SURVEY OF 1996 UNIVERSITY GRADUATES

GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Education

New Nouveau
Brunswick
Advanced Education and Labour
Enseignement supérieur et Travail

Prince Edward Island
CANADA

NOVA SCOTIA
Education and Culture

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Highlights

Chapter 1 Introduction

The Maritime Provinces Higher Education Commission (MPHEC), in partnership with the governments of the four Atlantic Provinces, retained the services of Baseline Market Research Ltd. (Baseline) to conduct a survey of 1996 graduates from universities across Atlantic Canada, one year after graduation.

This survey of 5,192 members of the Class of 1996 builds on the experience gained through the first regional approach conducted by MPHEC in 1996 with the Class of 1995. This survey expands the geographic scope of the pilot project to include 1996 graduates from Memorial University and the Fisheries and Marine Institutes of Memorial University in Newfoundland.

The cooperation of the universities is both recognized and appreciated. Staff from the MPHEC invested considerable time and energy to ensure successful completion of this project. The project Steering Committee served as a resource for staff at MPHEC and researchers at Baseline.

Chapter 2 Graduate Profile

For approximately two-thirds of the Class of 1996, a university degree represents a higher level of education than that achieved by their parents. Those graduates who completed degrees beyond the bachelor's level were more likely to come from homes where at least one parent had completed some post-secondary program.

While most graduates of the Class of 1996 were 23 years old, significant numbers of mature, master's, and professional school students raised the average age for all graduates to 28 years.

Sixty-two percent (62%) of all graduates of the Class of 1996 were women and women were clearly the majority in most academic programs. Aside from the general 60/40 imbalance along gender lines for most programs, significant anomalies persist within certain major fields of study. For example, men continue to represent the larger percentage of graduates in engineering, physical sciences, information technology and certificate programs whereas women dominate in the health professions. The gender balance of graduates appears closest within commerce/business where 53% of graduates were women and 47% were men.

Sixty-four percent (64%) of those receiving bachelor's degrees were female. Graduates who earned their first professional degree were 55% female and 45% male. At the top of the academic ladder, gender differences reverse. Men earn 55% of the doctorate degrees; women earn 45%.

Chapter 3 Pre-Enrollment Experiences of Graduates

In the 12 months before enrollment in a bachelor's level university program, the majority of graduates were attending a secondary education program.

In contrast, those who entered a master's level program, certificate, or professional degree program were more likely to have spent the 12 months before enrollment working.

At the time of enrollment, graduates considered acquisition of the skills related to jobs, income advancement, in-depth knowledge in a field of study and self-improvement to be relatively equal in overall importance.

Chapter 4 The University Experience

The majority of graduates (73%) enrolled in a program of study as full-time students, completing their degree requirements in slightly more than four years. Those who enrolled as part-time students to pursue a certificate or university degree were most likely also to be working full-time (76%). These students tended to be older, female, and with family responsibilities.

Other graduates chose to complete their bachelor's degree through a combination of full-time and part-time attendance at university (18%).

The Class of 1996 expressed a high degree of satisfaction with the facilities, services and faculties at universities in Atlantic Canada. Despite rising costs, the majority of university graduates perceived the experience to be worth the personal investment of time, energy and money.

Graduates perceived significant developments in their speaking and communication skills, ability to think independently and critically and in their decision-making abilities. They were less likely to suggest that their writing or math skills had improved as a result of their time spent at university.

Most graduates indicated that university increased their awareness of career opportunities and heightened their interest in life-long learning (55%).

Chapter 5 Financing a University Education

Fifty-three percent (53%) of students in the Class of 1996 borrowed at least some money to finance their education compared to 49% who borrowed in the Class of 1995. Eighty-eight percent (88%) of students in the Class of 1996 worked to finance part of the cost of a university education.

Among those who borrowed, the average debt incurred was $16,667, approximately $4,000 more than the average debt incurred by the Class of 1995.

Approximately 90% of those who incurred debt borrowed through only government student loans, averaging a debt of $15,802, approximately $3,000 more than the average student loan debt for the Class of 1995. Approximately 14% of graduates borrowed only through private sources to finance their education. While the percentage who used these sources was the same for the Class of 1995, the average amount borrowed increased from $7,087 to $9,701.

Approximately 10% of the students who had borrowed managed to repay their total debt (an average payment of $9,291) in the year following graduation. The graduates who had outstanding debt one year after graduation found themselves carrying an average debt of $15,540 in August 1997. Those carrying a higher debt load included graduates from the Health Professions ($22,019) and those with degrees in Fine Arts ($17,012). Those carrying a lower debt load included graduates from General Arts and Sciences ($7,429) and certificate programs ($7,824).

