Revisiting Ontario College and University Revenue Data

Prepared by Snowdon & Associates
G. Kaye, G. Moran, H. O'Heron and K. Snowdon

for the Higher Education Quality Council of Ontario

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1 Yonge Street, Suite 2402
Toronto, ON Canada
M5E 1E5
Phone: (416) 212-3893
Fax: (416) 212-3899
Web: www.heqco.ca
E-mail: info@heqco.ca

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Desiree Archer, York University
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Ian Calvert, Carleton University
Kavita Chhiba, Seneca College
Glenn Craney, York University
Ron Currie, Seneca College
Veronica Daniel, MTCU
Ken DeBaeremaeker, University of Toronto
Suzanne Dwyer, Colleges Ontario
Karen Kerr, MTCU
Jeff Lennon, MTCU
Arlene Levine, COU
James MacLean, University of Western Ontario
Michael Martin, Statistics Canada
Barry Murphy, University of Toronto
Kevin Mullan, Conestoga College
Lyndon Phillip, MTCU
Pierre Piche, University of Toronto
Ravi Ratnasingam, MTCU
Carter Scott, University of Western Ontario
Richard Smith, OCAD
Bill Summers, Colleges Ontario
Kausar Thomas, Colleges Ontario
Peter Wright, Consultant

About the Authors

Ken Snowdon, the principal for the project, is President of Snowdon & Associates and has over 30 years of experience and recognized expertise in the postsecondary education sector. Ken brings hands-on experience at the institutional level and 'system' level, and has prepared a number of research papers on the topic of postsecondary finance.

Glenda Kaye is a Chartered Accountant and brings years of experience in public sector accounting and financial reporting to the project. In addition to in-depth knowledge of financial management garnered during her lengthy experience at Queen's University, Glenda was directly involved in the design and implementation of major reporting changes in Ontario universities through the Council of Finance Officers – Universities of Ontario (COFO-UO) and through the Financial Reporting Committee of the Canadian Association of University Business Officers (FRC-CAUBO).

Herb O'Heron is the Senior Advisor at the Association of Universities and Colleges of Canada (AUCC) and recognized as one of Canada's foremost experts on postsecondary finance and postsecondary enrolment. Over the last few years, Herb has been particularly active in studying and projecting enrolment trends and their impact on the physical, human, and financial resources needed on university campuses to respond to changing student demand.

Dr. Greg Moran has served in a variety of academic leadership capacities at the University of Western Ontario, including Chair of the Department of Psychology, Dean of Graduate Studies, and Provost and Vice-President (Academic) for the ten years ending in 2005. For six years, Greg also served as Chair of the Ontario Council of Academic Vice-Presidents, and has been actively involved in a variety of provincial and national organizations. In recent years, he has acted as a consultant to a number of Canadian universities, the Council of Ontario Universities (COU), and the Higher Education Quality Council of Ontario (HEQCO). Most recently, Greg was appointed a member of the Campus Alberta Quality Council. Greg's primary role for this report has been to provide insight into the impact of funding changes on institutional decision making.

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An appendix is available in English-only under a separate cover. To request a copy, email info@heqco.ca.

Executive Summary

The purpose of this report is to provide a "dependable estimate of inflation-adjusted revenue per [full-time equivalent] FTE student for Ontario's colleges and universities for as long a period as the data allow, and to comment on the apparent effects of major changes in revenue sources on academic and other decision making in [postsecondary education] PSE institutions."

Our report is presented in three parts: Part One deals with the research methodology, the scope of the report, and a review of the literature; Part Two provides a detailed discussion of the numerator and denominator associated with producing the calculation of revenue per student; Part Three provides some context for assessing the sufficiency of inflation-adjusted revenue per student.

The scope of the project was established in the request for proposal from the Higher Education Quality Council of Ontario. The defined scope did not include an assessment of the impact of changes in funding per student on the learning environment in Ontario's colleges and universities. Thus, the report provides only the revenue and enrolment information necessary for determining the changes in average funding per student, which will set the financial context for further assessment.

A key finding from this report is that great care should be taken in determining the appropriate numerator and denominator for revenue per student calculations in light of major changes that have occurred in financial and enrolment reporting. Those changes are a function of a number of factors including accounting changes, changes in government policy, and shifts in funding sources. Combined, those factors have added considerable complexity to PSE finances and measures of student enrolment. That complexity, in turn, poses a considerable challenge to developing a satisfactory methodology to establish dependable estimates of revenue per student. Adding to the complexity are the major differences in methodology between college and university enrolment counts, which affects the comparability of enrolment statistics. Ultimately, the report's findings provide a time series analysis of the financial and enrolment information that are the basis of revenue-per-student calculations. That information, along with the methodology employed to produce the information, will help inform further research.

The requirement to produce an inflation-adjusted measure of revenue per student led to an examination of major cost-drivers and price changes in higher education (Appendix B). In addition to using Ontario's consumer price index (CPI) as a measure of inflation, an Ontario-based higher education price index (HEPI) was calculated based on a methodology developed by the Association of Universities and Colleges of Canada. The two indexes provide differing measures of inflation and the application of the measures to the revenue-per-student information produces quite different views of funding per student over time.

Essentially, the application of the Ontario-based HEPI to the funding per student for universities results in a 27 per cent decrease in real funding relative to 1980, further decline being prevented only by the initial Reaching Higher investments. Our application of the Ontario CPI shows a decrease of almost 7 per cent in real per student funding relative to 1980, with virtually the entire decrease taking place in the mid-1990s. With respect to college revenue per student, the application of the Ontario-based HEPI results in a 20 per cent decrease in real funding relative to the early 1990s, with significant decreases taking place through the early to the mid-

1990s, a slowing of the decline in the latter part of the 1990s through the early part of this decade, followed by real funding increases since 2003. Using the Ontario CPI as the deflator, college revenues show a decrease of approximately 9 per cent over the period, with all of the decrease registered by 1997. Funding held reasonably constant in real terms from that point through the early part of this decade and, from 2003 onwards, the colleges appear to have experienced major increases in real funding per student.

By itself, the portrayal of average revenue per student over time provides a measure of the impact of inflation on university and college funding. There are, however, a host of other factors that affected institutional costs and that contributed to considerable financial pressures over the periods in question. Part Three of the report attempts to place the revenue per student information in context by examining some of the factors that affect the *value* of the inflation-adjusted funding over time. Factors such as the cost of revenue diversification, the cost of regulation, the cost of expanded mandates, and the efficacy of government funding mechanisms are explored to help interpret the meaning of the revenue-per-student information.

Key findings in Part Three focus on the shift in funding sources and the attendant cost implications. The shift to tuition as a greater proportion of revenue carried with it additional costs for student assistance, increased administrative costs, and expectations that the increased funding would be directed to quality improvements rather than inflation offsets. The shift toward more research activity (and funding) resulted in significant cost increases — costs that are, at best, only partially recognized in existing revenue flows.

Part Three also explores the impact of changes in government funding mechanisms. In the case of universities, for example, there has been a major trend toward earmarked funding at the expense of basic funding in support of core operations. At the same time, the major change in capital financing in the universities has resulted in the effective displacement of approximately $100 million, that is, funds that in the past would have been used for annual operating costs. Changes in mandate (increased research), funding sources (tuition, research), and funding mechanisms (earmarked grants, matching requirements, one-time only grants) coupled with major increases in enrolment and changes in the composition of students are factors that heavily influence the assessment of revenue-per-student funding and should be considered by policy makers and researchers alike.

Finally, the preparation of this report has pointed to a number of areas that would benefit from further study and/or research and follow-up:

- further examination and refinement of the numerator (revenue) and denominators (measures of student enrolment and other activity measures)
- an examination of the institutional differences of revenue per student based on including reference to the impact of extra-formula and special-purpose grants in the colleges and universities
- funding comparisons with other jurisdictions
- further assessment and consideration of the factors that affect the value of apparent changes in revenue per student

- further review of price indexes and the development of an appropriate labour price index

- an examination of indirect and direct research costs, perhaps in conjunction with an examination of the “joint product” nature of postsecondary education and the inherent cross-subsidies

- a review of enrolment trends by discipline and program to determine the impact on costs and cost pressures

Such a list of potential research projects speaks to the complexity of PSE financing and to the difficulty of trying to capture the full import of revenue per student calculations. Nevertheless, this report provides a foundation for developing a better understanding of PSE financing in Ontario, the state of core operating support, and the many and varied cost pressures faced by Ontario’s colleges and universities. Using the findings from this report, researchers can examine the impact of the changes in funding per student on various aspects of the learning environment in Ontario’s colleges and universities.

Introduction

The past few decades have witnessed major changes in the postsecondary education (PSE) sector in Ontario. Increased student demand and increased interest in postsecondary institutions as catalysts for social and economic development have led to considerable investment from both the public and the private sectors, which, in turn, has led to more students, expanded mandates, new campuses, and new institutions.

During the same period, transformations in sources of funding, allocation mechanisms and accounting requirements complicated postsecondary financial management and represented a critical disjunction from the past. Changes in government policy regarding the funding eligibility of programs and students added further to the disjunction.

The original request for proposal (RFP) from the Higher Education Quality Council of Ontario (HEQCO) noted that the "amount of revenue available to institutions is a key determinant of their ability to carry out their education and research functions effectively." For anyone interested in determining the "amount of revenue" (numerator) and applying a measure of activity (student enrolment – the denominator[1]), the changes mentioned above pose considerable challenges.

The full nature of the challenges was unknown until we began work to examine available financial data and enrolment data in detail. Some aspects of the changes are a matter of public record, but it is now clear that there is considerable variation in how individual institutions accommodated the changes – especially among Ontario's universities. That finding should not be surprising, given the relative complexity and autonomous nature of Ontario's universities compared to the province's colleges.

However, when these changes are coupled with institutional autonomy and different institutional circumstances, any attempt to respond to a straightforward question about funding per student over time becomes complicated. The answers are inextricably linked to how much light can be shed on the numerator (funding–revenues) and the denominator (enrolments) in the context of rapidly changing circumstances.

Understanding some of the changing circumstances helps place the results of the revenue-per-student calculations in context. The value of the funding is affected by factors like sector-specific inflation, a host of new demands associated with expanded mandates, increased government regulation, and government policies — both general funding policy and the chosen mechanisms for allocating funding.

We have organized our report in three parts: Part One addresses the purpose and scope of our work and the methodology used in our research; it also provides an overview of existing literature on the topic. Part Two devotes attention to numerator and denominator issues that ultimately lead to the production of appropriate data sets for the revenue-per-student

[1] It is important to recognize from the outset that the emphasis on "revenue *per student*" carries with it an implicit assumption that student enrolment is the most appropriate measure of activity. In fact universities are also engaged in other activities (e.g., research and contributing to social and economic development) that are not captured through the use of enrolment measures.

calculations. In Part Three, we attempt to place the revenue-per-student information in context by examining some of the many factors that affect the value of the funding over time. To help interpret the meaning of the revenue-per-student information, we explored factors such as the cost of revenue diversification, the cost of regulation, the cost of expanded mandates, and the efficacy of funding mechanisms.

Following Part Three is our summary of the key considerations and proposed areas for further research. References and appendices with more detailed information are at the end of the report.

Part One

Purpose

This study aims to improve our understanding of postsecondary finances in Ontario by providing a comparable, consistent time series analysis of enrolment and revenue information for public institutions. We use that information to illustrate the impact of the aforementioned changes on funding per student. This study also sheds light on the factors influencing the changes in financial and enrolment reporting, and it explores the impact of postsecondary financing mechanisms and strategies on institutional actions. In its RFP, the HEQCO gave this summary of the purpose of the project:

> **Assignment Summary:** To produce a dependable estimate of inflation-adjusted revenue per FTE [full-time-equivalent] student for Ontario's colleges and universities for as long a period as the data allow, and to comment on the apparent effects of major changes in revenue sources on academic and other decision making in PSE institutions.

Scope

The scope of our study was also defined by the HEQCO's RFP:

- "a rigorous account of trends in college and university funding in Ontario"
- the provision of "clear guidance on how the official estimates of FTE students are derived, and draw(ing) attention to any definitional issues therein."
- discussion of "using the CPI [consumer price index] versus one more specific to the PSE sector such as the HEPI…"
- the identification of "significant structural changes in the magnitude and form of funding" and "the rationales for the (preceding) changes"
- commentary "on the apparent effects of the changes on academic and other decision making by colleges and universities."

The scope of this study was limited to the provision of colleges and universities aggregated information and was affected by the availability of financial and enrolment data for Ontario's public universities and colleges in formats that could be compared over time. Accordingly, the information we have compiled focuses on system financial information and system enrolment information for the colleges and universities, and covers the period 1979–80 to 2007–08 for the university sector, and 1991–92 to 2007–08 for the college sector.

Finally, it is worth noting that the scope of our study does not include an assessment of the impact that changes in funding per student have had on the learning environment in Ontario's colleges and universities. Rather, this report provides information to set the financial context for such an assessment.

Methodology

Our methodology for the study was to begin with a literature review to identify existing studies and reports that examined postsecondary finances and enrolments in Ontario. Our review of the literature led us to identify outstanding research needed for determining the best sources of consistent enrolment and financial information that can be compared. Discussions with officials of the Ministry of Training, Colleges and Universities (MTCU), with personnel at Colleges Ontario (CO) and the Council of Ontario Universities (COU), with other researchers at Ontario institutions, and with representatives from Statistics Canada supported our detailed examination of the data sources they identified. Ultimately, we decided to use the following sets of information as the main sources for financial and enrolment information.

- Financial Information
  Colleges: College Financial Information System (CFIS)
    - Information provided by individual colleges to the MTCU
    - Summary of provincial operating grants from Colleges Ontario

  Universities: Council of Finance Officers – Universities of Ontario (COFO-UO)
    - Information provided by individual universities to COFO-UO, which subsequently provides the data for the Financial Information of Universities and Colleges (FIUC) survey conducted by Statistics Canada and the Canadian Association of University Business Officers (CAUBO).

- Enrolment Information
  Colleges: MTCU college enrolment data from the institutions
  Universities: data from COU and MTCU from the institutions

Appendix A: Financial and enrolment information – How does it relate to Statistics Canada information? illustrates the relationship to national (Statistics Canada) financial and enrolment information.

The literature review also informed our compilation of data regarding enrolment changes, structural funding changes, accounting changes, and reporting changes.

Literature Review

Over the years, several agencies and authors have attempted to develop a clear picture of postsecondary revenues. Generally, their efforts have focused on such aspects as provincial government grants, tuition income, and the increased presence of the federal government. At the national level, the Association of Universities and Colleges of Canada (AUCC) has produced financial analyses that demonstrate a downward trend in combined government funding and tuition revenue over a long period time. AUCC's analysis focuses on the national university sector as a whole rather than individual provinces. Nevertheless, the AUCC reports and analyses point toward a significant decline in real revenue per student[2] since 1980, and show revenue essentially stable since 2000.

[2] Using a calculated FTE from Statistics Canada and the U.S. Higher Education Price Index (see Figure 3.8) AUCC, *Trends in Higher Education*, Volume 3 Finance, 2008.

The literature search found few papers or articles on historical funding levels of colleges in Canada. Although Statistics Canada collects data on college enrolment and finances, there are limitations (see Appendix A) that give a less-than-full picture of the college numerator (revenue) and denominator (enrolment).

Within Ontario, both the COU and CO produce reports and analyses that track revenue over time, but their emphasis tends to be on government grants and tuition. The COU's most recent analysis suggests that operating grants and net (net after deducting the mandated "set-aside" for student assistance) tuition per FTE decreased through the early to mid 1990s, began to increase in the latter part of the 1990s, and since then have remained flat in constant dollars, adjusted for inflation using Ontario's consumer price index (CPI) (Council of Ontario Universities, 2006).

A similar CO analysis indicates a decline in funding per FTE student in the early 1990s and a relatively flat period from 1997 through 2002. Then, the increases in per student funding appear to have brought FTE funding levels back to the early 1990 levels (Colleges Ontario, 2008).

Hugh Mackenzie's study, commissioned by the Ontario Coalition for Postsecondary Education during the Ontario Postsecondary Education Review (the Rae Review), examined provincial funding trends in Ontario for both the colleges and the universities. Using Statistics Canada's postsecondary financial information and student enrolment as well as the data compiled by the COU and the Association of Colleges of Applied Arts and Technology of Ontario (ACAATO), Mackenzie concluded that: "Whether measured as a share of GDP or on a real, per student basis, Ontario's funding for postsecondary education has been in decline for a considerable period of time." Note that the author focused exclusively on provincial grants as reported by Statistics Canada.

"Muddy" Data: University Financing in Canada (Snowdon, 2005a) explored some of the factors that should be taken into consideration when assessing the state of university finances and compiling a set of historical financial information. At the time, the author's major conclusions were that existing financial reports overstated revenues to Canadian universities by "*hundreds of millions* of dollars relative to earlier years" due primarily to major changes in reporting and accounting (p. 169), and the federal "investment in research… has highlighted the funding shortcomings in core operations" (p. 178).

*Without a Roadma*p (Snowdon, 2005b), pieced together a portrait of PSE finances from the early 1990s and concluded that financial and enrolment information provided a very mixed picture across the country. Funding per full-time student, adjusted for inflation (using CPI), appeared to have increased in Saskatchewan, British Columbia, Alberta, and Quebec but the six other provinces appeared to have less funding per full-time student in 2004 than a decade earlier. The pattern in Ontario was similar to the pattern evident in the analyses by COU and CO. However, the report acknowledged that the data from Statistics Canada's computerized database and information retrieval service, CANSIM (Canadian Socio-economic Information Management System), had limitations:

a) in attempting to distinguish restrictions on the use of certain revenue sources;

b) in providing up-to-date enrolment information (on colleges); and

c) in providing sufficient enrolment information to calculate a set of historical FTE enrolments

In 2008, the Ontario Confederation of University Faculty Associations (OCUFA) published a policy backgrounder on envelope funding that explored two specific issues:

> First, to the extent that envelope funding is directive in nature, it undermines the institutional autonomy of universities. Second, university administrations have leveraged the ostensibly targeted character of funding envelopes to claim that the purposes to which the funds can be put are limited and unavailable for the purposes of collective bargaining.

While the OCUFA report helped clarify some concerns about envelope funding, its purpose was to establish OCUFA policy rather than to explore the overall funding trends in Ontario PSE.

The implications of an increased federal presence in PSE have been explored by a number of authors (Cameron, 2005; Shanahan & Jones, 2007). Together with an examination of changes in transfer payment arrangements, those studies provide an overview of the interaction between federal and provincial initiatives in PSE matters, but they offer a limited amount of comparative financial and enrolment information.

