
MINISTRY OF TRAINING, COLLEGES AND UNIVERSITIES

Accountability Framework for University Funding

Ontario has the largest university system in Canada with 17 universities and the Ontario College of Art and Design. Their combined full-time enrolment was about 230,000 students as of September 1998. For the year ended April 30, 1998, the latest available, the universities had revenues of approximately \$4.5 billion. Those revenues were provided by grants from the former Ministry of Education and Training, student tuition and other fees, research grants, and other sources including donations and ancillary operations such as parking, bookstores and food services. University expenditures approximate their revenues each year.

Source of Universities' Revenues

	1998		1997	
	\$ million	%	\$ million	%
Ministry of Education and Training	1,660	37	1,659	39
Tuition Fees	1,255	28	1,174	27
Research Grants	796	17	758	18
Other e.g. donations, ancillary operations	799	18	673	16
Total	4,510	100	4,264	100

Source: Council of Ontario Universities

Universities derive their autonomy, academic freedom and degree granting authority from their incorporation statutes. Each university was created by its own legislation. While the statutes for two universities established only one governing body, 16 established a governance framework in which a senate is responsible for the university's academic affairs and a board of governors is responsible for its operations and financial stewardship. Although their roles are distinct, the two bodies must work together in order to govern the university effectively because most academic decisions have significant resource implications, and most resource decisions impact the delivery of academic programs and services.

Ontario's policy, funding and legislative arrangements, including the *Degree Granting Act*, effectively give universities a monopoly in providing programs leading to a degree. Therefore, to protect the consumer in the absence of competition, the Ministry has an obligation to ensure

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that universities meet certain minimum standards through an effective accountability relationship between itself and the universities. Management Board of Cabinet's Directive on Transfer Payment Accountability also requires the Ministry to establish an effective framework for the prudent management of provincial transfer payment funds. Such a framework includes:

- setting expectations with respect to the objectives and results that the transfer payment recipient is to achieve;
- entering into an agreement which ensures that there is an understanding about the objectives and results to be achieved and the responsibilities for reporting on performance;
- timely reporting of objectives and results achieved; and
- taking timely corrective action where necessary.

Neither the universities' incorporation statutes nor the *Ministry of Colleges and Universities Act* provide the Ministry with direct authority over university operations or academic affairs. However, the Act provides the Ministry with the right to prescribe conditions governing the payment of grants. Thus, the Ministry can exercise significant indirect authority over universities by attaching conditions to the grants it provides. The most significant funding conditions control the maximum tuition fees that universities can charge and establish the minimum enrolment level that each university should maintain.

Responsibility for developing, planning, coordinating and implementing government policy and program guidelines for Ontario's universities rests with the Universities Branch of the Ministry's Post Secondary Education Division. At the time of our audit, the Branch had 29 staff who administered \$1.6 billion in operating, capital and special purpose grants to universities in the 1998/99 fiscal year.

It has been several years since our Office last examined aspects of university funding and accountability. As a result of concerns raised by our previous work, the then Minister created a Task Force on University Accountability which issued a report in 1993, *University Accountability: A Strengthened Framework*, containing recommendations for strengthening the accountability framework for Ontario universities. Most of those recommendations required actions to be taken by the universities themselves and were generally endorsed by the Minister.

In December 1996, The Advisory Panel on Future Directions for Postsecondary Education provided advice to the Minister on a number of issues including the funding of postsecondary institutions, student assistance, the roles of and linkages among colleges and universities, and ways to improve quality and accountability.

In May 1999, the Ontario Jobs and Investment Board presented a report to the Premier entitled *A Road Map to Prosperity*. Among its recommendations were ways to strengthen the universities' contributions to Ontario's economic performance.

AUDIT OBJECTIVE AND SCOPE

The objective of our audit was to assess the extent to which the Ministry's accountability framework for university funding promotes the achievement of objectives including:

- program quality;

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- access;
 - responsiveness to changing educational needs;
 - cost effectiveness in the delivery of programs and services; and
 - sound financial management.

Our audit of the Ministry was performed in accordance with the standards for assurance engagements, encompassing value for money and compliance, established by the Canadian Institute of Chartered Accountants, and accordingly included such tests and other procedures as we considered necessary in the circumstances. Our assessment was based on the following audit criteria, to which the Ministry agreed:

- The Ministry should have objectives for university grants and measurable goals to determine whether its objectives have been achieved.
- The Ministry should ensure that satisfactory governance and accountability frameworks are in place at the universities.
- The Ministry should ensure that: there are appropriate quality standards for publicly-funded programs; objective, reliable procedures exist to verify that program quality standards have been met; and appropriate corrective action is taken where deficiencies have been noted.
- The funding process should include clearly defined eligibility criteria for grants and should support the achievement of the Ministry's goals and objectives.
- The Ministry should obtain reliable financial and performance information, and perform the analyses required to determine whether: the university system is efficient and effective; institutions have the financial capacity to fulfil their commitments to stakeholders; its goals and objectives are being achieved; and its grant conditions have been fulfilled. It should take appropriate, timely action where deficiencies are detected.

Our audit focused on the activities of the Universities Branch. We reviewed recent work that had been completed by the Ministry's Audit Services Branch regarding financial controls over grants paid to universities and were able to rely upon it to reduce the extent of our audit.

