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Responding to Financial Challenges 1996-97

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1 Introduction

This document is intended to serve two purposes. First and foremost, it is intended to inform the public, the governments and the universities on what the Commission feels are currently the major issues in financing post-secondary education in the Maritimes. Secondly, the document advises universities and governments of what the Commission believes to be appropriate action on the part of universities and governments in response to those issues.

Probably the most urgent issue facing universities is the continuing decline in the level of financial support from governments. Juxtaposed with this decline in government support is an increasing tendency on the part of governments to regard universities as instruments of public policy from whom they expect increased returns for their grant dollars.

Another major issue arises from the so-called knowledge explosion. The role of universities as repositories for, and disseminators of, knowledge is being increasingly challenged by the private sector.

Students, too, are feeling the impact of changes in university financing. Tuition fees and other costs are increasing. As a consequence, so are debt levels.

2 Financial Challenges in Higher Education

Reduced Support from Government

For many years, the Federal Government has transferred money to provincial governments to help finance provincial expenditures in health, post-secondary education and income assistance under the Established Programs Financing (EPF) and Canada Assistance Plan (CAP) arrangements.

In its February 1995 budget, the Federal Government announced that it was replacing these arrangements with the Canada Health and Social Transfer (CHST). These federal programs will be grouped under one umbrella with substantially reduced federal cash transfers to the provinces starting in 1996-97.

For 1996-97, the announced CHST transfers from the federal level will be $2.5 billion less than the projected transfer would have been under the present system. In 1997-98, the amount will be $4.5 billion less than it would have been in 1995-96. A rough estimate of the reductions anticipated in the Maritimes is:

Table 1. Reduction in CHST.
($ millions)

	Canada Reduction	Estimated Impact on:			
		NB	NS	PEI	Maritimes
1996-97	2,500	64	81	12	157
1997-98	4,500	116	146	21	283

How individual provinces absorb these reductions and reflect them in their program spending is their own decision. It seems certain, however, that reduced federal transfers will have an impact on the level of provincial funding for universities. The federal reduction is of particular concern when coupled with the already restrained level of financial support coming from provincial governments in the 1990's.

The table below compares the increase in general revenues of Maritime provincial governments with the changes in the amount voted for universities during the 1990's.

Table 2. Percentage change in general revenues of provincial governments between 1990-91 and 1994-95 compared with the percentage change in university grants for the same period.

	NB	NS	PEI
Change in general revenues[1]	12.6	5.4	10.8
Change in general expenditures[1]	9.5	12.5	11.7
Change in university grants	6.3	(3.6)	(3.2)

[1]Source: Statistics Canada.

For 1994-95, the universities assistance allotment in Nova Scotia decreased by 2.4%. In figures released in 1995, prior to the determination of the actual level of reductions in payments under the CHST arrangement, universities assistance was forecast to decrease a further 5.4% in 1996-97. Funding increased by 0.2% in 1995-96 in New Brunswick and is forecast to decline by 2% in each of the next three years. Funding declined by 0.2% in Prince Edward Island in 1995-96 and no announcements have been made concerning future years.

Impact on Students

University students incur both direct and indirect costs when they enrol. Direct costs include such things as tuition and other fees, books and living costs. In addition, there is the indirect "opportunity" cost of wages not earned while studying. Table C.3 in Appendix C provides an estimate of the direct costs of attending a Maritime university.

In 1983-84, students in the region contributed approximately 19% of the cost of their education by way of tuition; by 1993-94, their share had increased to about 29% (see Table 3). If government support continues to fall and tuition continues to rise, this trend will obviously continue.

Table 3. Percent of General Operating Income(1) From Tuition Fees, 1983-84 to 1993-94.

	New Brunswick		Nova Scotia		Prince Edward Island	
	1983-84	1993-94	1983-84	1993-94	1983-84	1993-94
Tuition Fees	18.7	27.5	19.3	29.9	19.1	29.0
Provincial Government Grants	76.6	70.8	75.0	66.8	80.3	69.0
Other Government Grants	0.0	0.1	1.1	1.4	0.0	0.5
Other Income	4.7	1.6	4.6	1.9	0.6	1.5
	100.0	100.0	100.0	100.0	100.0	100.0

(1) See the chart on page 8 for the distinction between operating income and expense versus total income and expense.
Note: PEI estimates exclude AVC
Sources: CAUBO, Statistics Canada

Table 4. Tuition Fees as a Percent of University General Operating Income[(1)], by Province, 1993-94.

Newfoundland	18.3	Ontario	26.6
Prince Edward Island	29.0	Manitoba	25.0
Nova Scotia	29.9	Saskatchewan	22.5
New Brunswick	27.5	Alberta	22.4
Quebec	17.0	British Columbia	23.2

(1) See the chart on page 8 for the distinction between general operating income and expense versus total operating income and expense.

Sources: CAUBO, Statistics Canada

Student advocacy groups have made it clear that, if tuition fees at Maritime universities continue to increase, at some point the result will be reduced access. Initiatives such as a standard fee at the first and/or second year level, with differential fees later in higher cost programs, may help to reduce the potential for adverse impact on student access and program choice.

As tuition rises, both in real terms and as a percent of the total cost to a student, students may shop differently when choosing where they will attend university. For those who are cost conscious, the cheapest option will be to attend an institution or receive courses in a way which allows the student to live at home. Students who can afford to live away from home, however, may look farther afield in choosing an institution.

As governments have continued to practice restraint, one of the consequences has been increased tuition. Average tuition rates in the Maritimes have risen by about 42% during the 90's. This has led to increased debt load, but has not yet resulted in noticeably reduced participation rates by high school graduates. Part of the reason for this phenomenon is because tuition is still only about one-third of the cash outlay required to spend a year in university. Nonetheless, a large proportion of students receive student aid. Changes in student aid programs in all provinces have led to a sharp increase in student debt load. As tuition and debt levels continue to rise, it seems inevitable that access will be affected and students may require more time to complete a degree.

Both society and the individual gain when a student attends university. It is difficult, if not impossible, to determine which benefits more, but there is a requirement for governments and universities to strike a balance as to who should bear how much of the cost. Governments are obviously determined to reduce their deficits. Some of their cuts will be borne by universities and will have an impact on students.

Student Aid

> ***"The original purpose for maintaining a reasonable level of tuition fees was to guarantee access for students. We need to know just how much students can actually absorb before accessibility is no longer a reality."***
> - New Brunswick Student Alliance

All student aid programs in the Maritime provinces have undergone fundamental changes in policy and practice during the last two to three years. The thrust has been to make more money available to students by transforming grants to loans, thereby also increasing personal debt. In 1993-94, New Brunswick's bursary program was replaced with a loan/bursary program. In the same year, Nova Scotia moved from a provincial bursary program to a provincial loan program with remission. In 1994-95, Prince Edward Island adopted a student aid program similar to that of Nova Scotia.

Recent changes to the federal student aid programs have seen:

- loan limits increased;
- targeted aid in the form of loans and grants for part-time students;
- assistance for students with permanent disabilities;
- special opportunity grants for female doctorate students; and
- special arrangements with banks.

The percentage of Maritime students receiving student assistance has not varied significantly since 1982-83 (see Appendix A). For example, 67.8 % of Maritime students received Canada Student Loans (CSL) in 1982-83 versus 65.1% in 1994-95. But, the total average assistance received by students (CSL, provincial loans and bursaries) has increased significantly over the years. The average Maritime student received $2,694 in assistance in 1982-83 compared to $5,838 in 1994-95, an increase of 116.7%. Of this, 67% was provided as loans in 1982-83 compared to 98% in 1994-95. In deflated dollars, the increase in loans received by students averaged approximately 104%.

At current borrowing rates, students who borrow at the average rate each year will accumulate a debt load of $20,000 to $24,000 on completion of a four-year degree and $25,000 to $30,000 for a five-year undergraduate degree, assuming they complete their degree in this minimal time frame. These amounts do not allow for the impact of forecast funding reductions by either or both levels of government. If tuition fees increase, student debt loads will rise accordingly. Based on the 1992 survey of 1990 graduates by Statistics Canada, 43% of Maritime respondents indicated that they had borrowed money to finance their education through the student loan program during their studies. Of these, 53% owed less than $10,000 and 29% owed between $10,000 and $20,000 at graduation. Two years after graduation, 21% still owed between $10,000 and $20,000. About 17% of respondents indicated they were having trouble repaying their loans two years after graduation.

The extent to which students will be able to repay these levels of debt is an important consideration for governments. New Brunswick recently completed a survey of 1994 university graduates who had received student aid. Only one in three had a regular, full-time job. Nearly half had annual incomes below $20,000.

The percentage of students receiving assistance varies greatly by institution and reflects the regional location of institutions and clients served (see Table C.2). The institution with the fewest students assisted is the University of King's College (25.4%). The incidence is highest at the University College of Cape Breton (70.1%), the Nova Scotia College of Art and Design (69.8%), and at the Université de Moncton's Shippagan Campus (65.9%).

As tuition levels continue to rise, it is important that the impact on access and equity of access be monitored. The Maritimes have made tremendous gains in equity of access; it is in the interest of future generations to protect that achievement.

Changes in student aid programs are helpful in making more money available to the students, but debt levels are mounting. Income contingent loan repayments schemes would help although that system also has pitfalls. A greater effort by employers, including governments, to hire more students in the summer would be even more helpful.

Impact on Institutions

University enrolments have increased and so have general tuition levels. Total tuition collected by universities in the Maritimes in 1990-91 was $109 million. By 1994-95, the estimated amount had risen to well over $160 million. Total government support remained stable at approximately $379 million during the same period. In percentage terms, tuition fees have moved from about 22% of institutional operating income to approximately 30%.

