

8. Cost of Education

8.1 How do educational expenditures compare with expenditures for other major government sectors?

The total government expenditure for the year 1995/96, the last year for which actual figures are currently available, was 1% less than the expenditure for the previous fiscal year (Table 8.1.1). The revised estimate for 1996/97 shows a further 0.9% reduction, and the estimate for 1997/98 is reduced by a further 2.7%. Except for 1993/94, all previous years have seen an annual increase in total government spending of at least two percent. The provincial expenditures on education have not paralleled overall government spending. For example, in 1994/95 there was an increase in overall spending of 4.5% (\$151.2 million) but a decrease in

education funding of 5.9% (\$48.5 million). In 1993/94 there was decrease in total spending of 2.6% but an increase in education spending of 2%. The most dramatic difference is forecast for the 1997/98 fiscal year, when it is anticipated that both overall spending and education spending will be reduced: overall spending by 2.7% and education spending by a substantially greater 9.8% (Table 8.1.2).

Education spending in 1995/96 was 4.4% less than for the fiscal year 1994/95. This reduction of 33.7 million dollars represented 91.3% of the overall reduction in government spending of 36.9 million dollars in that year.

In 1990/91 education spending comprised 24% of the provincial budget, down from a high of 27.9% in 1983/84 but higher than the 21.1% forecast for 1997/98.

When education is compared to other major sectors of government - social, resources and general government - it can be seen that the proportion of the provincial budget for social and general government sectors has increased over the past six years as the proportion for resources and education has decreased (Table 8.1.1). It is evident that spending priorities are shifting, most likely in reaction to changes in the economy and the changing age profile of the population.

At the time of writing there was still considerable uncertainty in the

Table 8.1.1: Comparison of Education Expenditures with Other Government Sectors, 1991/92 - 1997/98

Year	Total Budget	Percentage of Total Budget			
		Social ¹	Resources ²	General Govt. ³	Education
1990/91 (Actual)	3,314,443,100	42.6	7.5	25.9	24.0
1991/92 (Actual)	3,384,430,000	42.7	7.3	26.2	23.8
1992/93 (Actual)	3,454,665,400	42.8	7.8	25.2	24.1
1993/94 (Actual)	3,363,696,600	44.4	5.8	24.5	25.3
1994/95 (Actual)	3,514,968,500	45.1	6.7	25.5	22.7
1995/96 (Actual)	3,477,949,700	46.0	5.6	26.4	22.0
1996/97 (Revised)	3,445,059,700	45.9	5.2	26.1	22.8
1997/98 (Budget)	3,351,257,800	46.8	5.7	26.4	21.1

¹ Includes Health; Human Resources and Employment; Justice; Municipal and Provincial Affairs; and Newfoundland and Labrador Housing Corporation.

² Includes Development and Rural Renewal; Environment and Labour; Fisheries and Aquaculture; Forest, Resources and Agrifoods, Industry, Trade and Technology; Mines and Energy; and Tourism, Culture and Recreation.

³ Includes Consolidated Fund Services; Executive Council; Finance; Government Services and Lands; Legislature; Public Service Commission; and Works, Services and Transportation.

Note: Percentages may not add to 100 due to rounding.

**Table 8.1.2: Government Expenditures (Gross), 1990/91 - 1997/98:
Total, Education by Sector, and Grants to Public Colleges (millions of dollars)**

	90/91 (Actual)	91/92 (Actual)	92/93 (Actual)	93/94 (Actual)	94/95 (Actual)	95/96 (Actual)	96/97 (Revised)	97/98 (Estimated)
Total Govt.	3314.4	3384.4	3454.7	3363.7	3514.9	3478.0	3445.1	3351.3
% Change		2.1	2.1	-2.6	4.5	-1.0	-0.9	-2.7
K-12	544.1	546.8	579.8	602.1	562.1	535.9	569.0	504.8
% Change		0.5	6.0	3.9	-6.6	-4.7	6.2	-11.3
MUN	116.6	116.4	118.4	118.9	124.2	117.5	114.4	105.1
% Change		-0.1	1.7	0.4	4.4	-5.4	-2.6	-8.1
Other Postsecondary incl. Public College	115.3	113.8	106.5	99.4	85.7	84.8	72.2	71.5
% Change		-1.3	-6.4	-6.7	-13.8	-1.0	-14.9	-1.0
Total Education Expenditure	776.0	777.0	804.7	820.4	771.9	738.2	755.6	681.4
% Change		0.1	3.6	2.0	-5.9	-4.4	2.4	-9.8

elementary-secondary education sector about how many schools would close during the 1997/98 and 1998/99 school years, suggesting overall education estimates should be viewed with caution as the elementary-secondary allocations comprise the largest component, consistently over 70%, of the education budget.

The picture is clearer for the non-university postsecondary sector, where there has been a decrease in provincial funding each year since 1990/91 (Table 8.1.2). The percentage decreases have been substantially more than the decreases in overall government spending. Funding for Memorial University did not follow this pattern. Except for a 0.1% reduction in 1991/92 the provincial grants to Memorial increased each year from 1990/91 to 1994/95. In 1995/96 there was a decrease of 5.4% and further reductions were scheduled to occur for the 1996/97 and 1997/98 fiscal years.

8.2 How does our financial commitment to education compare to that of other provinces?

This province is facing a serious challenge in the area of postsecondary education. The provincial budget is decreasing each year, as are transfer payments from the federal government for health and postsecondary education, yet the need for postsecondary education has become even more pressing in the face of high unemployment levels, high levels of dependency on social support and the need for highly trained workers in emerging industrial developments.

As a result of a declining birth rate and high levels of out-migration this province is seeing its population decline for the first time. The age and education profiles of those who have left the province show that the majority of those who leave have some postsecondary education and

are between 15 and 34 years of age. That is, many of the younger people who have completed postsecondary programs leave the Province and thus the benefits of the effort made by this province to educate our young people are being experienced by the country as a whole.

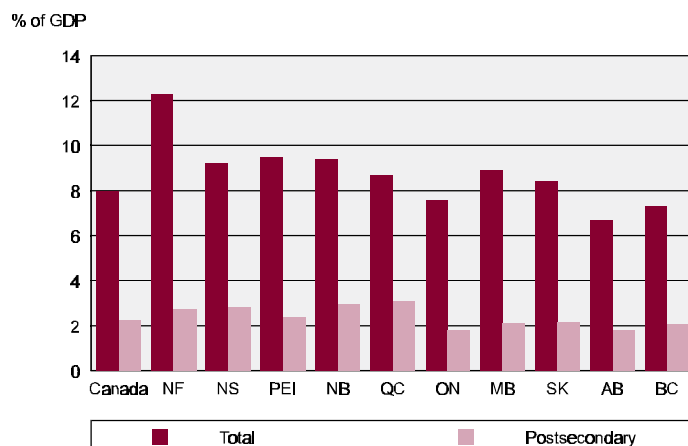
The decrease in job opportunities for unskilled workers has created a situation in which those who do not have at least some postsecondary education are very likely to be unable to find employment. The education profile of those dependent on social services income support clearly indicates most clients have low levels of educational attainment. Although this province's financial resources are limited, providing postsecondary educational opportunities is an essential component to any strategy to increase the likelihood of eventual employment for young people, whether in this province or some

other. In contrast, limiting access to postsecondary education will likely result in fewer people being able to be employed and thus income support being required.

The financial commitment of a province to education may be assessed using a number of indicators: total expenditure, expenditure per student, expenditure per person in the work force, expenditure per person in the population, or expenditure as a percentage of provincial domestic product.

Newfoundland's overall educational effort has been consistently higher than that of any other Canadian province (Figure 8.2.1). With the exception of Prince Edward Island, Newfoundland's Gross Domestic Product (GDP) per capita is the lowest in Canada, although the rate of increase between 1989/90 and 1993/94 was higher than five other provinces and 6.4 percentage points higher than the Canadian average. This province's

Figure 8.2.1: Expenditures as a Percentage of GDP, Total and Postsecondary, Canada and Provinces, 1993/94



Source: Statistics Canada, Catalogue no. 81-229-XPB

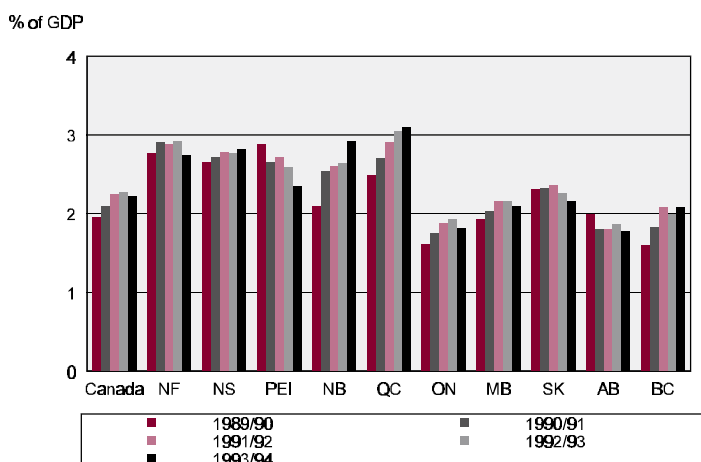
educational spending has represented a higher percentage of GDP and personal income and a higher dollar amount per person in the population and per person in the labour force than other provinces.

In 1993/94, the last year for which Statistics Canada education

expenditure figures are available for all provinces, overall education spending in Newfoundland, as a percentage of GDP, was 53.8% higher than the Canadian average.