The *Audit Act* does not provide the Provincial Auditor with access to the information necessary to perform value for money audits of universities. Instead, we requested the universities' cooperation in conducting a more limited review of their governance and accountability processes in connection with our audit of the Ministry. The presidents and boards of governors of five universities allowed us access to information beyond their accounting records and all but one of the remaining universities completed a questionnaire about their governance and accountability processes. The governors, senators, senior managers and faculty we interviewed were open and cooperative during our visits and provided all the information we requested.

We were also permitted to review the program quality assurance processes performed through the Council of Ontario Universities (COU). The COU is composed of the presidents of the province's universities and is funded by the universities.

As our work at the universities and COU was not an audit and consisted only of inquiry and discussion, and analysis of documentation and survey responses, we cannot provide a high level of assurance that the systems, policies and procedures described to us were working as

intended. We also cannot provide any assurance that the results of our visits to the five volunteer universities are indicative of all Ontario universities.

Our work was conducted from September 1998 to June 1999.

OVERALL AUDIT CONCLUSIONS

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Although the Ministry has recently set some measurable objectives for postsecondary education and begun to collect some related performance information, these initial steps are not sufficient for the Ministry to determine how well the university system is meeting provincial needs and contributing to the achievement of postsecondary education objectives. We also concluded that the existing accountability framework for university funding did not yet meet certain aspects of the Management Board of Cabinet requirements for transfer payment accountability and that the Ministry had not linked funding to the achievement of provincial postsecondary education objectives.

In order for the Ministry to fully comply with Management Board of Cabinet's requirements for accountability and to better ensure that Ontario universities are meeting provincial needs and objectives, the Ministry needed:

- to establish expectations for university governance and accountability and encourage universities to report publicly on their key governance and accountability processes, including those aimed at ensuring program quality;
- to work with the university community to strengthen the processes established for objectively assessing the quality of programs;
- to obtain more and better information about the extent to which universities are meeting student and provincial needs, including trends and achievements in delivering programs in ways that reduce student need for financial assistance;
- to establish procedures to effectively monitor the financial condition of universities at risk; and
- to encourage and monitor improvements in universities' efforts to report publicly on their performances.

The five universities we visited had made a number of changes and improvements in recent years largely in response to the recommendations of the Task Force on University Accountability, provincial funding cuts and other changes. Significant improvements included: greater focus on strategic plans and priorities based on assessments of strengths, weaknesses and opportunities; better quality, clarity and analysis of the financial information provided to the governing bodies and the public; establishment of internal and external undergraduate program quality assurance processes; and the development and publication of institution-specific performance measures.

However, for the Ministry and other stakeholders to have confidence that universities are meeting provincial and institutional objectives cost effectively, university governing boards need:

- to set measurable objectives and targets, and report publicly on their achievement;

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- to formally evaluate their presidents' performances against established objectives and ensure that other senior managers are similarly evaluated; and
 - to better ensure that they are governing effectively by periodically evaluating board members and functions and by formalizing board member orientation, including the use of COU orientation material.

Overall Ministry Response

The Ministry welcomes the review and findings of the Provincial Auditor. The report is timely. The creation of the new Ministry of Training, College and Universities in June 1999 signals the priority that the government places on postsecondary education. The report of the Ontario Jobs and Investment Board (OJIB) also emphasized the importance of postsecondary institutions to the economic development of the province and made several recommendations with respect to universities. Particularly germane to the issue of university accountability is the OJIB recommendation for the establishment of an independent quality assessment organization for postsecondary institutions with a mandate to establish quality standards, assess programs against standards, and report publicly on quality related matters in postsecondary education. The Ministry currently is pursuing the potential of implementing this recommendation.

The Ministry is interested in ensuring that a sound university accountability framework is in place, and will use the Provincial Auditor's report as a basis for reviewing the current framework. As noted in the responses to the individual recommendations below, we recognize that some areas need strengthening, and the recommendations are helpful in this regard. At the same time, the Ministry is mindful of the institutional autonomy that is conferred upon the universities by their individual acts of incorporation and seeks to ensure that there is an appropriate balance between university autonomy and accountability for public funds.

DETAILED AUDIT OBSERVATIONS

UNIVERSITY GOVERNANCE AND ACCOUNTABILITY PROCESSES

The Management Board of Cabinet's Directive for Transfer Payment Accountability was revised in 1997 for the purpose of strengthening transfer payment accountability. However, at the time our audit was performed, ministries were required to comply with the previous version, issued in 1988. They must be in full compliance with the revised Directive by April 1, 2000. Until that date, ministries must comply with the revised requirements to the extent that it is

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possible, reasonable and cost effective to do so. We found that the Ministry was not in full compliance with either the original Directive or the revised Directive at the time of our audit. For example, the Ministry's ability to determine whether the funds provided to universities were well managed was limited by a lack of agreed-upon measures of efficiency or effectiveness.

One of the revised Directive's requirements is that, prior to advancing any provincial funds, ministries require recipients to have in place the governance and administrative structures and processes necessary to ensure the prudent and effective management of public funds. To meet this requirement, ministries must establish minimum expectations regarding these areas. However, the Ministry had not established such expectations.