As with the Class of 1995, one in four graduates experienced problems in repaying their government student loans in the first year after graduation. Within this group, one in four were not employed at the time of this survey and the average outstanding balance on the student loan stood at $16,489. Eighteen percent (18%) of those who borrowed through private sources also experienced difficulty with re-payment in the first year.

Chapter 6 Employment Experience of Graduates

Before entering university, 63% of the Class of 1996 had held at least one full-time job and 70% had at least one part-time job. Since graduating, nearly everyone (95%) in the Class of 1996 has held at least one job with each graduate averaging 1.8 jobs since graduation.

Compared to the previous year, graduates appeared to face slightly brighter job prospects. The overall unemployment rate for the Class of 1996 was 13.4% --down a full percentage point from the 14.5% experienced by Class of 1995 graduates. Seventy-eight percent (78%) of the Class of 1996 reportedly found jobs, most of which (87%) were full-time positions. The jobs were directly related to their field of study in about half the employment situations.

Of the unemployed graduates, 82% had completed a bachelor's degree. Graduates in Newfoundland and New Brunswick faced the toughest job markets. Those graduates with the highest rates of unemployment held degrees in Education (21.7%), the Humanities (16.9%), and in Math/Physical Sciences (15.3%).

The fields with low rates of unemployment were Health (2.7%) and Information Technology (7.0%)

Chapter 7 Earnings of 1996 Graduates

On average, a member of the Class of 1996 was earning $562 a week--about $25 a week more than last year's graduates - employed in a full-time position. Overall, if full-time employment earnings were annualized, male graduates would earn an average of $32,708 in 1997 while female graduates would earn an average of $26,884.

Wages generally increase in proportion to the number of years spent in school and the degree received-- factors which suggest that a university education continues to be a good financial investment from an income perspective. For example, graduates with master's degrees earned, on average, $326 a week more than colleagues with bachelor's degrees; however, the leaders, when it comes to weekly wage-earners, were those who completed certificate programs ($775.84) and information technology programs ($733.36).

Women earned approximately 84% of the average wage of a male graduate, if both were employed in full-time comparable positions.

Chapter 8 Mobility of Graduates

This chapter explores the mobility patterns of graduates, taking into consideration where they lived prior to enrollment and their residence one year after completing university. It is clear from an analysis of the data that the Atlantic region retained about 87% of the people who lived in the region prior to attending a college or university. While there was some movement of graduates within the Atlantic Region, it is also true that the majority of graduates with a degree or certificate opted to remain in or return to their home province after graduation.

Many of the students who came to Atlantic Canada to attend school also stayed. Thirty-five percent (35%) of the students who came to Atlantic universities from other provinces remained in the region. As well, foreign students who made up 2% of the 1996 graduating class were three times as likely to remain in Canada as they were to return to their country of origin. Two-thirds of this small group remained in the region after graduation.

As for the 12% of Atlantic Canadian graduates who left to go "down the road", the largest exports (by occupational group) include teachers, computer programmers, computer analysts and registered nurses.

Chapter 9 Academic Studies Following Graduation

Following receipt of a degree, approximately 37% of the Class of 1996 returned to school in order to complete a program or take courses for credit. This represents a 2% increase in the number of graduates returning to school from the class of 1995 (35%).

Glossary of Terms

FOS:	Major Field of Study of Graduate.
Employed Full-time:	Graduates working at a job or business thirty or more hours per week.
Employed Part-time:	Graduates working at a job or business less than 30 hours per week.
Unemployed:	Graduates not working but looking for work as well as those who have accepted a full-time job to start in the future.
Labour Force:	Graduates working (employed), not working but looking for work (unemployed) and graduates not working who have accepted a full-time job to start at a definite date in the future (unemployed).
Not in the Labour Force:	Graduates who are not working and not looking for work or unavailable for work.
Unemployment Rate:	The number of unemployed graduates as a percentage of the graduates in the labour force (employed and unemployed).
Labour Force Status:	Whether graduates are employed, unemployed or not in the labour force.
Mean:	The sum of the values of a data set divided by the number of observations.
Median:	The point in an array of data which has an equal number of observations above and below it.
Mode:	The observations that occur most frequently in a data set.
Confidence Interval:	A lower and upper bound within which a population parameter is expected to be located along with an associated level of confidence. The confidence interval allows one to estimate the accuracy of a sample statistic in revealing the true value of that statistic for the entire population under study.
Level of Confidence:	The chance that the true mean for the population falls within the specified confidence interval for the sample.

Chapter 1 Introduction

The Maritime Provinces Higher Education Commission (MPHEC), in partnership with the governments of the four Atlantic Provinces, retained the services of Baseline Market Research Ltd. (Baseline) to conduct a survey of 1996 graduates from universities across Atlantic Canada, one year after graduation.

