technology

## FILLING THE FUNDING GAP

The significant shortfall in resources can be made up through shared responsibility by:

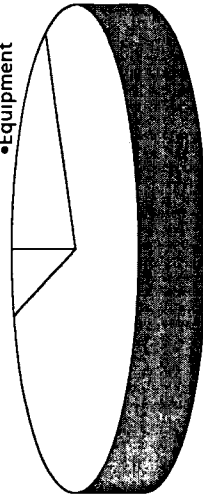
The universities - through increasing their revenue sources and continually searching for operating economies.

Students and their parents - through their tuition to help offset some of the costs.

Government - through operating grant adjustments that meet the increased student demand and recognize the value of investment in higher education, as was demonstrated in the budgets of 2001 and 2002.

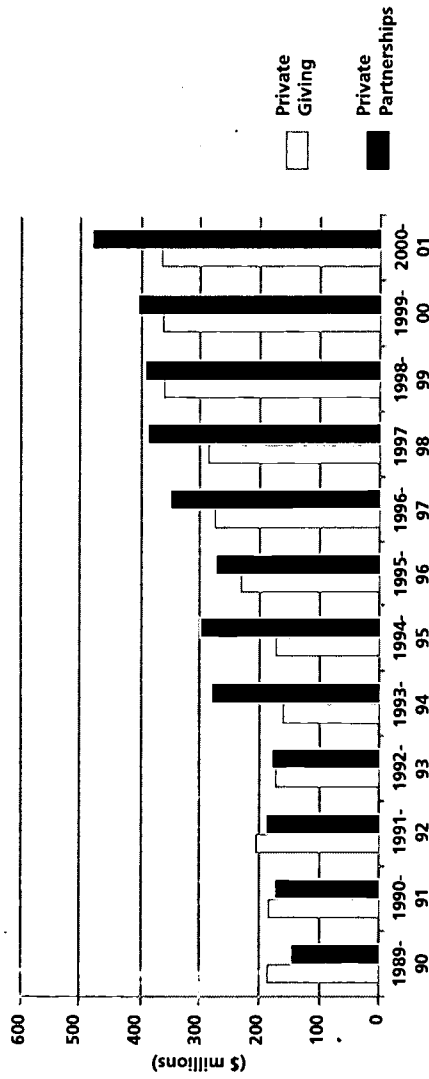
## ■ Operating Spending per Full-Time Student by Type of Expense

- Learning Resources 16.2%
  - Library Acquisitions
  - Supplies
  - Equipment
- Other 4.4%
  - Utilities
  - All Other



- People 79.3%
  - Professors
  - Academic-Related Staff
  - Institutional Staff
  - Students - Scholarships & Aid

## Donations from Private Giving and Private Partnerships



### UNIVERSITIES SHARE IN RESPONSIBILITY

**Fundraising and Partnerships:** The boards and staff of Ontario's universities have worked hard to increase their revenue from other sources. It is estimated that in 2000-2001, for example, universities raised an estimated \$479 million in partnership with industry, foundations, and non-government organizations. This represents a 418% increase since 1989-90.

**Administrative Efficiency:** During the period of funding cutbacks, universities responded by reducing personnel, and by implementing administrative efficiencies and securing new revenue sources. Universities are committed to continuous improvement in these two areas.

The efficiency and resourcefulness of Ontario universities were applauded in 2001 by the government-appointed Investing in Students Task Force, which gave the universities a "clean bill of health" for responsible management and cost

efficiency across the spectrum of student financial aid administration, facilities management, finance and accountability, student learning support services, human resources, and purchasing.

In fact, Ontario universities' expenditures on general administration are the lowest in Canada when expressed as a percentage of total funding. Examples of best practices in administrative efficiency and cost-saving collaborations abound.

The Investing in Student's Task Force final report confirmed the need for system-wide investment to help the universities accommodate the enrolment surge.



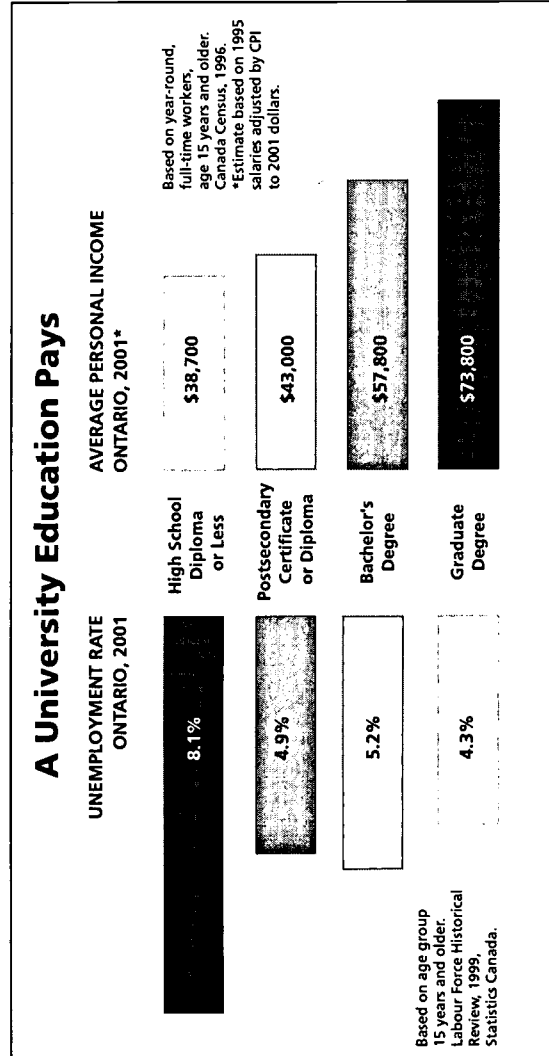
# Universities Contribute to Employment in Ontario