When postsecondary funding is viewed separately, between 1989/90 and 1993/94 overall postsecondary expenditure increased in all provinces except Prince Edward Island (Figure 8.2.2). Newfoundland's effort, as measured by percentage of GDP, is substantially greater than the Canadian average for each year during this period (23% higher in 1993/94), but the differences are not as large as for overall educational spending. In 1993/94 three other provinces - Nova Scotia, New Brunswick, and Quebec - spent a higher proportion of their GDP on postsecondary education than did Newfoundland. Quebec's postsecondary effort had exceeded Newfoundland's for the previous two years as well. Newfoundland Public Accounts figures for four years after 1993/94 (actual amounts

Figure 8.2.2: Postsecondary Education Expenditures as a Percentage of GDP, Canada and Provinces, 1989/90 - 1993/94



Source: Derived from Statistics Canada, Catalogue no. 81-229-XPB and the Interprovincial Education Statistics Project; British Columbia Department of Education, 1995

for 1994/95 and 1995/96, estimates for 1996/97 and 1997/98) show an overall decrease in postsecondary spending, suggesting that Newfoundland's postsecondary effort, even if substantial, may decline in comparison to other provinces.

A major change which occurred in the public college system in 1997 was the amalgamation of the five community colleges to form the College of the North Atlantic. One result has been a reduction in administration positions and attendant costs. According to Statistics Canada figures, in the period between 1989/90 and 1993/94 Newfoundland's expenditure on public colleges decreased by 23.2%. Public college expenditures in Prince Edward Island, Manitoba, Saskatchewan and Alberta declined during this period as well, but the rate of decrease was less.

During the same time period Newfoundland's expenditure on Memorial University increased by 17%, according to Statistics Canada. Increases in university expenditure were also seen in all other provinces except Prince Edward Island where there was little change.

A Statistics Canada comparison of provincial expenditures on university related activities (1993) shows that only Quebec and British Columbia spent more on university related activities per FTE than did Newfoundland; only Quebec, British Columbia and Saskatchewan spent more per person aged 18-29; only Quebec spent more per capita; and no other province spent more per thousand dollars of gross domestic product. Finally, only Quebec had a

higher provincial operating grant to universities per FTE than Newfoundland. These indicators show that this province has placed a high priority on advanced education, yet, compared to other provinces, Newfoundland has the lowest percentage of its population with a university degree. Out-migration of well-educated Newfoundlanders may partially explain this phenomenon.

8.3 How have educational expenditures changed in relation to postsecondary enrolment?

Memorial University

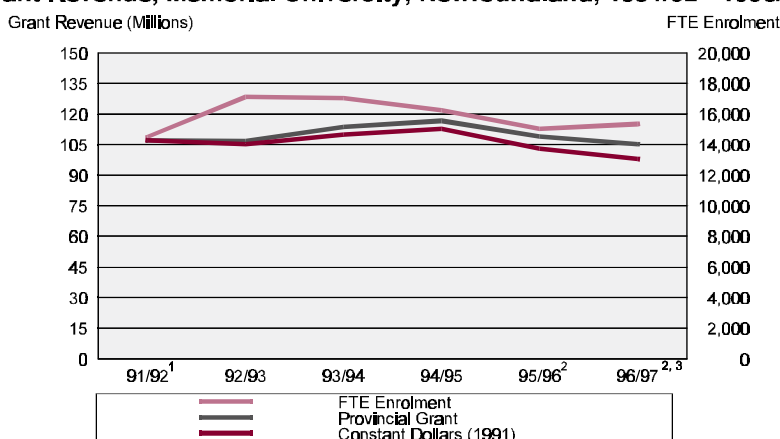
Provincial funding for Memorial University as portrayed in net operating grants and total grants (operating and capital), has not closely paralleled full-time equivalent enrolment during the period between 1991/92 and 1996/97 (Figure 8.3.1). While there is no provincial funding formula for the university or public colleges

which takes enrolment into account, it might be assumed that although some costs, such as plant maintenance, are relatively independent of enrolment changes, other costs, such as instructor salaries, increase as the number of students increases.

In 1992 the Marine Institute became a part of Memorial University. In that year FTE enrolment increased by 2,606 students, remained at that level for the following year, then began to decline. The enrolment in 1996/97 was 837 higher than the enrolment six years previous. Memorial's enrolment, excluding the Marine Institute, fluctuated each year, but decreased overall by 495 from 14,503 full-time equivalent students in 1991/92 to 14,008 in 1996/97.

Memorial University total expenditures increased by \$21,717,000 between 1991/92 and 1995/96, from \$150,088,000 to \$171,805,000 (Figure 8.3.2). Expenditures decreased by 3.7%

Figure 8.3.1: Full-Time Equivalent (FTE) Enrolment and Provincial Grant Revenue, Memorial University, Newfoundland, 1991/92 - 1996/97



Source: Newfoundland Public Accounts and Estimates, Memorial University Fact Book and the Department of Education

1. 1991/92 enrolment does not include Marine Institute.

2. Marine FTE enrolment estimated based on reported number of full-time and part-time students.

3. Provincial grant estimated.

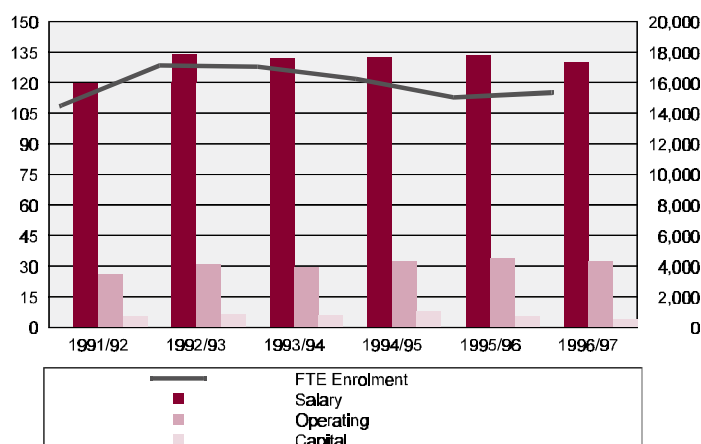
between 1995/96 and 1996/97, to \$165,371,000. The increase of 10.2% in expenditure between 1991/92 and 1996/97 compares to an increase in FTE enrolment of 5.8%. In this six-year period the expenditure on salaries increased by 8.6% and operating expenses increased by 25.4%.

The provincial net operating grant to the university and the university's revenue from all government sources did not increase sharply when enrolment increased, nor did they decrease at the same rate when enrolment began to fall to former levels. When FTE enrolment increased sharply (18.0%) in 1992/93, revenue from government sources increased by only 9.2%. Revenue from student fees, however, increased by 16.9% in that year. Revenue from student fees continued to rise during the six-year period, even though enrolment was 15,340 in 1996/97 down from a peak in 1992/93 of 17,109 full-time equivalent students.

The proportion of total university revenue from tuition fees increased from 15% in 1991/92 to 24% in 1996/97. With only 837 more full-time equivalent students, the university received \$16,466,000 more from tuition fees in 1996/97 than it did in 1991/92, and \$5,197,000 less in government grants.

When compared using 1991 constant dollars the decline in government funding is even more pronounced. In actual dollars, the provincial operations grant to Memorial University was \$1,996,500 less in 1996/97 than it was in 1991/92, and in constant dollars was \$9,284,650 less. Similarly Memorial's revenue from all

Figure 8.3.2: Expenditures and Enrolment, Memorial University, 1991/92 - 1996/97



Source: MUN Fact Book

Note: 1991/92 enrolment does not include Marine Institute.

government sources was \$5,197,000 less in 1996/97 than in 1991/92 in actual dollars, and was \$13,776,236 less when inflation is taken into account. These decreases were partly offset by increases in tuition fees and the effect can be seen in increases in the average amount borrowed by students (see Section 8.10).

Public Colleges

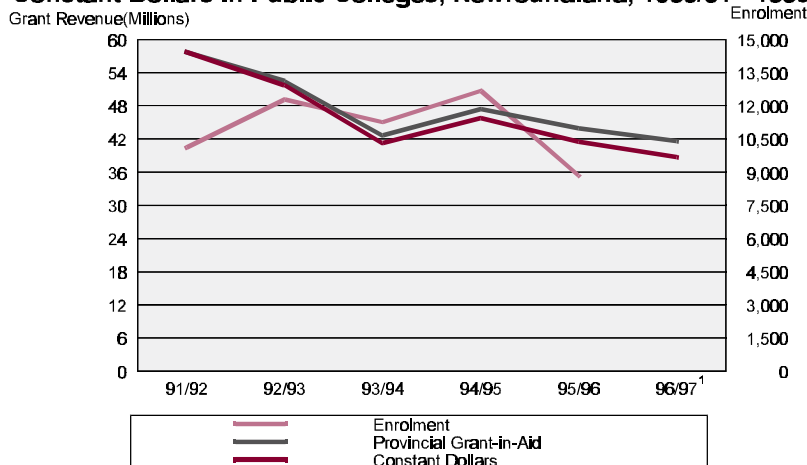
Enrolment in public colleges has varied considerably over the past five-years. Part of the Northern Cod Adjustment Recovery Program, and its successor, the Atlantic Groundfish Strategy, was a provision to enable workers displaced by the closure of the Newfoundland cod fishery in 1992 to take vocational or academic training. Most of those who participated attended private or public colleges.

Even though 1992/93 was the first year students enrolled at the Marine Institute were no longer included in

public college figures, enrolment in the public colleges increased sharply in 1992/93 from the previous year, from 10,120 to 12,294, an increase of 21.3% (Figure 8.3.3). Enrolment remained high for two years, then dropped in 1995/96 to 8,845, 1275 fewer than the 1991/92 level.