This survey of 5,192 members of the Class of 1996 builds on the experience gained through the first regional approach conducted by MPHEC in 1996 with the Class of 1995. This survey expands the geographic scope of the pilot project to include 1996 graduates from Memorial University and the Fisheries and Marine Institutes of Memorial University in Newfoundland.

The cooperation of the universities is both recognized and appreciated. Staff from the MPHEC invested considerable time and energy to ensure successful completion of this project. The project Steering Committee served as a resource for staff at MPHEC and researchers at Baseline.

Background Information

The Survey of the Class of 1996 was designed to build on the biennial, national survey of all post-secondary graduates which has been conducted by Statistics Canada since 1978. While the national surveys provide a wealth of information, MPHEC and the Atlantic Provinces determined that there was a need for more timely access to information about university graduates within the Atlantic Region. The pilot project demonstrated that more timely access could be provided. As in 1996, the participating universities will have received a complete data set (with all personal identifiers removed) within six months following completion of data collection.

Research Objectives

The Survey was designed to provide the following:

- information comparable to that collected in the National Graduate Follow-Up survey but within a different time frame (one year after the graduation period) in order to allow MPHEC to measure the presence or absence of significant differences between the first and second years following graduation;

- detailed information to provide a comprehensive profile of the graduates in the Class of 1996 from the Atlantic Canadian universities;

- information about the pre-enrollment activity of graduates and information about the expectations of the university experience at the time of enrollment;

? results from questions to determine the level of student satisfaction with the university experience;

? detailed information about the ways in which graduates financed their university programs, including information about the debt load of graduates at the time of graduation and one year later;

? labour market information about graduates in terms of their employment experience since graduation, their average weekly earnings and information about the employment positions held by graduates;

? specific information on migration of graduates, including migration patterns within the region; and

? information about the continuing education choices made by graduates in the first year following graduation.

Since MPHEC plans to track patterns for the Class of 1996 over the coming decade, the research activities for this survey have generated a group of graduates (cohort) who have agreed to participate in future tracking studies. Approximately 98% of the graduates contacted by Baseline agreed to participate in future surveys of the Class of 1996.

Overview of Methodology

In 1996 a total of 15,277 individuals received degrees from the 18 universities in Atlantic Canada. Table 1 presents a summary of graduates by university and the number of graduates from each university who participated in this survey.

All survey participants were selected through a process of random selection. All information was collected through telephone interviews with participants. Baseline, working in the official language of choice of the graduate, completed a total of 4,204 interviews with Maritime graduates through the firm's central interview facility. The interviews with the sample selected for graduates from universities in Newfoundland were completed by the Government of Newfoundland. Baseline was responsible for merging data from these two sources and completing the final analysis and presentation of findings.

A detailed presentation of the methodology employed is presented in Appendix B. The research instrument is presented in Appendix C.

TABLE 1
Population - Sample Comparison

Institution	Total Grads	% of Grads	Sample Size	% of Sample
NEW BRUNSWICK				
Mt. Allison University	534	3.50%	175	3.37%
St. Thomas University	370	2.42%	140	2.70%
Université de Moncton	1255	8.21%	350	6.74%
University of New Brunswick	2098	13.73%	700	13.48%
Sub-total - New Brunswick	4257	27.86%	1365	26.29%
NOVA SCOTIA				
Acadia University	927	6.06%	302	5.82%
Atlantic School of Theology	24	0.01%	10	0.19%
Dalhousie University	2454	16.06%	825	15.89%
Mount Saint Vincent University	638	4.17%	250	4.82%
Nova Scotia Agricultural College	202	1.32%	75	1.44%
Nova Scotia College of Art and Design	133	0.87%	45	0.87%
Saint Mary's University	1000	6.54%	350	6.74%
St. Francis Xavier University	830	5.43%	250	4.82%
Technical University of Nova Scotia	369	2.42%	155	2.99%
University College of Cape Breton	587	3.84%	175	3.37%
University of King's College	151	0.99%	76	1.46%
Université Sainte-Anne	58	0.38%	25	0.48%
Sub-Total - Nova Scotia	7373	48.26%	2538	48.88%
UPEI (PEI Total)	506	3.30%	301	5.80%
Newfoundland				
Memorial University	2911	19.05%	860	16.56%
The Fisheries and Marine Institute of Memorial University	230	1.50%	128	2.40%
Atlantic Total	15277	100%	5192	100%

The research findings presented in this report are based on information provided by the randomly selected sample of 5,192 graduates. When the information provided is used as a basis for generalizing about the overall population of graduates of universities in Atlantic

Canada, it can be considered to be accurate within a range of ± .8 - 1.8%, at the 95% level of confidence. Margins of error (confidence intervals) vary when data from sub-groups is employed, as discussed in Appendix B.