Funding and tuition changes initiated during the Ontario Conservative government's "common sense revolution" sparked studies focused on developments in Ontario's PSE environment (Young, 2002; Quirke & Davies, 2002; Kirby, 2007). Kirby's review of the mandated Collaborative Nursing initiative, for example, provides a glimpse of the extraordinary complexity and added costs associated with that particular government intervention. In general, however, those studies did not assess overall funding levels, nor attempt to compile enrolment and financial information.

In sum, the available literature shows the following:

- Major changes have occurred in financial reporting and government policy that make it far more complex to compare revenue levels today with revenue levels from twenty or thirty years ago.

- The changes in government policy have resulted in added complexity, greater government intervention, and increased costs.

- Little attention appears to have been paid to enrolment as the denominator and the various definitions and interpretations employed in counting students, including counts that reflect cost differences among disciplines and program levels.

The key conclusion that emerges from the literature review is that, in order to understand the impact of the funding changes over time, one must have specialized knowledge of the underlying policy changes made over the past twenty-five years. That conclusion has informed our examination of both financial and enrolment data.

Part Two

Data Issues

Numerators and Denominators

As noted earlier, this project focuses on setting out financial and enrolment information that can be used to construct reasonable estimates of funding per student over time. Doing that involves examining, in detail, the source data for the numerator (revenues) and denominator (enrolments), as provided in the following paragraphs. Readers should keep in mind that although enrolment is a key indicator of postsecondary activity, it is not the only indicator, especially in the university sector. For example, over the past decade, research activity within universities has increased markedly, which has led to shifts in workloads and contributed to cost pressures — a reality we explore in more detail in Part Three of this report.

Ontario's universities differ in geographic location, historical development, size, mandate, program mix, and the composition of their student body — to mention but a few of the differentiators. They do, however, share a common funding system in their reliance on a mix of public and private funds, but the mix, too, is quite different by institution, which reflects the differences in programs, in the intensity of research, and in the presence or absence of medical schools.

Not surprisingly, the specific circumstances of each university determine how each handles its operations. Although adhering to government legislation and regulations and to the requirements of external agencies (e.g., program accreditation; Canadian Institute of Chartered Accountants, (CICA), the universities have considerable room for exercising their prerogative when interpreting the many strictures involved - thus posing real challenges for those attempting to construct sets of system descriptors.

As their mandates have evolved,[3] Ontario's colleges have become different in scale and complexity. Nevertheless, having developed from a central system perspective, their basic operating practices tend to be similar. The colleges do pose their own challenges to the establishment of consistent, comparable financial and enrolment information, but these occur more often on the system level than on the level of individual institutions.

Financial Information

For purposes of this study, the numerator is revenue. But what revenue and from what sources? In developing the original work plan for this project, our intention was to use the COFO Report for Ontario universities, produced by the COFO–UO, along with the college financial information from the MTCU. Our initial evaluation of these data sources revealed their limitations: difficult to create a financial time series (for colleges) prior to 1991; data unavailable in electronic format (universities) prior to 2000. We therefore decided to explore other relevant sources of financial data, such as the Financial Information of Universities and Colleges Survey (FIUC), prepared jointly by Statistics Canada and the Canadian Association of University

[3] See, for example the recommendations of the Report of the *Advisory Panel on the Future Directions for Postsecondary Education*, (1996) and the Ontario Colleges of Applied Arts and Technology Act (OCAAT Act, 2002) that provided for expanded college mandates.

Business Officers; the Financial Statistics of Community Colleges and Vocational Schools (FINCOL), prepared by Statistics Canada; and the related data sets from Statistics Canada's Canadian Socio-economic Information Management System (CANSIM). Ultimately, we decided to rely on the sources identified in our original work plan, but to focus the revenue analyses on MTCU operating grants and tuition in both the university and the college sectors. To put those decisions in context, it is important to delve into the key sources of financial information in some detail.

Universities

The primary source of university financial information is the institutions themselves who respond to Statistics Canada's annual survey conducted in cooperation with the CAUBO. A similar survey is used by COFO to collect financial information from Ontario universities, and a version of the Ontario information is provided to Statistics Canada for inclusion in the FIUC. The FIUC includes all universities across the country. However, because not all universities are also members of CAUBO, the CAUBO Report is actually a subset of the FIUC information. For example, the Ontario College of Art & Design is included in Ontario's COFO Report and included in the FIUC. Until 2006–07, however, it was excluded from the CAUBO Report because it was not a member of the Association of Universities and Colleges of Canada (AUCC), a pre-condition of membership in CAUBO. Although the non-members are few, their inclusion in the FIUC means that Statistics Canada data sets differ from the financial information produced in the CAUBO Report.

The FIUC–CAUBO information is available electronically from its inception in the early 1970s through a file maintained by the AUCC. The data in the COFO Report, starting from 2000, are available in electronic format through COU. Given the similarities in the information and the availability of the FIUC–CAUBO information over time in an electronic format, we decided to explore the potential of the FIUC–CAUBO information as a source of data on university revenue. We also noted that using the FIUC–CAUBO data might facilitate future research on interprovincial comparisons.

The FIUC survey collects revenue and expenditure information according to basic formats for fund accounting. The following description, taken from *Without a Roadmap* (Snowdon, 2005b), provides an explanation of the import of fund accounting to university financial information:

> Universities receive funding from a number of sources — governments, private donors, students, corporations, investments, and the provision of services. Sometimes those monies are restricted for specific purposes. For example, an alumnus may donate money to support a scholarship. The university is acting as a steward of the donation, carrying out the wishes of the donor. Those monies are clearly "restricted" and only available for a specific purpose – as designated by the donor. Those funds, while they increase the overall level of university funding, are not available to pay salaries, to pay utility bills, to pay for library journals or maintain buildings. The same principle applies to other monies that universities receive. Provincial grants for capital purposes are to be used for new construction and renovations and repairs and there are strict reporting requirements. Government contracts and private research contracts are provided for a specific purpose with clear deliverables and specific reporting requirements. Research grants from the federal granting agencies (NSERC, CIHR, and SSHRC) are similar in that the funds are provided for a specific purpose and there are separate accountability requirements. Universities (and colleges) also operate 'ancillary services' such as

bookstores, residences, food services and parking services. As enrolments increase and the cost of services increases, the actual revenue may increase as well. Since many of the 'customers' for those services are students, faculty and staff, there tends to be significant customer input on service levels, quality levels and price. Over the past fifteen years, many institutions have adopted financial policies that ensure all costs (direct and indirect) are recovered from the ancillary operations and appropriate reserves have been established for regular maintenance and refurbishment. In some cases, those ancillary services generate 'profit' to help support educational purposes.

To recognize the restrictions associated with different sources of funding, the university sector adheres to what is called "fund accounting" whereby monies are classified for

> accounting and reporting purposes in accordance with activities or objectives as specified by donors, in accordance with regulations, restrictions, or limitations imposed by sources outside the institution, or in accordance with directions issued by the governing body of the institution.[4]

So, a university can be in receipt of additional revenues in certain FUNDS for specific purposes, but there may not be adequate increases in revenue to cover 'core operations' — salaries of faculty and staff, heat, light and water, library acquisitions, information technology, student services and the host of 'operating' expenditures that support the work of the institution.[5]

Universities (and colleges) do receive funds that are intended to be used to support 'core operations'. Those funds — primarily provincial operating grants and tuition — are intended to support general educational operations and often are the focus of the annual operating budget.

[4] Canadian Association of University Business Officers, *Financial Information of Universities and Colleges, Guidelines*, (2000-01) p.4
[5] Institutions will also place restrictions on some funds to create reserves – often in anticipation of major expenditures that are cyclical in nature (e.g., major information technology infrastructure, major capital maintenance projects).

The following chart summarizes the FUNDS categories used by universities, provides a general indication of the size of each Fund in Ontario and a brief summary of the main activities in each Fund as well as the primary sources of revenue. The source of the information in the chart is the COFO-UO Financial Report of Ontario Universities, 2007–08 available on the COU website.

	Unrestricted Expendable		**Restricted Expendable**			**Restricted Non Expendable**
	General Operating	Ancillary	Trust	Sponsored Research	Capital	Endowment
2007/08 Revenues ($000s) (COFO Report)	$6,341,246	$847,232	$434,890	entities consolidated $1,613,345 entities not consolidated $808,268	$576,526	$102,116
Main activities	"Core operations" (Teaching/ Research) Faculties/Schools Support services Administration	Residences Food Services Bookstore Parking	Endowed Chairs Endowed speaker's series Related services	Research projects Research institutes and centres Tri-council grants	New construction Renovation Major Repairs	Endowed student assistance Endowed Faculty Chairs
Primary Sources of Revenue	Tuition Provincial grants	User Fees	Endowment Income Foundations	Gov't contracts Foundations Industry contracts	Donations Gov't grants	Donations Investment earnings

* The label *Entities consolidated* refers to all entities in the consolidated financial statements of the institution. The label *Entities not consolidated* refers, essentially, to hospitals or other medical facilities that are not part of the university's financial operations but where research funding of university faculty may be administered. Such funding while reported in COFO/FIUC/CAUBO is not included in financial statements of the university.

When determining the appropriate fund for this report, it was clear from the outset that we would place emphasis on the operating fund because it accounts for the vast majority of expendable unrestricted funds.

With respect to the FIUC, it is important to note some limitations affecting the survey information both in any given year and over time. While the FIUC information is reconciled to audited financial statements, the FIUC survey attempts to capture revenue and expenditure information for all public universities in Canada in a fashion that allows some degree of comparability across institutions and provinces. Individual universities attempt to comply with the FIUC reporting

format, even though the assumed organizational structure of the FIUC may not readily fit their own organizational structure for several reasons, including levels of centralization versus decentralization. Further, the FIUC acknowledges that institutions employ different business practices that may affect the comparability of the information among institutions and over time. There are different interpretations of how to report revenue and expenses, all of them appropriate for the reporting institution, but such differences raise the possibility of reporting variations *between* institutions. The FIUC survey is also premised on accounting conventions approved by the CICA. However, since the CICA allows latitude on the application of such conventions (e.g., until very recently investments could be based on book value or market value), those differences affect the comparability of the institutional information.

In the late 1990s, a number of changes were made to the FIUC survey to conform to new CICA requirements for non-profit organizations and to update the survey in light of changing institutional circumstances (e.g., greater reliance on fund raising and more interest in functional categories such as external relations).[6] Within a few years, it became apparent to users of the CAUBO Report that the changes in reporting and accounting, coupled with the introduction of new federal and provincial government funding mechanisms, had combined to

> create discontinuities in the historical trends. The result, at the aggregate level, has been the reporting of financial information that is inconsistent with earlier years and thus does not portray a consistent, comparable picture of universities financial data over time.[7]

The CAUBO established a task force to examine the challenge and, in late 2004, that task force issued its report, which identified four key areas affecting the comparability of financial information:

i. differences over time and changes in CICA requirements that have been discussed and reviewed by CAUBO and incorporated into the *Guidelines*;
ii. differences that have occurred over time as a result of federal/provincial government policy changes or provincial differences in the funding regime;
iii. differences over time at the institutional level that are a function of changing the definition of the General Operating Fund; and
iv. differences in the institutional interpretation/implementation of the *Guidelines* and/or differences due to changes in university operations.[8]

To understand the full implications of the task force's findings, it is important to examine each of the areas in turn and relate it to the Ontario situation. It is also important to note that considerable effort has been made by COFO/CAUBO to address concerns about reporting differences since the task force completed its work in 2004.

[6] Changes were made in the COFO-UO Report in 1998–99 for similar reasons.
[7] *Report of the Task Force on the Review of CAUBO Financial Reporting*, November 2004, p. 2
[8] *Ibid.*, p. 3

i) differences over time and changes in CICA requirements that have been discussed and reviewed by CAUBO and incorporated into the Guidelines

In 1999–2000, CAUBO/Statistics Canada introduced a number of changes to the FIUC Survey including a change from "net" to "gross" reporting for sales of services and cost recoveries. Previously, universities were required to net sales and external cost recoveries against the related expenditure item. For the purpose of reporting gross revenue, sales and the corresponding costs of sales are reported separately. Reporting of gross revenue rather than net revenue shows an increase in revenue although, in reality, nothing has changed — the institution's resources are exactly the same, just reported differently. This reporting change gave the appearance of $315 million in new revenue in 1999–2000 for Canada, including $54 million for Ontario. The reporting change also resulted in "grossed-up" expenditures.

Such changes also carried with them inherent reporting problems for some institutions whose financial systems and business practices did not conform to CAUBO strictures. In Ontario, the COFO implemented the reporting change from net to gross reporting for all revenues in 1998–99. That change included miscellaneous fees, which accounted for a major portion of the $60 million increase registered in that specific revenue item from 1997–98 to 2000–01. For more detailed examination of miscellaneous fees see Appendix D.

Differences in accounting practices also affect the reported information in the FIUC/CAUBO information. As noted in the *Guidelines* issued each year as part of the FIUC survey, "Even the most stringent of reporting guidelines cannot eliminate differences resulting from different underlying accounting practices." For example a number of institutions have changed their reporting of investments from *book value* to *market value* and have recorded annual changes in the market value as income. Other institutions stayed with book value, and the recording of annual investment income reflects only the income (interest and dividends) actually realized in a given year. Those reporting differences create major discontinuities in the data (investment income) over time and affect institutional comparisons.

ii) differences that have occurred over time as a result of federal/provincial government policy changes or provincial differences in the funding regime

The second category of changes covers five specific items in Ontario.

First, starting in 1996, the Ontario government mandated a change in student assistance associated with increased tuition. That year, colleges and universities had to set aside 10 per cent of the tuition increase for student assistance. The following year the set-aside increased to 30 per cent. The result? Increases in tuition revenue were earmarked for student assistance rather than supporting core operating expenditures. The following table indicates the amount of tuition revenue that had to be set aside for student assistance.[9]

[9] More recently the set-aside requirements have been replaced with the Student Access Guarantee (SAG). See https://osap.gov.on.ca/eng/not_secure/Access_Guarantee_12.htm

Table 1: Tuition Set-Aside Requirements

FY Ending	Colleges	Universities
1997	$ 2,824,805	$ 11,800,000
1998	$ 9,390,195	$ 31,199,820
1999	$ 17,294,719	$ 53,302,664
2000	$ 27,579,406	$ 80,461,913
2001	$ 36,225,772	$ 92,888,491
2002	$ 34,506,193	$ 106,188,479
2003	$ 40,792,492	$ 119,612,834
2004	$ 45,929,909	$ 136,624,810
2005	$ 41,586,642	$ 136,598,724
2006	$ 46,776,550	$ 136,722,140
2007	$ 42,028,725	$ 140,711,903
2008	$ 42,677,968	$ 141,815,999

Sources:
FY1997 Universities, COU Resource Document
FY1997 Colleges, Colleges Ontario, Environmental Scan 2008, Appendix 2 calculations
FY1998 to FY2008, Special Tabulation, Ministry of Training, Colleges and Universities, Colleges Finance Unit, and Universities Finance Unit, Postsecondary Finance and Information Management Branch

Second, in the mid-1990s the Ministry of Health and Long-Term Care began negotiating alternative funding plans (AFP) at some universities. That funding simply replaced monies that were previously paid directly to the physician by the Ministry. The result? An increase in reported university income (and expenditure) that merely reflects a change in government funding practice. Steps have been taken recently to address this particular reporting anomaly. However, the historical file is not changed.

Third, beginning in 1999, SSHRC and NSERC began funnelling scholarship funding through the universities to the student. Prior to that date, the scholarships were paid directly to students. The result? An increase in income and expenditures in the universities although it is, again, merely an administrative change. The treatment of those funds for reporting purposes appears to have varied: some institutions initially reported the funds in the Trust Fund; others reported the funds in the Sponsored Research Fund.

Fourth, to quote directly from the *Caveat on Comparisons of Historical COFO-UO Financial Data* included in the COFO Reporting Guidelines*,*

Programs such as ATOP (Access to Opportunities Program) require ***private sector matches*** that inflate both the income and expenses on a one-time basis. Moreover, some of those funds are actually gifts-in-kind and thus may not, and should not, be construed as providing additional resources in the same way as government operating funds or

regular tuition fee income. By definition gifts-in-kind are the most *restricted* contributions, providing no discretionary funding.[10]

Fifth, the introduction of considerably more targeted envelopes and, in more recent years, year-end one-time-only (OTO) allocations, have added further complexity to financial operations and financial reporting — matters explored later in the report.

iii) differences over time at the institutional level that are a function of changing the definition of the General Operating Fund

The third category of change, an expanded definition of the Operating Fund, was implemented by some institutions to provide a more comprehensive picture of university finances for budgeting, planning, and accountability purposes.[11] It coincided with the increasing use of endowment income and investment income to support core operations and changes in CICA reporting requirements for restricted and non-restricted funds. Essentially, some income and expenditures that had been previously reported in the Trust Fund began to be reported in the Operating Fund. The result? A reported increase in operating income and expenditure due solely to an institutional reporting change.

iv) differences in the institutional interpretation/implementation of the Guidelines and/or differences due to changes in university operations

In Ontario, major changes in funding practices (e.g., the introduction of new grants) are usually reviewed by the Council of Finance Officers (COFO) of the Council of Ontario Universities (COU) to decide the best way to handle such grants for reporting purposes. Nevertheless, differences in the treatment of some monies may still arise due to a delay in the government announcement or because the materiality of the change is below a threshold that triggers a review. The expansion of targeted grants and special purpose grants may result in different treatment of such funds, depending on institutional interpretations of the restriction on the use of the monies. In some cases, a targeted grant may be categorized as a Restricted Fund and recorded in the Trust Fund. Once it becomes clear that such a practice may be out of step with other institutions, a change may be made in reporting. However, as noted earlier in the AFP example, the historical file is not changed.

The phrase “changes in university operations” refers to items such as the expansion of non-credit activity and the ensuing issues regarding the most appropriate way to reflect the revenue and expense. Since the early 1980s, non-credit activity in Ontario’s universities has increased markedly from approximately $10 million to over $115 million, largely due to an increase in continuing education activities at some institutions. That significant increase in income is captured in a segregated part of the Operating Fund but is being spent, primarily, on meeting the costs associated with the expanded level of activity. That is, those dollars are not directly supporting the core operation of the

[10] COFO-UO, *Reporting Guidelines, 2007-08*, June 2008, p.38
[11] Another factor influencing the decision was the advent of *Maclean’s* “ranking” and the use of specific financial indicators that were based on measures derived from Operating Expenditures.

university nor the students enrolled in degree and diploma programs. Further, it appears from the FIUC information that there are reporting differences over time. Some institutions may have netted the fees against costs and/or treated the fees as sale of service revenue while other institutions may have recorded the fees as tuition revenue. Finally, as noted later in the report, it appears that institutions employed different practices in recording both enrolments and fees associated with additional qualifications courses (AQC) from the mid-1990s onwards. That particular change in institutional operation contributed to significant increases in non-credit tuition income as a partial offset against a reduction in operating grant support from the province.