The report of the Task Force on University Accountability contained 47 recommendations designed to strengthen governance and accountability frameworks, most of which were directed at the universities. However, the Ministry has taken little action to determine the extent to which these recommendations have been implemented by the universities.

UNIVERSITY PROCESSES

The lack of clear ministry expectations for university governance and accountability would be somewhat compensated for if universities themselves had in place sound processes for ensuring good governance and proper accountability. Responses to the surveys indicated that effective governance processes were generally in place at those universities. Each of the five we visited appeared to have a number of good processes and procedures, the details of which were provided to the Ministry and the COU. Nevertheless, there were a number of areas where improvements needed to be made.

- Only two institutions had established formal risk assessment processes to be conducted by either the internal or external auditors for their audit committees and boards. In the absence of a rigorous process for identifying and controlling financial and operating risks, the possibility exists that management might, either knowingly or inadvertently, take significant risks without board knowledge or approval.
- The processes for measuring and reporting on performance were still evolving. The universities had only recently begun to report on their performance in achieving strategic goals, and only two we visited had established measurable performance targets. Efforts to date had been focused on developing and reporting trends in institution-specific indicators so there was little consistency in the way performance was measured. Comparisons with other institutions were therefore limited.
- In most universities we visited, the evaluation of the performance of the president and senior management was informal or infrequent. None of the boards had assessed the performance of individual board members. In the absence of appropriate performance evaluation processes, boards may retain ineffective management teams or board members who do not make an appropriate contribution to the governance of the institution. We noted that one university's board had developed a proposal to establish a governance committee whose mandate would include evaluation processes.

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- All but one of the boards of universities we visited received summary information about their internal and external program quality assurance activities and results. However, the survey responses from six other universities indicated that their boards had no role in ensuring that quality reviews were completed for all academic programs and five indicated that they did not receive any reports on the results of reviews conducted. While senates have the primary responsibility for monitoring program quality, boards also need to obtain assurance that effective quality assessment procedures are in place in view of how critical program quality is to achieving a university's mission.
 - The orientation process for new board members could be improved. More timely circulation to, and discussion with, board members of COU orientation materials and formalized internal processes would provide them with a sound knowledge about the overall university system as well as their institution's operations, past problems and current concerns, and help them perform their role effectively.

Recommendation

In order to be satisfied that universities have the governance and accountability processes required to ensure they meet provincial postsecondary education objectives, the Ministry should:

- **establish, in consultation with universities, expectations for university governance and accountability and encourage universities to report publicly on their governance and accountability processes;**
- **ensure that each university is periodically assessed against these expectations and where weaknesses are identified, confirm that the necessary corrective action has been taken; and**
- **notify other institutions of any best practices identified and encourage their implementation across the system.**

Ministry Response

In its work with the universities over the years, the Ministry generally has been confident that their governing boards are fulfilling the roles and responsibilities clearly delineated in each university's Act. The 1993 report of the Task Force on University Accountability recommended a variety of ways in which governance structures and processes could be strengthened, and we are aware that many universities have implemented significant improvements based on the Task Force recommendations. We recognize, however, that there could be more systematic reporting on the manner in which the boards are fulfilling their responsibilities.

Accordingly, the Ministry will undertake to work with the universities to solidify the Ministry's governance and accountability expectations, and related reporting requirements. We will look to the report of the Task Force on University Accountability as well as recent analyses of good governance practices for guidance in this initiative. This work will complement a recent initiative the Ministry has undertaken with the universities, through the

Council of Ontario Universities, to review and improve the universities' reporting requirements. The potential exists to expand this review to ensure that the Ministry is systematically included when the universities issue strategic planning reports, annual reports to their community, and so on. These reports will help the Ministry assess whether a more stringent monitoring role is required.

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SETTING MEASURABLE OBJECTIVES

The Ministry has begun to establish measurable objectives for postsecondary education. Its 1998/99 Business Plan included the following two goals and the measures proposed to determine their achievement.

- **Program quality:** A postsecondary education system that offers high quality programs of instruction, which for universities will be measured by graduate outcomes (employment rates) and by student graduation rates (success in completing their programs). The Ministry committed to maintaining the highest ranking in Canada for full-time employment of university graduates and to improving its third place ranking for the proportion of university graduates employed either full- or part-time.
- **Access:** A postsecondary education system that is accessible to students in need of financial support yet ensures that students fulfil their obligations to repay loans, to be measured by the proportion of the population aged 18-24 years who were receiving postsecondary education (the participation rate) and by student loan default rates. The Ministry wishes to maintain the postsecondary participation rate at 34%, subject to changes in the labour market, and to reduce the loan default rate from over 20% to 10% within five years.

The Ministry is requiring universities to publish their graduation and employment statistics, beginning in 1999, to allow students and their parents to assess the performance of individual institutions so that they can make informed choices about their postsecondary studies. The Ministry also published default rates for all postsecondary institutions in December 1998. Loan default rates for each program will also be published.

MEASURING AND REPORTING PROGRAM QUALITY

In addition to being a ministry goal, program quality is key to maintaining the reputation for excellence of any postsecondary institution. Information about the relative quality of university programs is therefore vital for the Ministry, university governing bodies, students and other stakeholders.