Presentation Format

The format for presentation of information collected through the Survey of the Class of 1996 is as follows:

- **Chapter 2** presents a demographic profile of the Class of 1996;
- **Chapter 3** presents profiles of the pre-enrollment experiences and expectations which the Class of 1996 brought to the university environment;
- **Chapter 4** presents the graduates' evaluation of their university experience;
- **Chapter 5** presents information about the ways in which graduates financed their education;
- **Chapter 6** provides a profile of employment since graduation for the Class of 1996;
- **Chapter 7** reviews the earnings from employment since graduation with a special emphasis on gender-based differences in wages;
- **Chapter 8** explores the geographic mobility of graduates following degree completion, including mobility pattens within the Atlantic Provinces; and
- **Chapter 9** provides a summary of post-degree education patterns for graduates.

Throughout this report, references are made to statistical significance. Relationships identified as statistically significant are based on $p < .001$ at 99% level of confidence. Determination of statistical significance resulted from standard testing procedures, based on the type of information generated. Simply stated, statistical significance indicates that the relationship between variables (distribution of responses) did not occur simply by chance - that patterns within subgroups are different (statistically).

Statistical significance does not necessarily mean that a relationship is important. Importance is based on the assignment of value by those who use information in relation to policy decisions. Likewise, policy makers may determine that relationships which are different but not statistically significant are important and should be considered in policy decisions. While the two perspectives may converge, it is not essential that they actually do.

Data describing overall patterns were generated through a weighted sample while data describing patterns within the provinces are unweighted.

The reader may refer to the Glossary for definitions of other statistical terms used in this report as well as Appendix B for a description of the weighting and the analytical process.

Chapter 2 Graduate Profile

For approximately two-thirds of the Class of 1996, a university degree represents a higher level of education than that achieved by their parents. Those graduates who completed degrees beyond the bachelor's level were more likely to come from homes where at least one parent had completed some post-secondary program.

While most graduates of the Class of 1996 were 23 years old, significant numbers of mature, master's, and professional school students raised the average age for all graduates to 28 years.

Sixty-two percent (62%) of all graduates of the Class of 1996 were women and women were clearly the majority in most academic programs. Aside from the general 60/40 imbalance along gender lines for most programs, significant anomalies persist within certain major fields of study. For example, men continue to represent the larger percentage of graduates in engineering, physical sciences, information technology and certificate programs whereas women dominate in the health professions. The gender balance of graduates appears closest within commerce/business where 53% of graduates were women and 47% were men.

Sixty-four percent (64%) of those receiving bachelor's degrees were female. Graduates who earned their first professional degree were 55% female and 45% male. At the top of the academic ladder, gender differences reverse. Men earn 55% of the doctorate degrees; women earn 45%.

Table 2 presents a summary of the level of degree granted by province and Table 3 summarizes the major fields of study (FOS) for graduates within the four provinces. Table 3 uses labels to describe 12 FOS. Information about each major group is presented in Appendix D.

TABLE 2
Degrees Granted by Province

Degree Received	NFLD Graduates n=988	PEI Graduates n=301	NS Graduates n=2,538	NB Graduates n=1,365
Undergraduate Certificate	26%	8%	10%	8%
Bachelor's Level	66%	85%	72%	80%
First Professional	2%	6%	3%	2%
Master's Level	5%	1%	14%	9%
Earned Doctorate	<1%	--	1%	1%
	100%	100%	100%	100%

TABLE 3
Major Field of Study by Province

Major Field of Study (FOS)	OVERALL * (weighted) (N=5,192)	NFLD Graduates n=988	PEI Graduates n=301	NS Graduates n=2,538	NB Graduates n=1,365
General Arts	<1%	<1%	--	1%	<1%
Education	17%	16%	11%	11%	26%
Fine and Applied Arts	2%	1%	1%	2%	2%
Humanities	11%	11%	12%	13%	9%
Social Sciences	24%	26%	25%	23%	23%
Commerce	13%	11%	19%	13%	13%
Agriculture-Biological	9%	7%	23%	10%	6%
Engineering	6%	3%	3%	7%	7%
Health	7%	6%	4%	9%	6%
Math/Physical Sciences	4%	3%	2%	5%	2%
Information Technology	4%	3%	--	4%	5%
Community College Courses	2%	13%	--	2%	<1%
Totals	100%	100%	100%	100%	100%

*Overall percentages are based on weighted data while provincial data is unweighted for each province
** Certificate Programs include undergraduate and graduate certificates as well as community college programs completed through universities in Nova Scotia.