The provincial net grant-in-aid for operational expenses to the public colleges did not increase as enrolment increased. The net operations grant has been decreasing steadily since 1991/92, from \$57,731,975 to \$43,961,712 in 1995/96, a decline of 23.8 percent. In constant 1991 dollars the difference is even larger, from \$57,731,975 to \$41,557,810, a decrease of 28%. The total provincial grant (capital and current) declined by 27.6% in actual dollars, and 31.6% with the inflation factor considered. There was a further decrease of 5.4% in the net operating grant for 1996/97.

Figure 8.3.3: Enrolment, Grant Revenue and Grant Revenue in Constant Dollars in Public Colleges, Newfoundland, 1990/91 - 1995/96



Source: Newfoundland and Labrador Public Accounts and Estimates and Department of Education
1. Estimates.

Total public college revenue declined by 6% during the five-year period under review. The decrease in the provincial grant-in-aid was the main cause of the decrease, but there was also an overall decrease in revenue from contract training of 7.4%. Revenue from student fees increased by 6.6%, from 8.5 million

dollars in 1991/92 to 9.1 million dollars in 1995/96. The percentage of revenue derived from student fees was considerably less for the public colleges than for Memorial University, and the increase was far less, from 8.4% of total revenue in 1991/92 to 9.5% in 1995/96.

Overall public college expenditures dropped in 1992/93 by \$8,825,610 (9.1%) from the year before, despite a significant increase in enrolment (Figure 8.3.4). Most of the reduction was in the area of instructional costs, and some of the reduction was for administration.

8.4 What is the level of federal funding for postsecondary education?

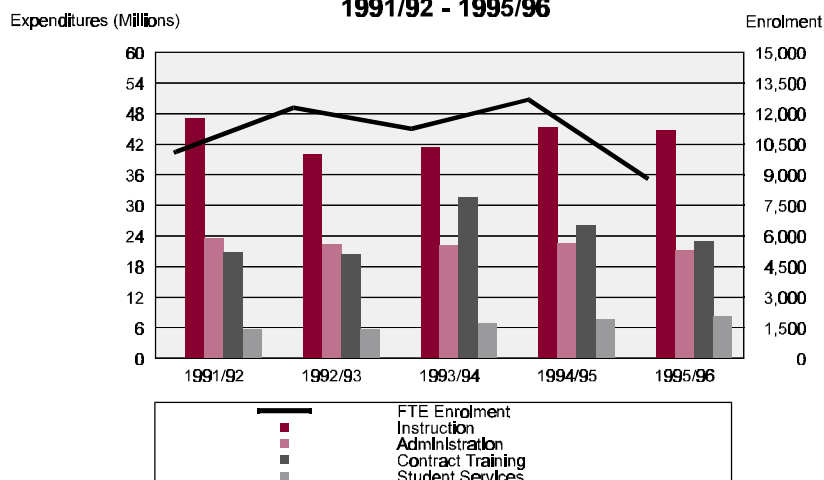
Although education is a provincial responsibility, the federal government supports postsecondary education substantially. Of the \$16.1 billion spent in Canada on postsecondary education in 1995/96, \$8.3 billion (52%) came from federal sources.

The federal government supports postsecondary education in a number of direct and indirect ways. In direct funding in 1995/96 money from this source accounted for 12% of all expenditures on postsecondary education in Canada, compared to 62% from provincial, territorial and municipal governments. (Money from all government sources constituted 75% of total postsecondary funding in that year.)

In this province major federal funding for postsecondary education comes in several forms: transfer of tax revenue to the Province for health and postsecondary education, grants to public colleges for contract training, "seat purchases" for students attending public or private colleges, and "government-to-government" grants for training.

Indirect federal government support for postsecondary education is made through the government-to-

Figure 8.3.4 Expenditures and Enrolment, Public Colleges, 1991/92 - 1995/96



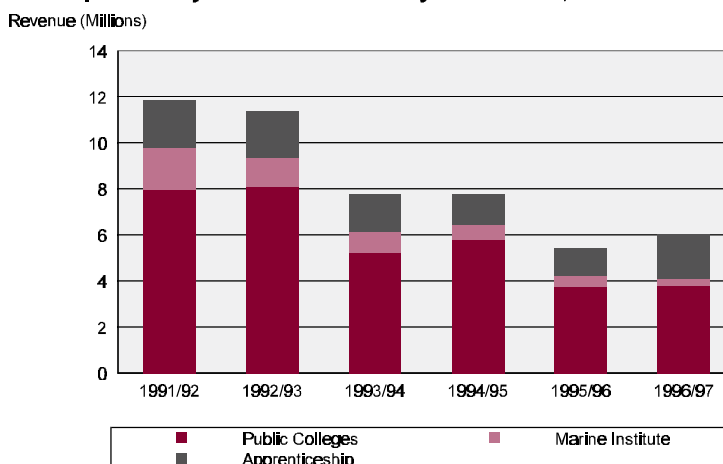
Source: Public College Financial Statements

government transfer payments. Funds are given to the Department of Education which in turn allocates them to the public colleges and the Marine Institute. Some of these funds are used for apprenticeship training. With the exception of a small increase between 1995/96 and 1996/97, the amount of money received by the Province from the federal government for postsecondary training has decreased steadily since 1991/92, from \$11,840,656 to the 1996/97 level of \$6,023,485, a decline of 49% (Figure 8.4.1). The relative proportion of funds allocated each year to community colleges, the Marine Institute and apprenticeship training changed over the six-year period. Community colleges received approximately two-thirds of the funds each year. The Marine Institute share dropped from 16% to 6% over the six-year period, and the share for apprenticeship training increased from 17% to 32%.

All government-to-institution and government-to-government grants described above have now been phased out, replaced by the Skills, Loans and Grants program which supports students individually based on their financial circumstances and educational needs.

In 1996 the Canada Health and Social Transfer replaced the Established Programs Financing and the Canada Assistance Plan and consolidated federal support for health, postsecondary education and social assistance programs. In the past transfer payments to the Province through Established Programs Financing were based on the per capita value of federal postsecondary education transfers to provincial governments for the

Figure 8.4.1: Government-to-Government Federal Grants Specifically for Postsecondary Education, 1991/92 - 1996/97



base year of 1975/76. The total entitlement was then determined by multiplying the per capita postsecondary education entitlement by the population of the Province. Provincial revenue from this source was included in the Province's general consolidated revenue. This money was not differentiated between health and postsecondary education and in fact the Province could spend this money as priorities dictated. In the years between 1991/92 and 1995/96 the transfer payments under this plan varied from year to year and net amounts ranged between \$56,958,000 and \$64,732,000. This program ended in 1995/96.

Other forms of federal support for postsecondary education include the Canada Student Loan Program, funding for university research, minority official-language education and second official-language instruction at the postsecondary level, postsecondary education for Armed Forces personnel, and courses for Canadian Coast Guard

personnel. The federal government also supports postsecondary research studies and the Statistics Canada Centre for Education Statistics. The Department of Human Resources Development Canada provides support to postsecondary education through a number of programs, including pilot projects, developmental activities and programs to overcome career development barriers faced by youth and members of designated groups. Other federal departments also support programs at the postsecondary level. In addition, income tax measures and Goods and Services Tax exemptions provide support to postsecondary education at a cost to the federal government.

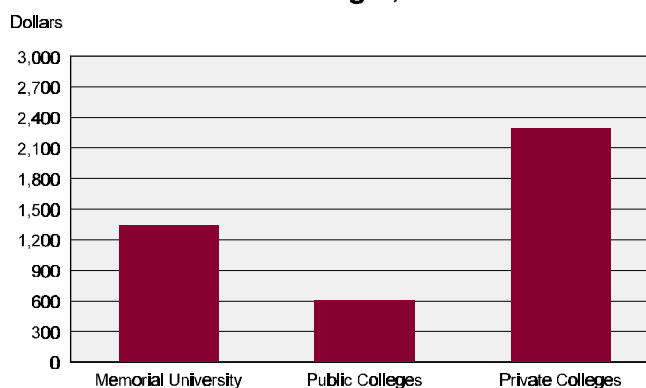
In this province the most visible form of federal government support for postsecondary education in recent years has been the NCARP and TAGS programs, which supported workers displaced by the fishery closure to participate in academic upgrading and/or postsecondary programs.

8.5 How do university, public college and private college tuition fees compare?

Tuition fees at private colleges are higher than at Memorial University or public colleges (Figure 8.5.1). Fees vary considerably among private college programs and institutions, but in 1996/97, the average tuition cost for one semester at a private college was \$2,297, compared to \$1,335 at the university and \$600 at the public college. Since 1995/96 private college enrolment has been greater in two-year (4 semester) programs than in one-year programs. The average cost to the student of obtaining a diploma from a two-year course at a private college is approximately \$9,190, compared to \$10,680 for a four-year degree program at Memorial University (based on 1996/97 tuition rates). Public college is by far the least costly postsecondary option: a two-year course costs \$2,400 and a three-year diploma program costs \$3,600 in tuition fees.

In addition to tuition, housing and travel costs are also significant, so campus accessibility is a factor in determining the total cost of obtaining a postsecondary credential. Both public and private colleges have campuses throughout the Province, allowing a higher percentage of students to live at home while taking courses. Except for students attending first year university courses at the public college campuses which offer them, students attending university must make arrangements to live close to either the Corner Brook or St. John's campus.