The preceding examples of changes in reporting that affect the comparability of the revenue information over time simply illustrate the importance of carefully examining the financial data before accepting that it truly reflects year-over-year increases in available income. Both the FIUC–CAUBO annual survey information and the COFO Report have extensive and important "caveat" sections that deserve careful review by all users. The COFO Report, in particular, is very clear about the effects of the reporting changes.

> Readers who wish to compare COFO-UO data over a number of years should exercise caution — a significant amount of what might appear to be increased operating revenue and the associated expense is little more than re-categorizing from other funds and/or reflective of changed financial reporting.[12]

Two key sources of revenue — provincial operating grants from MTCU and tuition from students enrolled in degree or diploma credit programs — are sufficiently comparable to allow for the development of an historical time series analysis associated with degree and diploma credit programs and related services. Together, these two income sources accounted for approximately 95 per cent of operating revenues through the 1980s, approximately 90 per cent through the 1990s, and they currently account for approximately 86 per cent of operating revenues.

The remaining operating revenue sources (other income) currently approximate 14 per cent and consist of miscellaneous fees, investment income, federal grants, grants from other provincial ministries, and donations. Reporting changes, noted previously, account for the major portion of the relative increase in other income over time. The remainder is related to institutional attempts to diversify revenue, although that revenue is often earmarked or restricted for special purposes.

Based on a review of the caveats, a detailed review of revenue sources, a detailed review of the FIUC–CAUBO and COFO-UO information, and our in-depth knowledge of institutional operations, we made the following decisions to compile the historical financial information.

- Provincial grant revenue would focus solely on operating grants from MTCU.

[12] COFO-UO, Ibid., p.36

- Federal grants in the operating fund, such as grants from Health Canada, would not be counted as operating monies because they are more akin to restricted "special purpose" trust grants.

- Tuition revenues would be reduced by the set-aside monies earmarked for specific purposes by government.

- Tuition revenues would exclude non-credit tuition because the income is not used to directly support core operations nor degree and diploma credit students (the denominator in our equation), and there may be reporting differences in the information.

- Miscellaneous fee revenue would be excluded for a number of reasons, including i) that some of the fees (and any increases) are subject to government regulation (and in some cases student approval); ii) that the fees are intended to be used to support specific expenditures on a cost-recoverable basis; and iii) that there appears to be a major reporting discontinuity because of the change from net reporting to gross reporting. (See Appendix D for a more detailed review of income from Miscellaneous fees).

- Other income (sales of services, miscellaneous income, and investment income) would be excluded due to institutional differences in accounting and/or inconsistencies in reporting.

Although recorded as revenue in the sponsored research fund, the monies associated with the federal Indirect Costs Program (ICP) and the Canada Research Chairs program (CRCs) will be factored into the equation as a separate analysis later in the report. These monies are of interest because they are seen, by some, as de facto operating revenues intended as primary support to the university's core operations.

Given the focus on two major sources of income (provincial operating grants and tuition), we decided to use the COFO Report as the major source of the financial information because it provides more detailed information about MTCU grants and provides historical coverage for all Ontario universities, albeit in hard-copy format prior to 2000.[13] Moreover, as noted previously, the CAUBO Report did not include OCAD (nor UOIT and NOSM) until quite recently. The revenues from the federal ICP and CRC programs are identified and reported separately in the FIUC—CAUBO survey and the COFO Report.

Finally, it is important to note that the COFO Report provides summary information for Ontario universities on a *consolidated basis* — meaning that federated and affiliated institutions are included in the financial information. The FIUC–CAUBO survey collects information from the affiliates and federated institutions and reports them as separate entities. Accordingly, in FIUC–CAUBO, information from the affiliated and federated

[13] The *COFO Report* in Ontario forms the basis of the FIUC/CAUBO submission for Ontario universities. The two reports are, in fact, very similar although there are some differences with respect to the treatment of cost recoveries and sales of services, the treatment of debt borrowings, and lump-sum payments. Those differences are accounted for in the COFO submission to Statistics Canada/CAUBO. However it means that institutional financial information (and all aggregated summaries) published in the *COFO Report* may not be the same as the information in the FIUC/CAUBO report.

> institutions must be combined with the host university to provide a comprehensive financial picture.[14]

Colleges

For colleges, the primary source of financial information is the College Financial Information System (CFIS) maintained by the Ministry of Training, Colleges and Universities (MTCU). To quote from a recent College Annual Financial Plan,

> The revenues for the College are segregated into four segments in the Ministry's reporting requirements. These are Grants and Reimbursements, Student Tuition and Fees, Ancillary Operations and Other. Each of these is subdivided into a number of categories in the report on Budget Revenues. Capital revenues are recognized to match the depreciation of the capital asset to which they are connected.[15]

The Ministry's reporting requirements are reflected in the structure of the CFIS, which is sufficiently detailed to identify tuition revenue by type of program and to differentiate between provincial grants for operating purposes and specific grants for vocational, apprenticeship, and other related programs. CFIS is also used to check the information prepared by the colleges for Statistics Canada's Financial Statistics of Community Colleges and Vocational Schools (FINCOL) survey, and MTCU submits the survey on behalf of Ontario's colleges. While the FINCOL survey is a source of college financial data, the information has limitations that are explored in detail in Appendix A.

For our report, we believed it necessary to focus on a subset of the CFIS financial information designated by the MTCU as postsecondary full-time, post-secondary part-time and tuition short enrolments and programs. Accordingly, we have excluded tuition revenues (and associated enrolments) related to vocational and trades programs and continuing education programs. Moreover because "ineligible" students (e.g., international students) are not reported in the college enrolment system, and therefore not in the denominator, the related fees are excluded from the numerator. Finally, since detailed summaries of the MTCU grants from 2004 onwards were not available, we have taken the MTCU grants information from Colleges Ontario *Environmental Scan, 2008*.[16]

To help put the preceding adjustments in perspective, total college revenue in 2007–08 is estimated at approximately $2.6 billion net of revenues from ancillary operations. MTCU operating grants and regulated tuition associated with full-time, part-time, and tuition short programs, including additional cost-recovery programs, total approximately $1.65 billion. The difference is due to international student tuition ($100 million), other student fees ($115 million), amortization of deferred capital contributions ($90 million), miscellaneous income ($135 million), contracted services ($70 million), tuition from unfunded programs and apprenticeship programs ($65 million), facilities grants, grants for municipal taxation and apprenticeship training

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[14] Note that the "*General Caveat"* in the COFO Report offers a caution in this regard:
"Financial information reported by the affiliated and federated colleges and universities (shown in Volume II) cannot be added to the financial information reported by the universities (shown in Volume I) without certain adjustments. The consolidated summary tables and the total revenue and expense statements for each university and its affiliated colleges shown in the *Compendium of Statistical and Financial Information* reflect those adjustments."

[15] Niagara College, *Annual Business Plan 2009-2010*, April 16, 2009. p.22

[16] A comparison of the Colleges Ontario grant information to the MTCU grant information prior to 2004–05 suggests the Colleges Ontario figures are very similar to the MTCU figures, as reported in the CFIS.

($275 million), transfers from restricted funds ($40 million), and donations and investment income ($35 million).

Grants for Collaborative Nursing are not included in the grant funding. The financial arrangements for Collaborative Nursing are quite complex and result in institutions adopting arrangements that fit their unique circumstance. In all cases, however, the "operating grant is flowed to the college partners, which have the responsibility to allocate the grant between the college and university level partners."[17] The combined revenue (operating grant and tuition) is shared in some negotiated fashion, but it will be recorded as revenue according to CICA conventions. Accordingly, depending on the negotiated agreement, the grant revenue may be recorded in the college, the tuition revenue may be recorded in the university, and the negotiated net may well be recorded as other income in both the college and the university. While such an arrangement meets the requirements of the individual institution, it has the effect of misalignment when considering numerators and denominators.

Table 2 provides a summary of university operating revenues from 1979–80 to 2007-08. The major sources of revenue are displayed by % in **Table 2a**. Over that period, provincial grants declined from 80 per cent of operating revenue to 50 per cent, while tuition increased from 14 per cent to 37 per cent. All other income — miscellaneous fees, investment income, donations, grants from other provincial ministries and agencies and other levels of government, and other income — increased from about 6 per cent to 14 per cent, as noted previously (note that numbers may not add to 100% due to rounding). **Table 2b** focuses solely on operating grants from MTCU and tuition revenue.

[17] Ministry of Training, Colleges and Universities, *Ontario Operating Funds Distribution Manual,* December 2004 p.14

Table 2: Ontario Universities Operating Revenue ($000s)

Fiscal Year	Basic Formula	Extra Formula	Other MCU Grants	Provincial Other	Total Ont. Grants	Federal Grants	Municipal Grants	Other Grants	Tuition Credit	Miscellaneous Fees	Borrowings	Gifts & Donations	Non-Gov't Grants & Contracts	Sales of Service	Investment Income	Miscellaneous Income	Interfund Transfers	Total Operating Revenue
1980	766,597	11,112	10,816	3,548	792,073	115	251	0	142,318	9,275	0	5,275	n/a	15,585	18,117	4,612	6,110	**993,731**
1981	822,316	11,538	10,510	3,737	848,101	142	245	11	167,727	10,521	0	5,338	n/a	0	20,469	6,782	8,743	**1,068,079**
1982	906,366	12,728	10,954	3,673	933,721	197	242	7	201,007	11,516	0	5,490	n/a	0	27,229	6,305	10,482	**1,196,196**
1983	1,018,093	14,234	11,008	11,631	1,054,966	142	232	15	247,808	15,565	0	6,449	n/a	0	23,793	9,261	15,789	**1,374,020**
1984	1,094,742	15,396	22,803	6,747	1,139,688	243	235	14	276,102	17,358	0	6,746	n/a	0	24,580	11,472	4,632	**1,481,070**
1985	1,162,063	20,437	11,433	7,003	1,200,936	360	389	269	293,327	18,153	0	6,716	n/a	0	29,755	14,364	1,349	**1,565,618**
1986	1,217,784	21,597	17,839	10,144	1,267,364	918	291	965	307,678	21,634	0	8,659	n/a	0	28,230	16,020	1,436	**1,653,195**
1987	1,266,588	22,685	64,212	8,669	1,362,154	1,400	216	1,150	320,732	23,650	0	7,416	2,363	0	27,955	16,007		**1,763,043**
1988	1,317,516	58,653	84,343	11,174	1,471,686	1,548	83	1,558	343,728	22,240	0	8,115	2,574	0	28,854	16,830		**1,897,216**
1989	1,425,626	70,542	70,823	11,952	1,578,943	1,422	98	1,020	379,690	25,324	0	8,649	2,831	0	34,481	16,748		**2,049,206**
1990	1,479,875	129,459	78,726	13,075	1,701,135	1,674	79	1,369	421,021	27,639	0	9,336	3,091	0	42,955	23,016		**2,231,315**
1991	1,549,527	178,762	104,884	13,575	1,846,748	2,296	84	1,549	474,561	32,645	0	8,905	3,318	0	44,530	26,984		**2,441,620**
1992	1,668,935	205,274	85,769	18,031	1,978,009	2,113	115	1,095	532,429	39,238	0	9,665	10,635	0	43,464	28,993		**2,645,756**
1993	1,685,472	213,489	119,883	16,826	2,035,670	5,067	62	1,458	596,665	44,626	0	13,173	4,810	0	51,079	30,805		**2,783,415**
1994	1,576,665	210,276	105,066	17,071	1,909,078	4,556	57	658	630,966	64,984	0	11,979	5,740	0	49,213	28,127		**2,705,358**
1995	1,531,332	205,534	114,238	25,369	1,876,473	3,762	12	502	677,179	74,938	0	14,251	7,713	0	46,649	32,668		**2,734,147**
1996	1,496,658	207,075	109,957	57,637	1,871,327	3,555	27	309	744,393	73,072	0	21,599	8,119	0	53,666	33,588		**2,809,655**
1997	1,411,787	137,622	6,332	55,012	1,610,753	2,678	22	102	846,891	82,872	0	30,799	0	0	54,239	43,948		**2,672,304**
1998	1,403,375	140,783	5,567	53,900	1,603,625	2,422	12	236	920,047	90,549	0	33,854	0	0	60,290	43,213		**2,754,248**
1999	1,407,502	172,351	6,109	56,256	1,642,218	2,736	29	230	1,025,491	123,540	0	32,252	0	0	63,994	49,686		**2,940,176**
2000	1,459,157	177,541	6,722	67,081	1,710,501	4,606	45	1,132	1,179,444	148,620	0	45,680	0		82,313	71,446		**3,243,787**
2001	1,463,236	234,805	4,760	95,643	1,798,444	6,207	28	457	1,271,826	149,437	0	45,254	0	0	101,209	83,499		**3,456,361**
2002	1,513,304	235,695	8,514	100,334	1,857,847	7,939	45	510	1,406,606	161,962	0	31,039	0	0	70,904	106,123		**3,642,975**
2003	1,542,246	353,267	13,640	103,446	2,012,599	5,677	45	806	1,593,702	186,467	0	32,404	0	0	18,927	131,997		**3,982,624**
2004	1,666,338	495,875	15,739	105,664	2,283,616	5,740	73	1,387	1,834,014	222,876	0	31,579	0	0	94,706	128,971		**4,602,962**
2005	1,839,371	504,123	18,296	113,015	2,474,805	5,923	317	1,353	1,939,815	256,255	0	65,012	0	0	93,189	150,052		**4,986,721**
2006	2,013,399	625,865	26,962	132,532	2,798,758	11,551	1,032	2,178	2,041,403	281,297	0	58,088	0	0	111,384	138,498		**5,444,189**
2007	2,022,858	984,211	36,785	72,084	3,115,938	13,024	366	1,948	2,169,163	321,677	0	66,745	0	0	181,786	124,551		**5,995,198**
2008	2,083,951	935,037	0	85,619	3,104,607	16,424	473	2,632	2,298,593	345,155	98,100	70,639	0	0	137,864	115,249		**6,189,736**

Table 2a: Ontario Universities Operating Revenue by Source					
Fiscal Year	Provincial Grants	Tuition Credit	Other Fees	All Other	Total
1980	80%	14%	1%	5%	100%
1981	79%	16%	1%	4%	100%
1982	78%	17%	1%	4%	100%
1983	77%	18%	1%	4%	100%
1984	77%	19%	1%	3%	100%
1985	77%	19%	1%	3%	100%
1986	77%	19%	1%	3%	100%
1987	77%	18%	1%	3%	100%
1988	78%	18%	1%	3%	100%
1989	77%	19%	1%	3%	100%
1990	76%	19%	1%	4%	100%
1991	76%	19%	1%	4%	100%
1992	75%	20%	1%	4%	100%
1993	73%	21%	2%	4%	100%
1994	71%	23%	2%	4%	100%
1995	69%	25%	3%	4%	100%
1996	67%	26%	3%	4%	100%
1997	60%	32%	3%	5%	100%
1998	58%	33%	3%	5%	100%
1999	56%	35%	4%	5%	100%
2000	53%	36%	5%	6%	100%
2001	52%	37%	4%	7%	100%
2002	51%	39%	4%	6%	100%
2003	51%	40%	5%	5%	100%
2004	50%	40%	5%	6%	100%
2005	50%	39%	5%	6%	100%
2006	51%	37%	5%	6%	100%
2007	52%	36%	5%	6%	100%
2008	50%	37%	6%	7%	100%

Table 2b: Ontario Universities MCTU Grants and Tuition Operating Revenue ($000s)				
Fiscal Year	MTCU Grants	Tuition Credit	Grants & Tuition	% of Total Operating
1980	788,525	142,318	**930,843**	94%
1981	844,364	167,727	**1,012,091**	95%
1982	930,048	201,007	**1,131,055**	95%
1983	1,043,335	247,808	**1,291,143**	94%
1984	1,132,941	276,102	**1,409,043**	95%
1985	1,193,933	293,327	**1,487,260**	95%
1986	1,257,220	307,678	**1,564,898**	95%
1987	1,353,485	320,732	**1,674,217**	95%
1988	1,460,512	343,728	**1,804,240**	95%
1989	1,566,991	379,690	**1,946,681**	95%
1990	1,688,060	421,021	**2,109,081**	95%
1991	1,833,173	474,561	**2,307,734**	95%
1992	1,959,978	532,429	**2,492,407**	94%
1993	2,018,844	596,665	**2,615,509**	94%
1994	1,892,007	630,966	**2,522,973**	93%
1995	1,851,104	677,179	**2,528,283**	92%
1996	1,813,690	744,393	**2,558,083**	91%
1997	1,555,741	846,891	**2,402,632**	90%
1998	1,549,725	920,047	**2,469,772**	90%
1999	1,585,962	1,025,491	**2,611,453**	89%
2000	1,643,420	1,179,444	**2,822,864**	87%
2001	1,702,801	1,271,826	**2,974,627**	86%
2002	1,757,513	1,406,606	**3,164,119**	87%
2003	1,909,153	1,593,702	**3,502,855**	88%
2004	2,177,952	1,834,014	**4,011,966**	87%
2005	2,361,790	1,939,815	**4,301,605**	86%
2006	2,666,226	2,041,403	**4,707,629**	86%
2007	3,043,854	2,169,163	**5,213,017**	87%
2008	3,018,988	2,298,593	**5,317,581**	86%

Table 3 provides a summary of college revenues from 1991–92 to 2007–08 and related enrolment information. The college revenue has a more limited timeframe due to the availability of the enrolment and financial information in prior years.

Table 3: Ontario Colleges MTCU and Tuition Revenue ($000s)

Fiscal Year	MTCU ($000) Colleges Ontario	Tuition (CFIS)	Less Set-Aside	MTCU Grants and Tuition
1992	826,900	145,535		972,435
1993	868,400	162,513		1,030,913
1994	808,200	177,554		985,754
1995	807,900	197,731		1,005,631
1996	809,200	216,075		1,025,275
1997	688,800	240,000	(2,825)	925,975
1998	686,500	261,151	(9,390)	938,261
1999	698,900	288,964	(17,295)	970,569
2000	709,100	318,900	(27,579)	1,000,421
2001	722,200	335,100	(36,226)	1,021,074
2002	745,800	354,800	(34,506)	1,066,094
2003	767,600	384,700	(40,792)	1,111,508
2004	868,600	413,000	(45,930)	1,235,670
2005	921,600	407,100	(41,587)	1,287,113
2006	1,018,500	415,305	(46,777)	1,387,028
2007	1,105,400	447,504	(42,029)	1,510,875
2008	1,173,500	474,324	(42,678)	1,605,146

Enrolment Information

For purposes of this study, the denominator is enrolment. The term *enrolment* seems, on the surface, to be a relatively simple construct, but there are numerous ways to count students. The terms *headcount, full-time enrolment, part-time enrolment, full-load equivalent, full-time equivalent, eligible enrolment, ineligible enrolment, weighted funding unit (WFU), basic income unit (BIU), tuition short enrolment,* and *fiscal full-time equivalent enrolment* are but part of a higher education lexicon that reflects some of the complexity associated with counting students in a comparable, consistent fashion by term, by session, by year, by program, by course, and by institution. In the first instance, our objective is to establish an appropriate full-time equivalent enrolment count — a count that essentially translates all part-time and full-time enrolments into a single full-time equivalency for each year.