Table 4 presents a demographic profile of the graduates from each province. The differences based on gender, marital status and mother tongue are statistically significant:

? gender equality is closest in Newfoundland; and

? graduates from New Brunswick are more likely to be married and more likely to claim French as their mother tongue.

While the average age of all graduates is, as indicated in Table 4, 28 years, it is noted that the median age of graduates (in 1997) is 25 years and the most frequently reported age (mode) is 23 years.

TABLE 4
Demographic Profile of Graduates by Province
(Weighted and unweighted data)

Demographic Characteristics	Overall (Weighted) n=5,192	NFLD Graduates n=988	PEI Graduates n=301	NS Graduates n=2,538	NB Graduates n=1,365
Gender*					
Female	62%	52%	71%	63%	63%
Male	38%	48%	28%	37%	37%
Average Age	28 yrs.	27 yrs.	26 yrs.	28 yrs.	28 yrs.
Marital Status*					
Single	69%	72%	76%	71%	64%
Married	28%	26%	23%	26%	33%
Separated, Widowed, Divorced	2%	2%	1%	3%	3%
Mother Tongue*					
English	87%	98%	97%	92%	70%
French	10%	<1%	2%	3%	26%
Both Official Languages	<1%		<1%	<1%	1%
Other Language	3%	<1%	<1%	4%	3%
Dependent Children					
Yes	17%	19%	13%	15%	17%
No	83%	81%	87%	85%	83%

* Statistically significant at .000

Table 5 presents a summary of demographic characteristics in relation to the degree received and Table 6 presents a demographic profile in relation to the FOS.

TABLE 5
Demographic Profile of Graduates by Degree Received
(Weighted Data)

CHARACTERISTICS	DEGREE RECEIVED				
Gender *	**Undergrad Certificate**	**Bachelor's**	**First Professional**	**Master's**	**Earned Doctorate**
Female	56%	64%	55%	59%	45%
Male	44%	36%	45%	41%	55%
Average Age	29 yrs.	27 yrs.	28 yrs.	36 yrs.	38 yrs.
Marital Status *					
Single	70%	75%	59%	34%	25%
Married	26%	23%	38%	61%	72%
Separated, Widowed, Divorced	4%	2%	3%	4%	3%
NA	<1%	<1%	--	1%	--
Mother Tongue*					
English	82%	88%	88%	85%	53%
French	16%	9%	7%	9%	--
Both Official Languages	<1%	1%	--	<1%	--
Other Language	1%	2%	5%	5%	47%
	1	1	1	1	1
Dependent Children*					
Yes	12%	12%	12%	39%	66%
No	88%	88%	88%	61%	34%

* Indicates statistically significant differences.

TABLE 6
Demographic Profile of Graduates by FOS
(Weighted Data)

Characteristics	MAJOR FIELD OF STUDY											
Gender *	**General Arts/ Science**	**Education**	**Fine-Applied Arts**	**Humanities**	**Social Science**	**Com-merce**	**Ag-Bio Sciences**	**Engin. App. Sci**	**Health Prof.**	**Math-Phy Sci**	**Info Tech**	**Comm. Certifi-cates**
Female	69%	71%	65%	68%	72%	51%	67%	26%	82%	40%	34%	15%
Male	31%	29%	35%	32%	28%	49%	33%	74%	18%	60%	66%	85%
Average Age	29	31	41	27	27	27	25	26	29	26	28	27
Marital Status *												
Single	53%	52%	76%	74%	74%	71%	82%	74%	55%	84%	69%	85%
Married	47%	45%	20%	23%	23%	27%	17%	25%	40%	15%	39%	15%
Separated, Widowed, Divorced	--	3%	4%	3%	3%	2%	1%	1%	5%	1%	2%	--
Mother Tongue*												
English	100%	84%	94%	89%	88%	84%	88%	84%	81%	88%	84%	98%
French	--	14%	2%	7%	8%	13%	8%	9%	16%	6%	9%	1%
Both Official Languages	--	1%	1%	1%	1%	1%	<1%	--	1%	1%	1%	--
Other Language	--	1%	3%	3%	3%	2%	4%	7%	2%	5%	6%	1%
Dependent Children *												
Yes	21%	29%	9%	14%	13%	22%	7%	22%	21%	7%	15%	21%
No	79%	71%	91%	86%	87%	78%	93%	78%	79%	93%	85%	79%

* Indicates statistically significant differences.

Significantly more women (62%) than men (38%) were in the Class of 1996; however, traditional gender patterns in relation to the field of study continue. The most obvious example is that 74% of the graduates in Engineering are men, as are 66% of graduates in Information Technology, and 61% of graduates in Math and Physical Sciences. In the Health Professions, women make up 82% of the graduates. Women represent the majority of graduates in the other major fields of study. Equal representation of the genders is closest in Commerce. The gender distribution more closely approximates an equal balance at degrees beyond the bachelor level.