Figure 8.5.1: Tuition Rates¹ per Semester, Memorial University,² Public and Private Colleges,³ 1996/97



Source: MUN Fact Book and Department of Education

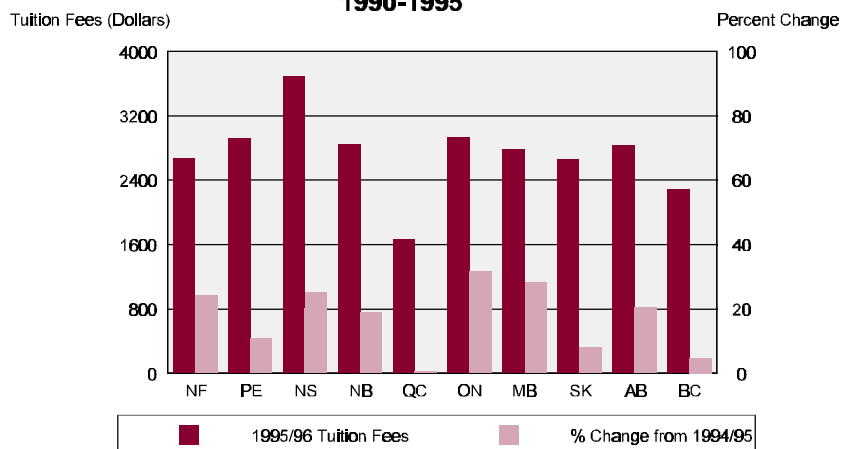
1. Based on 1996/97 rate.
2. Undergraduate.
3. Average fee.

Tuition costs of public and private colleges may be compared as many of the same category of program types are offered at both. Because private colleges receive no public funding tuition costs are higher per semester.

8.6 How do university tuition fees compare with those of other provinces?

Although tuition fees in Quebec have been and continue to be the lowest in Canada, Newfoundland's fees are lower than those in most other provinces. In 1995/96 only

Figure 8.6.1: Canadian University Tuition Fees¹ by Province, 1990-1995



Source: Ontario Ministry of Education and Training, 1995 and Department of Education

1. Undergraduate for two semesters.

Quebec, Saskatchewan and British Columbia had tuition fees lower than those in Newfoundland (Figure 8.6.1). Tuition fees in Nova Scotia have consistently been the highest in the country. In 1995/96 fees in most provinces ranged between \$2,655 for two semesters (Saskatchewan) and \$2,935 (Ontario), with Quebec and British Columbia lower (\$1,666 and \$2,282) and Nova Scotia higher (\$3,690).

University tuition fees have been increasing in all provinces in recent years. The increases in British Columbia, Saskatchewan and Quebec have been less severe than in other provinces. In all cases the increases in tuition fees between 1990/91 and 1995/96 exceeded the increase in the cost of living during that time period.

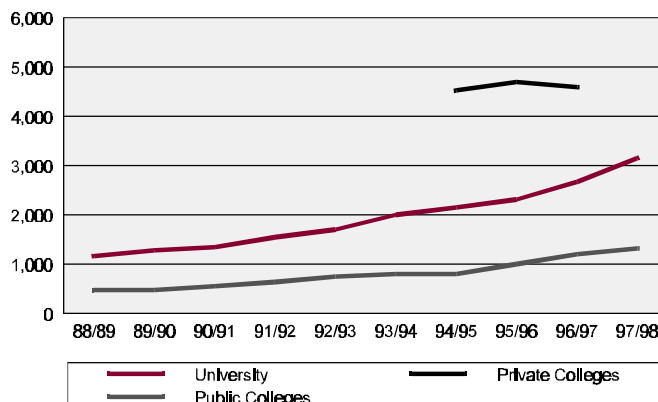
8.7 How have tuition fees changed over time?

Memorial University

Tuition fees at Memorial University began to increase annually in 1981, and since that time have increased 350% (Figure 8.7.1). Annual increases ranged from 5% to 18% in the most recent year. When the annual increase in the consumer price index is taken into account, however, it can be seen that in constant 1968 dollars fees did not begin to exceed index increases until 1995.

Between 1991/92 and 1996/97 the net provincial operating grant to Memorial University did not steadily decline but overall declined by 1.9% (Figure 8.7.2). During this period tuition increased by 72.9%. Looking more closely at one year (1993/94) in which there was a significant

Figure 8.7.1: Tuition Over Time, Memorial University, Public and Private Colleges, 1987/88 - 1997/98



Source: Memorial University, College of the North Atlantic and Department of Education

Notes: Fees are for two semesters. Memorial University tuition fees are for undergraduate programs. Private College fees are an average.

increase in tuition (17.6%) it can be seen that government grants from all sources decreased by \$6,788,000 from the previous year. That year revenue from government grants constituted 2% less of the total revenue than the year before. Revenue from tuition increased by \$2,891,000, which was a 10.4%

increase over the year before, but still did not make up the shortfall in revenue from government grants. The total university revenue was \$3,825,000 less in 1993/94 than in 1992/93, even though enrolment decreased very slightly (71 FTE students). That is, a relatively small percentage decrease in the

Figure 8.7.2: Tuition Fees and Provincial Operating Grant, Memorial University, 1988/89 - 1997/98

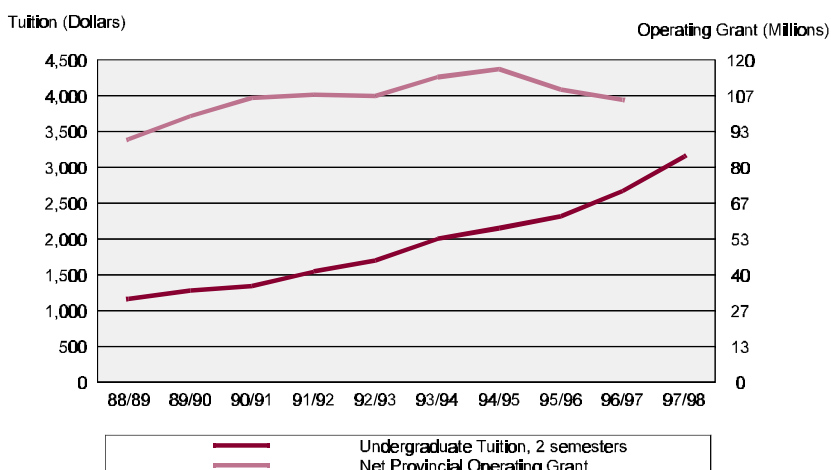
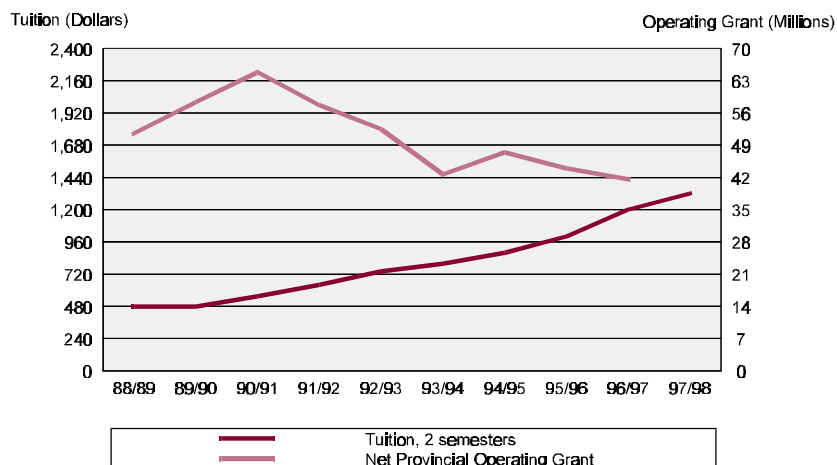


Figure 8.7.3: Tuition Fees and Provincial Operating Grant, Public Colleges, 1988/89 - 1997/98



operating grant to the university led to a much larger percentage increase in tuition fees.

Public Colleges

Basic tuition fees have increased steadily at public colleges in recent years (Figure 8.7.1). The annual percentage increases have been generally higher than increases at the university, but as tuition fees are much lower the increases in actual dollars have not been as large. Since 1989/90, fees have increased by 175%, from \$480 for two semesters to \$1,320. Increases over the last 9 years have consistently exceeded annual inflation rates. As was the case for Memorial University, tuition increased at public colleges as the provincial operating grant decreased (Figure 8.7.3).

Private Colleges

Unlike public colleges and the university, per-semester tuition fees

vary among the many private training institutions and among the programs offered. Based on information supplied to the Department of Education, average tuition fees per semester were calculated. Data are available for only three years and show that average fees for two semesters did

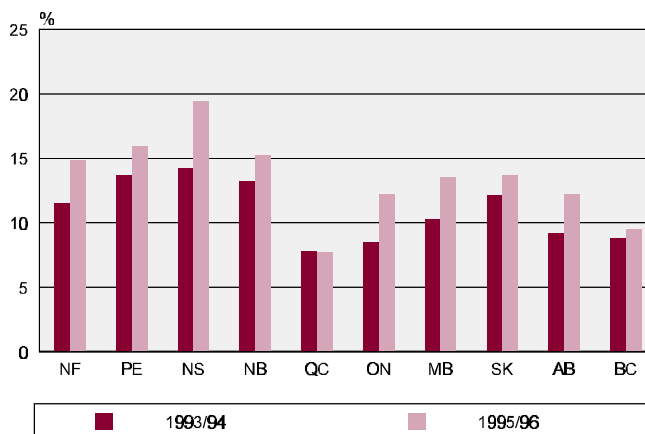
not change significantly between 1994/95, when they were \$4,522, and 1996/97, when they were \$4,594 (Figure 8.7.1).

8.8 What is the cost of a university education in relation to our ability to pay?

Creating impediments to obtaining a university education for students who have the ability to succeed there would appear to be evidence of short-term thinking, given the positive correlation between education level and being employed. As shown in Section 8.7, tuition fees have been rising steadily over the past number of years in response to a decline in the provincial government's grant-in-aid to Memorial which in turn is in response to cuts to federal transfer payments for health and postsecondary education.