In Ontario, because the government provides a significant portion of operating grants based on enrolment counts, considerable time and effort have been devoted to establishing procedures for collecting information about student enrolment and the information is subject to annual audit. Nevertheless, determining the appropriate count for our report (a count that adequately matches

enrolment activity with the generated revenues[18]) requires that we make some adjustments to published information. The following section provides a brief overview of university and college enrolment counting to help readers better understand why adjustments are required,

Universities

In Ontario's universities, a fiscal full-time equivalent (FFTE) student enrolment is defined in the following manner:

> One FFTE is represented by a student whose study load in the fiscal year is equal to the normal full-time study load for his or her program and level of registration in the academic year.[19]

The FFTE enrolment count methodology applies to all undergraduate programs, covers all terms, and applies to all students enrolled in degree programs and diploma programs — meaning both student enrolments eligible for government grants and student enrolments ineligible for government grants. The enrolment count for graduate students is also term-based. A full-time graduate student is counted as equal to 1.0 per enrolled term; a part-time graduate student is counted as 0.333 per enrolled term. Like the undergraduate enrolment counts, graduate student enrolments include those that are eligible to be counted for government grants as well as those that are ineligible.

Institutions use various methodologies to translate the enrolment counts into measures of enrolled student activity, depending on the use of the information. For example, in response to a question "How many students are enrolled at University X?" the answer could be expressed in a number of ways including headcounts, full-time equivalents for a specific term, full-time equivalents for a full year, and myriad variations. Some institutions may also publish enrolment information regarding non-credit activities, often conducted in the evenings and often focused on professional development or general interest and skills upgrading.

For purposes of this study, the enrolment data for Ontario universities were provided by the COU and MTCU. The information is submitted by individual universities to MTCU, and the Ministry provides the summary information to COU. The enrolment information includes FFTE and basic income unit (BIU) information by institution.

An attempt has been made to include "eligible" and "ineligible"[20] enrolments to capture all enrolment activity associated with degree and diploma programs from 1979–80 onwards. That attempt became somewhat more complex as we examined ineligible enrolments and resulted in

[18] While a major portion of government operating grants can legitimately be referred to as 'enrolment based' the actual formula used to translate enrolment into grants is somewhat more complex. Hence it is important to recognize that the enrolment information is simply a measure of activity in a given year NOT the actual inputs into the grants algorithm.
[19] Ministry of Training, Colleges and Universities, *Op.cit*., p.47
[20] For details, please see "*The Ontario Operating Funds Distribution Manual*", produced by the Ministry of Training, Colleges and Universities. "Ineligible" student enrolments include many international students; students enrolled in professional upgrading courses such as the Additional Qualifications Courses in Education; graduate students who have exceeded the allowed length of time in some programs; students who may not have met Ministry admission requirements; enrolments in some full cost-recovery programs; and enrolments in programs that may not be approved by the Ministry.

the development of a methodology to impute *some* but *not all* of the unreported and missing data. (See Appendix C for a description of the issues and methodology).

Enrolment information is displayed two ways:

- an FTE count (undergraduate FFTEs for all terms, plus graduate fall *and* summer students) including eligible and ineligible enrolments;

- basic income units (BIUs) full-year count (fall, winter, spring, summer) including ineligible and eligible BIUs.

All FTEs are included because the tuition information includes tuition from all students and because, as noted previously, the denominator is intended to reflect all enrolment activity. As well, the government grant information combines funding for graduate and undergraduate students. The BIU information provides a measure (proxy) that ostensibly acknowledges differences in program costs by discipline and level — e.g., sciences or humanities and undergraduate or graduate. The term ostensibly is intentional since the program weights in the universities (BIU weights) were simply meant to be a proxy for program cost that would generate a total sum for any given institution. The total sum was of key importance, but the tweaking of specific program weights was less so. The number of BIUs represents a proxy for enrolment activity that recognizes, to some degree, the differences in program costs — although we acknowledge that the weights are some forty years old. Nevertheless, such a measure can help illustrate the impact of changes in program mix over time.

Colleges

In Ontario's colleges, the compilation of a full-time equivalent (FTE) student enrolment count is based on a set of calculations that involves three distinct components:

- Full-time enrolment, whereby students are considered full-time if they take more than 70 per cent of the required credits or two-thirds of the required courses for their program.

- Calculation of FTE for a part-time student based on program contact hours.

- Calculation of FTE for tuition short programs based on 140 trainee days per FTE.

The sum of the preceding three components becomes the count for FTE students. Because it includes enrolments from all terms, it represents an *annual* FTE student enrolment count.

Colleges, like the universities, have various ways to count students. For purposes of this report, the FTE figures for Ontario colleges are based on the MTCU's current standard methodologies and conform to its published figures for eligible enrolments, that is, the student enrolments that are eligible to generate provincial grants for their respective institutions. For funding purposes, college FTE enrolments are translated into weighted funding units (WFU) to reflect differences in program costs. The current weightings, developed in the late 1980s and implemented in 1991–92, were intended to reflect program metrics at the time (e.g., costs, program length, contact hours, delivery mode).

Limitations

It's important to note the limitations associated with the enrolment information. With respect to universities, the FTE enrolment and BIU information is only for students enrolled in credit courses leading to a degree and/or diploma. Enrolments in non-credit courses (sometimes referred to as continuing education courses) are not included, nor are the associated fees for non-credit courses.

Government controls the *eligibility* of enrolments for funding by defining both program eligibility and student eligibility. With respect to **program eligibility** in the universities, for example, some programs may not be eligible either because the institution has not applied for government funding or because the program has not yet been approved by government. Usually, program approval is in process and the program will ultimately be declared eligible for funding but, in the interim, although students may enrol in such programs, they are counted as ineligible for government funding. Until recently some institutions chose to report only headcount information for ineligible students, which means that the historical MTCU file is missing the FTE and BIU equivalents in those particular cases.

In the case of the Additional Qualifications Courses (AQC) program for elementary and secondary school teachers, the government declared it ineligible for government funding in the mid-1990s. To help offset the revenue loss, the government indicated that institutions could set their own fees for the AQC program. The interesting twist in the AQC situation is that institutions then chose quite different paths for reporting the enrolled students and accounting for the associated course fees.

- Some institutions chose to continue to report AQC enrolments (headcounts, FTEs and BIUs), changed the funding status to ineligible, and continued to record the fees as tuition revenue in the Operating Fund.

- Some chose to continue to report AQC headcount enrolment but stopped providing FTE and BIU in the enrolment information submitted to government. Associated fees were recorded as either tuition credit or non-credit in the operating fund.

- Some chose to stop reporting the enrolments in any government enrolment counts and treated the fees as non-credit tuition in the operating fund (other) or netted the tuition against program costs.

- At least one major institution adopted two of the above approaches in the period since the AQC program was declared ineligible, initially treating enrolments in one fashion and then changing its policies several years later.

The preceding differences in institutional practices account for the discontinuity in the information on revenues from enrolments and fees.

With respect to **student eligibility** in the universities, there are at least three specific kinds of circumstances where a student could be declared ineligible for government funding:

- The student does not meet the minimum admission requirements set by government.
- At the graduate level, the eligibility criteria are associated with the maximum allowable time in a program. Students who exceed the allowable time are declared ineligible for funding purposes.
- The Ontario government declared international students ineligible for funding purposes in 1996.[21]

In the above cases, the student would normally be counted as ineligible for government grant funding and tuition would be recorded in the Operating Fund.

As noted previously, an attempt has been made to include ineligible enrolments (FTEs and BIUs) including an estimate of unreported data. Nevertheless, some enrolments associated with AQCs are simply not available, and we have not attempted to impute the missing data. **Therefore the total FTE and BIU counts are somewhat less than they should be.**

For college enrolments, many of the preceding limitations also apply. Government controls the eligibility of the enrolments and programs for funding purposes. However, MTCU does not collect enrolment information for ineligible students or programs. Thus, our focus, necessarily, is on enrolments in government-funded programs, that is, postsecondary full-time, post-secondary part-time, and tuition short (sometimes referred to as adult education) enrolments.

Table 4 provides a summary of the eligible *and* ineligible enrolments in universities. For purposes of determining funding per student, the denominator *excludes* the estimates of unreported and missing data. Table 4 indicates that FTE enrolment has more than doubled since 1979–80 (109%) while BIU enrolment has increased even more (126%), thus suggesting that the increase in enrolment has been in programs recognized as higher cost.

[21] In fact the provincial government declared all "non-exempt" international students ineligible. Some international students are "exempt" from the policy due to sponsorship agreements with certain agencies/countries.

Table 4: Eligible and Ineligible FTEs and BIUs by Year 1979-80 to 2007-08

	Reported Enrolment				Totals for Analysis			Estimates of Unreported Data			Grand Total Adjusted	
	A	B	C	D	A + C	B + D	BIU/FTE		Ratio			
Year	Inelig FTE	Inelig BIU	FTE	BIU	Total FTE	Total BIU	Ratio	Missing FTEs		Missing BIUs	FTEs	BIUs
1979/80	2,067	6,854	186,778	319,948	**188,845**	**326,802**	1.73	1,025	1.5	1,538	189,870	328,340
1980/81	2,036	7,260	193,229	330,926	**195,265**	**338,187**	1.73	1,060	1.5	1,591	196,326	339,777
1981/82	2,442	7,560	202,671	346,926	**205,113**	**354,486**	1.73	1,114	1.5	1,671	206,227	356,157
1982/83	2,505	7,846	213,907	365,280	**216,413**	**373,127**	1.72	1,175	1.5	1,763	217,588	374,890
1983/84	2,274	7,843	220,821	375,796	**223,095**	**383,638**	1.72	1,211	1.5	1,817	224,307	385,456
1984/85	2,350	8,053	221,914	377,853	**224,265**	**385,906**	1.72	1,218	1.5	1,827	225,483	387,733
1985/86	2,546	8,628	220,201	375,784	**222,747**	**384,413**	1.73	1,210	1.5	1,861	223,956	386,273
1986/87	2,548	9,021	221,020	376,720	**223,568**	**385,741**	1.73	1,048	1.6	1,677	224,617	387,418
1987/88	2,688	9,630	227,241	387,358	**229,929**	**396,989**	1.73	1,078	1.6	1,725	231,007	398,714
1988/89	2,952	10,301	235,903	402,392	**238,854**	**412,692**	1.73	1,120	1.6	1,792	239,974	414,484
1989/90	3,102	10,975	243,734	415,840	**246,836**	**426,815**	1.73	1,157	1.6	1,879	247,994	428,695
1990/91	3,240	11,619	253,384	433,463	**256,625**	**445,082**	1.73	1,641	1.6	2,626	258,266	447,708
1991/92	3,711	12,703	263,467	451,398	**267,178**	**464,102**	1.74	1,836	1.6	2,937	269,014	467,039
1992/93	3,968	13,732	267,031	457,578	**270,999**	**471,310**	1.74	2,015	1.6	3,202	273,015	474,512
1993/94	4,116	14,476	264,017	452,345	**268,134**	**466,821**	1.74	6,839	1.6	10,942	274,972	477,763
1994/95	4,453	15,654	258,278	445,556	**262,730**	**461,211**	1.76	6,701	1.6	10,721	269,431	471,932
1995/96	5,152	17,134	255,667	440,179	**260,818**	**457,313**	1.75	6,652	1.6	10,643	267,470	467,956
1996/97	12,360	34,861	242,131	411,798	**254,490**	**446,659**	1.76	6,491	1.6	10,385	260,981	457,044
1997/98	12,553	35,596	241,916	412,838	**254,468**	**448,434**	1.76	6,490	1.6	10,384	260,958	458,819
1998/99	13,477	37,733	242,889	415,773	**256,367**	**453,506**	1.77	7,871	1.6	12,593	264,237	466,099
1999/00	14,426	39,251	248,688	425,823	**263,114**	**465,074**	1.77	8,078	1.6	12,761	271,192	477,835
2000/01	16,419	43,158	252,727	434,912	**269,145**	**478,070**	1.78	8,726	1.6	13,961	277,871	492,031
2001/02	19,170	48,087	263,492	456,398	**282,662**	**504,485**	1.78	9,164	1.6	14,636	291,826	519,121
2002/03	22,630	56,701	283,512	493,500	**306,142**	**550,201**	1.80	10,546	1.6	16,874	316,688	567,076
2003/04	25,416	63,977	315,258	545,587	**340,674**	**609,564**	1.79	11,736	1.6	19,029	352,410	628,594
2004/05	27,204	68,797	330,374	580,836	**357,578**	**649,632**	1.82	10,164	1.6	16,262	367,742	665,895
2005/06	28,470	73,104	344,521	607,841	**372,992**	**680,945**	1.83	10,602	1.6	17,485	383,594	698,430
2006/07	36,362	89,721	354,349	631,862	**390,710**	**721,583**	1.85				390,710	721,583
2007/08	36,659	92,234	357,936	646,913	**394,595**	**739,147**	1.87				394,595	739,147
					109%	**126%**				**based on actual calculation**		

Figure 1 plots the BIU enrolment data using total BIUs and an adjusted BIU figure that reflects an *estimate* of unreported BIUs. The graph clearly illustrates the significant growth in enrolment since 1979–80. The apparent decline in enrolment in the mid-1990s is mitigated somewhat by the estimates of unreported BIUs. A more detailed analysis of enrolment (COU 2001a, 2001b, 2005) suggests that the apparent enrolment decline was related more to part-time students than full-time students. From 1992 through 1998, undergraduate full-time enrolment experienced a slight decline from approximately 206,500 to a low of 202,100 before beginning a steady climb upwards in 1998. From 1992 through 1998, full-time intake into 1st year undergraduate programs ranged within a tight band of 45,900 to 46,700 students. Graduate full-time enrolment actually increased from 1992 through 1998 and the participation rate of full-time students increased as well.[22] In contrast, *reported* part-time enrolment decreased at both the undergraduate and graduate levels by a combined total of over 35,000 students. Without dwelling on the apparent causes of the significant decrease in part-time students (see COU, 2001), some part of the *reported* decline was related to the change in AQC funding and the decision by some institutions to stop reporting such enrolments.

[22] From 21.2% of the 18- 24-year-old population in 1992–93 to 22.1% in 1998–99. All data from COU, *Facts and Figures* 2000 and 2005.(Tables 1.4.1, 2.1.1, and 3.1.1 (2000) and 1.4 and 3.1.1(2005).

The preceding overview of one particular aspect of university enrolment helps underscore the importance of carefully reviewing the underlying data.

Figure 1: University Enrolment (BIUs)

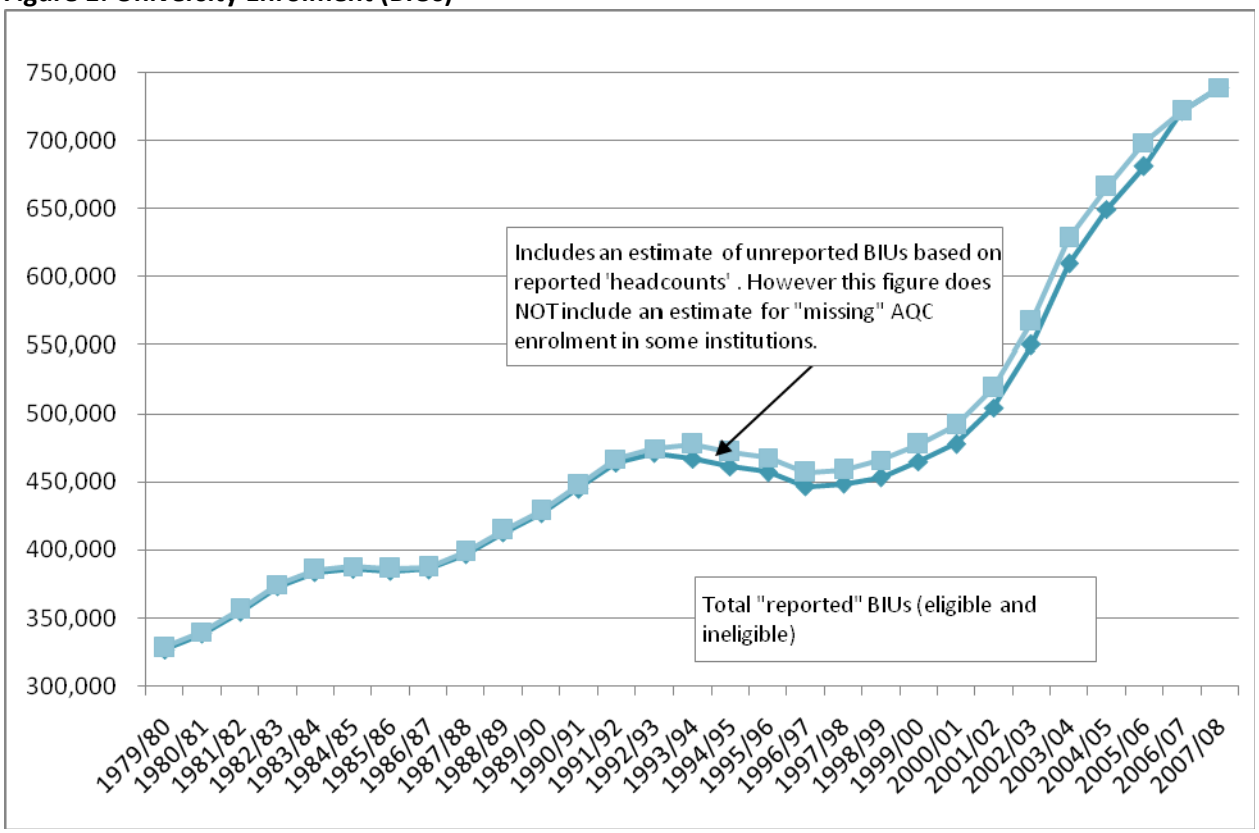


Table 5 provides a summary of eligible enrolments in colleges. Table 5 indicates that, since 1991–92, FTE enrolment has increased by 25 per cent while WFU enrolment increased by 33 per cent, thus suggesting some of the growth in enrolment has been in programs recognized as higher cost. Readers should note that the ratio of WFUs to FTEs increases markedly in the first year of the time series. It is unclear why, although the new weighting system was being introduced in that year.