The likelihood of having dependent children was lower for those who received bachelor's and first professional level degrees and higher for those with master's and earned doctorate degrees.

Age patterns are consistent across degree programs with age increasing as the level of education completed increases, with the exception of the certificate programs which apparently attract more mature students.

Each graduate contacted was asked to provide information about the education level of both parents. Table 7 presents this information for the graduates in each province and Table 8 presents the information in relation to the degree received.

The variations in patterns among provinces are statistically significant.

The variations observed between the level of education completed by parents/guardians and the degree received by the graduate are statistically significant. The following observations are based on the information in Table 7:

- overall, 53% of male parents and 52% of female parents had completed no more than a high school diploma;

- overall, 29% of male parents and 21% of female parents had completed a bachelor's degree or a higher degree; and

- graduates earning their first professional degree or doctorate were more likely than the overall population to have a parent who completed a higher level of education: for example, 45% of male parents of graduates who received an earned doctorate had a bachelor's degree or higher (compared to 29% for the overall population of male parents).

In general, the higher the level of education achieved by the parents, the greater the likelihood the graduate will achieve a higher degree.

Although differences exist, it can be observed that the graduate populations were relatively similar across the four provinces with the exception, as one would expect, of differences in relation to mother tongue. The following observations are based on the information in Table 8:

? approximately one-third of graduates came from households in which one parent had not attained a high school diploma;

? approximately one-third came from households in which both parents completed their education with a high school diploma; and

? approximately one-third of graduates came from households in which both parents attended or completed a post-secondary program.

TABLE 7
Educational Background of Parents of Graduates by Province
(Weighted and Unweighted Data)

EDUCATION LEVEL COMPLETED	Overall (Weighted) n=5,192	NFLD Graduates n=988	PEI Graduates n=301	NS Graduates n=2,538	NB Graduates n=1,365
FATHER OR MALE GUARDIAN					
Less than a High School Diploma	26%	26%	30%	24%	29%
High School Diploma	27%	27%	28%	27%	27%
Community College Experience/Diploma	13%	15%	13%	11%	14%
University Experience/Certificate	5%	9%	4%	5%	5%
Bachelor's Degree	15%	12%	14%	17%	13%
Professional Degree	3%	2%	1%	3%	3%
Master's Degree	7%	5%	7%	8%	6%
Earned Doctorate	3%	2%	2%	4%	2%
Other	1%	2%	<1%	<1%	<1%
Total	100%	100%	100%	100%	100%
MOTHER OR FEMALE GUARDIAN					
Less than High School Diploma	20%	23%	17%	17%	21%
High School Diploma	32%	35%	30%	31%	32%
Community College Experience/Diploma	18%	14%	26%	19%	20%
University Experience/Certificate	9%	11%	8%	8%	8%
Bachelor's Degree	15%	12%	14%	18%	13%
Professional Degree	1%	1%	<1%	<1%	<1%
Master's Degree	3%	2%	4%	5%	3%
Earned Doctorate	<1%	<1%	--	<1%	<1%
Other	1%	1%	<1%	<1%	<1%
Total	100%	100%	101%	100%	100%

"--" indicates no respondents within a table cell

TABLE 8
Educational Background of Parents of Graduates by Degree
(Weighted and Unweighted Data)

EDUCATION LEVEL COMPLETED	Overall (Weighted) n=5,192	Certificate (n=608)	Bachelor' s Level (n=3,718)	First Professional (n=153)	Master' s Level (n=509)	Earned Doctorate (n=36)
FATHER OR MALE GUARDIAN						
Less than a High School Diploma	26%	34%	24%	20%	35%	22%
Secondary Diploma	27%	26%	27%	23%	26%	27%
Community College Experience/Diploma	13%	13%	14%	6%	7%	6%
University Experience/Certificate	5%	7%	5%	4%	5%	--
Bachelor's Degree	15%	11%	16%	20%	11%	25%
Professional Degree	3%	1%	3%	7%	4%	6%
Master's Degree	7%	5%	7%	11%	7%	8%
Earned Doctorate	3%	<1%	3%	8%	4%	6%
Other	1%	2%	1%	<1%	<1%	--
	100%	100%	100%	100%	100%	100%
MOTHER OR FEMALE GUARDIAN						
Less than High School Diploma	20%	27%	18%	16%	24%	17%
Secondary Diploma	32%	33%	32%	30%	30%	33%
Community College Experience/Diploma	18%	16%	20%	13%	16%	11%
University Experience/Certificate	9%	9%	8%	7%	10%	3%
Bachelor's Degree	15%	11%	16%	25%	14%	19%
Professional Degree	1%	--	<1%	2%	<1%	--
Master's Degree	3%	2%	3%	5%	4%	14%
Earned Doctorate	<1%	1%	<1%	<1%	<1%	3%
Other	1%	<1%	<1%	<1%	<1%	--
	100%	100%	100%	100%	101%	100%

Chapter 3 Pre-Enrollment Experiences of Graduates

In the 12 months before enrollment in a bachelor's level university program, the majority of graduates were attending a secondary education program.