The graduation and employment rates mentioned in the Ministry's Business Plan are important outcomes to measure and track. However, they are not by themselves sufficient to assess the quality of programs offered by universities. Specifically, graduation rates do not take into account differences in the calibre of students that universities attract, and employment rates can be significantly affected by local and general labour market conditions.

We noted that some of the universities we visited also conducted surveys of graduates to determine their level of satisfaction with the quality of their education and published the results

to their communities. Although the surveys provided some greater insight into the quality of programs, their utility was limited by the fact that students were often not in a position to compare the quality of programs they completed to those offered by other institutions. Survey timing is also a factor because graduates' views of their programs' strengths and weaknesses may change as they gain more work experience.

A key issue is that program quality is inherently difficult to measure directly, and expectations or standards for the quality of university programs have not been well defined. Meaningful comparisons of a program's quality to prior years, or to similar programs at other universities, are not possible without:

- clearer expectations about what skills and knowledge students are expected to acquire by graduation; and
- reliable methods to assess the extent to which students acquire the identified skills and knowledge as they progress through the program.

Without a basis for making comparisons, it is difficult to determine the impact of differences in teaching methods and resources on quality. As a result, decisions about resource allocations, grant levels and tuition ceilings are not based on sufficient information.

Recognizing that the outcome oriented indicators currently in place do not provide a complete measure of program quality, universities have established processes for assessing the quality of their undergraduate and graduate programs that include examinations of the adequacy and appropriateness of resources allocated to each program. Their quality assurance processes consist of self-assessments performed by the program's faculty and reviews performed by faculty from other universities.

The Advisory Panel on Future Directions for Postsecondary Education concluded that it was important, from the perspectives of both accountability and the protection of students, that independent assurance be obtained regarding the effectiveness of each university's quality assurance processes. We agree. We noted that the Ministry does not perform any work itself in this regard but relies upon the activities of two affiliates of the COU:

- the Ontario Council of Academic Vice-Presidents (OCAV), which is responsible for undergraduate programs; and
- the Ontario Council on Graduate Studies (OCGS), which is responsible for graduate programs (approximately 10% of enrolment).

The OCGS has been active since the 1960s, while the OCAV was established in 1996. Both conduct their assessments on a seven-year cycle and both report the results of their work to the Ministry. However, their functions differ in that the OCGS assesses the quality of every graduate program funded by the Ministry, whereas the OCAV assesses the adequacy of each university's internal procedures for undergraduate program quality assurance. As of December 1998, the OCAV had assessed the procedures of four universities and expected to complete assessments of the procedures of all Ontario universities by 2003.

The Ministry had not provided any financial support for quality assurance and neither the Ministry nor the COU had allocated any resources for research to improve methods of measuring and assessing program quality or to develop assurance standards. The COU, through its affiliates, devoted the following resources to quality assurance:

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- the OCAV spends approximately \$100,000 and receives in the order of 80 hours of volunteer time from retired professors to assess the undergraduate program quality assurance process of two or three universities per year; and
 - the OCGS spends approximately \$700,000 and receives in the order of 2,300 hours of volunteer time from professors to assess the quality of 80 to 120 graduate programs per year.

The deans and department chairs we interviewed during our visits stated that their self-assessment and external review processes, while time consuming, were worthwhile and provided us with examples of improvements that had been made as a result of the reviews. We reviewed a sample of reports prepared by external examiners and found that they contained useful recommendations and that the examiners appeared to perform their task in an objective manner.

However, we also noted a number weaknesses in the processes, details of which were provided to the Ministry and to the COU. The weaknesses stemmed from a lack of assurance standards governing program quality reviews and inadequate guidance regarding the criteria that examiners should use in assessing key aspects of program quality. Thus, while examiners were expected to assess whether a program required graduates to demonstrate an appropriate level of intellectual development, the criteria to be used in making this key assessment and the nature and extent of evidence required to support their findings and conclusions were left entirely up to individual examiners.

The adequacy of the OCGS program quality assessment procedures has been evaluated twice in the last 30 years; the report on the most recent evaluation was published in April 1999. The evaluation was initiated and the terms of reference for the review were set by the OCGS without the involvement of the Ministry, although the OCGS provided a copy of the report to the Ministry. As the OCAV procedures were still evolving, they had not been reviewed.

The April 1999 report raised a number of issues, including the fact that the OCGS procedures were not designed to compare program quality at the subject university to that at other universities either inside or outside Ontario. Instead, each program was assessed against its own stated objectives. Thus, the OCGS reviews would not highlight a situation where a university was achieving its objectives with respect to a program's quality but failing to keep pace with the improvements in quality that other universities were achieving.

Based on our review, the same concern applies to the OCAV reviews and the self-assessments performed by the institutions. Therefore, the Ministry has no assurance that universities are making the changes needed to at least maintain, if not improve, the province's competitive position.

In contrast, programs that must meet standards established by external accreditation bodies have a more objective and consistent basis for assessing quality because program objectives and outcomes have been clearly established. Most of the bodies are national or international, thus allowing comparisons to other jurisdictions. However, only a small proportion of students are enrolled in accredited programs.