Note: In Enterprise Canada's methodology, a "job" is defined as the equivalent of one person-year of full-time employment.

Component	Direct	Indirect	Total
Institutional expenditures	104,535	91,991	196,526
Out-of-province students: taxable personal expenditures	4,407	4,414	8,821
Commercialization/transfer of university research	1,342	1,077	2,419
Incremental expenditures by Ontario university graduates (1998 impact of a single year cohort)	7,592	3,796	11,389
<b>Total "single year" job creation</b>	<b>117,876</b>	<b>101,279</b>	<b>219,155</b>
Incremental earnings of Ontario university graduates (1998 impact of all years)	112,950	56,475	169,425
<b>Total job creation in 1998 associated with the university sector*</b>	<b>223,234</b>	<b>153,790</b>	<b>377,191</b>

\*To prevent double-counting, the job creation associated with incremental earnings of university graduates (single year cohort) has been deducted from this total before adding in job creation associated with incremental earnings (all Ontario degree holders).

Source: Enterprise Canada Research.



## THE RETURN ON INVESTMENT

Ontario universities are major contributors to economic growth and job creation in the province, directly or indirectly sustaining more than 375,000 jobs, according to the findings of a recent report by Enterprise Canada Research.

The report finds that expenditures on university education are more potent economic stimulants than expenditures on almost any other good or service. For every job created or sustained through expenditures made by a university, another 0.88 of a job is created by the ripple effect of those expenditures through the economy. The university sector generally provides more employment per dollar than any other sector. Its employment impact is almost double that of the health/social services sector,



and almost twice as high as the business/computer services sector.

Every year, Ontario universities and their graduates contribute \$3.2 billion in provincial taxes and other revenue, and stimulate more than \$10 billion in economic activity as their spending circulates through the province. They also attract key investment capital to Ontario through their research and development initiatives.

The 2001-2002 Ontario University Graduate Survey, which examined the employment experiences of 1999 university graduates, found that employment rates remain consistently high. Graduates who have been out of university for two years are posting employment rates of 96.6%, while those six months out are employed at a rate of 95.8%. Employment rates for recent university graduates have remained buoyant despite a downward trend in the labour market that began in May 2001 and was still in evidence in October 2001, when survey respondents were asked to indicate their employment status. Virtually all academic disciplines put up a strong showing, with many boasting a full 100% employment rate at both the six-month and two-year intervals.

A university education is a sound investment. When considered as an "industry," the university sector is a significant employer. There are more people employed directly by Ontario universities (faculty and staff) than there are by the Canadian biotechnology sector or the country's aerospace industry. Yet fewer than one-quarter of the jobs generated or sustained by Ontario universities are found at the universities themselves. Most of the job creation from the investment in universities is spurred by the expenditures of faculty and staff, institu-

tional spending on materials and goods, the taxable personal expenditures of out-of-province students, the economic activity arising from the commercialization/transfer of university research, and the additional earnings (and therefore expenditures) of university graduates relative to taxpayers/consumers with a high school education.

Ontarians receive a significant, tangible economic benefit from their long-term investment in Ontario universities - a benefit that is paid out annually to support economic growth and job creation in this province.

What is not so obvious is the benefit that accrues from basic research. It is less immediate, but over the long term it can provide significant impact. The Ontario and Canadian governments have in recent years dramatically increased funding for research activities at universities, and the results are beginning to show. Using conservative estimates, Enterprise Canada found that the direct and indirect inflow to the provincial treasury from university research was \$38.8 million in 1998. Some 2,400 jobs were sustained by this economic activity.

### NEW STUDY REAFFIRMS: UNIVERSITY-EDUCATED POPULACE BENEFITS ONTARIO

"[A] new study by the Canadian Millennium Scholarship Foundation ... [has found that] we all lose [when our young people do not pursue higher education]. Besides the intangible losses - the study says there are real 'benefits to civic life from having an educated citizenry and a generally more innovative and productive society' - there are losses to society that can be measured in dollars and cents.