Table 5: Ontario Colleges Full-time Equivalent and Weighted Funding Unit Enrolment

Fiscal Year	College FTEs	College WFUs	Rato of FTEs to WFUs
1992	149,252.1	168,357.2	1.13
1993	158,330.8	185,008.4	1.17
1994	161,551.5	188,932.3	1.17
1995	163,497.5	191,427.7	1.17
1996	167,977.2	196,708.3	1.17
1997	166,165.4	194,568.7	1.17
1998	168,559.5	197,194.4	1.17
1999	169,367.4	198,382.8	1.17
2000	168,997.1	199,022.7	1.18
2001	166,912.3	198,103.5	1.19
2002	167,678.5	199,366.4	1.19
2003	176,472.7	209,658.2	1.19
2004	181,415.0	215,483.3	1.19
2005	182,404.1	216,980.9	1.19
2006	183,024.0	218,155.6	1.19
2007	182,239.1	218,028.4	1.20
2008	185,929.3	223,606.5	1.20

As noted previously, the college enrolment is limited to only postsecondary programs that are eligible for government funding. Total college enrolment activity is somewhat higher as a result of apprenticeship enrolments, international (ineligible) enrolments, enrolments in Collaborative Nursing programs, enrolments in other collaborative degree programs where the students are actually enrolled in universities, enrolments in stand-alone programs, and enrolments in non-credit courses. Recent work by the College Registrars, MTCU staff, Colleges Ontario, and the Ontario College Application Service indicates that total enrolment activity is in the order of 251,000 FTE, that is, approximately 65,000 FTE more than the postsecondary eligible enrolments included in Table 5. To be clear, however, this study attempts to align the numerator with the denominator and thus focuses on postsecondary eligible enrolments and the associated grant and tuition revenue. There has been no attempt to determine if cross-subsidization is a common feature of the college financial environment — perhaps a topic that deserves further research.

Differences Between College and University Enrolment Counting

The major differences between colleges and universities in terms of enrolment counting are summarized below:

- The concept of a FFTE is unique to the universities.

- The conversion of college full-time enrolments to FTEs is more akin to counting Graduate FTEs in the universities.

- The conversion of college part-time enrolments to FTEs is based on nominal program course hours rather than the FFTE convention in the universities.

- The Ministry does not collect ineligible enrolments in the college sector.

- Some courses and programs that might be considered continuing education in a university setting may constitute some of the grant-eligible part-time offerings in Ontario's college sector.

- College WFUs and university BIUs were developed at different times, with different objectives, and are based on different concepts.

In light of these differences, readers are cautioned against comparing the enrolment information from each sector. The same caution necessarily applies to derived ratios of funding per level of enrolment activity.

Price Changes in Higher Education

To address the requirement in the Assignment Summary for "*inflation-adjusted revenue* per FTE student" (emphasis added), Appendix B has been prepared to shed some light on price changes as well as cost pressures faced by universities and colleges. Appendix B provides a review of the composition of higher education expenditures, details the factors that influence cost pressures, and discusses existing price indexes that are used in higher education settings. The expenditure information is from the university sector only, but the basic composition of expenditures, with the majority of expenditures in salaries and benefits, holds true for the colleges.

The specific suggestion emerging from Appendix B is to adjust for inflation in the revenue per student and per BIU/WFU in two ways:

i) based on the Ontario CPI; and

ii) based on a methodology used by the Association of Universities and Colleges of Canada (AUCC) and described in Appendix E from AUCC's *Trends in Higher Education, Volume 3. Finance*.

Appendix B includes a table that displays the details of the Ontario-based HEPI calculation. The inclusion of HEPI-based methodology recognizes that compensation represents a large percentage of university and college costs and that changes in faculty compensation, in particular, may differ from changes in the Ontario CPI and/or more general measures of labour costs.[23]

[23] Morissette, René. 2008. "Earnings in the last decade." Perspectives on Labour and Income. Vol. 9, no. 2. February. Statistics Canada Catalogue no. 75-001-XIE.

Establishment of Appropriate Data Sets for the Analysis

University Financial Information and Enrolments

For purposes of this study, we compiled and examined financial and enrolment information from 1979–80 to 2007–08. As noted previously, the financial information has two components: tuition in degree and diploma credit programs; and MTCU operating grants. Tuition policy has changed considerably over the period and has had a significant impact on revenues. We explore the implications in more detail in the next section, where the emphasis is on factors affecting the interpretation of the revenue information.

The latter category of revenue, operating grants from MTCU, has its own set of complexities. It could be argued that the MTCU grant revenue should be restricted to the basic formula grant. All other MTCU grants are targeted or earmarked and, by definition, are provided for specific incremental costs. Moreover, such grants are distributed differentially across the system. For the purpose of this study, however, the MTCU grants are aggregated, in keeping with the objective of producing a measure of "average" revenue per FTE. However, we caution readers to recognize that the "average" is exactly that; there are differences among the institutions — an area that deserves further research.

Over the past decade or so, successive governments have introduced a significant number of new earmarked or targeted funding envelopes, some of which involve one-time only (OTO) funding. During a period when there has been significant investment in higher education and a tremendous increase in enrolment, roughly one-half of the investment has been in targeted or earmarked funding. Again, the next section of the report addresses the implications. For purposes of this exercise, the OTO year-end allocation in 2006–07 has been removed from the MTCU grant figures (an estimated $200 million). No attempt has been made to extract other OTO grants, such as ATOP start-up funds or Medicine start-up funds.

In the case of university enrolments, information from MTCU has been used to construct the time series of eligible and ineligible FTE and BIU enrolments.

Attention should be paid to the fact that the information from universities is presented according to the following scenarios:

- Revenue is **MTCU grants and tuition only**, less
    - set-aside provisions,
    - an estimate of one-time only revenue for 2006–07,
    - grants and tuition associated with the University of Ontario Institute of Technology (UOIT) and the Northern Ontario School of Medicine (NOSM). UOIT and NOSM are removed from the numerator (and denominator) because both institutions are in the midst of start-up and have been the recipient of significant start-up grants from MTCU.

- Enrolment is *reported* ineligible and eligible combined (FTE and BIU), excluding UOIT and NOSM.

Table 6 provides the detailed revenue and enrolment information while Table 6a provides the Revenue per BIU and per FTE figures.

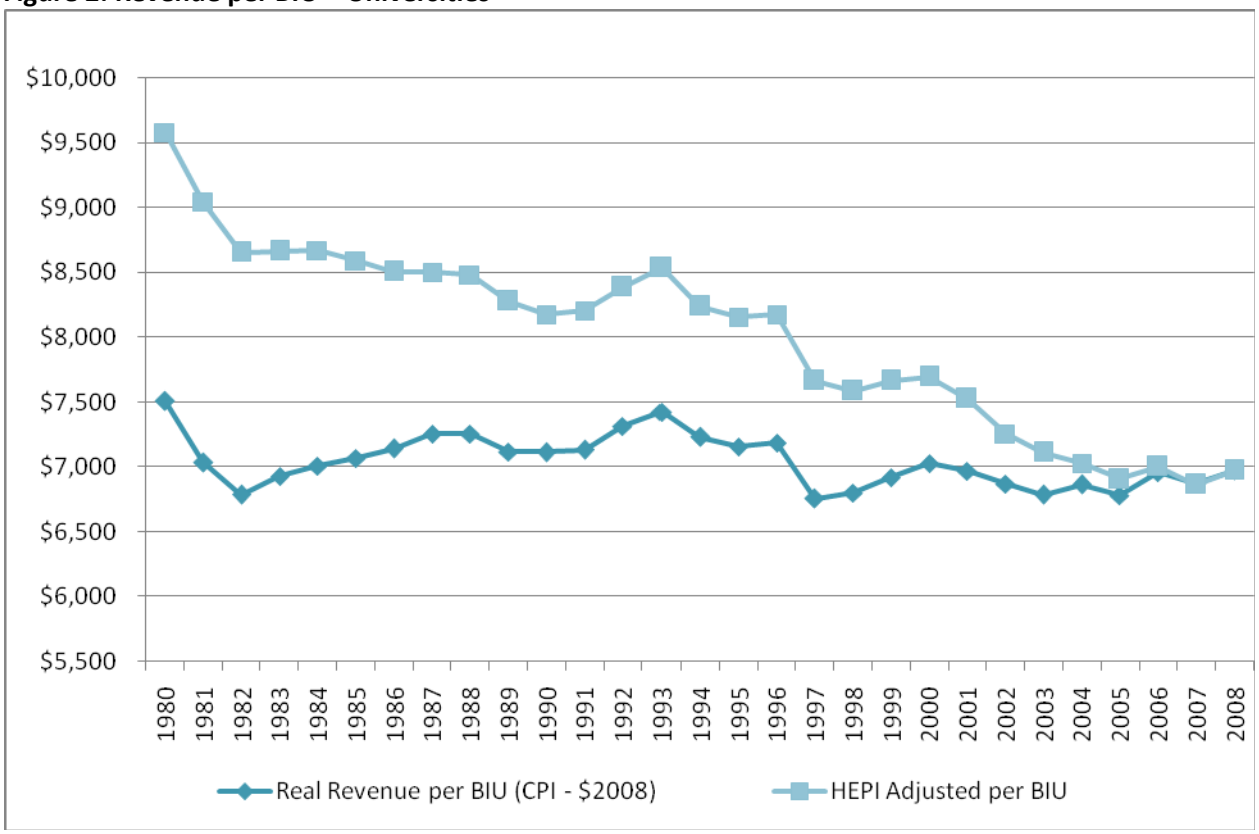
Table 6: **Ontario Universities MCTU Grants and Tuition Operating Revenue ($000s), Adjustments, and Enrolment**

				Dataset Adjustments								
Fiscal Year	**MTCU Operating Grants***	**Tuition Credit**	**Total MTCU Grants and Tuition**	**Set-Aside**	**UOIT Grants**	**UOIT Tuition**	**NOSM Grants**	**NOSM Tuition**	**One-time Only Grant 2006/07**	**Total Grant + Fees after Adjustments**	FTEs eligible and ineligible	BIUs
1980	788,525	142,318	**930,843**							**930,843**	188,845	326,802
1981	844,364	167,727	**1,012,091**							**1,012,091**	195,265	338,187
1982	930,048	201,007	**1,131,055**							**1,131,055**	205,113	354,486
1983	1,043,335	247,808	**1,291,143**							**1,291,143**	216413	373,127
1984	1,132,941	276,102	**1,409,043**							**1,409,043**	223,095	383,638
1985	1,193,933	293,327	**1,487,260**							**1,487,260**	224,265	385,906
1986	1,257,220	307,678	**1,564,898**							**1,564,898**	222,747	384,413
1987	1,353,485	320,732	**1,674,217**							**1,674,217**	223,568	385,741
1988	1,460,512	343,728	**1,804,240**							**1,804,240**	229,929	396,989
1989	1,566,991	379,690	**1,946,681**							**1,946,681**	238,854	412,692
1990	1,688,060	421,021	**2,109,081**							**2,109,081**	246,836	426,815
1991	1,833,173	474,561	**2,307,734**							**2,307,734**	256,625	445,082
1992	1,959,978	532,429	**2,492,407**							**2,492,407**	267,178	464,102
1993	2,018,844	596,665	**2,615,509**							**2,615,509**	270,999	471,310
1994	1,892,007	630,966	**2,522,973**							**2,522,973**	268,134	466,821
1995	1,851,104	677,179	**2,528,283**							**2,528,283**	262,730	461,211
1996	1,813,690	744,393	**2,558,083**							**2,558,083**	260,818	457,313
1997	1,555,741	846,891	**2,402,632**	(11,800)						**2,390,832**	254,490	446,659
1998	1,549,725	920,047	**2,469,772**	(31,200)						**2,438,572**	254,468	448,434
1999	1,585,962	1,025,491	**2,611,453**	(53,303)						**2,558,150**	256,367	453,506
2000	1,643,420	1,179,444	**2,822,864**	(80,462)						**2,742,402**	263,114	465,074
2001	1,702,801	1,271,826	**2,974,627**	(92,888)						**2,881,739**	269,145	478,070
2002	1,757,513	1,406,606	**3,164,119**	(106,188)						**3,057,931**	282,662	504,485
2003	1,909,153	1,593,702	**3,502,855**	(119,613)						**3,383,242**	306,142	550,201
2004	2,177,952	1,834,014	**4,011,966**	(136,625)	(18,498)	(3,924)				**3,852,919**	339,787	608,137
2005	2,361,790	1,939,815	**4,301,605**	(136,599)	(19,366)	(7,150)				**4,138,490**	355,830	646,758
2006	2,666,226	2,041,403	**4,707,629**	(136,722)	(23,695)	(12,564)	(17,803)	(818)		**4,516,027**	370,056	675,960
2007	3,043,854	2,169,163	**5,213,017**	(140,712)	(35,916)	(18,082)	(19,724)	(1,756)	(200,000)	**4,796,827**	386,542	714,193
2008	3,018,988	2,298,593	**5,317,581**	(141,806)	(45,466)	(23,424)	(11,639)	(2,653)		**5,092,593**	389,914	730,534

Table 6a: Adjusted MCTU Grants and Tuition Operating Revenue Per FTE and Per BIU								
Calendar Year	Grant and Tuition Revenue		Ontario CPI 2008=100	Real Revenue (2008)		Ontario Based HEPI 2008=100	HEPI Adjusted Revenue	
	Per FTE	Per BIU		Per FTE	Per BIU		Per FTE	Per BIU
1980	$4,929	$2,848	38.0	$12,988	$7,505	29.7	$16,574	$9,578
1981	$5,183	$2,993	42.5	$12,184	$7,035	33.1	$15,660	$9,042
1982	$5,514	$3,191	47.0	$11,722	$6,782	36.9	$14,953	$8,652
1983	$ 5,966	$3,460	50.0	$11,943	$6,927	40.0	$14,933	$8,661
1984	$ 6,316	$3,673	52.4	$12,047	$7,006	42.4	$14,905	$8,668
1985	$6,632	$3,854	54.5	$12,158	$7,066	44.9	$14,777	$8,587
1986	$7,025	$4,071	57.0	$12,322	$7,140	47.9	$14,678	$8,505
1987	$7,489	$4,340	59.8	$12,514	$7,253	51.1	$14,663	$8,499
1988	$7,847	$4,545	62.7	$12,522	$7,252	53.6	$14,639	$8,479
1989	$ 8,150	$4,717	66.3	$12,296	$7,116	57.0	$14,297	$8,275
1990	$8,544	$4,941	69.5	$12,301	$7,114	60.4	$14,135	$8,175
1991	$8,993	$5,185	72.7	$12,365	$7,129	63.2	$14,229	$8,204
1992	$9,329	$5,370	73.4	$12,704	$7,313	64.0	$14,570	$8,388
1993	$9,651	$5,549	74.8	$12,910	$7,423	65.0	$14,844	$8,535
1994	$9,409	$5,405	74.8	$12,587	$7,230	65.6	$14,340	$8,237
1995	$9,623	$5,482	76.6	$12,561	$7,155	67.2	$14,314	$8,154
1996	$9,808	$5,594	77.8	$12,599	$7,186	68.4	$14,333	$8,174
1997	$9,395	$5,353	79.3	$11,853	$6,753	69.8	$13,450	$7,663
1998	$9,583	$5,438	80.0	$11,984	$6,800	71.7	$13,370	$7,587
1999	$9,978	$5,641	81.6	$12,236	$6,917	73.6	$13,559	$7,665
2000	$10,423	$5,897	83.9	$12,418	$7,025	76.6	$13,602	$7,695
2001	$10,707	$6,028	86.5	$12,379	$6,969	80.1	$13,371	$7,528
2002	$10,818	$6,061	88.3	$12,257	$6,868	83.6	$12,945	$7,253
2003	$11,051	$6,149	90.6	$12,192	$6,784	86.4	$12,784	$7,113
2004	$11,339	$6,336	92.3	$12,282	$6,863	90.2	$12,578	$7,028
2005	$11,631	$6,399	94.4	$12,327	$6,782	92.7	$12,553	$6,906
2006	$12,204	$6,681	96.0	$12,708	$6,957	95.4	$12,791	$7,003
2007	$12,410	$6,716	97.8	$12,690	$6,868	97.9	$12,678	$6,862
2008	$13,061	$6,971	100.0	$13,061	$6,971	100.0	$13,061	$6,971

Figure 2 plots the revenue per BIU adjusted for the inflation-related measures. Figure 2 suggests that, in real terms ($2008), funding per BIU has decreased markedly when employing the Ontario-based HEPI methodology but appears to have levelled off since the inception of *Reaching Higher*. Using Ontario CPI as the deflator, the information in Figure 2 indicates a sharp decline in the early 1980s, followed by several years of increases, a dip and levelling-off for a few years, and then increases that topped out in 1992–93. Decreased funding after that can be traced to the grant reductions initiated by the NDP government (1991-1995) and the 1996 cutback of the Conservatives' "Common Sense Revolution." Tuition and grant increases since then have, more or less, resulted in a levelling off of funding. The latter observation is consistent with COU analyses.[24]

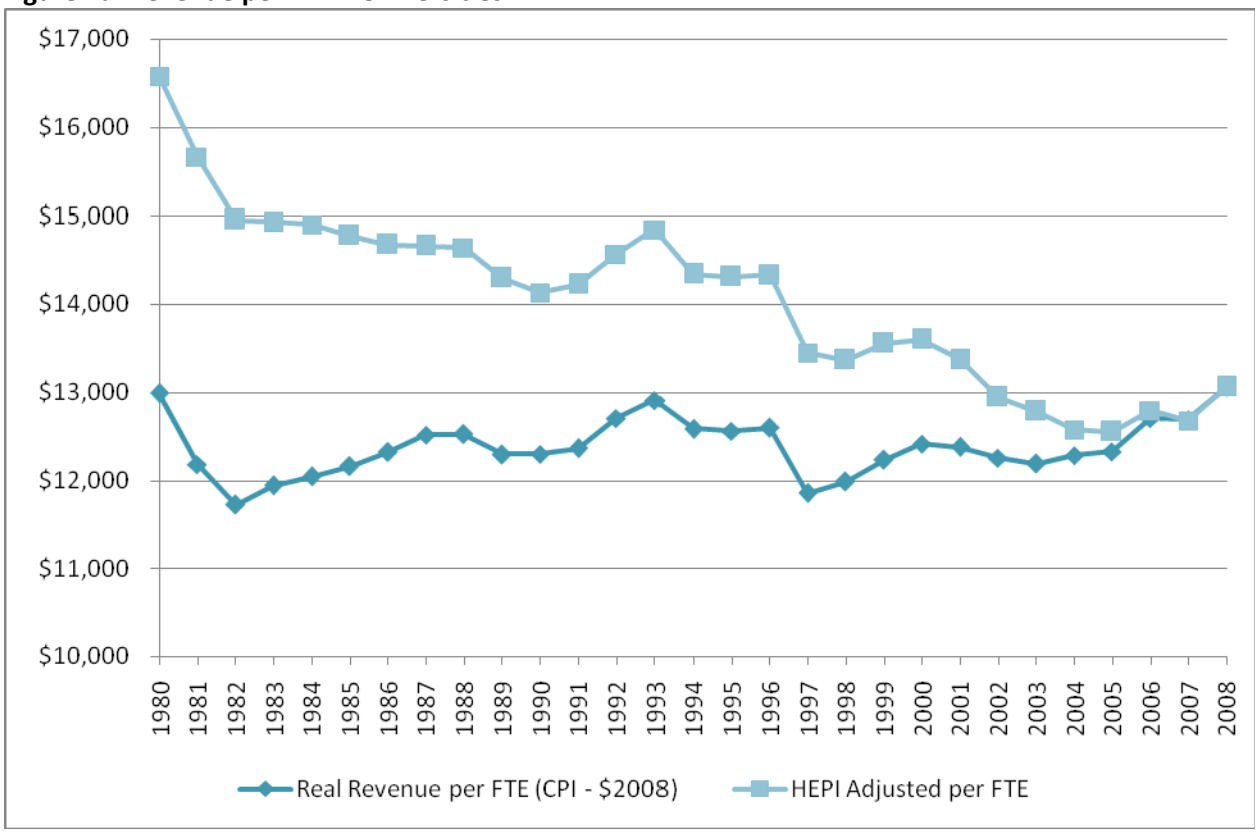
Figure 2: Revenue per BIU – Universities



[24] Council of Ontario Universities, *Ontario Universities - 2007 Resource Document*, Table 1.2, March 2007. Fact Sheet, "Financial Implications of the Reaching Higher Plan", March 2006

Figure 2a provides a similar analysis based on FTEs.