Although the Ministry relies on the COU affiliates to provide it with independent assurance that its program quality objective is being achieved, it does not have an agreement with the COU

covering this activity. In order to enter into an agreement, the Ministry must first identify the requirements it wishes to incorporate into the agreement including:

- its expectations regarding standards of assurance to be employed in program quality examinations including the scope of the examinations and the level of assurance it needs;
- the financial resources required to meet its expectations and to support the cost of research into methods of measuring and assessing program quality; and
- the nature and frequency of independent evaluations of the COU's quality assurance processes.

Independent information on program quality would be of interest to students in making choices about which institutions to attend. However, we found that only two of the universities we visited published summary information on the results of the OCGS quality reviews. Only one of them published information on its internal quality assurance processes and results. Consequently, there is insufficient public reporting on the extent and results of universities' program quality assurance efforts.

Recommendation

In order to obtain assurance that publicly funded programs are of appropriate quality, the Ministry should:

- **work with universities to establish clear expectations for program quality including an agreed-upon definition of quality that facilitates comparisons;**
- **identify its requirements regarding independent quality assurance processes and incorporate them into an agreement with the Council of Ontario Universities; and**
- **ensure that universities summarize and report publicly on their internal quality assurance processes, activities and results, and on the results of external reviews.**

Ministry Response

The Ministry agrees that further steps can be taken to obtain assurance of the quality of the universities' publicly-funded programs and will undertake to work with the universities to formalize its expectations for program quality and for quality assurance processes. As part of this undertaking, the appropriate level and type of public reporting on results will be addressed. To the extent that objective and comparable measures of academic program quality can be identified, these will be incorporated into these expectations. As previously noted, one of the recommendations of the Ontario Jobs and Investment Board report was for the establishment of an independent quality assessment organization.

ACCESS

Accessibility is the other key objective that the Ministry has identified for postsecondary education. Although the Ministry does not have a formal policy on access, we were advised that it accepts the principles set out by the Advisory Panel in its 1996 report, *Excellence, Accessibility, Responsibility*, (p. 18):

... that postsecondary education must evolve in a way which provides a high-quality learning experience to every Ontarian who is motivated to seek it and who has the ability to pursue it.

Further,

... that governments must help ensure that students with the ability and motivation for higher education are not barred from access to it because they cannot afford it.

Accessibility has two elements: capacity and affordability. Some jurisdictions, such as those in Western Europe, place greater emphasis on affordability than Ontario, but do so at the expense of capacity, with the result that a smaller proportion of students qualify to attend university than in Ontario.

The Ministry does not control the capacity of Ontario's universities directly, but does so indirectly through the structure of its funding system. Although the funding system encourages universities to serve a larger proportion of the population than many other jurisdictions serve, it is not intended to ensure that there is sufficient capacity to accommodate all those who are motivated to apply without regard to their academic ability. In view of the high cost to both taxpayers and students of attending university, it is clear that both would lose if admission policies did not consider ability. Therefore, establishing capacity for the university system involves balancing accessibility on the one hand with the cost to students and taxpayers on the other.

The capacity provided for under the Ministry's funding system has meant that, in recent years, between 50% and 55% of applicants to Ontario universities were admitted. COU data indicate that students with a 70% average on their OAC courses can gain admission to some program at some university, but not necessarily admission to their first choice program at their first choice university. The experience of some of the universities we visited that experimented with lower admission requirements in the mid-1990s supported the 70% cut-off level in terms of the likelihood of students completing their programs.

While the Ministry supports the policy objective of maintaining university capacity at a level sufficient to accommodate all those who possess both the motivation to seek and the ability to pursue a university education, it has not developed the indicators necessary to measure the extent to which this objective has been achieved.

FORECASTING CAPACITY NEEDS

Since the primary users of the postsecondary education system are those in the 18- to 24-year-old age group, the Ministry monitors this group's participation rate in postsecondary education as a means of measuring accessibility. The Ministry's goal of maintaining a 34% participation rate for postsecondary education is based on the current rates of approximately 22% for universities and 12% for colleges of applied arts and technology.

The participation rate in university education has been trending upwards for some time and, over the last decade, has increased from 17% to the current 22%. As a result, full-time enrolment increased by approximately 29,000 over the last ten years, an increase of 14%, even though the number of 18- to 24-year-olds dropped by 9%.

Actual and Forecast Full-time University Enrolment: 1988, 1998 and 2008

	Number			Change			
	Actual		Forecast	Actual 1988-98		Forecast 1998-2008	
	1988	1998	2008	No.	%	No.	%
Pop. 18-24 yrs.	1,156,000	1,047,000	1,207,000	-109,000	-9	+160,000	+15
Full-time enrolment	201,000	230,000	266,000	+29,000	+14	+36,000	+16
Participation rate	17%	22%	22%				

Source: Based on Council of Ontario Universities data

Making reliable estimates of future demand is currently an issue due to the forecast increasing population of 18- to 24-year-olds. In order for the Ministry to maintain the current participation rate of 22%, university enrolment would have to increase by 36,000 by 2008. In addition, a recent study by the COU suggested that there will be sufficient demand from qualified students to justify an increase in the participation rate to 24.3% by 2008. In order to accommodate this rate, the Ministry would have to increase full-time student capacity by 63,000. At current funding levels, increases of 36,000 and 63,000 would require an additional \$238 million and \$416 million, respectively, of annual operating grants as well as substantial capital investment.