In contrast, those who entered a master's level program, certificate, or professional degree program were more likely to have spent the 12 months before enrollment working.

At the time of enrollment, graduates considered acquisition of the skills related to jobs, income advancement, in-depth knowledge in a field of study and self-improvement to be relatively equal in overall importance.

In order to provide decision-makers with a perspective on the experiences which the Class of 1996 brought to the university environment, graduates were asked to provide information about their previous education, their primary activities in the 12 months before enrollment and their expectations for university.

Educational Background

Prior to enrolling in the program completed in 1996:

- 63% of graduates had completed a high school diploma;
- 12% had community college or other university (non-degree) experience;
- 22% had previously completed a bachelor's level degree program; and
- 3% had previously completed a master's level or first professional degree program.

In the 12 months before enrollment, the primary activity for the majority of graduates (67%) was school; however, 25% were working, 5% were involved with work and school and the balance (3%) cited other situations such as personal or family responsibilities and illness.

Table 9 provides an overview of pre-enrollment activity in relation to the degree completed in 1996.

TABLE 9
Primary Activity in 12 Months before Enrollment
(Weighted Data)

Primary Activity	Certificate	Bachelor's Level	First Professional	Master's Level	Earned Doctorate
Attending School	54%	73%	76%	30%	40%
School/Work	5%	6%	4%	2%	6%
Working	38%	18%	19%	63%	52%
Other	3%	3%	1%	5%	2%
Total	100%	100%	100%	100%	100%

The information in Table 9 indicates that the majority who enrolled in programs leading to a bachelor's degree or lower were likely to enrol directly from another education program and the majority who enrolled at or above the master's level entered from a work situation.

As noted, a significant percentage of graduates had either attended or completed another post-secondary program prior to enrolling in their degree program. Table 10 links the prior level of education with the program completed in 1996. For example, 30% of graduates who had attended a community college program prior to enrollment (n=70) completed a certificate program in 1996, while 6% who had attained a master's degree prior to enrollment (n=89) also completed a certificate program in 1996.

TABLE 10
1996 Degree by Prior Educational Experience above High School
(n=1,936, Weighted data)

	Prior Educational Experience							
	Community College		University					
Program Completed in 1996	Attended (n=70)	Completed (n=205)	Attended (n=255)	Prior Certificate (n=154)	Bachelor' s (n=1,146)	First Professional (N=12)	Master' s (n=89)	Earned Doctorate (n=5)
Certificate	30%	26%	25%	16%	11%	--	6%	
Bachelor' s Level	70%	72%	67%	79%	40%	8%	14%	20%
First Professional		<1%	8%	1%	10%	17%	14%	20%
Master' s Level		1%	<1%	4%	40%	75%	32%	40%
Earned Doctorate							34%	20%
Totals *	100%	100%	101%	100%	101%	100%	100%	100%

* Total may sum to more than 100% due to rounding

The information in Table 10 leads to the following observations:

? those who attended and those who completed a community college program prior to enrollment were more likely to have completed a bachelor's level degree program in 1996 than a certificate program;

? those who completed another bachelor's level degree prior to enrollment were as likely to enrol in another bachelor's program as they were to enrol in a master's program;

? while most who had completed their first professional degree program prior to enrollment completed a master's degree in 1996, a small number (2) completed another degree at the first professional level; and

? approximately 32% of those who had a master's level degree prior to enrollment completed a second master's in 1996 while 35% completed an earned doctorate.

In addition to the information presented in Table 10, further analysis provided the following information:

? 55% of those who had completed a bachelor's degree prior to enrollment and completed a second bachelor's in 1996 were enrolled in education-related programs such as elementary or secondary, educational psychology, teaching French as a second language and pre-school education; and

? 46% of those who had completed a master's level degree prior to enrollment and completed a master's level degree in 1996 were also in education programs.

The differences in pre-enrollment education levels for students entering universities in different provinces were statistically significant. Although somewhat inconsistent, the patterns appear to be related to the degrees offered in different provinces. For example, those who had previously completed a master's or first professional degree were most likely to enrol in a university in Nova Scotia while those who had previously completed a bachelor's level degree were equally likely to enrol in a university in any one of the four provinces. Table 11 presents a summary of the patterns for each province. It is noted that the categories related to pre-enrollment education have been collapsed for a more concise presentation of patterns.