"University graduates ... pay on average more than three times as much income tax as those without a university degree.

"Taken together, college and university graduates, on average, pay twice as much income tax as Canadians who do not have a post-secondary diploma or degree.

"And although these graduates account for 40 per cent of the working-age population, they collect just 27 per cent of government payouts, such as employment insurance.

"These statistics demonstrate in the clearest possible terms that Ottawa and the provinces earn a significant rate of return on their investments in higher education."

The Toronto Star, Thursday, September 19, 2002

## **MAINTAINING QUALITY FOR THE DOUBLE COHORT**

When the double cohort students begin arriving on the campuses of Ontario universities next fall, they will be placing their trust in these public institutions to provide the full range of experiences and resources that will challenge them academically and deepen their understanding of the world.

Highly qualified faculty – adequate numbers of academic and administrative support staff – classrooms, laboratories, and libraries that are equipped with up-to-date resources – well-maintained physical plants: These are central to providing the dynamic teaching and learning environment that results in an effective educational experience.

Ontario has made significant strides in preparing for the double cohort and the increased student demand associated with growing participation rates and underlying demographics. SuperBuild and the multi-year commitment to full average funding for enrolment growth have laid the foundation.

**Now we need to take steps to ensure that quality is maintained – that we provide students with an effective learning experience.**

Quality for the double cohort students will be manifested in the level of service that students receive from registrarial and student aid offices, the condition of study areas, laboratories and classrooms, the adequacy of learning resources such as library holdings, computing

The combination of learning effectiveness funding and the continuing increased commitment to facilities renewal and prospect of additional physical facilities will help Ontario universities provide a learning environment that meets the needs and expectations of Ontario's students and their parents.

facilities, and most importantly, in the degree of contact with faculty.

The Council of Ontario Universities is proposing to work with government to help design a mechanism that would provide additions to base budgets for specified quality-improvement initiatives and benchmarks and to develop appropriate accountability measures. Through these initiatives we will be able to ensure that the double cohort class receive the quality of university education they deserve for all four years of their undergraduate experience

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## APPENDIX A

### INVESTMENTS IN ONTARIO UNIVERSITIES

Provincial Budget Initiatives:  
2000, 2001, and 2002

#### CAPITAL INVESTMENT

##### 2000

**SuperBuild:** \$286 million increase to the 1999 allocation of \$742 million. The increase includes \$231 million for new capital projects and \$55 million for a "modernization fund" - distribution based on full-time-equivalent enrolments in 1998-99. Capital expenditure commitments for postsecondary education in the 1999 and 2000 budgets total \$1,028 million, approximately two-thirds of which is targeted to universities.

##### 2001

**Maintenance costs:** \$100 million to help colleges and universities address maintenance backlogs.

##### 2002

**SuperBuild:** Announcement of a new round of postsecondary SuperBuild proposals. The government will be seeking cost-effective, creative financing proposals to increase the number of student spaces where they are needed.

#### INVESTMENT IN UNIVERSITY RESEARCH

##### 2000

**Ontario Research and Development Challenge Fund:** doubled to \$100 million for 2000-2001.

**Ontario Innovation Trust:** increased by \$500 million to \$750 million.

**Premier's Research Excellence Awards:** doubled to \$10 million for remaining 7 years of program.

**Research Performance Fund:** established to support research overhead costs for Ontario-sponsored research at colleges, universities, and research institutes - \$30 million annually.

##### 2001

**Premier's Platinum Awards:** Two new awards (annual) to help Ontario universities compete better globally in attracting and retaining world-class senior researchers.

##### 2002

**Ontario Research and Development Challenge Fund:** increased by \$250 million over five years.

**Ontario Innovation Trust:** increased by \$300 million.

**Research Performance Fund:** increased by \$2 million annually.

#### INVESTMENT IN STUDENT ASSISTANCE

##### 2000

**Student earnings for scholarship income and study-period employment:** increase in exemptions.

**Ontario Work-Study Program:** doubled to \$10.8 million.

**Ontario Graduate Scholarships:** increase in number and value.

##### 2002

**Ontario Student Opportunity Trust Fund (OSOTF):** The province will consult with students, colleges, and universities on designing a second phase of OSOTF, first introduced in the 1996 provincial budget to help universities create institutional endowment funds for student assistance.

#### INVESTMENT IN OPERATING GRANTS

##### 2001

**Full funding for increased enrolment:** Base funding for colleges and universities will increase by \$293 million by 2003-2004 - directly proportional to the anticipated enrolment growth.

##### 2002

**Full funding for every newly enrolled student:** Government augments its 2001 commitment by \$75 million based on revised, higher enrolment projections. Base funding for colleges and universities will now increase by \$368 million by 2003-2004.

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