The importance of this shift to increased dependence on tuition will be felt in two major ways by institutions. Students are already exerting an increasing influence on campus activity. This influence will continue to grow. The other impact will be a consequence of the fact that total enrolment has begun to flatten. For some institutions, those with waiting lists, this will be no problem; for others it will remove the one bright spot in their revenue picture. Tuition revenue may not fill the gap left by reductions in grant funding by governments.

Uncertainty about the impact of federal cuts makes planning more difficult at the very time when the fiscal outlook makes planning over a three to five year horizon imperative. Moreover, the collegial system of management in universities, particularly when combined with collective agreements for faculty, does not lend itself to quick adjustments. We do know that universities have not passed all revenue shortfalls to the students in the form of tuition increases. They have limited expenditure growth and pursued other sources of revenue. A sustained effort will be required.

Figures C.1, C.2 and C.3 in Appendix C show changes in general operating expenditure per full-time equivalent student in each of the three Maritime provinces in constant dollars. While the figures differ from province to province, there are some common elements. The unit cost of instruction has dropped in all three. This reflects an increase in the ratio of students to staff. The amount spent on student services rose in all but Prince Edward Island, where it was already higher than in the other two. Large drops are evident in such areas as libraries, physical plant and administration.

To do more with less is a challenge that has faced universities for some time. Universities have made expenditure reductions, but two items are of continuing concern: the balance between salary and non-salary expenditures and the rigidity inherent in governance and collective agreement structures. These issues are specific to the situation at each institution. Priorities vary from year to year and from institution to institution, but in every case institutional flexibility will be a prerequisite for thriving in tough financial times.

On a Maritime basis, the following measures of change offer an interesting exercise in comparison and contrast between 1990 and 1995:

Table 5. Comparative Growth Rates, Various Items, Maritime Provinces, 1990-1995.

	% increase
Consumer Price Index[(1)]	9.4
Government revenues[(1)]	9.0
Government expenditures[(1)]	11.1
Government grants to universities[(2)]	0.0
Enrolments[(2)]	11.0
Average Tuition fee rates[(1)]	42.0
Total tuition collected[(2)]	47.0
University general operating expenditures[(2)]	9.0
University expenditures on faculty[(2)]	10.0

Sources:
(1) Statistics Canada
(2) MPHEC

Figure 1

The General Operating portion is comprised of the

Maritime Universities
Percentage of Total Income by Source

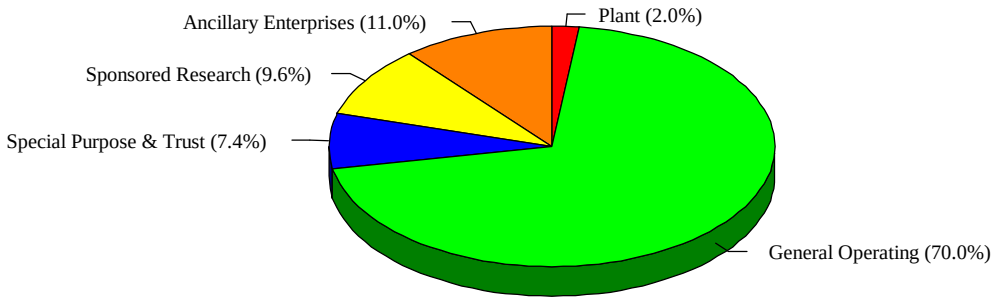


Table 6. Proportions of General Operating Revenues and Expenses, 1993-94.
(Before Cost Recoveries)

	Revenues %			Expenses %	
	Grants	**Tuition**	**Other**	**Salaries**	**Other**
Mount Allison	63	34	3	75	25
St. Thomas	56	42	2	83	17
Université de Moncton	74	24	2	79	21
University of New Brunswick	73	27	-	79	21
Acadia	62	37	1	75	25
Atlantic School of Theology	50	48	2	68	32
Dalhousie	74	24	2	79	21
Mount Saint Vincent	67	33	-	81	19
NS Agricultural College	88	11	1	73	27
NS College of Art & Design	78	22	-	64	36
NS Teachers College*	80	20	-	77	23
St. Francis Xavier	60	37	3	73	27
Saint Mary's	53	45	2	79	21
Technical University of NS	79	21	-	75	25
UCCB	63	34	3	78	22
Université Sainte-Anne	54	35	11	75	25
University of King's College	52	38	10	81	19
UPEI	80	19	1	75	25
UPEI excluding AVC*	71	29	-	83	17

Source: CAUBO 1993-94
*Estimate

3 Technological Challenges

The Information Explosion and Changes in Delivery Systems

The convergence of two phenomena - the information explosion (aided by technology) and information technology itself - is perhaps the most far-reaching of the challenges facing universities.

On the one hand, the amount of codified knowledge is now doubling in less than five years, making it impossible for a student to acquire even specialized "content mastery" in the time devoted to a normal undergraduate degree. On the other hand, information and communication technologies make enormous amounts of documented knowledge directly available to the learner without the mediation of a professor.

The result is that the "who, what, when, where and how" of post-secondary learning is being redefined and along with it the role of universities and their faculty. We are in the midst of this information revolution, and the ultimate shape of the university system that will emerge from this revolution is not yet clear. However, the trends are increasingly evident in our changing understanding of post-secondary learning:

Dimension of PSE learning	Characteristics of the Past	Evolving/Emerging Dimensions
Who	? traditional students direct from high school ? relatively homogeneous student population	? more diversity in income, age, ethnicity
What	? mastery of a body of knowledge ? content preparation for a career	? accessing, using and managing information ? critical thinking and problem solving
When	? regular weekdays	? professional development and upgrading during career interspersed with College education/training ? early morning, evenings, weekends
Where	? the classroom ? residential campus model	? the workplace, home, travel, community centre... ? distance learning, beyond the reach of single institutions ? more diversified institutions

Dimension of PSE learning	Characteristics of the Past	Evolving/Emerging Dimensions
How	? the classroom lecture ? faculty member as major source of content ? assessment of assignments and examinations given simultaneously to all	? individualized learning, customized learning environments ? technology-mediated delivery ? faculty as navigator and mentor, guarantor of standards ? self-paced, self-directed learning

Information technologies have already changed teaching and learning methods profoundly. They offer the student direct access to increasing amounts of information and the faculty member/institution opportunities for economies of scale and mass customization in delivery methods.

The challenge for today's universities will be to reassess the balance between labour and learning technology to ensure a dynamic and appropriate learning environment. Each must redefine its own role in a more diversified set of institutions that comprise the post-secondary education system. The technological revolution also implies a rebalancing of expenditures between capital and labour.

Accreditation

Maritime universities and colleges have not been idle while this technological shift is occurring. Much of what is available over the airwaves originates in our universities. Increasingly, however, information and knowledge is being acquired by learners from more than one source. People who learn in this fashion would not normally earn a university degree. Most learners want accreditation, however, and institutions (including our universities) have responded, albeit more slowly than provincial governments would like and much more slowly than many learners would like. As a consequence, there are now many Maritime learners enrolled for degrees at such institutions in western Canada as Athabasca University and the Open Learning Agency. Some are enrolled at comparable institutions in the United States.

These and comparable institutions will evaluate a learner's current knowledge (based on courses taken regardless of where) and any proposed course of study (regardless of how many sources) and will award a degree if the course content is appropriate. In the past, such institutions were generally regarded as "degree mills" with diplomas for sale. There are now several which are very reputable. As a consequence, it is now much easier to obtain a degree without leaving home.

These non-traditional sources of learning and accreditation represent an alternative path to a degree and, as a consequence, they represent competition to one of the traditional methods by which universities earn income (tuition).

4 University Productivity And Return on Investment

4.1 Introduction

One of the biggest challenges now facing universities is to communicate to governments and the public the value of their contributions to our society. There is no short or easy answer to this challenge. Better information is required and work is underway to develop more informative indicators of performance. Some information is currently available and the following pages sketch some of the areas where universities make significant contributions and how they continue to provide a high level of service despite declining resources and rapid enrolment growth.

4.2 Value of Higher Education

While many of the benefits of education are difficult to quantify, statistics clearly indicate that employment opportunities and earnings are strongly linked to educational attainment. A recent article in the Globe and Mail noted that during the last five years there are:

> ***"500,000 more jobs in the Canadian workplace. Yet over those five years the brutal division based on schooling and skills training has seen the number of jobs held by people with a university degree or some other post-secondary diploma rise by no less than 1.3 million. Meanwhile, the total for those with lesser credentials has tumbled by 800,000."***

The most currently available national data on this subject was gathered by Statistics Canada in a 1992 survey of graduates two years after educational completion. The data is dated, but it conforms with the results of previous surveys. (Timeliness of this data could be improved upon if surveys were conducted on a more frequent basis and is an area that universities need to consider when developing indicators).

These statistics indicate that 61% of all 1990 Maritime graduates were employed full-time in 1992 and another 24% were employed part-time. Two years after entering the labour force, there were no significant differences in full-time employment rates between the university and community college graduates. However, the fact that more education improves one's prospects is perhaps best demonstrated by two facts: (1) 83% of students with masters degrees were employed full-time; and (2) university graduates were better paid.