Universities require significant lead time to implement major staffing and capital investment decisions. Consequently, the Ministry has established a committee to examine the impact of the above projections and the elimination of grade 13 in 2003. However, the Ministry lacks the information necessary to assess the effect that other factors, such as the proportion of students who have the necessary ability, the employment opportunities for graduates and the level of tuition fees, are likely to have on future demand for university education. Better information would assist the Ministry in predicting, for example, the extent to which the upward trend in the participation rate of 18- to 24-year-olds in university education can continue without diluting the quality of programs offered.

RESPONDING TO CHANGES IN DEMAND

Through its funding system the Ministry manages overall capacity at the universities and has a process in place to ensure that there is sufficient demand before approving new programs for provincial funding. However, once approved, it is up to each institution to monitor demand for its programs and decide whether funding should be reallocated.

The universities that we visited provided a number of examples where resources had been reallocated in response to changes in demand. In addition, the Ministry had introduced a special program to help universities to quickly increase their capacity in information technology programs. However, despite these efforts there continue to be program areas where capacity has not grown as quickly as demand. Programs in these disciplines commonly have average

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entering grades that are 10% to 20% higher than low demand programs and well above the universities' minimum admission requirements. Thus, the Ministry needs to be able to monitor trends in student and labour market demand and in universities' efforts to meet those demands so that it can be satisfied that universities are sufficiently responsive to changes in the province's needs.

MAINTAINING AFFORDABILITY

Affordability involves several factors: the cost of attending university, the means of financing these costs, and the time required for students to achieve their educational objectives and join the work force.

Because graduates obtain substantial personal economic benefits as a result of their degrees, studies in Ontario and other jurisdictions have concluded that students should bear a portion of the cost of their university education. However, as the Advisory Panel noted, the Ministry has not determined what share of the costs would be appropriate.

The average full-time undergraduate tuition fee in Ontario has increased from approximately \$1,400 to \$3,500 per year over the 10-year period ending April 30, 1998, and the proportion of university operating revenues provided from tuition fees has risen from 18% to 33%. COU data indicate that these tuition fees are above those charged in most other provinces but below those at most public universities in the Great Lakes states. To help maintain accessibility in the face of rising costs, the Ministry has devoted an increasing share of postsecondary education expenditures to financial assistance programs for students and has also created a number of scholarship programs.

Students also finance all or a portion of the cost of university education through employment. Most universities structure their program offerings such that students attend university from September to April and work during the summer. Some universities offer co-op programs or internships whereby students alternate between work and study, often in a way that allows them to work for employers who have positions available during the fall and winter seasons. The government has introduced tax credits to encourage employers to expand the number of co-op employment opportunities.

One of the universities that we visited reduced the time required to obtain an MBA from 16 months to 12 months, thus allowing students to return to the work force more quickly. It was clear from our discussions with the program developers that one factor that enabled them to condense the program was treating students' time as a scarce resource and implementing a number of steps to use it efficiently. Condensing program time also requires that educational objectives be clear and focused.

Our research indicated that one university in the United States had initiated a project to reduce the time required to obtain an undergraduate degree from four to three years by focusing on learning outcomes rather than time in the classroom and adopting innovative program delivery methods. If successful, the project will reduce the cost to students and taxpayers of achieving the desired educational outcomes and enable students to join the work force more quickly.

We noted that the Ministry did not collect the data required to monitor the performance of universities in introducing measures that assist students in reducing the financial burden of achieving their educational objectives.

Another aspect of minimizing the time and money students must invest in achieving their educational objectives is the efficiency of the college-university credit transfer process. Both the Advisory Panel and the Ontario Jobs and Investment Board have raised this issue and called for improved arrangements to transfer credits and increased cooperation in the form of collaborative programming, shared services and facilities.

In this regard, we noted that the Ministry funds and participates in the College-University Consortium Council. Formed in April 1996, the Council's mandate is to facilitate, promote and coordinate joint education and training ventures that aid the transfer of students from sector to sector, facilitate the creation of joint programs between colleges and universities, and further the development of a more seamless continuum of postsecondary education in Ontario. This initiative is intended to help increase the system's ability to meet changing student needs and to reduce the time and money students must invest in reaching their goals. However, the Ministry has not yet established goals and targets or begun to collect the data required to measure the success of this important initiative.

Recommendation

In order to ensure that the university system is meeting provincial and student needs, the Ministry should:

- **develop indicators that measure the extent to which its universities program has met its accessibility objectives;**
- **obtain the information necessary to reliably forecast capacity and spending requirements;**
- **monitor universities' efforts to reallocate capacity to meet changes in demand, and take appropriate action where they are unsatisfactory; and**
- **encourage and monitor universities' efforts to deliver programs in ways that lessen the need for students to rely on financial assistance programs and reduce the time and cost required for students to achieve their educational objectives.**

Ministry Response

The Ministry agrees that more extensive use can be made of existing application and enrolment data to develop indicators related to accessibility, and will undertake to work with the universities in this regard.

With reference to the need to obtain the information necessary to reliably forecast capacity and spending requirements, the Ministry has established senior level committees with universities and colleges to provide advice on actions that might be taken to accommodate the anticipated growth. These groups have dealt with such issues as enrolment growth; operating costs of accommodating growth; quality and accountability issues; technology requirements; physical plant requirements and capital implications.