Figure 2a: Revenue per FTE – Universities



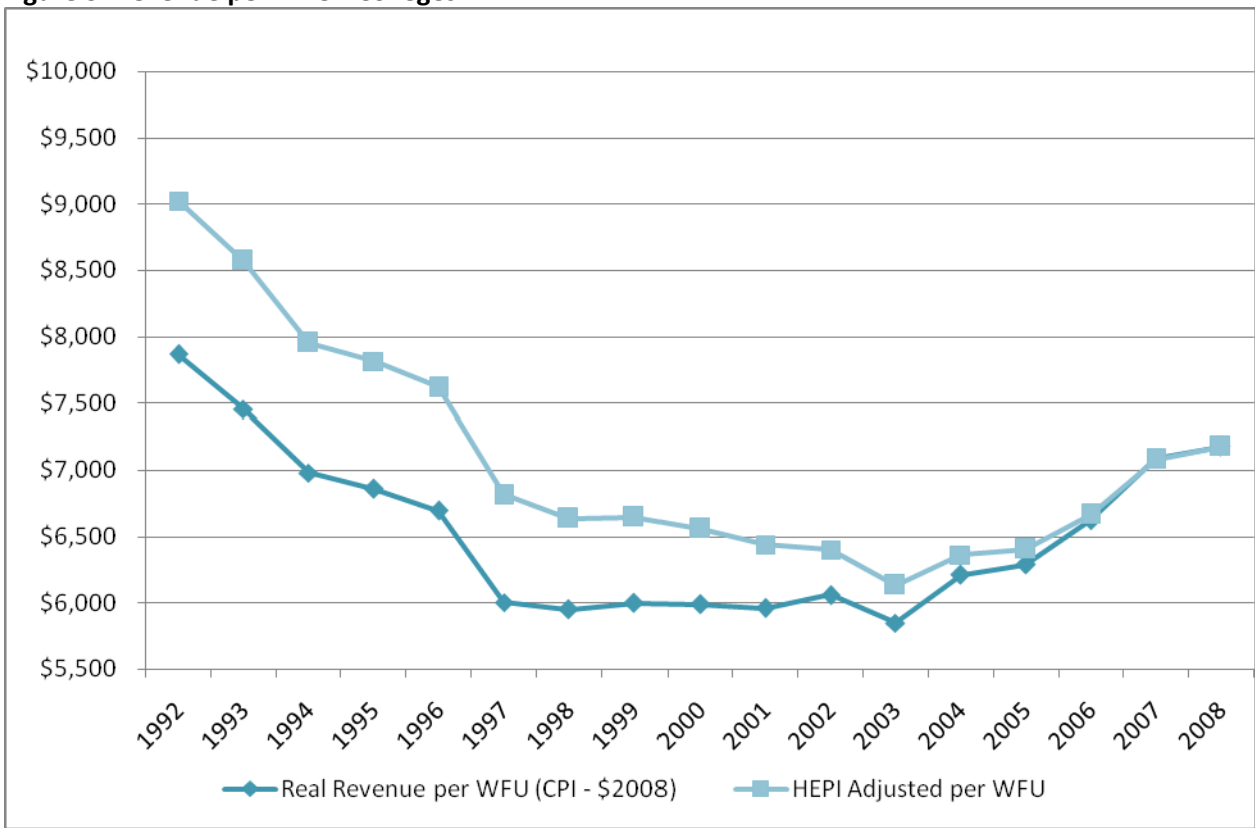
College Financial Information and Enrolments

College financial and enrolment information was reviewed back to 1991–92. Prior to that year, major changes in financial reporting and enrolment reporting apparently affect the comparability and availability of the information. The basic set of information includes provincial operating grants and tuition associated with eligible FTE and WFU enrolments in postsecondary programs. The results are displayed in Table 7. Figure 3 plots the revenue per WFU adjusted for the two inflation-related measures noted previously.

Table 7: MCTU Grants and Tuition Revenue Per FTE and Per WFU

Fiscal Year	Grant and Tuition Revenue Per FTE	Grant and Tuition Revenue Per WFU	Ontario CPI 2008=100	Real Revenue ($2008) Per FTE	Real Revenue ($2008) Per WFU	Ontario Based HEPI 2008=100	HEPI Adjusted Revenue Per FTE	HEPI Adjusted Revenue Per WFU
1992	6,515	5,776	73.4	8,873	7,866	64.0	10,176	9,021
1993	6,511	5,572	74.8	8,710	7,454	65.0	10,014	8,570
1994	6,102	5,217	74.8	8,162	6,979	65.6	9,299	7,952
1995	6,151	5,253	76.6	8,029	6,857	67.2	9,149	7,814
1996	6,104	5,212	77.8	7,841	6,695	68.4	8,920	7,617
1997	5,573	4,759	79.3	7,031	6,005	69.8	7,978	6,813
1998	5,566	4,758	80.0	6,961	5,950	71.7	7,766	6,638
1999	5,731	4,892	81.6	7,027	5,999	73.6	7,787	6,648
2000	5,920	5,027	83.9	7,053	5,989	76.6	7,726	6,560
2001	6,117	5,154	86.5	7,072	5,959	80.1	7,640	6,437
2002	6,358	5,347	88.3	7,204	6,059	83.6	7,608	6,399
2003	6,298	5,302	90.6	6,949	5,849	86.4	7,286	6,133
2004	6,811	5,734	92.3	7,378	6,211	90.2	7,555	6,361
2005	7,056	5,932	94.4	7,479	6,287	92.7	7,616	6,402
2006	7,578	6,358	96.0	7,892	6,621	95.4	7,943	6,664
2007	8,291	6,930	97.8	8,478	7,086	97.9	8,470	7,080
2008	8,633	7,178	100.0	8,633	7,178	100.0	8,633	7,178

Figure 3: Revenue per WFU - Colleges



The revenue per WFU suggests a major decline in funding per WFU through to 1997, a levelling off from that point until 2004, and increased funding since then carrying through *Reaching*

Higher to 2007–08.[25] The latter observation is consistent with the analyses of Colleges Ontario in its *2008 Environmental Scan*.

[25] As noted previously, the ratio of WFUs to FTEs increased markedly in the second year of the time series. That has the effect of accentuating the decline in funding per WFU.

Part Three

Adding Context to the Funding-Per-Student Information

The preceding financial and enrolment information and resulting calculation of 'funding per student' tell a story but mask the myriad changes that marked the past quarter-century. While inflation adjustments (either CPI or the Ontario based HEPI) help to put current revenues in perspective with respect to price changes, the fact is there are numerous other "changes" that need to be considered when interpreting the 'revenue per student' figures and assessing the impact on Ontario's colleges and universities. The following section focuses on some of those major changes but the intent is to provide an overview of major changes rather than an in-depth examination of all the factors that influenced PSE development over the period in question.

For purposes of this study the definition of major changes, first and foremost, is linked to finances. Accordingly the following list of major changes is oriented toward those that, ultimately, had major financial impact:

- Shifts in the proportion of funding by major source
- Changes in tuition levels and regulation
- Changes in student assistance
- Changes in provincial funding allocation mechanisms
- Changes in capital financing
- Federal investment in research and student support
- The rise of public accountability
- Increased emphasis on external relations and fund raising
- Increased emphasis on student diversity and initiatives for increasing access

Combined, the preceding changes significantly altered the postsecondary landscape in Ontario and introduced a host of new or expanded claims on university and college revenues. The following section focuses on universities, but many of the changes are applicable to the colleges.

PSE Funding: Shifts in Income — Universities

The shift in **sources** of funding has been documented elsewhere but it is important to note the implications of the shifts as well. The following table has been constructed from the FIUC/CAUBO information[26] and is intended solely to illustrate the major shifts in funding that

[26] FIUC/CAUBO was used because of its historical availability in electronic format.

have occurred since 1979–80. The focus of the analysis is on three funds — Operating Fund, Trust Fund, and Sponsored Research Fund — which account for approximately 85 per cent of all university revenues. The other three funds are the Ancillary Fund, the Capital Fund, and the non-expendable Endowment Fund, the latter added to the FIUC as part of the major change in reporting in 1999–2000.[27] Although the focus of the following analysis is on the Operating, Trust, and Sponsored Research Funds, information about the Ancillary Fund and Capital Fund is provided for reference.

Tuition fees and other fees have more than doubled from about 15 per cent of **operating** income to over 40 per cent in 2006–07. Provincial grants and contracts have decreased from almost 80 per cent of **operating** income to slightly over 50 per cent. Other Types of **operating** income have shown a major increase from 5.4 per cent in 1979–80 to 9.3 per cent in 2006–07 (note that the 9.3% excludes the miscellaneous fees included in the "Tuition and other fees" line). These trends have been reflected previously in Table 2, although the categorization was slightly different and the source was the COFO Report rather than FIUC/CAUBO. Despite the increase in the latter sources, however, it is clear that fees and provincial grants are, by far, the primary sources of income in the Operating Fund.

By Fund, the Operating Fund decreased from 82 per cent to 75 per cent[28] while the Research Fund increased from 14 per cent of total income to 19 per cent, with the Trust Fund essentially maintaining its share of overall income.

[27] Those three FUNDS are given limited attention solely to focus on the other three FUNDS that reflect the core activities (teaching, research, service) on an on-going basis. The Ancillary Fund reflects the revenue and expenses of all ancillary operations – e.g. food services, residences, book store, conference services – that are generally operated with the goal of full cost-recovery. The Capital Fund is heavily dependent on government grants that are restricted and not available to support the on-going costs of teaching, research and service. The Endowment Fund by definition is a restricted fund where the endowment principal is invested and the associated investment income is used to support expenditures such as scholarships and bursaries, endowed chairs and, depending on the terms of the endowment, other expenditures. It is important to note that since the mid-1990s the provincial government has provided some specific funding, on a matching basis usually, for endowments to increase student assistance – scholarships, bursaries.

[28] In fact the reduction is actually greater but has been masked by changes in the operating fund definition.

Table 8: Ontario - Revenue by Type and Fund FY1980, 1990, 2000 and FY2007 ($000s)												
	Revenue By Major Source				% Distribution By Major Source							
	A General Operating	B Trust	C Sponsored Research	D Total (A+B+C)	General Operating		Trust	Sponsored Research	Total	**Ancillaries**	**Capital**	**Grand Total All Revenue**
1979/80												
Tuition & Fees	$ 160,189	$ -	$ -	$ 160,189	15.9%		0.0%	0.0%	13.0%		$ -	
Provincial Grants & Contracts	$ 793,847	$ 3,138	$ 28,970	$ 825,955	78.7%		6.1%	17.0%	67.1%	$ 71	$ 15,715	
Federal Grants & Contracts	$ 18,564	$ 2,723	$ 92,269	$ 113,556	1.8%		5.3%	54.3%	9.2%		$ 45	
Donations and Non-Gov't Grants	$ 5,983	$ 24,735	$ 42,903	$ 73,621	0.6%		48.0%	25.2%	6.0%	$ 14	$ 2,479	
Investment Income	$ 16,569	$ 18,675	$ 1,243	$ 36,487	1.6%	**5.4%**	36.2%	0.7%	3.0%	$ 436	$ 3,251	
Other Income	$ 13,664	$ 2,251	$ 4,691	$ 20,606	1.4%		4.4%	2.8%	1.7%	$ 125,467	$ 5,964	
Total	$ 1,008,816	$ 51,522	$ 170,076	$ 1,230,414	100.0%		100.0%	100.0%	100.0%	$ 125,988	$ 27,454	$ 1,383,856
% by Fund	**82%**	**4%**	**14%**	100%								
1989/90												
Tuition & Fees	$ 489,222	$ -	$ -	$ 489,222	20.8%		0.0%	0.0%	16.1%	$ -	$ -	
Provincial Grants & Contracts	$ 1,727,887	$ 12,166	$ 100,196	$ 1,840,249	73.5%		6.3%	20.7%	60.7%	$ 3,458	$ 77,964	
Federal Grants & Contracts	$ 50,140	$ 11,244	$ 255,753	$ 317,137	2.1%		5.8%	52.8%	10.5%	$ 139	$ 601	
Donations and Non-Gov't Grants	$ 15,667	$ 103,271	$ 108,679	$ 227,617	0.7%		53.5%	22.4%	7.5%	$ 970	$ 17,504	
Investment Income	$ 43,478	$ 57,256	$ 8,078	$ 108,812	1.8%		29.7%	1.7%	3.6%	$ 1,983	$ 16,698	
Other Income	$ 25,305	$ 9,121	$ 11,945	$ 46,371	1.1%		4.7%	2.5%	1.5%	$ 357,363	$ 15,621	
Total	$ 2,351,699	$ 193,058	$ 484,651	$ 3,029,408	100.0%		100.0%	100.0%	100.0%	$ 363,913	$ 128,388	$ 3,521,709
% by Fund	**78%**	**6%**	**16%**	100%								
1999/00												
Tuition & Fees	$ 1,402,196	$ -	$ -	$ 1,402,196	41.1%		0.0%	0.0%	31.1%	$ -	$ -	
Provincial Grants & Contracts	$ 1,711,328	$ 24,984	$ 163,280	$ 1,899,592	50.1%		8.8%	20.1%	42.1%	$ 3,490	$ 443,200	
Federal Grants & Contracts	$ 24,735	$ 13,822	$ 390,266	$ 428,823	0.7%		4.9%	48.1%	9.5%	$ 83	$ 7,489	
Donations and Non-Gov't Grants	$ 59,064	$ 133,734	$ 229,430	$ 422,228	1.7%		47.0%	28.3%	9.4%	$ 1,766	$ 53,121	
Investment Income	$ 82,591	$ 97,147	$ 6,642	$ 186,380	2.4%		34.2%	0.8%	4.1%	$ 2,796	$ 10,400	
Other Income	$ 134,971	$14,749	$ 21,277	$ 170,997	4.0%		5.2%	2.6%	3.8%	$ 545,204	$ 6,735	
Total	$ 3,414,885	$ 284,436	$ 810,895	$ 4,510,216	100.0%		100.0%	100.0%	100.0%	$ 553,339	$ 520,945	$ 5,584,500
% by Fund	**76%**	**6%**	**18%**	100%								
2006/07												
Tuition & Fees	$ 2,631,039	$ -	$ -	$ 2,631,039	40.9%		0.0%	0.0%	30.8%	$ -	$ -	
Provincial Grants & Contracts	$ 3,206,999	$ 58,493	$ 355,937	$ 3,621,429	49.8%		12.6%	21.7%	42.4%	$ -	$ 69,253	
Federal Grants & Contracts	$ 13,620	$ 3,053	$ 874,906	$ 891,579	0.2%		0.7%	53.3%	10.4%		$ -	
Donations and Non-Gov't Grants	$ 88,028	$ 156,234	$ 323,041	$ 567,303	1.4%		33.6%	19.7%	6.6%	$ 2,905	$ 88,121	
Investment Income	$ 182,142	$ 193,556	$ 12,803	$ 388,501	2.8%	**9.3%**	41.7%	0.8%	4.5%	$154	$ 12,076	
Other Income	$ 318,022	$ 53,380	$ 73,537	$ 444,939	4.9%		11.5%	4.5%	5.2%	$ 815,054	$ 36,153	
Total	$ 6,439,850	$ 464,716	$ 1,640,224	$ 8,544,790	100.0%		100.0%	100.0%	100.0%	$ 818,113	$ 205,603	$ 9,568,506
% by Fund	**75%**	**5%**	**19%**	100%								

Source: Financial Information of Universities and Colleges, selected years, Table 2.1.A (Research Fund refers to consolidated entities only). In addition to the income shown in Table 1, Universities also receive donations (and matching grants in some cases) for endowments. Effective 1999/00 a separate Endowment Fund was added to the FIUC/CAUBO. In 2007-08 in Ontario, universities received over $240 million in new donations including ~50 million from the provincial government.

The preceding table essentially highlights five key factors:

- Tuition and fee income has increased markedly in absolute and in relative terms.
- Provincial operating grants have *increased* markedly in absolute terms but *decreased* in relative terms.
- Federal support for research has increased markedly in absolute terms.
- Provincial support for research has increased markedly in absolute terms.
- Other income has increased in absolute terms and in relative terms.

The funding shifts bear examination because, in every case, there are implications associated with the revenue shifts. Keep in mind, as noted earlier, that some of the shifts are also related to changes in accounting and changes in reporting.

Changes in Tuition Levels[29] and Regulation

Ontario Tuition Policy — Background

A brief review of tuition levels and regulation is necessary to help place the discussion of tuition revenue in context. Tuition revenue has been directly linked to provincial operating grants since the late 1960s when the province introduced a university funding formula that included tuition and grants in its composition. The introduction of the funding formula signalled government's direct role in the establishment of tuition levels and related regulations in the university sector.[30] At the time, the main focus on the establishment of tuition levels was to ensure that total resources (operating grants and fees) were similar to the pre-formula period. For purposes of the formula, tuition was declared to be the median of institutional program fees; within a short period of time, the median became the standard fee or "formula fee" across the province.

A review of tuition in the late 1970s led to two key developments in 1980:

1. allowing institutions to set tuition fees at 110 per cent of the formula fee;
2. indexing of tuition to increases in operating grants.