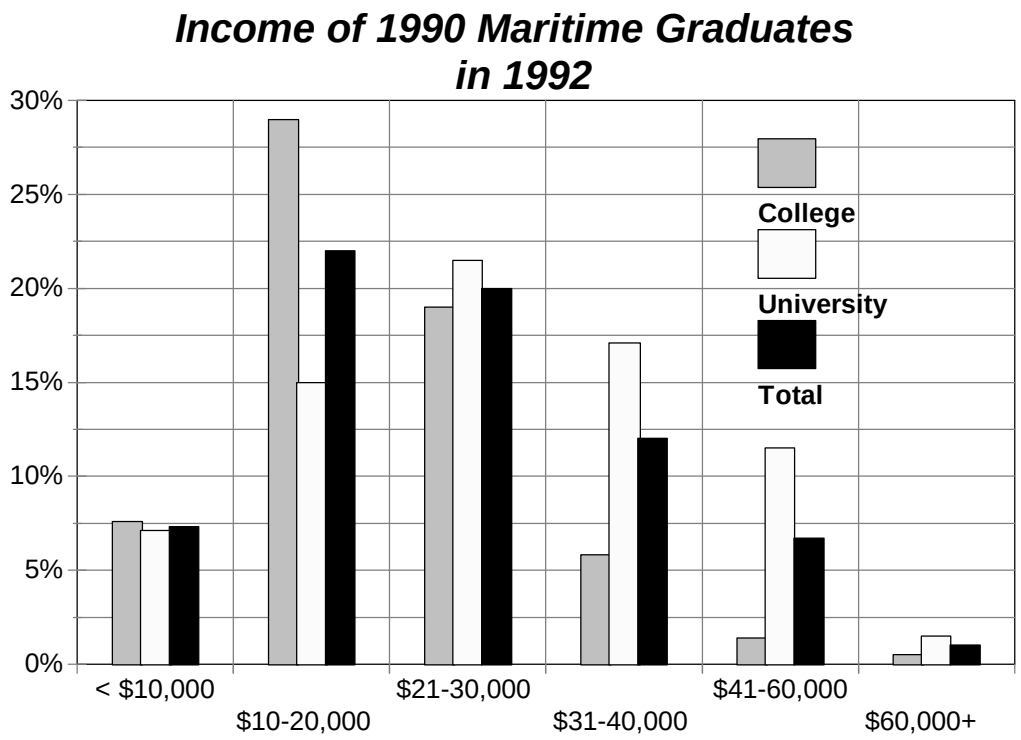
New Brunswick's survey of 1994 graduates who received student aid also shows the value of a university education. In the year after graduation, labour force participation was 92%. There was a close relationship between the transferable job skills and personal growth skills

which graduates strongly believe they acquired at university, and the capacities which employers say are required for future success. Overall, graduates indicated their university education was worth the cost. Finally, the median starting salary was about 15% higher than that of community college graduates.

Lifetime earnings data has shown that this income gap at the beginning of a career tends to increase significantly. The Commission also believes that educational programs which include preparation for adaptability will serve graduates better from an earnings perspective than those which train only for a specific occupation.

Evident from the charts below is how gross earnings are linked to one's education level.

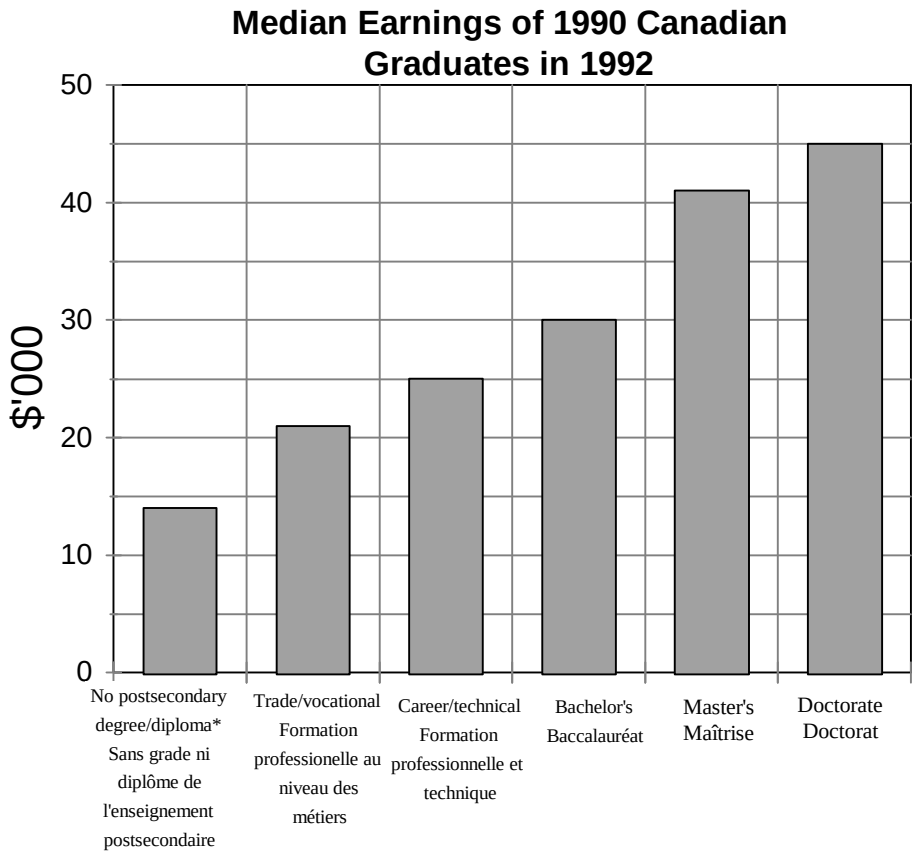
Figure 2



Particularly noticeable is the dominance of university graduates in the ranges above $30,000.

Source: Statistics Canada Survey of 1990 Graduates

Figure 3



Source: Statistics Canada Survey of 1990 Graduates

The reasons for entry to the university system are as diversified as the candidates. The reason most students attend university, however, is to improve their employment prospects. Based on an employability skills profile produced by the Conference Board of Canada, the critical skills required of the Canadian workforce are:

Academic skills: those skills which provide the basic foundation to get, keep and progress on a job and to achieve the best results. These include an ability to communicate effectively, think critically and continue to learn for life.

Personal management skills: the combination of positive attitudes, responsibility and adaptability.

Teamwork skills: those skills needed to work with others on a job to achieve the best results.

Universities continue to react to meet their client demands and adopt programs designed to give university graduates these skills and to aid in the transition from learning environments to the workplace. Such mechanisms as co-operative education programs, integrated practicum within existing programs, articulation agreements between universities and professional associations, bridging programs among the education providers at all levels, secondary, post-secondary and industry, etc. are examples of university efforts in this direction.

4.3 Research

One distinguishing feature of a university is the interdependence of teaching and research. Within that context, university research has the following broad purposes (benefits):

i) to inform instruction/teaching, thereby increasing teaching quality;

ii) to train future research practitioners and other highly qualified personnel;

iii) to produce outcomes, both as a contribution to public knowledge and to create a knowledge infrastructure for business, the public sector, and the local community.

There are literally thousands of research projects going on at Maritime universities in all disciplines. Many have gained national and international recognition; others have a more local or regional focus. Research conducted at Maritime universities has an enormous socio-economic benefit for the region. In 1993-94, the value of research dollars directly provided to Maritime universities was approximately $75.3 million, of which 66% was contributed from Federal sources. Ten years ago, federal contributions to research funding represented 80% of the total sponsored research income.

Research in Maritime institutions should continue to be encouraged. A recent report of the National Advisory Board on Science and Technology (NABST) states: *"The degree to which Canadians excel in the advancement of knowledge will determine our success in economic growth and social progress"*. The report encourages the federal government to collaborate with the provinces to ensure a strong university research infrastructure. Universities are challenged to diversify funding sources and perform more collaborative multidisciplinary research. Universities are also encouraged to build on local (and regional) strengths while actively partnering with other research organisations. Universities play an important role as educators of our future leaders and researchers, and as a source of the basic research competence and knowledge essential for future development.

4.4 Community Service and Spinoff

Post-secondary education is big business in the Atlantic provinces. Their activities include such things as community involvement, partnerships with business and community, academic expertise and public use of facilities. Universities are a growth industry and contribute enormously to the regional economy. Cities and towns which are home to universities reap enormous benefits from the staff, students and visitors at these institutions. The university sector in the Maritimes spent about $785 million in 1995, and employed over 14,000 people, of whom about 3,450, or one-quarter, were faculty. The education sector accounts for about 8% of the Gross Provincial Product in the Maritimes.

There are many ties between businesses and universities. Retailers know the value of student patronage. Other firms benefit from using faculty as consultants or contractors where highly qualified expertise can be acquired for short and medium term projects. Governments also frequently avail themselves of faculty expertise.

Communities take a great deal of pride in having a university within their boundary. Universities are the cultural, social and athletic centres in most university-based communities. Theatrical productions, public debates and sporting events foster a pursuit of learning and enjoyment on campuses. University facilities are usually available to the public for reasonable rates and often at no charge.

At the very core of a university education is the sense of freedom that students and staff enjoy to voice their opinions, disperse information and to challenge existing systems. Such debates are healthy for the participants as well as the public. High profile, social issues are always hot topics on campus and in the communities they serve. Staff and students often serve as catalysts for these debates. There is a tremendous amount of knowledge and energy which emanates from campuses to the public in various towns and cities in the Maritimes.

4.5 Collaborative Efforts

Collaboration can lead to reduced cost. Universities are involved in a number of initiatives designed to share knowledge and resources and to avoid unnecessary duplication. Examples include:

- Five universities (UCCB, Acadia, Mount Saint Vincent, Mount Allison and St. Thomas) formed a consortium to purchase and implement management information systems software.
- The Educational Computer Network - This network is a highly successful example of co-operation between post-secondary institutions and was responsible for bringing the Internet to the Atlantic Provinces (University of New Brunswick, St. Thomas University, Université de Moncton, Mount Allison University, University of Prince Edward Island, Holland College).
- When the Council of Minister of Education, Canada called on universities and colleges to recognize one another's courses for transfer, it was an outgrowth of an initiative started in the Maritimes. As a consequence, Maritime institutions were among the first to comply. Some were already doing it.
- Three universities (Mount Allison University, University of New Brunswick, St. Thomas University) are involved in jointly delivering distance education to Miramichi. One or more distance education consortiums are in the offing in the Atlantic provinces.
- The Metro Halifax Universities Consortium (Atlantic School of Theology, Dalhousie University, University of King's College, Mount Saint Vincent University, Nova Scotia College of Art and Design, Saint Mary's University, Technical University of Nova Scotia) has been formed to provide selected joint services to the seven institutions involved.
- Interuniversity Services Incorporated is owned by Maritime universities and has been making joint, bulk purchases on their behalf since 1981.
- Novanet, a consortium of university libraries in Nova Scotia, has been active since 1987.