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Through this work, the Ministry is now able to make estimates of future enrolment demand, to develop strategies to address capacity issues, and to anticipate and respond to high demand for certain types of programming, as occurred with the Access for Opportunities Program for high demand engineering and computer science.

With reference to the point that the Ministry should monitor universities' efforts to reallocate capacity to meet changes in demand, the Ministry will work with the universities to develop appropriate strategies to address this issue.

With reference to the final point in this recommendation, the Ministry notes that a variety of creative approaches to delivering university programs will be needed to accommodate the anticipated enrolment growth. As the work on university capacity continues, these approaches will be fully explored. Increased flexibility in programming could help reduce reliance on student financial assistance.

MONITORING THE FINANCIAL HEALTH OF UNIVERSITIES

The universities' incorporation statutes place the responsibility for financial stewardship with their boards. Boards rely on audited financial statements, management reports and the expertise of their finance and audit committees to help monitor the financial health of their institutions. Our discussions with board members at the universities we visited and the responses to our surveys indicated that all but two boards were satisfied with the quality and clarity of the financial information they received.

One element of an effective accountability framework is ministry monitoring of the financial position of universities to determine whether boards are fulfilling their stewardship responsibilities. In this regard we noted that nine universities have incurred operating deficits in at least one of the last two years. However, a number of the deficits were largely the result of severance and other one-time charges associated with restructuring programs that the universities implemented in response to funding cuts and thus may not represent an ongoing problem. Nevertheless, the Ministry had to intervene in two cases in the early 1990s where smaller institutions had experienced serious financial difficulty. In addition several universities mentioned that they were concerned about the significant cost of deferred maintenance on their buildings, which a 1998 study by the COU estimated to be approximately \$600 million system-wide.

In order to effectively discharge its responsibilities, the Ministry needs clear policies and procedures for determining when intervention is appropriate and on the nature and timing of corrective action. At the time of our audit, the Ministry did not have the policies and procedures necessary to ensure effective monitoring.

Another factor that limits the effectiveness of ministry monitoring is late reporting by universities. In 1998, for example, only about half of the universities had submitted their audited financial statements to the Ministry seven months after their fiscal year-end. While the

Ministry makes use of summary financial information on all universities prepared by the COU, this information is not available until June of the following year, some 14 months later.

The Ministry also requests budget information from universities but this too is often not timely.

Recommendation

In order to ensure that Ontario's universities are and remain financially sound, the Ministry should establish clear policies and obtain the resources and information needed to effectively monitor the financial condition of universities at risk and to take any necessary corrective action.

Ministry Response

The Ministry agrees that it should monitor the financial condition of the universities. The Ministry currently obtains the necessary information to effectively assess the universities' financial position and is establishing clear internal policies regarding the identification of institutions at risk. The recommendation that the Ministry "take any necessary corrective action" may confuse accountabilities, since the governing board is legally responsible for a university's finances. The Ministry's role will be to satisfy itself that the board is effectively addressing the problem.

UNIVERSITY PERFORMANCE REPORTING

CURRENT PRACTICES

In 1992, the Task Force on University Accountability sought advice from the COU on appropriate performance indicators for Ontario universities. In 1993 the COU reported 25 categories of performance and 34 indicators from which governing bodies could choose according to the missions of their individual institutions. The focus of the indicators was on the achievement of institutional missions and goals. They were not intended to establish norms against which universities could be compared or to provide a basis for ranking universities.

All of the universities that we visited had started reporting performance indicators, some of which were those suggested by the COU. As can be seen from the following table, the processes were relatively new, and we were advised that they were still evolving.

Status of Performance Indicators and Reporting at Universities We Visited

Performance Indicators and Reporting	University				
	1	2	3	4	5
Number of Categories	12	13	8	6	5
Number of Indicators	14	28	41	19	20
Number of Years Reported	2	1	1	2	4
Reports are Available to Public	No	Yes	Yes	Yes	Yes

Source: Office of the Provincial Auditor

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Most of the indicators reported were based on data that were already available and thus did not require the institutions to invest in new systems or processes. Examples of the indicators reported by the universities that we visited are listed in the table below.

Examples of the Performance Indicators Reported by Universities

PERFORMANCE CATEGORY	INDICATORS	BENCHMARK
Demand	The number of applications from prospective students. The number of applicants listing the university as their first choice.	Historical comparisons.
Calibre of Students	The average entering grade of first year students. The proportion of Ontario Scholars.	Historical comparisons and/or a national magazine's survey data.
Calibre of Faculty	The proportion of faculty with PhDs.	Historical comparisons and/or a national magazine's survey data.
Adequacy of Resources	Class size. Library funding.	Historical comparisons and/or a national magazine's survey data.
Quality of Research	Research grants per faculty member.	Historical comparisons and/or a national magazine's survey data.
Space Utilization (one university reported)	Actual floor space by category (classrooms, labs, offices, and so on) expressed as a percentage of the COU standard.	Standards developed by the COU based on enrolment.
Energy Consumption (one university reported)	Energy use per square foot relative to other institutions.	Energy consumption per square foot of seven other institutions.