In 1996 the annual personal income per person in Newfoundland was \$17,958, \$4,723 (21%) lower than

Figure 8.8.1: University Tuition as a Percentage of Average Personal Income by Province, 1993/94 and 1995/96

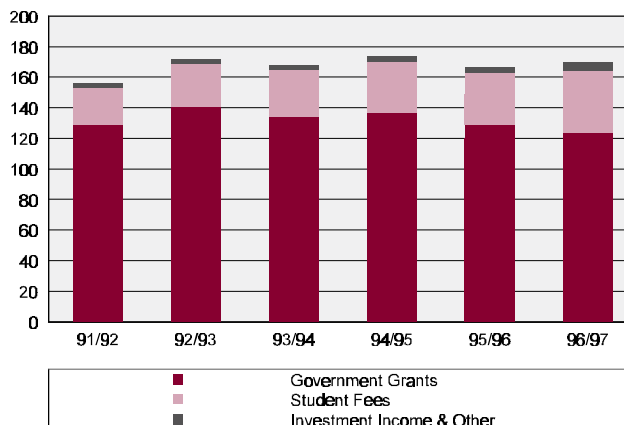


Source: Derived from Statistics Canada, Catalogue no. 13-213-PPB, Ontario Ministry of Education, Newfoundland Department of Education

the Canadian average. For all but one of the last eleven years Newfoundland has had the lowest personal income per person of any province, and in 1996 Newfoundland was the only province to have a lower per person income than the year before. Nevertheless, the 1997 survey of 1996 high school graduates showed that a higher proportion of graduates attended Memorial University (37.1%) than attended public colleges (11.6%), even though the tuition fee was more than twice as high and a higher proportion would have to live away from home and pay accommodation expenses.

As shown in Section 8.6, Memorial University tuition fees have traditionally been, and continue to be, among the lowest in Canada, in spite of substantial annual increases in recent years. In 1995/96 only three provinces - Quebec, Saskatchewan and British Columbia - had lower average tuition fees. However, when tuition fees are expressed as a percentage of personal income it can be seen that students in this province, along with those in the other Atlantic Provinces, face a greater challenge than those in the central and western provinces in financing their education (Figure 8.8.1). The rate in Nova Scotia is substantially higher than other provinces, and increased more than others between 1993 and 1995. Newfoundland's ratio is close to those of Prince Edward Island and New Brunswick, and is substantially higher than in provinces in central and western Canada.

Figure 8.9.1: Sources of Revenue, Memorial University, 1991/92 - 1996/97



Source: MUN Fact Book

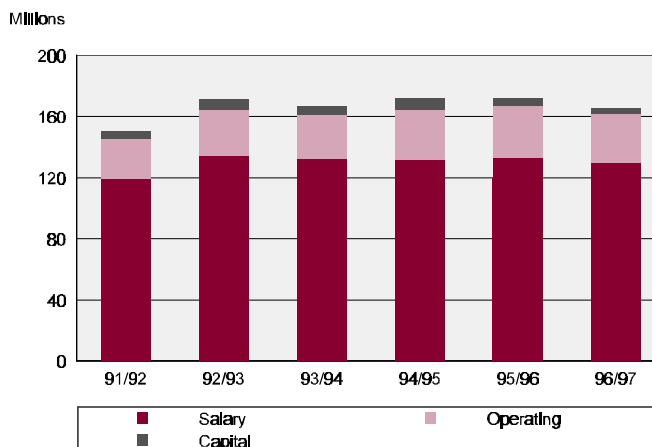
8.9 What are the sources of revenue for the university and the public colleges, and how is revenue allocated?

Memorial University

Memorial University's revenue from government grants, which includes the grant from the Department of

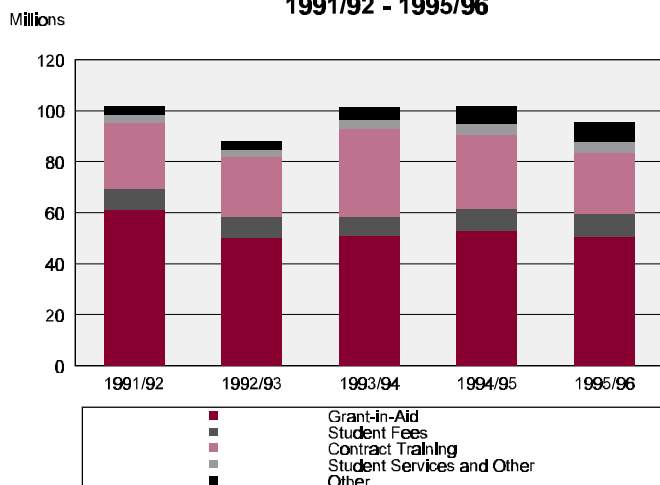
Education and a grant to the medical school from the Department of Health, was \$5,197,000 less in 1996/97 than it was in 1991/92, but the total revenue increased by \$14,144,000 (Figure 8.9.1). Almost all of that increase was derived from revenue from student fees, which have been steadily rising and have constituted

Figure 8.9.2: Expenditures, Memorial University, 1991/92 - 1996/97



Source: MUN Fact Book

Figure 8.9.3: Sources of Revenue, Public Colleges, 1991/92 - 1995/96



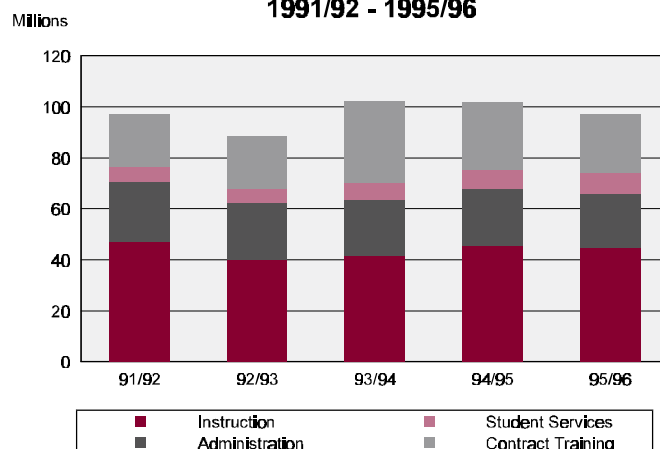
Source: Public College Financial Statements

an increasing proportion of university revenue each year.

Expenditures increased annually during the six-year period, and in total were 10.2% (15.3 million dollars) higher in 1996/97 than in 1991/92 (Figure 8.9.2). Viewing total expenditure broken down by salary,

operating and capital expenses, it can be seen that operating costs increased by 25.4%, salaries by 8.6% and capital expenditures decreased by 30.9%. By far the largest annual increases in salary and operating expenditure occurred between 1991-92 and 1992-93,

Figure 8.9.4: Expenditures, Public Colleges, 1991/92 - 1995/96



Source: Public College Financial Statements

when the Marine Institute became a part of the university.

Public Colleges

The sharp decline of 10.8 million dollars (17.7%) in total public college revenue from 1991/92 to 1992/93 can be at least partly explained by the transfer of responsibility for the Marine Institute from the public college system to the university in 1992 (Figure 8.9.3). However, there was only a 2.4 million dollar (9.5%) decrease in contract training revenue that year. This relatively small decline in contract training, given the removal of the Marine Institute from the system, was likely due to the substantially increased level of federally-sponsored contract training which was a component of NCARP and TAGS, the fishery closure compensation programs. Contract training revenue was substantially higher in fiscal years 1993/94 and 1994/95 than in the preceding or subsequent years, in large part due to these programs.

Excluding 1991/92, except for a slight increase in 1994/95, provincial grant revenue for the public colleges remained fairly steady in that period. In 1995/96 the provincial grant-in-aid was 10.7 million dollars (17.4%) lower than it was in 1991/92 and revenue from student fees was 6.6% higher. However, comparing 1992/93 and 1995/96, removing the year in which the Marine Institute was administered by the college system, it can be seen that grant revenue was slightly higher (0.3%) but revenue from fees was considerably (9.3%) higher.

In percentage terms, the transfer of responsibility for the Marine Institute made more of a difference to the financial situation of the public colleges than to Memorial University, as the Marine Institute budget constituted a larger percentage of the total college budget than it does of the university budget. Specifically, 12.3 million dollars (20.2%) of the public college grant-in-aid revenue and 8.6 million dollars (33.4%) of the contract training revenue in 1991/92 were for the Marine Institute.

Total public college expenditure was only 0.1% higher in 1995/96 than in 1991/92 (Figure 8.9.4). Over this five-year period, instructional expenditures and administration expenditures declined 5.4% and 9.6% respectively. In contrast, student services expenditures grew by 4.0%.

8.10 How much is borrowed by students at university and the colleges?

Loans are available to students attending postsecondary institutions through the Canada Student Loans Plan, which came into existence in 1965, and a provincial loan plan. Using Canada Student Loan Plan criteria, the amount of student assistance is determined by subtracting a student's "assessed resources" from the "assessed cost" of the program in which the student is enrolled. The Canada Student Loan program provides 60% of the assessed need, up to \$165 per week, and the Newfoundland government provides the remaining 40%, up to \$110 per week. Once a student's eligibility and need are established, a loan certificate is issued to the student who may then borrow the

money from an eligible financial institution. Assistance is fully portable so that students may use the loan to attend institutions outside the Province as well as locally.

There is an interest relief plan which allows low-income borrowers to defer loan payments. Borrowers may be eligible for up to 30 months of interest relief during the first five-years of repayment for the federal portion and 18 months of interest relief over a three-year period for the provincial portion. In addition, a Loan Remission Program was introduced in 1994 under which any amount of a combined Canada Student Loan and provincial loan above \$22,016 for a four-year program will be remitted, and deducted from the payment on the Newfoundland Student Loan. Eligibility requirements include the timely and successful completion of studies.