4.6 Coping with Growth in the System

The increasing demand for university education is reflected in the number of students enrolled in Maritime universities. While overall enrolments in 1994-95 appear to have stabilized, at least temporarily, the full-time equivalent enrolment has increased substantially since 1983-84 and the increment is equivalent to the addition of a university 30% larger than any of our Maritime universities.

With the increase in enrolments, the number of graduates has also increased. Over the period from 1984 to 1994 the number of credentials awarded annually (all levels) at Maritime universities went up by almost 50%. These increases have been achieved without the benefit of additional full-time staff (although there has been an increase in the number of part-time lecturers).

Figure 4

Full-Time Equivalent Enrolment - Maritime Universities
1983-84 to 1993-94

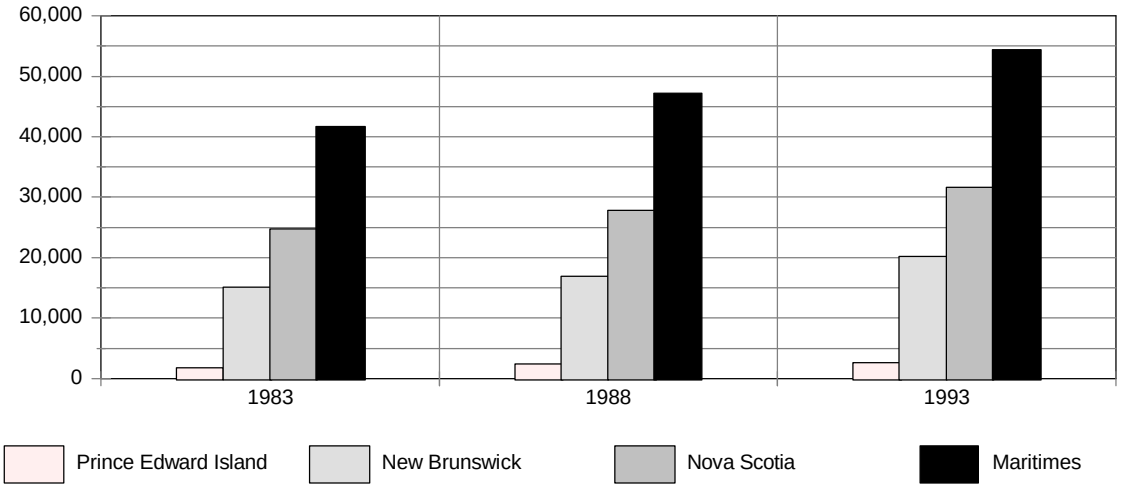


Table 7. Comparison of Enrolments, Graduates and Faculty Numbers, 1990-94, Maritime Universities.

	Full-time Equivalent Enrolment	Graduates	Full-time Faculty
1990	50,997	10,602	3,488
1991	53,012	10,937	3,494
1992	56,305	11,837	3,448
1993	58,410	12,226	3,455
1994	58,987	12,681	3,450*

Source: MPHEC
*Estimate

Changes over the past ten years in per student costs in the university sector compare very favourably with similar costs in the public school system. During that period, however, public school enrolment was dropping while university enrolment was climbing. If demographics now result in decreased enrolment in Maritime universities, there is a real danger that the universities will encounter increasing unit costs and the pressure to raise tuition will become even greater.

Table 8. Unit Costs in Universities and Public Schools in 1983-84 and 1993-94, Maritime Provinces.

Item	1983-84	1993-94	% Change
Public Schools (K-12)			
(1) Total cost to operate public schools ($000)	1,226,424	1,883,418	53.6
(2) Total enrolment in public schools	354,001	334,822	(5.4)
(3) Cost per student 1÷2	3,464	5,625	62.0
Universities			
(4) Total general operating costs for universities ($000)	335,136	588,723	75.7
(5) FTE enrolment in all universities	44,742	59,342	32.6
(6) Cost per student 4÷5	7,490	9,920	32.4

Sources: Statistics Canada, MPHEC

5 Considerations for Universities and Governments

Decreasing resources are a reality, and an especially uncomfortable one when our institutions are faced with increasingly sophisticated and discriminating students, aging facilities, demands for investment in technology, and growing calls for responsiveness and adaptability. Changes, both within and between institutions, are necessary to meet the challenges outlined throughout this report. It is recognized that pursuing reorganization and reengineering initiatives to effect change often requires significant short-term investment, thus posing further resource burdens. Nonetheless, universities must respond. Among the directions that are being, and should be, pursued are the following:

Programs and student employability - universities must more demonstrably link the values of a liberal education to employability skills, changing employer demands, and ease of transition from a learning environment to the workplace. Examples given earlier include co-operative education programs, integrated practicums, articulation agreements with professional associations, and bridging programs between colleges, universities and industry. Programs, including distance offerings, must be creatively rethought with transition to the work-force in mind. As well, institutional offerings complementary to degree programs (e.g. leadership, effective communication, volunteerism, teamwork, managing change, enhanced computer skills) must be strengthened with that, and a changing student profile, in mind.

Enrolment management - universities have traditionally been relatively reactive to enrolment demands. This uncertainty is compounded by the absence of a common application centre to track multiple applications. Universities must become more informed about their client bases in order to better serve existing clients, identify new client bases, and develop strategies to better match demand to capacities. New markets (eg. international and non-traditional students) should be explored and selective recruitment programs developed as a means to effectively utilize existing infrastructures, both human and physical.

Productivity enhancement - as dollars decrease and student profiles change, traditional structures and workloads will have to be part of the change equation. Faculty salaries are the most significant institutional expenditure for delivery of academic programs. Institutions must more aggressively adopt technology and other program-delivery innovations, combined with better management practices, to enhance faculty productivity in ways that return that enhancement to the teaching mission, hence to students. Rationalizing programs and curricula within institutions and across institutions is a necessary and ongoing precursor to effective deployment of faculty.

Beyond rationalization, examples of productivity enhancement measures include: using computer mediation for self-directed learning to replace or augment labour-intensive activities now performed by faculty (existing concepts of teaching and learning processes

and workloads must change); developing intra and inter-institutional partnerships to capitalize on existing strengths and enhance depth and breadth of programs for students, both on campus and at a distance; developing more rigorous performance management systems to define, measure and improve teaching and learning effectiveness of departments and individual faculty members. Development of viable exits for older faculty and enhanced use of contractual hiring in ways that do not affect program quality must be pursued. Where collective agreements or institutional policies restrict productivity enhancements, particularly in performance management or inflexible definitions of work and workload, they should be modified.

Facilities management - to reduce ongoing maintenance costs, increasing attention is being given to contracting out, collaborative efforts with other institutions, and partnering with corporations in capital investments for long term savings (eg. energy management). The real cost of space is too often not factored into institutional decision making. More strategic space management can lead to disposing of or mothballing underutilised space, eliminating rental obligations, trading high-cost space for more cost-effective alternatives, etc. Facilities costs and their effective utilization should play a higher role in academic decisions in exploring more creative approaches to such things as timetable development and year round semestering. For example, some universities are abandoning portions of their traditional laboratory instruction in favour of computer-based simulations, thereby reducing costs while increasing flexibility for both instructors and learners (on campus and at a distance).

Administrative systems and services - collaborative efforts within and between institutions to share services are being pursued on many fronts. Those initiatives must continue. Significant cost savings and/or improvements in service to students (traditional and non-traditional) and to other clients can be obtained through streamlining policies and processes, exploiting technology, and by sharing both best practices and best personnel.

Developing and managing common data standards and information systems, and harmonizing operating policies and processes, in areas from enrolment management to library administration, will enhance institutional manageability, reduce bureaucracy and overhead, and redirect resources to teaching and learning. Examples of initiatives that will meet these needs while also better serving students include student-driven, location/time-independent registration and fee payment, and electronic transcript exchange to expedite credit transfer. Equally important, enhanced information systems will provide more responsiveness both in managing change and in meeting calls from governments and students for demonstrated accountability.

Governments can assist institutions through these challenging times in several ways:

Uncertainty - governments and institutions alike will benefit from a clearer articulation of what governments want from the institutions. Equally important, providing three to five year funding projections substantially improves the ability of institutions to plan to meet the changing requirements of governments and learners.

Paying for change - institutions incur short-term costs in pursuing change. Governments can help by continuing to provide funding to facilitate change, particularly where savings occur only in the long run or accrue as much or more to the system as to individual institutions.

A good example of this is found in the current requirement for more information about institutions for purposes of accountability, incentive funding, etc. This information will be helpful to institutions as they seek to manage change. It will be useful to government and the public since it will shed light on the effectiveness of university operations.

Working with institutions - Governments can partner with institutions more aggressively and creatively in economic development initiatives inside and outside Canada. One initiative along these lines is currently being pursued by the Nova Scotia Council on Higher Education, the Nova Scotia Economic Renewal Agency and universities in Nova Scotia to promote more attendance at Nova Scotia institutions by international students. This is expected to lead to trade links which will benefit the provincial economy. Another encouraging example has been the case with New Brunswick's electronic highway initiative.

Federal-provincial matters - governments can continue to promote change with their federal counterparts on outstanding issues influencing higher education, from complementarity of programs affecting student aid to planning for the expiry of the CANARIE program subsidizing institutional Internet access, to understanding and mitigating the effects of reduced funding for research infrastructure.