Source: Office of the Provincial Auditor

A 1995 paper published by the Association of Universities and Colleges of Canada, *A Primer on Performance Indicators*, stated that performance indicators should have a comparative dimension or reference point that permits a value judgment to be made about the university or

the university system. As the above table shows, in most cases the reference points for the indicators reported by universities we visited consisted of historical comparatives or statistics from a national magazine survey. While reporting trends in such areas as library funding may provide information about the relative importance universities place on such areas, they provide no information about how well managed these services are.

In a few cases, these universities had made comparisons to other Ontario or Canadian universities. For example, as a measure of research excellence, one university compared itself to other Canadian universities and to the national average on its success rate in obtaining national peer-adjudicated research grants. While such comparisons are more informative than historical trends, they too lack a reference point such as expectations or targets that the institution could establish in relation to its own strategic goals. The universities advised us that because their performance measurement efforts were relatively new and evolving, they were not yet in a position to set meaningful performance targets, but that they would be soon.

MONITORING ECONOMY AND EFFICIENCY

One area of particular concern to us was the inability of the universities we visited to relate resources (inputs) to outputs. Such information is critical for determining whether individual universities are operating in an economic and efficient manner, which in turn has an impact on the affordability of a university education. However, the universities we visited did not have the systems in place to provide much of the information needed to measure the resources used in achieving the primary outputs of program graduates, research results, and community services. Consequently, for example, the universities we visited could not demonstrate how the quality of their programs varied according to the resources available to deliver them.

We also noted that universities require better information regarding their institution's capacity to deliver programs. Capacity is a complex measure that is affected by several factors, including the physical space and faculty available, the number of hours per year that the university operates, the type of programs offered and the educational objectives of the programs and courses.

Appropriate cost and capacity information would enable governing bodies:

- to monitor capacity utilization and the cost of programs, make meaningful intra- and inter-institutional cost comparisons, and identify opportunities for improvement; and
- to determine the extent to which the restructuring efforts undertaken by a number of universities in recent years have achieved sustainable increases in the economy and efficiency of their operations, or have simply deferred certain costs to future years.

Recommendation

In order to assist the Ministry and governing bodies in assessing institutional performance, the Ministry should encourage universities to develop and report measurable objectives and appropriate indicators of the economy, efficiency and effectiveness with which they meet them.

Ministry Response

As noted by the Provincial Auditor, considerable work was done by the Council of Ontario Universities in the development of performance indicators for institutional use. This work was undertaken in conjunction with the work of the Task Force on University Accountability. The universities are at various stages in the implementation of indicators, and the Ministry has not identified its own requirements from the universities in this regard. The Ministry will undertake to work with the universities in the development of measurable objectives and appropriate indicators of performance.

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FUNDING UNIVERSITY EDUCATION

Approximately \$1.4 billion of the \$1.6 billion of grants that the Ministry provides to the province's universities are basic operating grants. At one time the grant paid to a university was based on its enrolment in certain broad program categories and a weighting factor for each category that was intended to reflect the cost of delivering programs in that category.

The Ministry moved away from enrolment-based funding in the 1970s and, starting with the 1986/87 academic year, adopted a system under which each university received a specified portion of the Ministry's operating grants budget. Each university's grant is conditional on maintaining a minimum weighted enrolment and on adhering to the Ministry's tuition fee policies.

While the current approach to funding provides universities with relatively stable funding by reducing the impact of enrolment declines, it does not link funding to the achievement of the Ministry's objectives. For example:

- **Program quality:** The funding system does not reward program quality. A program whose quality was comparable to the best in the world would generate the same level of grant and tuition revenue as one of mediocre quality. Although the Ministry has given universities freedom to increase tuition fees beyond ministry standards for graduate and professional programs, universities are not allowed to invest all of the increases in quality improvements. Instead, 30% must be set aside for student assistance. Thus, the funding system limits the number of programs in which the province's universities can aspire to the highest levels of quality unless they can attract other significant sources of funding.
- **Access:** The Ministry's program weightings and standard tuition fees are not based on up-to-date analyses of the cost of delivering programs. One impact of this is that universities had not been able to increase capacity in certain high cost programs as quickly as the demand from students and employers warranted.

The Ministry responded to this problem with respect to high technology programs through the Access To Opportunities Program which, in partnership with the private sector, is intended to provide the funding required to double enrolment within two years. The Ministry also relaxed controls on the tuition fees for some programs on the condition that a portion of the increased revenues be used to increase capacity or improve program quality. These responses help universities to respond to specific needs but do not ensure that the universities can and do respond to changing demand on an ongoing basis.

Recommendation

In order to help ensure that the funding system meets the needs of students and the province, the Ministry should establish funding approaches that link funding to the achievement of the Ministry's postsecondary education objectives.

Ministry Response

The current funding system links university shares of total operating funding to the achievement of minimum levels of enrolment, weighted by program. With this funding system the universities have contributed to the fulfilment of the Ministry's postsecondary accessibility objectives, allowing Ontario to achieve one of the highest participation rates in Canada. The possibility of building other objectives into the funding formula will be explored. Several suggestions were made in the Ontario Jobs and Investment Board report for targeting funding toward the achievement of specific objectives and these suggestions will assist analysis on this issue.