The provincial loan program is a replacement for a grant program

which had been available to eligible university and college students from 1978 to 1994. Between 1968 and 1978 college students were eligible for student salaries, as were university students between 1966 and 1968.

For the Province as a whole, the number of loans has increased steadily over the past five years, from 11,851 in 1992/93 to 20,140 in 1996/97, and their total value has increased from \$36,441,700 to \$159,064,330.

The rapid growth of enrolment in the private colleges is reflected in the 500% increase in the number of loans issued to students attending private colleges in the past five-years. In 1992/93, 1,152 private college students had student loans, compared to 6,858 in 1996/97 (Figure 8.10.1). By contrast, there has been a substantial, but significantly smaller increase of 89.6% in the number of loans issued to students attending public colleges in 1996/97 compared to

Figure 8.10.1: Number of Loans by Postsecondary Sector, 1992/93 - 1996/97

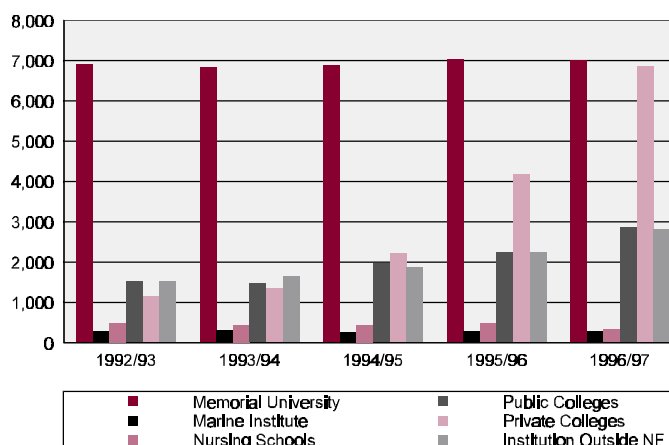
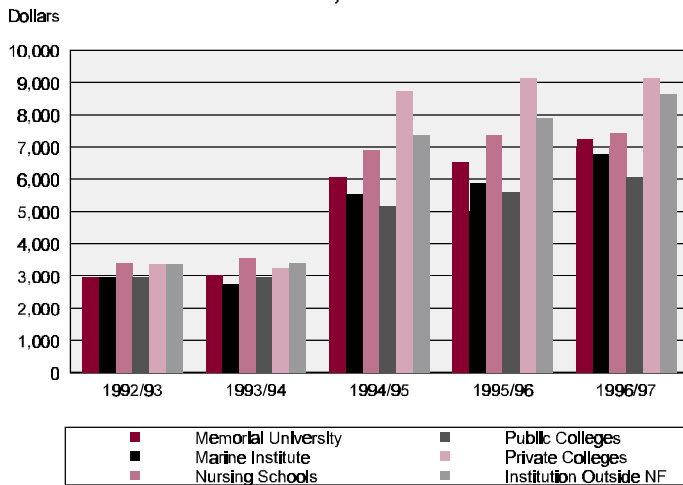


Figure 8.10.2: Average Loan Amount by Type of Institution, 1992/93-1996/97



1992/93. The number of these loans increased from 1,511 to 2,865. In 1992/93 there were 359 more loans issued to students attending public colleges than to students attending private colleges but in 1996/97 there were 3,993 more loans issued to private college students than to public college students. The number of loans issued to Memorial University students has remained steady at approximately 7,000 per year.

The effect of the elimination of provincial grants for postsecondary study can be seen in the sharp increase in the average amount of student loans in 1994/95 compared to the previous year (Figure 8.10.2). Average loans increased by approximately 100% for Memorial University (\$3,022) and Marine Institute students (\$2,772). The difference between public and private college student loan increases was striking: public college students on average borrowed 75% (\$2,225) more when grants were eliminated, but private

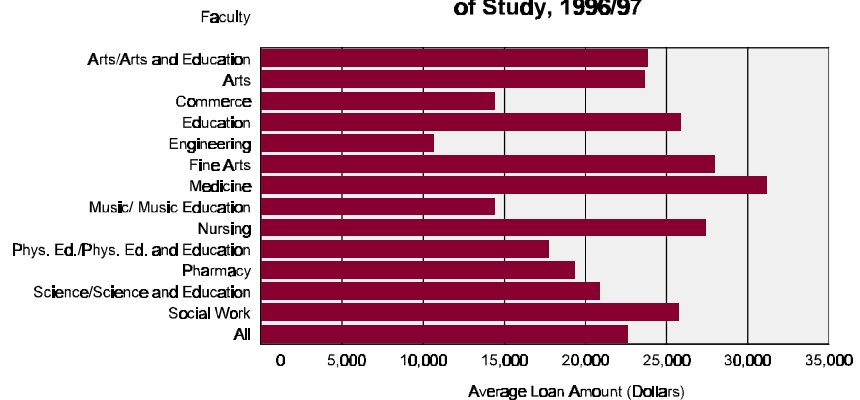
college students had to borrow 169% (\$5,482) more.

In 1996/97 students attending private colleges had, on average, the largest loans for that year. They borrowed \$9,128, compared to \$6,059 borrowed by those attending public colleges, which in many

cases offer comparable programs. The average amount borrowed was \$8,630 for institutions outside Newfoundland, \$7,411 for nursing schools, \$7,220 for Memorial University, and \$6,765 for the Marine Institute.

In 1992/93 and 1993/94, when there were provincial grants for postsecondary study, not only were annual loan amounts smaller, but there was little variance in amounts borrowed by students attending different institution types. This is at least partly a result of loan amount limits being at the maximum level required by most students. When the federal government increased student loan limits in 1994/95 the loans profile by postsecondary institution changed. The average amount borrowed by private college students and students attending institutions outside the Province has been substantially more than the amount borrowed by other students, particularly those attending public colleges or the Marine Institute.

Figure 8.11.1: Total Loan Amounts of Memorial University Students by Faculty, Students In Final Year of Study, 1996/97

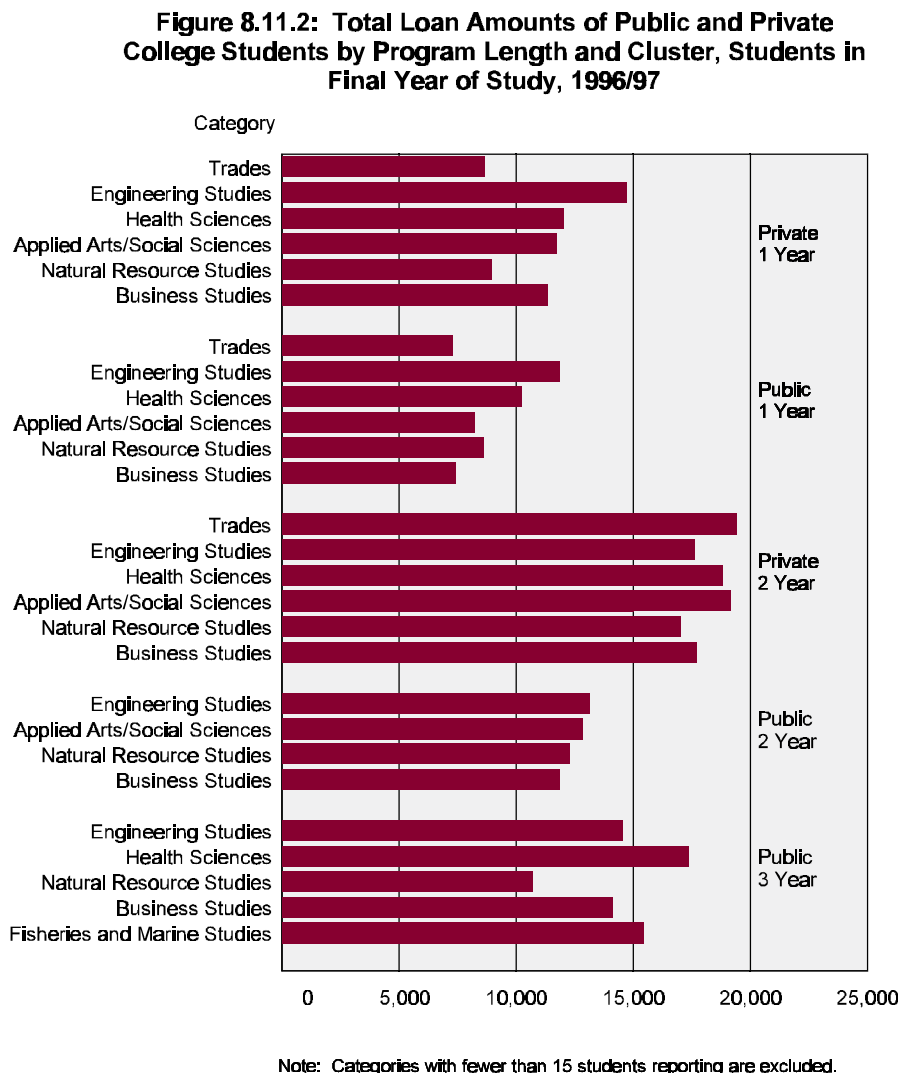


8.11 Which programs result in the greatest amount of borrowing?

In general, university students must borrow more than public or private college students to complete their programs, mainly because tuition is higher than at public colleges and it takes more years of study to obtain a degree than to obtain a college certificate or diploma (Figure 8.11.1). Students who attend private colleges borrow more than those attending public colleges as tuition is higher.

There are some cases which depart from the general case. Commerce, engineering and music students at Memorial borrow less than other university students, probably because they have more opportunity to earn money as they study through work terms or, in the case of music students, private teaching. Those who borrowed higher than average amounts were enrolled in arts/education, education, fine arts, medicine, nursing and social work. Many of these were five-year programs. There were some differences in the amounts borrowed by men compared to women, but there does not appear to be a discernible pattern. Overall, women who attended university borrowed \$1,285 more than men.