6 Concluding Comments

The environment in which our post-secondary institutions operate is changing very rapidly. Governments are reducing the size of grants. Enrolments will almost certainly decline because of changes in the age of our population. The private sector is now competing much more effectively for students through the use of distance technology.

Each of these factors is significant in its own right. Each is growing in importance. In combination, they indicate a vital requirement for change which is substantial and almost immediate.

Institutions have been adapting, some more successfully than others. It is important that they continue to adapt rapidly and that governments assist them in that task where they can.

Appendix A. Interprovincial Transfers of Money

Our university system in the Maritimes is an interprovincial one. The MPHEC administers and monitors the interprovincial transfer of about $16.5 million. Interprovincial agreements are in place to pay for students studying in other provinces in programs not available in their home province. As financial pressures increase regional and other transfers will come under increasing scrutiny. This section is intended to clarify existing regional practices. Over 450 programs have been designated as regional. Table A.1 provides a summary of the estimated interprovincial transfers for 1996-97, excluding the Atlantic Veterinary College, which is covered under a separate agreement.

Table A.1 Estimated Interprovincial Transfers ($000) for 1996-97, Excluding AVC.

	FROM			
	New Brunswick	Nova Scotia	Prince Edward Island	Total
TO				
New Brunswick	-	1,592.4	1,369.6	2,962.0
Nova Scotia	6,443.1	-	3,117.5	9,560.6
Prince Edward Island	31.0	-	-	31.0
Newfoundland	414.4	-	-	414.4
Ontario	28.0	-	7.1	35.1
Québec	3,454.7	-	30.1	3,484.8
Gross Transfers	10,371.2	1,592.4	4,524.3	16,487.9
Net Transfers to be budgeted	7,409.2	(7,968.2)	4,493.3	3,934.3

Payments between the Maritime Provinces are authorized pursuant to a Regional Transfer Agreement which covers students studying in any program not available in their home province. Actual transfer payments between Atlantic provinces are made on a net basis. Other Interprovincial Transfers noted above are for the following: transfers to Newfoundland provide for places in the undergraduate program in Medicine at Memorial University (New Brunswick-Newfoundland Agreement); transfers to Ontario provide for places in Optometry at the University of Waterloo (New Brunswick/Prince Edward Island - Ontario Agreement); and transfers to Québec provide access for French-speaking New Brunswickers in specific health related programs in Québec, and also provide for the admission of one Prince Edward Island student (New Brunswick-Québec Agreement).

The provincial transfers for the Atlantic Veterinary College are not included in Table A.1 and Table A.2 The 1995-96 costs were shared as follows:

	$
New Brunswick	3,308,400
Nova Scotia	4,071,900
Prince Edward Island	5,254,300
Newfoundland	509,100

Total	13,143,700

Table A.2. Maritime Regional Funding Arrangements 1996-97 Transfers.

	Province of Residence						Total	
	New Brunswick		Nova Scotia		Prince Edward Island			
	Enrol	$000	Enrol	$000	Enrol	$000	Enrol	$000
New Brunswick								
Mount Allison University					4	38	4	38
St. Thomas University					21	91	21	91
Université de Moncton			48	335	21	138	69	473
University of NB			129	1,257	113	1,102	242	2,359
Sub-Total			177	1,592	159	1,369	336	2,961
Nova Scotia								
Acadia University	40	239			12	86	52	325
Atlantic School of Theology	5	30			3	18	8	48
Dalhousie University	336	4,900			146	2,096	482	6,996
Mount Saint Vincent University	58	290			14	55	72	345
NS Agricultural College	63	498			25	196	109	694
NS College of Art & Design	6	56			5	40	11	96
Saint Mary's University	1	6			7	49	8	55
St. Francis Xavier University	8	48			11	88	19	136
Technical University of Nova Scotia	28	322			39	422	67	744
University College of Cape Breton	2	6					2	6
University of King's College	11	48			2	12	13	60
Université Sainte-Anne					14	56	14	56
Sub-Total	558	6,443			278	3,118	857	9,561
Prince Edward Island								
University of Prince Edward Island (excludes Atlantic Veterinary College)	4	31					4	31
Sub-Total	4	31					4	31
TOTAL	562	6,474	177	1,592	437	4,487	1,197	12,553

Notes:

- Transfers between the provinces are made on a net basis and are between governments, not institutions.
- Based on 1994-95 enrolments, the latest year for which complete enrolment data are available at the time budgets are prepared.

Appendix B. Capital Funding

Introduction

In May 1995, the MPHEC requested all Maritime institutions to submit their three most critical capital projects needing government assistance for the three year period starting in 1996-97. The Commission stressed the fact that with constrained capital budgets, projects of any type (new capital project, addition or deferred maintenance) would require a very strong justification to have a reasonable chance of funding. The Commission also reiterated the fact that under normal circumstances priority would be given to renovations and refurbishing of existing physical plant rather than expansion/new construction although overall cost effectiveness and use of space would be the prime consideration. With the difficulties associated in obtaining capital funding for additional space, it is especially important that all existing campus space be functional and safe.

Table B.1 contains those projects assigned the highest priority. The projects have received Approval in Principle by the Commission; the information provided is intended to give governments initial information on each of the proposed projects. The total cost, size, and plans are all subject to review and modification as the approval process progresses. Every project recommended by the MPHEC but not approved for funding will be subject to review in the development of next year's capital recommendations to ensure that priorities, and/or the scope of the project have not changed.

Table B.1. Recommended Capital Projects ($000)

	Estimated Total Project Cost	Approved Provincial Contribution	Possible Provincial Contribution (Note 1)	Cash Flow: Approved to March 96	Cash Flow: Estimated Instalment Required in 1996-97	Cash Flow: Estimated Future Years 1997-98	Cash Flow: Estimated Future Years 1998-99
Province of New Brunswick							
Approved Projects							
Mount Allison University							
Upgrading and Repair Academic Facilities (Note 2)	12,783.3	8,133.3	-	2,500.0	2,260.8	3,372.5	-
Université de Moncton - Shippagan Campus							
Shippagan Development Project - Phase II (Note 2)	2,767.6	2,767.6	-	-	2,767.6	-	-
Université de Moncton - Law School (Note 2)	9,760.0	3,360.0	-	-	3,360.0	-	-
University of New Brunswick							
Venture Campaign (Note 3)	-	7,750.0	-	-	-	2,500.0	2,500.0
Total					8,388.4	5,872.5	2,500.0
Recommended Projects - see Appendix E (In order of priority)							
Mount Allison University							
Physics and Engineering Building	3,000.0	-	3,000.0	-	*The MPHEC will provide the Province of New Brunswick a projected cash flow.*		
St. Thomas University							
Casey Hall Renovations	250.0	-	250.0	-			
Université de Moncton							
Édifice Rémi-Rossignol	1,700.0	-	1,700.0	-			
Renovations - Édifice Simon-Larouche	1,300.0	-	1,300.0	-			
Province of Nova Scotia							
Approved Projects							
Education Transition (Note 4)							
Acadia University							
Renovations to Seminary House and Emmerson Hall	4,576.2	3,793.9	-				
Mount Saint Vincent University							
Renovations to Evaristus and Seton Academic Centre	4,759.2	3,405.1	-				
Université Sainte-Anne							
Renovations to Academic Building	150.0	150.0	-				
Total - Education Transition	**9,485.4**	**7,349.0**	-		See Note 4 on Cash Flow		
St. Francis Xavier University							
Boiler Plant	1,190.0	595.0	-	595.0	-	-	-

Table B.1 (continued). Recommended Capital Projects ($000)

	Estimated Total Project Cost	Approved Provincial Contribution	Possible Provincial Contribution (Note 1)	Cash Flow: Approved to March 96	Cash Flow: Estimated Instalment Required in 1996-97	Cash Flow: Estimated Future Years 1997-98	Cash Flow: Estimated Future Years 1998-99
Province of Nova Scotia							
Recommended Projects - see Appendix E (In order of priority)							
Saint Mary' s University Loyola Academic Building	15,641.5	-	7,820.8	-			
University College of Cape Breton HVAC Upgrade - B Block	490.0	-	245.0	-			
Dalhousie University Faculty of Arts & Social Sciences Building	20,000.0	-	10,000.0	-			
St. Francis Xavier University Physical Sciences Addition & Renovations (Note 6)	21,600.0	-	10,800.0	-			
Dalhousie University Life Sciences Centre	12,500.0	-	6,250.0	-			
Mount Saint Vincent University Seton Academic Centre Renovations	2,515.0	-	1,275.5	-			

The MPHEC will provide the Province of Nova Scotia a projected cash flow.

Ongoing initiatives in Nova Scotia may require overiding priority capital funding consideration, such as: 1. the rationalization process and 2. the relocation of facilities currently being leased by the Technical University of Nova Scotia and the Nova Scotia College of Art and Design.

Province of Prince Edward Island

No new projects are being recommended at this time.

Notes:

1. Following provincial approval, the total cost, provincial contribution requested, detailed plans, etc. are all subject to review and modification.
2. The 1996-97 recommended amounts have already been approved by the Province of New Brunswick. In approving its 1995-96 Capital Budget, the Province deferred to 1996-97 all capital payments for the three capital projects recommended by the MPHEC in 1995-96.
3. A further contribution of $2,750,000 is planned for 1999-2000. All contributions are subject to normal MPHEC review of projects and financing arrangements with the Province.
4. Renovations in conjunction with Teacher Education rationalization. The payments are to be made over the fiscal years 1995-96 to 1997-98.
5. The amount of $250,000 has been approved contingent on matching funds being raised by the University by June 30, 1996.
6. Order-In-Council 90-788 committed the Province of Nova Scotia to contribute $7.5 million for various capital projects at St. Francis Xavier University. The timing of the payment will be subject to the St. Francis Xavier projects being given sufficient priority in competition with other urgent requests. As indicated in the text, the Province normally contributes 50% of the total project cost.