The 1980 tuition framework remained relatively static through to the early 1990s. At that time, changes were sparked by the financial circumstances of the times (major recession, government deficits, transfer payment reductions) and led, initially, to successive years of 10% increases as part of a suite of NDP measures to help address cutbacks in provincial operating grants. In late 1995, the newly elected *Common Sense Revolution* government announced a 15 per cent reduction in postsecondary operating grants ($400 million) for the following fiscal year. To blunt the impact somewhat, tuition was allowed to increase within a framework that set

[29] The emphasis here is degree/diploma credit tuition.
[30] Readers interested in a more fulsome history of tuition fees in Ontario are encouraged to see D. Stager, *Focus on Fees*, Council of Ontario Universities, 1989.

an overall increase cap of approximately 20 per cent, with somewhat higher program caps.[31] Over the next few years, tuition was allowed to increase further, in line with the advice from the Advisory Panel on Future Directions for Postsecondary Education. In 1998–99, the government introduced the concept of "additional cost-recovery" for select programs,[32] paving the way for even greater tuition differentiation by program and, to some extent, by institution.

Access concerns arising from the impending "double cohort" and major increases in tuition that had occurred over the previous several years translated into a change in the tuition regime in 2000–01. That year, the province established a multi-year tuition framework that limited total institutional increases to 2 per year and individual program increases to a maximum of 20 per cent for regulated programs. Additional cost-recovery programs were exempt. In effect, the legislated tuition framework limited future tuition increases to a maximum of 10 per cent over five years for the vast majority of prospective students and in-program students.

The tuition policy changed again when the current government froze tuition for all programs for two years (at 2003–04 levels) and then introduced the current *Reaching Higher* framework[33] for a four-year period beginning 2006–07.

The preceding brief chronology of university tuition regulation in Ontario has a number of implications for the sector.

First, the relatively simple concept of a student paying a greater share of total costs, as argued in the *Common Sense Revolution*, and an emphasis on greater institutional flexibility, as proposed by the Advisory Panel on Future Directions for Postsecondary Education, was translated into a complex regulatory regime requiring new levels of analytical acumen, administrative effort, and governance. Internal resource allocation processes and budget models were changed to reflect the new reality requiring more administrative effort and new governance processes.

Second, the differential rates of increase in tuition and the existence of additional cost-recovery programs effectively decoupled fees from the grants formula. Previously, the funding formula, through the concept of basic operating income, tied the institution's grant and tuition income together. The way the tuition increases were implemented beginning in 1996–97, that is, with a distinction between the increase in the formula fee versus an increase in the discretionary fee or with no link to the formula fee, drove a wedge between grant income and tuition income, resulting in two interesting consequences:

1. differential rates of growth in tuition revenue generated by some schools/programs

[31] The tuition policy had two components: an increase in the formula fee (10%) plus a 10% increase in the discretionary portion subject to a 'cap' of 20% on a specific program. At the same time, tuition for international students was de-regulated and non-exempt international students were no longer eligible to be counted for provincial operating grants.

[32] All graduate programs, some second-entry professional programs (e.g., law, medicine, optometry, pharmacy) and undergraduate engineering and computer science.

[33] *Reaching Higher* involved a maximum overall increase of 5% per annum with direct entry programs limited to first year increases of 4.5%, and professional programs limited to a first year increase of 8%. Tuition increases for in-program students were limited to 4% per year.

2. differential growth in tuition revenue for some institutions relative to others.

Third, the Reaching Higher framework resulted in the interesting situation of government-imposed differences in tuition by institution in the additional cost recovery programs. Institutions that had planned multi-year increases in such programs were caught in the freeze of 2004–05 and 2005–06 and then subject to re-regulation under Reaching Higher. Those institutions that had introduced tuition increases in the additional cost-recovery programs prior to the freeze ended up with the relative difference carrying forward and being sustained under the Reaching Higher framework (e.g., Law).

A final point to note about tuition and tuition revenue is that the advent of full cost-recoverable programs and the introduction of additional cost-recoverable programs resulted in major increases in tuition that carried obligations for quality improvement and expansion. Accordingly, while increases in tuition in those programs might be interpreted by some as a source of general revenue to help offset inflation costs for the institution as a whole, the reality is that much of the incremental fee revenue was essentially earmarked for quality improvements or expansion in specific programs. In referring to full cost-recovery programs, in particular, the caveat in the COFO Report is illuminating:

> The introduction of more full cost-recoverable programs (some voluntary, some mandatory) has increased ***tuition fee*** income by an amount that overstates the funding actually available for all students. For example, tuition for private MBA programs is used to finance the substantial costs associated with those programs and therefore it is completely misleading to think that any of the increase in tuition fee income for these programs is used to support the general student body. It is estimated that tuition fees for these programs in 1999-00 may have been approximately $50 million. [34]

There has been no attempt to calculate the portion of fee revenue that is now attributed to full cost-recoverable and additional cost-recoverable programs.

Student Assistance

The preceding changes in tuition policy were accompanied by major changes in government-funded student assistance. As noted previously, a portion of the increased tuition revenue had to be set aside for student assistance. Government also allowed a portion of the set-aside to be used to help cover the associated administrative costs.

But the changes involved considerably more than just the introduction of the set-aside requirement and the associated administrative apparatus. Major changes in the Ontario Student Assistance Program (OSAP) included

- moving from grant-based schemes to loan-based schemes and then re-introducing grant-based arrangements

[34] *Report of the Council of Finance Officers – Universities of Ontario for the Fiscal Year Ended APRIL 30, 2007*, Appendix – Caveats, p.5

- changes in student eligibility
- greater emphasis on institutional aid programs
- requirements for OSAP student assistance 'audits'

The constant changes in student assistance regulations added layers of complexity, often resulting in major information system development and overhauls. Increased complexity resulted in more administrative effort and increases in the associated costs (personnel, space, equipment, compensation, benefits, training). Moreover, increased tuition sparked the introduction of provincial grants for student aid endowments — one of a number of changes in the way the province altered its funding allocation mechanisms.

Changes in Provincial Funding Allocation Mechanisms

Prior to the mid-1980s, the funding allocation mechanism for Ontario's universities was relatively straightforward, based on student enrolment (BIUs) with some additional funding for specific recognized costs — bilingualism, Northern operations, emergent grants. From the latter part of the 1980s onwards, the government has relied increasingly on the concept of envelope funding to address specific issues.

Initially the use of envelopes to address specific costs was seen as over and above the amount provided through the basic operating grant; the added costs of bilingualism and Northern operations illustrate the concept. The general funding practice was to adjust the basic operating grant[35] (via an increase in the value of the BIU) and adjust the envelopes by a similar percentage, subject to periodic reviews.

In the past decade, the use of envelopes for targeted enrolment growth and special initiatives has become a common practice, largely at the expense of increases in the basic operating grant. Accordingly, when reviewing changes in provincial funding it becomes important to recognize that the increase in provincial funding, over the past decade in particular, may have significant strings attached to it in terms of the use of the dollars, anticipated/required institutional matching, specific expenditure restrictions, and special reporting. Moreover, the funding may well be transitional (e.g., provided as start-up funding or new initiative funding) with no commitment to carry on the initiative or activity. Further, the actual allocation mechanisms for the specific envelopes differ and include enrolment-based formulae, algorithms derived from performance indicators, and decisions based on institutional submissions. Finally, it is worth noting that the allocation mechanisms may, in fact, change from year to year. In the case of the allocation mechanism employed for performance funding, for example, it "changed four times in eight years."[36]

[35] From 1987/88 onwards the Basic Operating Grant has been allocated on the basis of 'fixed shares'. As long as an institution's moving average of Basic Income Units remained in a corridor of + or – 3% from a negotiated midpoint the institution would retain its share of the Basic Operating Grant.

[36] D.W. Lang, "The Political Economy of Performance Funding," in Iacobucci and Tuohy, eds., *Taking Public Universities Seriously*, p. 242

Grants for Targeted Enrolment Growth

Over the past decade, government has targeted enrolment growth in a number of specific areas:

- Teacher education
- Medicine
- Engineering and Computer science
- Nursing
- Graduate education

Government funding associated with the targeted enrolment has been provided in a variety of ways, characterized by differing formulae, uncertainty about the expected enrolment numbers, various arrangements regarding capital assistance, and uncertainty about the duration of the funding commitment. The government's Access to Opportunities Program (ATOP) in 1998 marked the beginning of what could be seen as ongoing attempts to manage enrolment from Queen's Park.[37]

The government chose to employ the existing BIU weights as the base level of funding for the targeted expansions, seemingly ignoring the fact that the BIU weights were never intended to reflect specific program costs.[38] Not surprisingly, government had to revisit the funding levels in some cases and make adjustments (e.g., medicine, clinical health sciences). The added turmoil and overhead associated with revisiting such initiatives represents a significant un-stated cost to the institutions, to government, and to taxpayers. Moreover, initiatives such as Collaborative Nursing, mentioned earlier, add yet another level of complexity that, among other things, ultimately impact financial reporting and enrolment reporting in ways that affect the consistency and comparability of information among institutions, at the system level, and over time.

The increased use of targeted funds has characterized much of the past decade and the institutional impact is telling:

- The value of funding for core activities is eroded.
- The uncertainty about the status of the envelopes in future years is a detriment to planning.
- To the extent that the special funding requires matching funds, it may distort fund-raising plans/priorities.

[37] Some may argue that earlier Corridor Negotiation processes were government attempts to 'manage' enrolment. However, for the most part the Corridor Negotiations were not program specific and were aimed at establishing overall system capacity in a planned (negotiated) fashion.
[38] This observation is also relevant to the government decision five years earlier to declare AQCs "ineligible" and effectively withdraw the funding.

- The regulatory and reporting requirements, and changes in the requirements, result in considerable overhead or back office costs.

- Targeted enrolment grants have a powerful steering effect on internal resource allocation.

- In the absence of increases in the core operating grants, they undermine the sustainability of the funding formula.

To help illustrate the significance of the changes on the reduction in the value of core funding, the following table illustrates the actual change in the value of the Basic Income Unit (BIU) since 1979–80. As illustrated, the real value declined by more than $2,300 over the almost three decades and dropped by $1000 per BIU over the past decade alone.

Table 9: Basic Operating Income* per Basic Income Unit

Year	Actual BOI/BIU	CPI Adjusted Real BOI/BIU	Ontario CPI
1979-80	**$2,833**	**$ 7,455**	**38.0**
1998-99	**$5,004**	**$ 6,135**	81.6
1999-00	**$5,001**	**$ 5,958**	83.9
2000-01	**$5,042**	**$ 5,830**	86.5
2001-02	**$5,115**	**$ 5,795**	88.3
2002-03	**$5,114**	**$ 5,642**	90.6
2003-04	**$5,114**	**$ 5,539**	92.3
2004-05	**$5,114**	**$ 5,420**	94.4
2005-06	**$5,113**	**$ 5,325**	96.0
2006-07	**$5,113**	**$ 5,229**	97.8
2007-08	**$5,126**	**$ 5,126**	100.0

Basic Operating Income is defined as basic operating grants plus formula fees.

Source: MTCU, FTOT, estimate for 2007-08, undergraduate BIU value 1979-980 from MTCU *Ontario Operating Funds Distribution Manual*, 2002 Appendix 1.2

More recently the provincial government has provided significant one-time only year-end grants that, while no doubt appreciated by the institutions and helpful in addressing specific needs (e.g., deferred maintenance), are no substitute for annual operating grant increases.

Multi-year planning, one of the key recommendations in the Honourable Bob Rae's report, *Ontario, A Leader in Learning*, requires multi-year funding commitments and an understanding that the commitments will, in fact, be met. For much of the Reaching Higher period, uncertainty about whether enrolment expansion would be fully funded, uncertainty about the status of "quality funds," and uncertainty about institutional allocations from a variety of special envelopes (e.g., First Generation) worked against efforts to optimize the value of the Reaching Higher investments.

A Comment on 'Envelope' or 'Targeted' Funding

The rationale for the increased use of envelope funding or targeted grants is to link the funding more closely to specific government initiatives, perhaps in the interest of greater accountability or as a way of ensuring that the funding will be used to meet government-identified initiatives. With respect to the latter issue, targeted funding is perhaps seen as the incentive in a principal-agent model. While there is nothing particularly wrong with an envelopes approach, it must be accompanied by the realization that the overall level of funding has to keep pace with the various cost pressures that are part and parcel of universities and colleges. To introduce new envelopes at the expense of increases in core operating funding simply places core operations in jeopardy. Moreover, the introduction of a hodge podge of envelopes simply adds overhead to program delivery at all levels.

With respect to the principal-agent model in particular, Pakravan notes there are

> many principals when it comes to PSE in Canada. In addition to the provinces both the federal government and private sector – including students – provide significant parts of the total system funding and therefore have a claim to act as interested principals. Moreover, the institutions are expected to carry out more than one task. Most notably institutions in the university sector perform two distinct, though related, activities – teaching and research.[39]

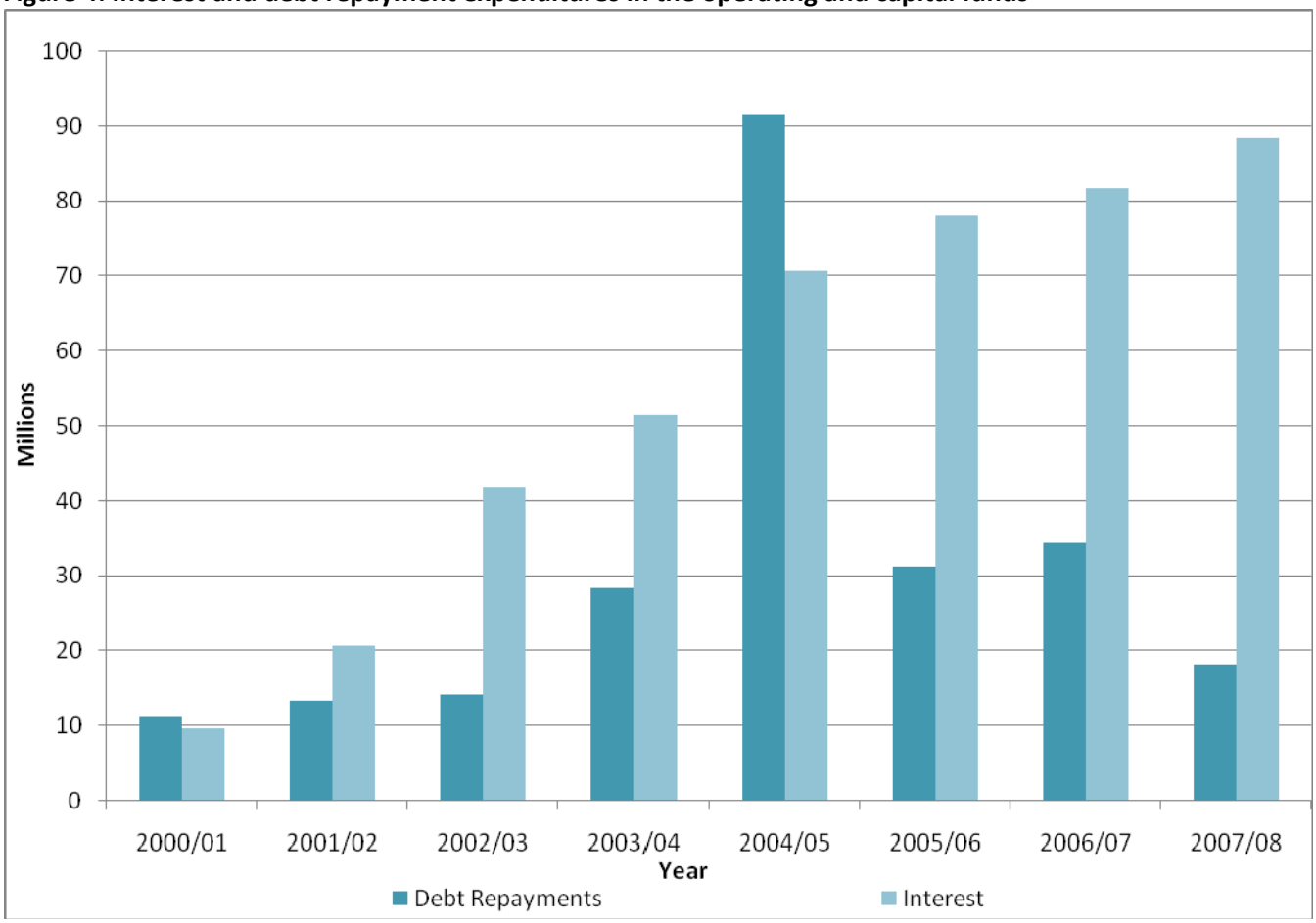
The emphasis on carrying out more than one task is extremely important. Universities and colleges have complex mandates that require a level of sustainable core funding, particularly when the full cost of the government initiative is not covered and the institutions are expected to cross-subsidize the activity out of core or other revenues.

Changes in Capital Financing

Changes in capital financing have had a major impact on institutional expenditures. Some form of cost-sharing for capital projects has long been part of the funding equation. The SuperBuild expansion marked a major shift toward greater expected contributions from the private sector. That initiative translated into a significant increase in operating expenditures as expansive fund-raising plans were thwarted by the reality that few institutions could actually generate sufficient donor dollars. The result? In 2000–01 interest payments totalled about $52 million across all funds with $7.2 million in the operating fund and a further $2.5 million in the capital fund, much of the latter funded by a transfer from the operating fund. By 2007–08, interest payments had increased to $175 million in total with the operating fund on the hook for close to $90 million. In addition, institutions were making principal payments from operating funds. In the past, the preceding interest and principal payments (or the vast majority thereof) would have been spent on core operations. Figure 4 illustrates the increase in interest payments over time and the level of debt repayment. Note that the debt repayment figures vary over time as some debt is retired (using one-time funds) and some is converted to long-term debt and reflected in an increase in interest payments.

[39] Pakravan, P. 2006, "The Future Is Not What It Used to Be", The Education Papers, Commentary, No. 227, C.D. Howe Institute: Toronto, p.9

Figure 4: Interest and debt repayment expenditures in the operating and capital funds



Source: COFO Report 2000/01 to 2007/08

This fundamental change in capital financing represents a major departure from earlier days — a time when provincial regulations explicitly noted that provincial operating grants could not be used for "principal and interest payments on capital indebtedness."[40]

In addition to the direct financial implications, the change in funding mechanisms resulted in considerable pressure for more sophisticated financial management. That reality also applied to the general trend toward greater revenue diversification and complexity that characterized much of the period in question. It is beyond the scope of this report to delve into the topic, but it deserves further research because of the implications for institutional governance, management, and costs.