While in general college program length and whether the institution is public or private determine the amount borrowed, there are differences. Those enrolled in one-year trades programs at either public or private colleges borrowed less than other students in one-year programs. While in general private college students borrowed more than public college students,



students who enrolled in one-year trades or natural resources courses borrowed comparable amounts to those borrowed by public college students enrolled in similar programs. This did not hold for two-year programs, however. Students in each two-year program cluster at private colleges borrowed substantially more than public college students enrolled in either two-year or even three-year

programs. Students in their final year of study of three-year public college programs did not borrow much more than students in their final year of two-year public college programs, and those in three-year natural resources programs borrowed even less than those in most two-year programs. As was the case with borrowing for university studies, there were some gender differences in the amount

borrowed to complete college programs, but there was no clear pattern.

There are, however, considerable gender differences among borrowers in many program clusters, reflecting enrolment patterns based on traditional occupational gender differences. For example, substantially more men than women borrowed to study trades, natural resources and engineering. More women than men borrowed to study health sciences and business studies.

8.12 How does the amount borrowed to complete a program relate to eventual earnings?

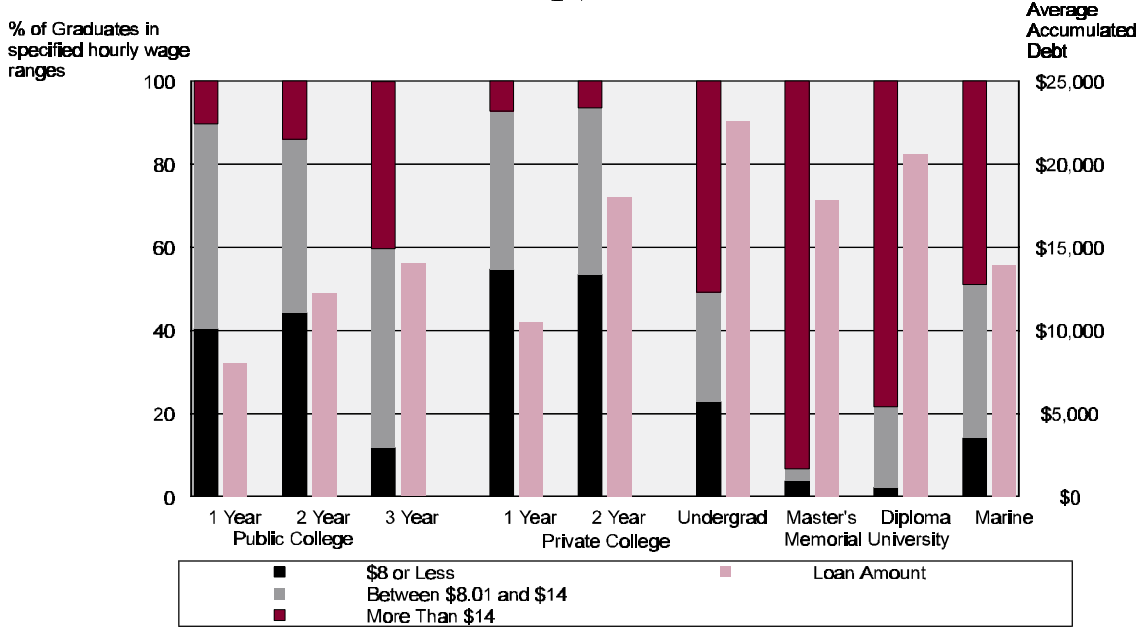
Students borrow money to attend postsecondary institutions with the

expectation that their investment will lead to employment which will enable them to pay off their student loan. Most students attending university are enrolled in four or five-year programs, and, as might be expected, on average they have a larger debtload on completion of their course of study than students in shorter duration public and private college programs (Figure 8.12.1). On the 1994/95 survey of postsecondary graduates, although a high number (23%) of university graduates reported earning \$8.00 an hour or less approximately 16 months after graduation, over half reported being in the higher income categories (\$14.00 an hour or more). Private college students must borrow nearly as much money to complete a two-year program (\$18,010) as Memorial University students do for a program at least

twice as long (\$22,591), but over half reported earnings of \$8.00 an hour or less. Only 6.4% of these private college graduates reported earning \$14.00 or more an hour.

Comparing two-year programs at private and public colleges, it can be seen that on average public college students borrowed less and earned more (Figure 8.12.1). Public college students accumulated a debt of \$12,263 compared to \$18,010 for private college students, and 14.1% earned \$14.00 an hour or more compared to 6.4% of private college graduates. High percentages of graduates of both public (44.2%) and private (53.5%) two-year college programs had earnings of \$8.00 an hour or less approximately 16 months after graduation.

Figure 8.12.1: Average Accumulated Student Debt Compared to Actual Earnings, 1995 Graduates



Note: 1. Accumulated debt for 1996/97 students in their final year of study.
2. 1995 graduates surveyed in fall, 1996.

Students who took two-year programs at private colleges borrowed, on average, \$7,535 more than those who took one-year programs, yet appear to be no better off financially after graduation. This was not the case at public colleges. Students who graduated from two-year programs borrowed \$4,222 more than those who graduated from one-year programs, and three-year programs resulted in a debt of a further \$1,779. However, the length of program does have positive correlation with eventual earnings: each year of studies increased the likelihood that a graduate's earnings would be in the "high" category.

Overall, Memorial graduate and diploma students borrow the most and financially benefit the most from their investment. Nearly all (93.3%) of Masters graduates and 78.3% of university diploma graduates, many of whom have an undergraduate degree, reported having earnings in the "high" category. The percentage of graduates of undergraduate

programs who have earnings in the "high" category (50.9%) is much lower.

Earnings are often related to whether or not the work is related to the field of study. In the current economic climate work is difficult to find in this province, particularly for young people, and it might be expected that a high percentage of graduates would accept any work available, if only as a temporary measure. The relationship between type of program completed, amount borrowed, and earnings after graduation is influenced by this and a host of other factors. Those who have acquired a university degree, for example, can expect that eventually their employment status and earnings will justify the expense of attending university for four or five-years. How successful graduates of the university and public and private colleges are in finding work related to their education is discussed in Chapter 4, Section 4.5.

8.13 How does the level of student borrowing compare with other provinces?

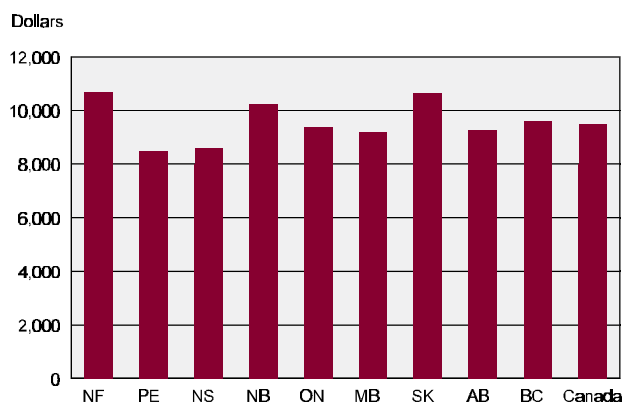
In 1995/96, the average accumulated debtload of Newfoundland students who borrowed under the Canada Student Loan Program was nearly 13% higher than the Canadian average. The difference between Newfoundland and the Canadian average was greater for those enrolled in non-degree programs (16.0%) compared to university undergraduate programs (14.3%) (Figure 8.13.1). These figures are a reflection of the lower family income levels in this province.

It should be noted that data presented in Figure 8.13.1 show borrowing under the Canada Student Loan Program only. The amount shown for Newfoundland does not include money borrowed through the provincial student loan program.

8.14 How do default rates compare with other provinces?

The most recent complete data for student loan defaults are based on loans consolidated in 1992/93, and defaults for these loans which occurred in the three-year period from 1992/93 to 1994/95. Students attending postsecondary institutions do not have to begin paying back their loans until six months after they graduate. At that time borrowers make arrangements with a financial institution to consolidate all the loans they have had and to establish a payment schedule. A borrower is said to have defaulted on the loan if he/she fails to make the monthly instalment. Although a default could occur at any time

Figure 8.13.1: Student Borrowing,¹ Newfoundland and Canada, 1995/96

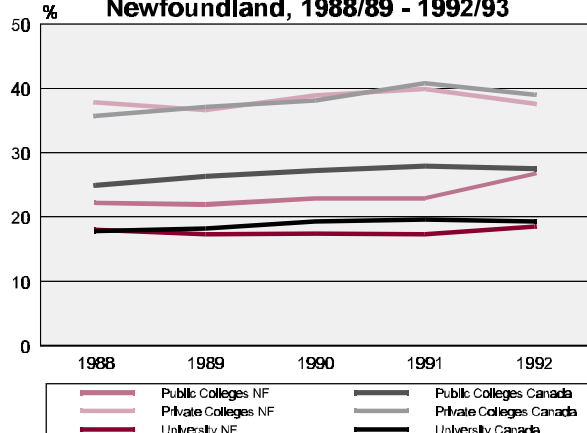


Source: Human Resources Development Canada, Loan Master File, June '96

1. Accumulated debt of Canada Student Loan recipients who reported to be in their final year of study and who borrowed in 1995/96.

Note: Quebec data unavailable.