New Brunswick - Approved Projects

Mount Allison University - Upgrading and Repair - Academic Facilities
Université de Moncton, Shippagan Campus - Shippagan Development Project, Phase II
Université de Moncton - Law School

The Province, in approving its 1995-96 Capital Budget, deferred to 1996-97 all capital payments for the above three projects recommended by the MPHEC last year. The Province will resume the capital payments for these projects in 1996-97 including the reimbursement of reasonable financing charges incurred as a result of the provincial deferment. Table B.1 provides the value of the instalments required, including interest.

Capital funding for the Mount Allison University project has assisted the University in dealing with serious infrastructure deficiencies on campus, including the rebuilding of its central heating plant and the steam and electrical distribution systems. The current phase of the Shippagan Development Project involves the construction of a gymnasium. The Law School project involves the construction of a new 58,000 square foot building to house the Law School, the Law Library, a centre for legal translation and terminology and an international centre for common law in French.

University of New Brunswick - Venture Capital Campaign

The Province of New Brunswick recently approved $7.75 million for the University of New Brunswick's $30.0 million Venture Capital Campaign. To qualify for the grant, the University must raise three dollars for every one provided by the government. As part of its submission, the University proposed the application of capital funds against specific projects. The Province indicated that any project proposed and the use of capital funds would be determined following MPHEC review of the merits of each project considered. The MPHEC has recently advised the University that the submission of planned projects should be forwarded for review as soon as possible.

New Brunswick - Recommended Projects

The projects recommended in Table B.1 are in order of priority as perceived by the Commission. Considering the total instalment of $8,388,400 required in 1996-97 for those projects previously approved, capital funding for the recommended projects could conceivably start in the 1997-98 fiscal year. All recommended projects can be initiated and completed in one fiscal year. The MPHEC does recognize the Province's commitment to balance its total budget (operating and capital) over the next four year period. A recommended cash flow will be provided to the Province as the capital budgeting process proceeds.

Mount Allison University - Physics and Engineering Building

The Physics and Engineering Building was constructed in the late 1950's to provide teaching, research and office space for students and faculty in the Physics and Engineering departments. In 1994, the Geology department was moved to the ground floor of the building; the three programs were merged

to form the new program of Physics, Engineering and Geo-Science which, in 1994-95 had 650 full-time equivalent course enrolments. In addition, the building houses one of the largest teaching auditoriums on campus as well as computer labs for general student use.

Systems and services in Physics and Engineering (mechanical, electrical, communication, life and health safety) are outdated or inoperable and do not meet current building codes. Windows and roofing systems are long overdue for replacement. In addition, structural problems on the top floor and in the roofing system threaten the building's continued integrity and must be addressed in the near future. In summary, the building, after almost 40 years of use, requires a general refurbishment of its systems, services and space to continue supporting the teaching and research functions it houses.

With limited availability of space on campus, it is critical that all existing space be usable and safe to provide a reasonable learning and working environment.

St. Thomas University - Casey Hall Renovations

Even after the construction of the new Dunn Hall, the University still ranks very low in terms of classroom space per student compared to other Maritime universities. The University student population has increased dramatically over the years. The total full-time equivalent enrolment rose from 1,297 in 1984-85 to 2,028 in 1994-95, an increase of 56% in ten years. It is important that all available space on campus be usable.

The Daigle auditorium, located in Edmund Casey Hall, is in critical need of repair in terms of ventilation, heating and basic furnishings. This auditorium has served as a theatre and a large teaching facility, seating 270 people. With the availability of the "black box" theatre in Dunn Hall, the University's recently completed facility, the primary focus of the Daigle auditorium can now be for teaching, large assemblies and guest lectures. It is important to make the auditorium more functional and to address the deterioration that has occurred over the years since it represents a tremendous resource given that it is the University's only room with a seating capacity in excess of 100 people.

There are 18 regularly scheduled classes per week given in the Daigle auditorium; it is currently used as a last resort for large class sizes. The option to not using the auditorium is to split classes in two, possibly increasing the university's operating costs. There are two rooms available on campus that can seat 70 to 75 students and that are properly equipped for multi-media teaching but these cannot meet the demand.

Université de Moncton - Renovations to Remi-Rossignol Building

The Rémi-Rossignol Building, constructed at the beginning of the 1960's, is the oldest building on the Moncton campus and now requires major renovations. The building's laboratories, classes and auditoriums will be upgraded to 1990's standards; ventilation improvements and the installation of a sprinkler system will also be performed. Renovations are also required as a result of the change in use of existing space due to the move of the electrical engineering programme to a new facility. This building is used extensively by many faculties for mandatory first and second year courses such as

mathematics. Last year, these auditoriums accounted for 34,227 class hours per week.

Université de Moncton - Renovations to Édifice Simon Larouche - Edmundston Campus

Major renovations are required to the main building on the Edmundston Campus, constructed in the mid 1940's, to modernize all building systems (electrical, heating, elevators, windows, sprinklers) and to deal with certain accessibility issues. Major reorganisation of library services is also required.

Nova Scotia - Approved Projects

Education Transition
Acadia University - Renovations to Seminary House and Emmerson Hall
Mount Saint Vincent University - Renovations to Evaristus and Seton Academic Centre
Université Sainte-Anne - Renovations to Academic Building

These projects were recently approved by the Province of Nova Scotia to defray a portion of the costs associated with renovating the buildings and establishing appropriate facilities to accommodate the rationalization of teacher education in Nova Scotia. The Mount Saint Vincent project was identified in last year's Financial Plan as a critical, high priority project.

St. Francis Xavier University - Boiler Plant

Capital funding has been approved for the University's heating plant, in critical need of upgrading.

University of King's College - Accessibility project

The Province recently approved funding for an elevator required to provide access for disabled persons to the four floors of the Arts & Administration Building (A&A) and the basement of Prince Hall. Together these two buildings accommodate 90% of the teaching and administrative space of the University.

Nova Scotia - Recommended Projects

The recommended projects in Table B.1 are in order of priority as perceived by the Commission. The recommendations are made with the clear understanding by the Commission that with the Nova Scotia post-secondary education scene continually evolving, the funding priorities may be affected. Based on provincial policy, the Commission will normally recommend a provincial contribution of 50% of the estimated project cost, recognizing the Nova Scotia Council on Higher Education's position that additional funding may be appropriate for designated rationalization projects. As with the Province of New Brunswick, the Commission will be providing the Province of Nova Scotia with a recommended cash flow for the projects recommended.

Saint Mary's University - Loyola Academic Building

A major addition is proposed to the Loyola Academic Building, the main teaching facility on campus. The project would provide additional instruction and office space, primarily for the Commerce faculty. Included would be a small reference library. The existing second floor of the Loyola Building would also be refurbished and brought to current code. This institution has had a continued need for additional space at least since the late 1980's which has yet to be addressed. This expansion will help meet the University's requirements for space and provide the facilities necessary to meet the needs of students, research activity, staff and programs.

Space needs at Saint Mary's University are among the highest in the Maritimes. The total full-time equivalent enrolment rose from 3,872 in 1984-85 to 6,513 in 1994-95, an increase of 68% in ten years with little change in the amount of academic space available.

University College of Cape Breton - HVAC Upgrade - B Block

A major heating, ventilation and air conditioning (HVAC) upgrade is required to improve air quality in 'B' Block; an existing building containing classrooms, computer laboratories and offices. This will involve extensive modifications to the duct work, upgrades to the ventilation equipment and the installation of air conditioning.

Most offices, labs, and classrooms in 'B' Block occupy an area that was originally built as a gymnasium in 1966 and renovated in 1978. The ventilation system is poorly designed and inappropriate for current usage. As an example, all computer labs are housed in 'B' Block, but the ventilation system does not provide a sufficient quantity of air to remove the heat generated by the computers. Consequently, the rooms overheat and must be vacated.

Dalhousie University - Faculty of Arts and Social Sciences Building

The majority of the University's Arts and Sciences departments are located in 27 aging wood frame houses which are deteriorating rapidly. They are old structures, not properly accessible, expensive to heat, do not meet today's safety and security standards, and are not capable of providing the large classrooms required today. All require some form of upgrade or maintenance.

The most economic and effective solution is a new building. The University proposes to construct a 127,000 square foot Arts and Social Sciences Building to replace the existing 27 wood frame houses. The new building will solve current space problems and provide the University with the flexibility to respond to anticipated future space requirements. Energy savings are also expected.

St. Francis Xavier University - Physical Sciences Addition and Renovation

The University proposes to construct a Chemistry Department addition to the existing Sciences Building and the Geology Department will be moved into the building to make it a Physical Sciences Centre.

The University has a critical need for additional space, especially for chemistry. The total full-time

equivalent enrolment rose from 2,629 in 1984-85 to 3,483 in 1994-95, an increase of 32% in ten years. The Commission recognized the inadequacy of existing space as early as 1989 and was convinced of the need for expanded and improved facilities. The current proposal allows for a 40,000 square foot addition to the existing Science Building and the renovation of existing space. The Geology Building, the University's greatest deferred maintenance concern, is expected to be mothballed.

Dalhousie University - Life Sciences Centre

A major upgrade and repair of the infrastructure and building fabric of the Life Sciences Centre is required. The urgency for upgrading the fire protection, heating, ventilation and electrical systems is very high as the building does not meet present day code requirements. The University has also received complaints regarding air quality. The work will bring the various building system components up to present day building code standards and address environmental concerns. Also, due to the age of the building, the urgency for the upgrading of the major structural components is high.