[40] Universities Branch, MTCU, *The Ontario Operating Funds Distribution Manual*, July 2002, p.1

Federal Initiatives in Research and Student Support

Over the past decade, the federal government has been very active in both research and student assistance — the latter through changes in the Canada Student Loans program, the establishment of the Canada Millennium Scholarship Foundation, providing significant numbers of new scholarship programs or augmented scholarship programs, and through the introduction and expansion of various tax credits. On the one hand, the increased federal investment in research and student support is a welcome addition to the support of postsecondary education. On the other hand, it is important to examine the federal initiatives carefully, trying to understand how funding in universities and colleges is affected by those initiatives.[41]

From an institutional perspective the significant increase in research funding has added considerably to the overall improvement of the learning environment and had a major impact on institutional mandates. Institutions responded to federal (and provincial) policies designed to improve Canada and Ontario's research capacity to sustain and improve economic competitiveness and growth. The research enterprises in colleges and universities were seen as catalysts for economic development.

At the same time the significant increase in research funding and the increased emphasis on research created a set of other issues with major implications as follows:

- The indirect costs of research posed severe strains on operating funds.
- The limited recognition of the increased direct costs of research (faculty time[42]) associated with such a major increase in research effort has exacerbated the financial situation.
- The Canada Foundation for Innovation (CFI) has added significant capacity to Canada's research community, but the "matching" requirements have placed a funding burden on provincial *and* institutional coffers. There is a general recognition on the part of the province, the universities, and the federal government that these research facilities are solid investments for Canada. But again, the problem arises that the universities have to make difficult choices in times when their resources are already stressed.
- The CFI requirement for strategic research plans affected other areas of institutional planning, skewing funding priorities and diverting funding from core activities.
- The additional work associated with grant applications and the reporting requirements added significant pressure to all institutions and to individual faculty members.[43]
- The research funding differentials by major discipline groupings created a sense of "haves and have-nots" on campus — that is, the absolute amount of funding allocated to

[41] Another side-effect of the federal initiatives was, of course, the contribution to an increased level of friction between the provincial and federal governments (see D. Cameron, 2005).
[42] The federal granting councils consider faculty time as a "non-allowable" direct cost. There is recognition that the time faculty spend on research represents a significant cost for the universities, but there is an assumption that the universities will cover those costs - an assumption that may have had more currency in an earlier era when enrolment numbers and research activities were relatively low by today's standards and when federal transfers to the provinces were relatively high by today's standards.
[43] J. Challis, et.al., *The University Research Environment*, in Iacobucci and Tuohy, Ibid., p. 368

the sciences and health sciences (NSERC and CIHR) coupled with major infrastructure (CFI, ORF) announcements and significant increases in public relations activity associated with the federal investments resulted in the Arts, Humanities and Social Sciences feeling somewhat left out. In more positive terms, the greater availability of research funding in the sciences and health sciences provided a source of funding that facilitated equipment acquisition, travel, employment of research assistantships, and helped relieve some of the constraints that characterized the mid-1990s.

Finally, the Canada Research Chairs — a remarkable success by many standards — also contributed to compensation inflation[44] and influenced a move toward lower teaching loads,[45] thus contributing to additional cost pressures.

While the indirect (and direct) costs of research are not fully funded, the federal government has taken steps to partially recognize the indirect costs. Initiated in 2001–02 as a one-time grant, the Indirect Cost Program (ICP) emerged in 2003 as an on-going commitment and is now in the order of $325 million nationally. In fiscal
2003–04, Ontario universities began recording the ICP funds in the COFO Report and in 2007–08, Ontario universities received over $90 million from the ICP program. (Actually, universities were in receipt of approximately $117 million but approximately $27 million was directed to entities not consolidated where the research was being conducted (e.g., hospitals, stand-alone institutes).

The Canada Research Chairs Program, started in 2000, contributed over $85 million to Ontario's universities in 2007–08. Now referred to as a permanent program, the goal is to provide funding of $300 million nationally in support of 2,000 research professorships.

[44] This particular assertion is based on anecdotal evidence only. The basic argument is as follows: competition to recruit CRCs resulted in increased compensation packages for chair-holders. To retain faculty members who did not receive a CRC, institutions implemented their own internal 'chair' programs that sometimes had compensation implications including reference to reduced teaching loads. The twin effects of the CRC program and internal chair programs exerted increased pressure on compensation levels generally.

[45] As per the CRC program details, "The Chairs program does not require universities to reduce the teaching loads of chairholders. Nevertheless, it does expect that universities will do so to allow chairholders maximum time for research. In such cases, the cost of a teaching replacement qualifies as an eligible expense." http://www.chairs-chaires.gc.ca/program-programme/administer-administrer-eng.aspx While provision is made in the CRC allocations for teaching load reduction replacements (eligible expense), the research related reductions in teaching loads of non-CRC faculty often result in added costs for teaching replacements and/or translate into reduced course offerings and/or increased class sizes.

Table 10 shows the level of funding in Ontario for both of the preceding programs as reported in the COFO Report.

Table 10: Federal Grants to Ontario Universities for Indirect Costs and Canada Research Chairs									
		2001	2002	2003	2004	2005	2006	2007	2008
Canada Research Chairs ($000s)		$ 8,533	$21,737	$39,586	$60,945	$64,358	$78,458	$109,890	$85,821
Indirect Costs Program ($000s)				$ (1,033)	$77,480	$ 70,497	$ 73,910	$88,274	$90,390
Reported FTEs		269,145	282,662	306,142	340,674	357,578	372,992	390,710	394,595
Reported BIUs		478,070	504,485	550,201	609,564	649,632	680,945	721,583	739,147
Funding per FTE and BIU									
CRC Funding per FTE		$ 32	$ 77	$ 129	$ 179	$180	$ 210	$ 281	$217
CRC Funding per BIU		$ 18	$ 43	$ 72	$100	$ 99	$115	$ 152	$116
Indirect Costs per FTE					$ 227	$197	$ 198	$226	$229
Indirect Costs per BIU					$127	$109	$109	$122	$122

Although the funding for both the CRC program and the Indirect Cost Program could be factored into the revenue per FTE and/or BIU information presented earlier, we have chosen to treat the funding separately. With respect to the Canada Research Chairs program, the clear emphasis on research affects the value of the program in terms of addressing enrolment demand. However, it is quite clear that the CRC program has helped increase research capacity.

The Indirect Cost Program is intended to strengthen the research enterprise and help reduce the required subsidies from operating revenues. It is difficult to tell from the financial information in the COFO Report exactly how the ICP funds are being used — that is, how much is being used to lessen the cross-subsidization from other funds versus how much is being used to enhance the existing research environment, or used to meet new costs associated with tri-council accountability reporting. Anecdotal evidence, for example, suggests that, in some institutions, the ICP is being used for all of the above purposes — building infrastructure capacity, meeting increased reporting/accountability requirements, and reducing the cross-subsidization from operating revenues.

It is important to put the ICP in perspective. Unfunded *institutional* costs of sponsored research are estimated to be in the order of $1.7 billion nationally (AUCC p.21).[46] In Ontario, sponsored research funding totalled approximately $1.6 billion in 2007–08 (entities consolidated only). After accounting for CFI, ICP, and CRC allocations, sponsored research would be in the order of $1.1 billion of which approximately $500 million was from the granting councils (SSHRC, NSERC and CIHR). The $500 million in granting council funding results in estimated indirect costs of approximately $200 million (40%). That implies the current ICP funding is in the order of one-half of the estimated costs. Further, it is worth noting that the figure of 40% is an estimate only, and some studies suggest the figure should be increased.[47]

For purposes of this project, we have documented the revenue associated with the ICP and the CRC program and attempted to provide sufficient context for the reader to include the federal monies in the revenue per student analyses. The federal contribution to university research is clearly an important part of the overall financial picture of PSE funding. But it is equally clear that the overall impact is complicated by the "joint product" nature of PSE and the inherent cross-subsidies — a matter that deserves further research.

In the case of student assistance at the institutional level, the main effect of federal initiatives was to add another layer of complexity to student assistance and to transfer the actual administration of some scholarships to the institutions. In some cases, the latter action resulted in apparent increases in revenue that were, in fact, simply a change in the administration of the funds. The other observation about federal initiatives in this area is that universities and colleges — and more particularly front-line student assistance staff — ended up in the middle of federal-provincial bickering that, in turn, created considerable work, caused significant confusion among students and staff, and did little to address the needs of individual students.

[46] In addition to the institutional costs, the costs of faculty time are estimated to be in the order of $1.7 billion.
[47] The Advisory Committee on Science and Technology, for example, suggested that the rate should be 45% of direct costs and a report prepared for CAUBO, AUCC and Industry Canada (1996) indicated the rate should be 54%.

The Rise of Public Accountability

A major characteristic of the operating environment for colleges and universities for the past two decades is the increased interest in accountability. Beginning with the provincial auditor's inspection audits of three institutions in the late 1980s, the last two decades have been marked by a succession of government accountability initiatives that have affected all aspects of university and college operations.

Those initiatives, while important, have brought with them increased costs in the form of additional audits, changes in processing and review of expenditures, increased governance, and additional reporting. Moreover, under the rubric of accountability, the interest has encouraged more ear-marked and/or targeted funding, as noted previously. The additional cost associated with accountability initiatives is somewhat buried — in the sense that it helps account for some growth in administrative expenditures but it is difficult to quantify precisely because it affects a variety of offices engaged in providing the necessary "back-office" work. At the same time, it directly affects an institution's external relations, a separate functional area in the COFO Report. Not surprisingly, then, expenditures on external relations have increased markedly over the past several years, as evidenced in the following table.

Table 11: Expenditures on External Relations and Administration compared to Operating and Total Expenditures and the Increase in MTCU Grants and Tuition ($000s)

		FY2000	FY2008	%Change
External Relations	Operating	$ 60,785	$ 121,534	100%
External Relations	Total	$ 74,736	$ 141,325	89%
Operating Expenditures		$ 3,192,719	$ 5,848,987	83%
Total Expenditures		$ 5,148,459	$ 10,293,136	100%
Administration Exp.	Operating	$ 157,657	$ 294,509	87%
Administration Exp.	Total	$ 163,791	$ 296,060	81%
MTCU Grants & Tuition		$ 2,822,864	$ 5,317,581	88%

Source: COFO-UO Compendium 1999-00 (Table F-5)
COFO-UO 2007-08 (Table 3)

The Cost of 'Fund Raising'

Over the past quarter-century, every university and college has attempted to increase donations from the private sector. At times, the institutional efforts have been bolstered by provincial contributions on some implicit or explicit matching basis. Institutions have moved from periodic campaigns to ongoing fund-raising activities with all of the associated costs. Generally the "new" ongoing costs are recorded in the operating fund, with campaigns often accounted for in the trust fund. The preceding table reflects the increased expenditure on fund raising (part of external relations) and illustrates the growth in such expenditures both in the operating fund and in total.

To put the accountability and fund-raising costs in context: If the rate of growth in administration and external relations (which includes fund raising) had simply matched the average growth in operating expenditures (83%), the sum total of expenditures in those areas would be approximately $16–17 million **less** than 2007–08 levels.

Student Diversity and Access

The significant growth in enrolment that has characterized Ontario PSE for over a decade has provided increased opportunities for previously under-represented groups. Although these apparent gains in participation are accomplishments worth noting, they have come at a price that has been borne by the institutions. Although government has provided one-time project funds for First Generation initiatives, for example, there has been limited recognition of the increased costs associated with servicing the educational needs of an academically diverse population. Nor has there been adequate recognition of the significant costs associated with the increased numbers of students with learning and physical challenges.

The preceding section highlighted some of the implications of shifts and changes in revenue and shed some light on why changes in revenue have to be placed in context rather than be viewed in isolation or only in inflation-adjusted terms. Price changes do not capture the complexities associated with regulatory changes, mandate expansion, changing student profiles, or shifts in revenue sources. The key point is that, when reviewing increases in revenue, we must recognize that the net effect will be less than the simple computation of year-over-year increases in gross revenues.

In addition to the preceding changes, there are a host of other factors that contribute to on-going cost pressures. These factors include:

- changes in research emphasis as a result of new knowledge
- continual interest in improving the overall learning experience
- changes in accreditation or certification requirements
- government regulations from other ministries or other levels of government
- technological advances affecting all aspects of an institution's technology requirements — including the required staffing and infrastructure (space, utilities, peripheral devices, software, and so on).

Some of those factors were addressed in the preceding section. Appendix B provides additional information. Although the preceding analyses focus on the university sector, many of the same factors apply to the college sector.

Before turning to the summary and concluding comments, it is important to recall an earlier observation about institutional diversity in Ontario. Although some may see Ontario's universities and colleges as a monolith, the province's postsecondary education system is quite diverse. Our analyses of funding per FTE and per BIU / WFU reflect only the sector averages. Differences in research intensity, program mix, enrolment growth, the availability of mission-

related grants, and a host of other factors will translate into quite different circumstances on each campus. It is beyond the scope of this study to delve into the financial circumstances of each individual institution but, as noted previously, the topic is worthy of further research.

Several of the changes we described have had an impact on decision making in academe. For example, the change in tuition policy had a direct impact on decisions about internal resource allocation and processes, as did the move toward more earmarked funding for targeted enrolment expansion. But it is clear that there were other major changes occurring that also had significant impact on decision-making in academe. For example, although we touch on the increased emphasis on public accountability, the emphasis on quality assurance is a topic far beyond the scope of this report, but one that requires further study. Similarly, although we have touched on some changes in the regulatory and funding environment (tuition, student assistance, capital financing), we have not mentioned a host of other regulatory, legislative, and environmental changes that characterized the period under review. Suffice it to say that college and university environments are considerably more complex today, and the very complexity suggests a requirement for more sophisticated management practices. How such increased complexity and the associated management practices affect traditional notions of governance and decision-making in academe is worthy of a treatise of its own.

Summary and Concluding Comments

The goal of this project was to develop a dependable estimate of inflation-adjusted revenue-per-FTE-student for Ontario's colleges and universities. Although we believe the emphasis should be placed on weighted enrolment to reflect changes in program mix, the basic data has been assembled to allow for various calculations of revenue-per-student. At the same time, we have explored a number of price indexes and the factors that affect price changes in the PSE sector, ultimately leading to the adaptation of a HEPI-influenced index for Ontario.

The results of the basic analyses point to trends in revenue per student that differ between colleges and universities.

The examination of numerators and denominators underscores the many challenges associated with trying to develop a basic set of data to inform policy-making in the PSE sector. A number of areas deserve further research and would also benefit from user feedback to improve the quality, consistency, and comparability of the information. Different enrolment counting methodologies between the colleges and universities may be unavoidable, but it is in the province's interest to ensure that enrolment is measured in a fashion that accurately portrays the level of activity.

Our analysis extended to a review of the key revenue sources, changes in the funding sources over time, and changes in the actual funding mechanisms. There have been significant changes in revenue sources, with a considerable shift toward tuition. That shift has been accompanied by a major increase in the complexity of the associated regulatory regime — both in terms of tuition policy and student assistance. That increase in complexity, in turn, has translated into higher costs that should be considered when assessing the sufficiency of the revenue changes.

Changes in funding mechanisms, such as the increased use of earmarked grants and targeted funding, have also contributed to a more complex funding environment with the same results. Similar observations apply to fund raising and to other efforts to increase revenues.

The significant increase in research is noted, in terms of both specific programs (ICP, CRCs) and the overall shift toward research that carries with it significant increases in activity and costs. While ICP acknowledges the presence of indirect costs of sponsored research (as does the province through provision of research overhead on provincial sponsored research) the investments fall far short of what is required. Nor do current funding arrangements recognize the significant increase in *direct* costs associated with the increase in research activity — particularly faculty time.

The Higher Education Quality Council of Ontario has noted that the "amount of revenue available to institutions is a key determinant of their ability to carry out their education and research functions effectively." This report has illustrated some of the complexities associated with developing appropriate measures of revenue per student in both the college and university sectors. At the same time, it has highlighted some of the factors that need to be considered in assessing whether the revenue per student is, in fact, sufficient to meet the tasks at hand and

whether revenue per student adequately reflects the appropriate measure of institutional activity — especially with respect to research.

Finally, the preparation of this report has pointed to a number of areas that would benefit from further study, research, and follow-up, including:

- further examination and refinement of the numerator and denominators
- an examination of the institutional differences of revenue-per-student based on the numerator and denominator, and including reference to the impact of extra-formula and special purpose grants in the colleges and universities
- comparisons with other jurisdictions
- further assessment/consideration of the factors that affect the "value" of apparent changes in revenue-per-student
- further review of price indexes and the development of an appropriate labour price index
- an examination of indirect and direct research costs; perhaps in conjunction with an examination of the "joint product" nature of PSE and the inherent cross-subsidies
- a review of enrolment trends by discipline and program to determine the impact on costs and cost pressures

The very fact that we leave a list of possible research projects speaks to the complexity of PSE financing and the difficulty of trying to capture the full import of revenue-per-student calculations. Nevertheless, this report provides the foundation for developing a better understanding of the state of core operating support and of PSE financing in Ontario.

Acronyms

Name	Acronym
Access to Opportunities Program	ATOP
additional qualifications courses	AQC
alternative funding plans	AFP
Association of Universities and Colleges of Canada	AUCC
Association of Colleges of Applied Arts and Technology of Ontario	ACAATO
basic income unit	BIU
Canada Foundation for Innovation	CFI
Canada Research Chairs	CRC
Canadian Association of University Business Officers	CAUBO
Finance Reporting Committee	FRC–CAUBO
Canadian Institute of Chartered Accountants	CICA
Canadian Institutes of Health Research	CIHR
Canadian Socio-economic Information Management System	CANSIM
College Financial Information System	CFIS
Colleges Ontario	CO
Council of Finance Officers	COFO
Council of Finance Officers–Universities of Ontario	COFO-UO
consumer price index	CPI
Council of Ontario Universities	COU
Financial Information of Universities and Colleges Survey (in SC)	FIUC
Financial Statistics of Community Colleges and Vocational Schools (Survey of)	FINCOL
full-time equivalent	FTE
fiscal full-time equivalent	FFTE
gross domestic product	GDP
higher education price index	HEPI
Higher Education Quality Council of Ontario	HEQCO
Indirect Costs Program	ICP
Ministry of Training, Colleges and Universities -- Toronto	MTCU
Northern Ontario School of Medicine	NOSM
Natural Sciences and Engineering Research Council of Canada	NSERC
one-time only	OTO
Ontario College of Art & Design	OCAD
Ontario Colleges of Applied Arts and Technology	OCAAT
Ontario Confederation of University Faculty Associations	OCUFA
Ontario Research Fund	ORF
postsecondary education	PSE
request for proposal	RFP
Social Sciences and Humanities Research Council -- Ottawa	SSHRC
Student Access Guarantee	SAG
University of Ontario Institute of Technology	UOIT
weighted funding unit	WFU

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