Figure 8.14.1: Default Ratios in Year of Loan Consolidation, University, Public and Private Colleges, Newfoundland, 1988/89 - 1992/93



Source: Human Resources Development Canada

Note: Default ratios are arrived at by adding the values of defaults occurring in the first three years after the year of loan consolidation. The total is expressed as a percentage of the total consolidations in that loan year.

during the arranged repayment period, it has been found that those who default usually do so within the first three years following loan consolidation. The total value of defaults occurring in the first three years after consolidation expressed as a percentage of the value of the total consolidations for that year is called the "default ratio". It should be noted that small amounts of defaults from the same or similar amount of loan consolidation would result in a high default ratio, and a large default amount from substantially larger consolidation would result in a low default ratio. The federal government used to guarantee Canada Student Loans, but in August 1995 a new system was instituted whereby the government pays a "risk premium" of 5% and the bank assumes responsibility for the loan.

The cumulative default ratios for all postsecondary institutions in Canada have been 22% to 25% from consolidation year 1986/87 to 1992/93 (Figure 8.14.1). Viewed by

institution type, for consolidation year 1992/93 the default ratio for students who had attended university was 19.3%, public colleges 27.5%, and private colleges 39%. Although the unemployment rate has been much higher than in other regions of the country, those who have obtained a postsecondary education are most likely to be employed. On average students who attend university accumulate more debt than students who attend public or private colleges (see Section 8.10), but on average their earnings are higher (Chapter 4, Section 4.4), enabling more of them to repay their loans. Reported earnings of graduates show that those who had attended private colleges took a longer time to find work after graduation (Chapter 4, Section 4.6) and, when they did, were paid at a lower rate than graduates of the university or public colleges (Chapter 4, Section 4.4). It might be expected that these graduates would have the most difficulty repaying student loans, particularly

in light of the large debts they accumulated.

In this province default ratios have tended to be lower than the Canadian average between consolidation years 1986/87 and 1992/93. Analyzed by institution type, the results are similar to those for the rest of Canada: default ratios are lowest for university graduates and highest for graduates of private colleges.

There are some differences between the Newfoundland and the Canadian average figures. Default ratios for graduates of private colleges had been slightly higher in Newfoundland than for the average of the rest of Canada, but since consolidation year 1989/90 default ratios have been lower. Newfoundland default ratios for those who attended public colleges have been slightly below the Canadian average since consolidation year 1988/89 and for those who attended university since 1989/90.

8.15 To what extent has Memorial University attracted grant money for research?

An important role of the university is to be engaged in research, to extend the boundaries of knowledge and work toward attaining a better understanding of ourselves and our environment. University professors are expected to maintain a research program. Research activity can also lead to benefits for both the larger and more immediate community. Improved products, services, public policies, and health treatments, for example, usually flow from research conducted in a university setting.

Table 8.15.1: Sources of Grant Money for Research, Memorial University, 1991/92 - 1995/96

Agency	1991/92	1992/93	1993/94	1994/95	1995/96
Federal Granting Agency	11,543,773	9,398,457	9,154,155	8,284,058	7,503,301
Federal Departments and Agencies	11,245,254	17,379,559	13,655,087	10,494,049	9,966,611
Canadian Business	2,662,788	2,329,573	2,971,042	2,755,319	3,401,858
Foreign Business	329,160	254,183	141,657	302,666	339,545
Provincial Department and Agencies	1,351,937	2,136,735	1,450,762	1,144,487	1,673,926
Canadian Non-Profit Agencies	2,251,864	2,836,486	2,181,283	2,295,656	2,375,270
Foreign Non-Profit Agencies	119,867	297,918	537,685	928,030	633,128

Source: MUN Fact Book, 1996

Research activity has traditionally been financially supported mainly by the federal government and private industry. As government operating and research grants have declined in recent years, grants from business and industry have become more critical to enabling the university to carry out its research function.

In 1995/96 67.5% of research funding to Memorial came from federal government sources: 38.5% from federal departments and agencies, and 29.0% from the three main federal government granting councils - the Medical Research Council, the National Sciences and Economic Research Council, and the Social Sciences and Humanities Research Council (Table 8.15.1). In 1995/96 Canadian and foreign businesses combined contributed a substantially smaller amount, 14.4%. Grants from Canadian and foreign non-profit agencies accounted for 11.6% and grants from provincial departments and agencies 6.5%.

In 1995/96 research support from federal granting councils and federal departments and agencies was \$5,319,115 (23.3%) lower than it was five-years before, while support from Canadian and foreign businesses was \$749,455 (25.0%) higher. The total amount of external research funds was \$3,611,004 (12.2%) less in 1995/96 than in 1991/92.

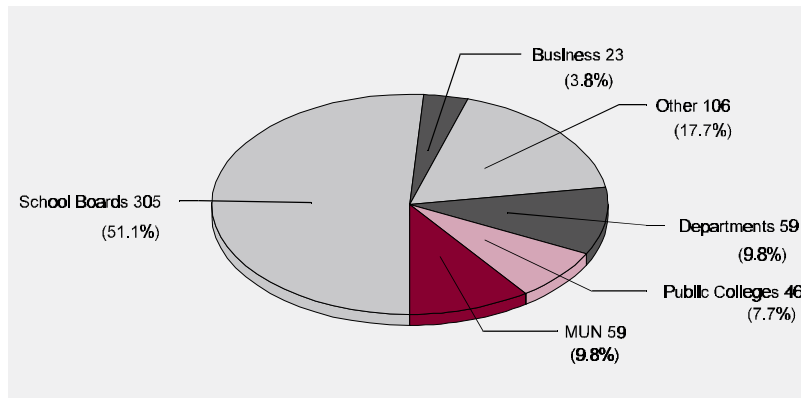
Of all the faculties and professional schools, the largest proportion of research funds is obtained by the Faculty of Science. The Faculty of Medicine and the Marine Institute also receive a substantial proportion of research money. Of the "other units" which are engaged in research, the Centre for Cold Ocean Resources Engineering (C-CORE) is the only one to obtain large amounts for research. In 1995/96 C-CORE had 98 grants or contracts with a total value of \$4,213,511.

8.16 To what extent have projects funded through the HRD COOPERATION Agreement related to postsecondary education?

The Canada-Newfoundland COOPERATION Agreement on Human Resource Development is a five-year 42.9 million dollar agreement between the Department of Education and the the Atlantic Canada Opportunities Agency. One of the main principles underlying the Agreement is that a high-quality system of education and training is essential in the development of a well-trained workforce that will make this province competitive in the international market. The Agreement was established in 1993 and expires in March 1998.

Projects are funded under this Agreement if they meet criteria related to improving the entrepreneurial climate and learning culture; improving achievement and participation in science, technology and mathematics; and improving oral and written communication skills. The Agreement also

Figure 8.16.1: Number of Projects Funded by the Human Resource Development Agreement, by Category, as a Percentage of all Projects, 1992-1997



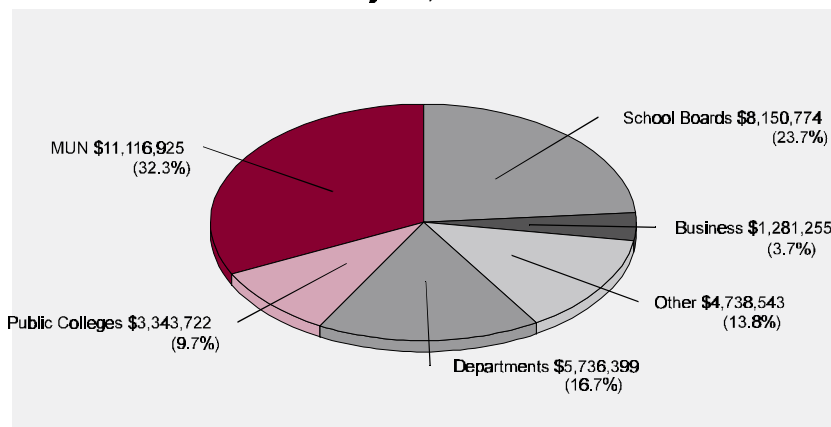
Source: Annual Report of the Human Resource Development Agreement for Fiscal Year 1996/97

supported projects which focused on improving the working relationship between learning institutions, business and industry.

Most projects funded to date (51%) have supported work at the elementary/secondary education level, but their monetary value

amounted to a smaller percentage (23.7%) of the total (Figures 8.16.1 and 8.16.2). Eighteen percent of projects were based at Memorial University and public colleges and had a total value of \$14,460,647. It should be noted that \$5.7 million of this amount has been allocated to Stem ~ Net, a project housed at

Figure 8.16.2: Value of HRD Projects, by Category, as a Percentage of all Projects, 1992-1997



Source: Annual Report of the Human Resource Development Agreement for Fiscal Year 1996/97

Memorial University but used by the entire education system. This project has, among other things, improved communication among students and educators in the Province, allowed schools and colleges to link to the Internet, and enabled teachers and other educators to improve their qualifications by taking courses online.

At the University money has been used to improve the technological capability of a number of faculties, and establish new degree programs, such as the Bachelor of Applied Technology through the Fisheries and Marine Institute. Other projects include the development of a Master's program in Applied Economics and the development of a list of courses and research requirements for a Master's program in regional economic development.

One HRDA-supported project at the Fisheries and Marine Institute involved the development of the Global Maritime Distress Safety System Training System. All marine deck officers will be required to be certified by 1999 in this search and rescue system which utilizes global satellite communications.

Public colleges have used HRDA funds to make improvements in a number of technology programs. Examples include development of the curriculum for the Computer Support Technician course, development of a two-year program in multimedia communications, and the development of a research institute for environmental studies at the Baie Verte campus.

Many other projects supported postsecondary-level endeavours

but were not associated with a postsecondary institution. The Indicators Project of the Department of Education, for example, which supports the preparation of *Postsecondary Indicators '98*,

received a portion of its funding from HRDA. Other Department projects include the Prior Learning Assessment Initiative, and alternate delivery for apprenticeship training programs. The Newfoundland and

Labrador Building and Construction Trades Council received funding to implement a supervision training program for supervisors in the construction industry.