Mount Saint Vincent University - Seton Academic Centre Renovations

Only emergency repairs have been carried out over the past 24 years. The Heating Ventilation Air Conditioning system requires partial replacement and upgrading to meet current code requirements. Upgrading of the mechanical systems (ventilation, ductwork, filtration) and fire control panels which are outdated, is also required.

The renovations required to the Seton Academic Centre provided for under Education Transition are minor and do not impact on the overall renovations required to the building.

Prince Edward Island

No new capital projects are being recommended at this time.

The Province approved a funding arrangement for the New Chemistry Building at the University of Prince Edward Island. Construction of this badly needed facility started in August 1995. An initial instalment of $1.5 million of an approved $2.5 million provincial contribution has already been provided. The balance will be repaid through debt retirement starting in 1997-98.

Table B.3. Capital Projects Submitted by Institutions and Considered by the Commission but not Recommended ($000)

	Total Estimated Project Cost	Total Provincial Assistance Requested	Other Sources
PROVINCE OF NEW BRUNSWICK			
Université de Moncton - Moncton Campus			
Taillon Building			
Major renovations	1,700.0	1,700.0	-
PROVINCE OF NOVA SCOTIA			
Acadia University			
(Based on last year's submission; no submission received in 1995-96)			
Greenhouse Replacement			
Construction of a new greenhouse facility	500.0	250.0	250.0
Patterson Hall Extension			
Renovation of a segment of the existing building as well as an addition for new space	5,000.0	2,500.0	2,500.0
Atlantic School of Theology			
Wood Faculty Houses (ancillary enterprises, not eligible for capital funding)	124.0	124.0	-
Maintenance of existing houses	700.0	700.0	-
Renovation and possible conversion to other uses			
Chapel			
Deferred maintenance and repairs	84.0	84.0	-
Dalhousie University			
School of Business Administration	1,700.0	850.0	850.0
Mount Saint Vincent University			
E. Margaret Fulton Communications Centre			
Three floor addition to existing building	10,402.4	5,201.2	5,201.2
Saint Mary's University			
Patrick Power Library			
Construction of two storey addition	5,538.7	2,769.3	2,769.4
Burke Education Centre			
Major upgrading, repair and refurbishing of Centre and construction of pedway links to the Science and Student Centre Buildings	3,290.0	1,645.0	1,645.0
St. Francis Xavier University			
Services Building			
Construction of a new services building	3,000.0	1,500.0	1,500.0
University College of Cape Breton			
Campus Centre Expansion - Renovations and Refurnishings			
Renovation of vacated areas once campus centre expansion project completed	1,500.0	1,500.0	-
Fitness Centre			
Construction of a new fitness facility	280.0	280.0	-
Université Sainte-Anne			
Library Renovations			
Enlarge library from two to three floors and relocate Centre Acadien	500.0	400.0	100.0

Édifice Danaud			
Repairs and renovations	250.0	175.0	75.0

Appendix C. Miscellaneous Tables and Figures

Table C.1. Student Aid - Total loans provided to students, resident of a Maritime province, studying in Canada, 1982-83 to 1994-95

		Provincial				
	Students receiving CSL) (%)	Students receiving bursaries (%)	Students receiving loans (%)	Total Average Assistance Received ($)	Cumulative Increase (%)	Total Average Loans Received ($)
NEW BRUNSWICK						
1982-83	76.1	57.4	-	2,849	-	1,743
1984-85	81.3	51.6	-	3,336	17.1	2,394
1986-87	75.9	43.7	-	3,736	31.1	2,944
1988-89	74.1	44.5	-	4,011	40.8	3,015
1990-91	73.9	46.5	-	4,301	51.0	3,127
1991-92	74.5	46.6	-	4,386	53.9	3,129
1992-93	72.5	44.8	-	4,502	58.0	3,240
1993-94	67.9	27.7	47.1	5,282	85.4	4,910
1994-95	67.3	24.8	54.9	6,015	111.1	5,778
NOVA SCOTIA						
1982-83	61.4	39.1	-	2,610	-	1,905
1984-85	69.6	41.9	-	3,696	41.6	2,954
1986-87	74.5	37.1	-	3,575	37.0	2,942
1988-89	74.6	38.5	-	3,794	45.4	3,004
1990-91	72.0	38.5	-	3,945	51.1	3,013
1991-92	67.9	34.7	-	3,953	51.5	3,074
1992-93	64.5	33.2	-	3,934	50.7	3,044
1993-94	63.1	0.0	56.0	6,007	130.2	6,007
1994-95	63.0	0.0	47.5	5,800	122.2	5,800
PRINCE EDWARD ISLAND						
1982-83	70.7	47.7	-	2,378	-	1,578
1984-85	78.7	45.7	-	2,949	24.0	2,240
1986-87	84.0	52.4	-	3,269	37.5	2,453
1988-89	77.8	48.9	-	3,374	41.9	2,531
1990-91	71.6	44.8	-	3,533	48.6	2,543
1991-92	71.6	43.0	-	3,523	48.1	2,544
1992-93	67.4	34.5	-	3,687	55.0	2,875
1993-94	66.8	30.0	-	3,672	54.4	2,981
1994-95	68.2	0.0	-	5,069	113.2	5,069
MARITIMES						
1982-83	67.8	46.9	-	2,694	-	1,807
1984-85	75.0	46.1	-	3,476	29.0	2,649
1986-87	75.8	41.0	-	3,613	34.1	2,900
1988-89	74.7	41.8	-	3,846	42.8	2,968
1990-91	72.7	42.3	-	4,061	50.7	3,022
1991-92	70.9	40.2	-	4,107	52.4	3,056
1992-93	68.0	38.1	-	4,166	54.6	3,117
1993-94	65.4	13.6	48.2	5,523	105.0	5,313
1994-95	65.1	10.1	51.2	5,838	116.7	5,738

Table C.2. Student Aid by Institution, 1994-95

	Total Full-Time Students	Full-Time in Province Students (1)	Full-Time Resident Students Receiving Assistance (2)	Assisted (%)	Total Average Assistance Received (3) ($)	with Prov. Bursary (%)	with Prov. loan (%)
NEW BRUNSWICK							
Mount Allison University	2,235	800	297	37.1	6,501	16.4	33.9
St. Thomas University	1,968	1,550	765	49.4	5,943	19.2	43.5
Univ. de Moncton - Moncton	4,391	3,925	2,136	54.4	6,136	25.3	49.5
Univ. de Moncton - Shippagan	481	478	315	65.9	5,894	29.5	60.7
Univ. de Moncton - St. Louis Maillet	594	549	288	52.5	5,322	17.9	47.5
Univ. of New Brunswick - Fredericton	7,704	5,558	2,196	39.5	5,999	17.0	35.5
Univ. of New Brunswick - Saint John	1,948	1,862	658	35.3	4,542	10.0	25.2
NB Total	19,321	14,722	6,655	45.2	5,881	19.0	40.0
NOVA SCOTIA							
Acadia University	3,734	2,225	1,003	45.1	6,249	-	36.8
Dalhousie University	9,253	5,481	2,008	36.6	5,946	-	28.2
Mount Saint Vincent University	2,124	1,833	883	48.2	5,336	-	35.8
NS College of Art & Design	505	212	148	69.8	5,479	-	52.8
NS Teachers College	360	360	188	52.2	5,781	-	42.5
Saint Mary' s University	5,264	4,354	1,818	41.8	5,340	-	30.9
St. Francis Xavier University	3,238	2,162	1,171	54.2	6,068	-	45.7
Technical University of Nova Scotia	1,217	843	327	38.8	4,536	-	27.9
University College of Cape Breton	2,630	1,890	1,324	70.1	4,575	-	51.0
University of King' s College	681	342	87	25.4	5,534	-	19.3
Université Sainte-Anne	402	277	160	57.8	5,694	-	44.8
NS Total	29,048	19,979	9,117	45.6	5,546	-	35.1
PRINCE EDWARD ISLAND							
University of Prince Edward Island	2,544	1,941	783	40.3	4,673	-	35.3

Note 1 - Number of students resident of the Province in which the institution is located.
Note 2 - All students receiving provincial bursaries or loans have also received CSL assistance. These figures represent the number of students having received CSL.
Note 3 - Average total value of CSL, provincial bursaries and loans.

Table C.3. Direct Student Costs ($) 1995-96

Province	Undergraduate Tuition (Arts & Sciences)	Other costs[3] (average)	Total costs (average)
Mount Allison University	3,040	7,964	11,004
St. Thomas University	2,190	6,611	8,801
Université de Moncton	2,292	7,000	9,292
University of New Brunswick	2,610	6,868	9,478
New Brunswick[1]	2,526	7,111	9,637
Acadia University	3,495	7,218	10,713
Atlantic School of Theology	2,600	6,967	9,567
Dalhousie University	3,095	7,214	10,309
Mount St. Vincent University	3,050	6,837	9,887
NS Agricultural College	2,750	6,881	9,631
NS College of Art & Design	3,050	2,332	5,382
NS Teachers College	2,620	6,692	9,312
Saint Mary's University	3,115	7,024	10,139
St. Francis Xavier University	3,175	7,388	10,563
Technical University of Nova Scotia	3,300	6,937	10,237
University College of Cape Breton	3,000	6,467	9,467
University of King's College	3,105	7,082	10,187
Université Sainte-Anne	3,157	7,331	10,488
Nova Scotia[1]	3,153	7,177	10,330
University of Prince Edward Island	2,820	7,308	10,128
OTHER PROVINCES[2]			
Newfoundland	2,312		
Québec	1,695		
Ontario	2,451		
Manitoba	2,292		
Saskatchewan	2,550		
Alberta	3,463		
British Columbia	3,056		

(1) Weighted average.
(2) Estimated average across each province.
(3) Other costs include student union fees, average room and board, and estimated costs associated with books, transportation, clothing, personal and health care and average room and board for those not living at home.

Sources: Statistics Canada and MPHEC

Figure C.1

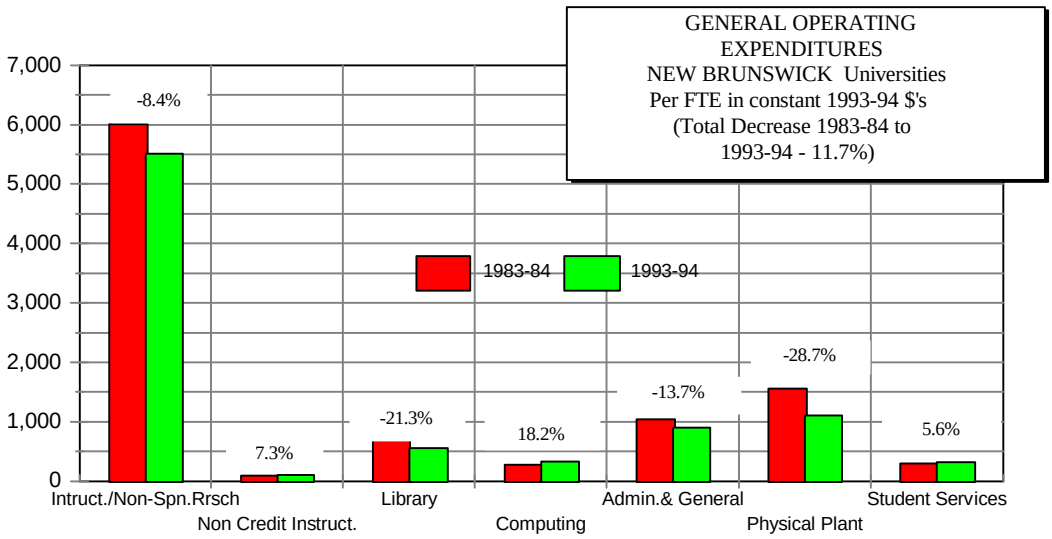


Figure C.2

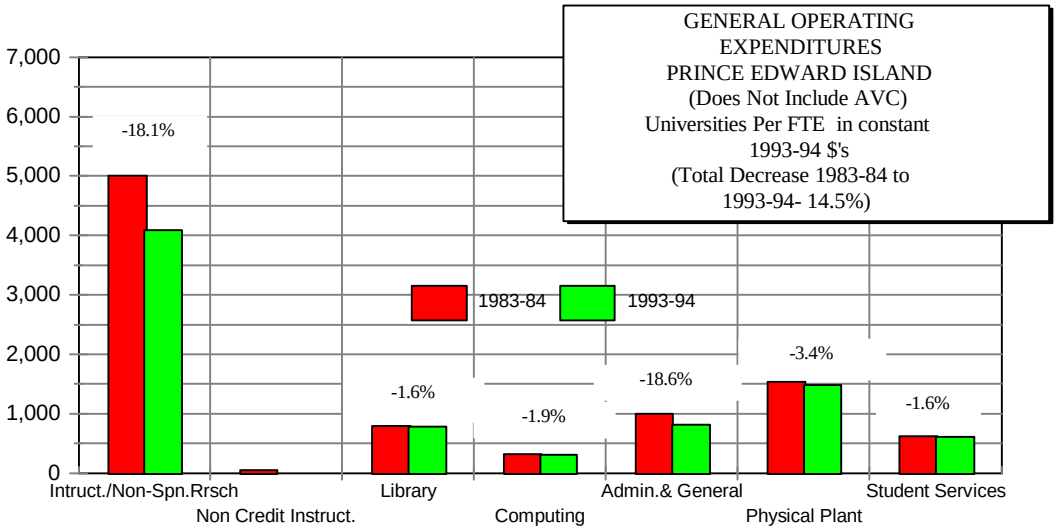


Figure C.3

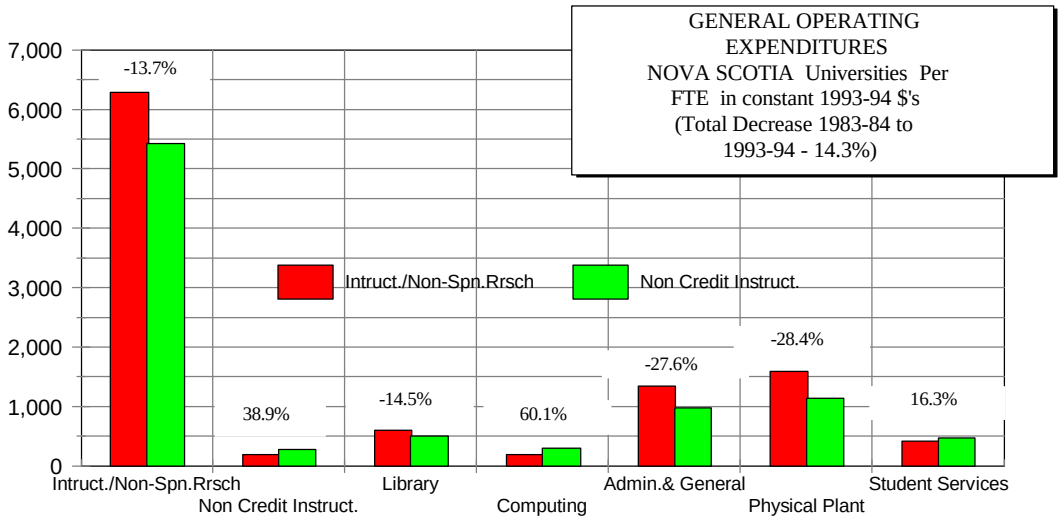

GENERAL OPERATING EXPENDITURES
NOVA SCOTIA Universities Per FTE in constant 1993-94 $'s
(Total Decrease 1983-84 to 1993-94 - 14.3%)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
-13.7%
38.9%
-14.5%
60.1%
-27.6%
-28.4%
16.3%
Intruct./Non-Spn.Rrsch
Non Credit Instruct.
Intruct./Non-Spn.Rrsch
Non Credit Instruct.
Library
Computing
Admin.& General
Physical Plant
Student Services

Figure C.4. Grants to Universities, 1990-91 to 1995-96

Appendix D. Presentations to the Commission

As in previous years, the Commission invited various groups involved in the university community to make presentations on issues they feel should be addressed in the field of post-secondary education. The Canadian Alliance of Student Associations (CASA), the Federation of New Brunswick Faculty Associations (FNBFA), the New Brunswick Student Alliance (NBSA), and the Nova Scotia Confederation of University Faculty Associations (NSCUFA) met with the Commission's Finance Committee on October 12, 1995.

A summary of each of the submissions presented at the October 1995 meeting follows:

The Canadian Alliance of Student Associations believes that it is vital that governments across the country realize that they cannot expect to create new knowledge-based economies if they are not willing to invest in education. They stress the fact that the majority of new jobs require some form of post-secondary education, and if Canada expects to remain competitive internationally, it must seriously look at the funding cuts being passed on to higher education. The Alliance noted that a very significant proportion of students go to university for no reason other than to improve their job prospects, and consequently it is absolutely necessary that universities and governments become more concerned with ensuring proper links are made between post-secondary education and the labour market. Other areas of concern raised by CASA were placing a much higher priority on Distance Education as a delivery method, having the universities offer year-round education, and ensuring effective teaching, in essence teaching professors to teach. The Alliance endorses the use of certain types of performance indicators to increase public accountability.

The Alliance believes that there are significant cost-savings to be had in managing universities more as a system and less as a collection of individual entities. They have identified six priority areas where immediate efforts could help reduce costs to the system, namely: the rationalization of administrative and academic services, greater co-ordination of provincial systems of higher education, teaching in non-university settings, instructional technology and distance learning, research funding, and year-round education.

CASA proposes the creation of an Education Beneficiary Fund (EBF) which would get its money from two sources: a Graduate Beneficiary Contribution (GBC) and a Corporate Beneficiary Contribution (CBC). The Alliance's view is that these two groups are the ones who benefit the most from having the post-secondary system produce a steady supply of well-trained graduates. CASA believes that the creation of an EBF would be a much fairer method of raising funds for education than simply raising tuition fees.

The Federation of New Brunswick Faculty Associations made a case for continued government funding at adequate levels on the basis that the level of schooling required for today's labour force is constantly increasing; the level of education one has is linked to one's employment prospects. Furthermore, it was noted that a strong link exists between the level of schooling one has and the average employment income. These statistics should be of particular importance to provincial governments attempting to find money for post-secondary education in times of fiscal restraint where

many government portfolios are competing for fewer dollars. The Faculty Association again reminded the Commission of continued duty to advise the Maritime Premiers with respect to existing needs in the field of higher education in the region.

The New Brunswick Student Alliance recommended that the Commission study the effects of increased tuition fees and student debt load on accessibility. The Alliance expressed concern over increasing administrative expenses and stressed that despite the large amount of public funding for universities, accountability to the public is inept and furthermore, universities should be required to make their budgets public. Some cost saving suggestions were offered such as year-round schooling. Similar to CASA, the NBSA recommends program performance indicators be developed in consultation with key stakeholders. The NBSA further suggested that the Commission's role be expanded in several areas such as: public interest research, regulatory body for universities, program and quality review, investigation into educational delivery, and the current capital planning role.

The Nova Scotia Confederation of University Faculty Associations presented the Committee with data on the economic impact of a university education as part of their "Beyond the Campus" study. The Confederation also encourages multi-year budgeting by governments to allow institutions to better adapt to funding cuts. Further, NSCUFA suggested that MPHEC is well placed to create a framework for broad discussion on many post-secondary issues requiring urgent attention and that perhaps submissions, responses and reports be supplemented with focused conferences.