TABLE 11
Pre-Enrollment Education Levels by Province

Prior Level of Education	Overall Counts	NFLD	PEI	NS	NB	Row Total
Sample Size	5192	19%	6%	49%	26%	100%
Some Secondary	42	50%	2%	36%	12%	100%
High School Diploma	3193	18%	7%	48%	27%	100%
Community College	275	23%	7%	44%	26%	100%
Some University	409	30%	3%	44%	23%	100%
Bachelor's Degree	1146	16%	4%	55%	25%	100%
First Professional	12	17%	8%	58%	17%	100%
Master's Degree	89	11%	2%	64%	23%	100%
Earned Doctorate	5	--	--	100%	--	100%
Other Education	21	29%	--	38%	33%	100%

The patterns for the Class of 1996 were similar to those observed in the pilot study with the Class of 1995.

Expectations at the Time of Enrollment

All graduates were asked to recall the level of importance they assigned to developing certain skills or information at the time of their enrollment in a university program. The skills/information explored included skills needed for a particular job, in-depth knowledge in a particular field of study, skills leading to self-improvement and the opportunity to improve chances for a good income.

The perceived importance of each item was measured through the use of a 5-point scale on which a '1' indicated a lack of importance and a '5' indicated the highest level of importance. Table 12 presents a summary of the mean ratings for each element in relation to the location of the institution attended, the level of degree completed, and the major field of study.

Table 12 indicates a remarkable consistency in expectations at the start of a university program and identifies what could be considered "reasonable expectations". For example, those entering a doctoral program were most interested in attaining in-depth knowledge in a particular field of study. Those entering a first professional degree program were most interested in acquiring in-depth knowledge and skills required for a particular position. Those entering a certificate program were most interested in attaining a "good" income along with the skills for a particular job.

TABLE 12
Expectations at Enrollment
(Mean Scale Scores, Scale=1-5)

	In-Depth Knowledge	Self-Improvement	Skills for a Particular Job	Chances for a "good" income
Overall	**4.27**	**4.33**	**3.94**	**4.31**
Province				
NFLD	4.23	4.33	3.99	4.36
PEI	4.18	4.32	3.82	4.36
NS	4.29	4.33	3.87	4.29
NB	4.29	4.37	4.03	4.3
Degree				
Certificate	4.32	4.35	4.20	4.36
Bachelor's	4.23	4.33	3.88	4.36
First Professional	4.56	3.98	4.45	4.22
Master's	4.46	4.39	3.88	3.92
Earned Doctorate	4.59	4.07	3.82	3.79
Major Field of Study				
General Arts	3.77	4.35	3.43	4.14
Education	4.45	4.41	4.30	4.26
Fine-Applied Arts	4.49	4.44	3.62	3.78
Humanities	4.23	4.38	3.51	4.06
Social Sciences	4.18	4.35	3.70	4.29
Commerce	4.08	4.31	4.03	4.49
Agricultural-Biological	4.32	4.28	3.80	4.43
Engineering	4.24	4.17	4.16	4.42
Health	4.61	4.34	4.39	4.35
Math-Physical Sciences	4.19	4.21	3.68	4.30
Information Technology	4.17	4.18	4.04	4.38
Certificate Programs	4.40	4.25	4.45	4.67

Chapter 4 The University Experience

The majority of graduates (73%) enrolled in a program of study as full-time students, completing their degree requirements in slightly more than four years. Those who enrolled as part-time students to pursue a certificate or university degree were most likely also to be working full-time (76%). These students tended to be older, female, and with family responsibilities.

Other graduates chose to complete their bachelor's degree through a combination of full-time and part-time attendance at university (18%).

The Class of 1996 expressed a high degree of satisfaction with the facilities, services and faculties at universities in Atlantic Canada. Despite rising costs, the majority of university graduates perceived the experience to be worth the personal investment of time, energy and money.

Graduates perceived significant developments in their speaking and communication skills, ability to think independently and critically and in their decision-making abilities. They were less likely to suggest that their writing or math skills had improved as a result of their time spent at university.

Most graduates indicated that university increased their awareness of career opportunities and heightened their interest in life-long learning (55%).

Study Format

Seventy-three percent (73%) of the graduates in the Class of 1996 attended university as full-time students, 18% attended on a part-time and full-time basis, and 9% attended only on a part-time basis.

Table 13 presents a profile of study formats in relation to the location of the university, the degrees attained and program of study.

TABLE 13
Study Format by Province, Degree and Major FOS
(Weighted Data)

	Overall	Full-time	Part-Time	Combination
Overall	100%	73%	9%	18%
Province				
NFLD	20%	21%	21%	21%
PEI	3%	2%	2%	4%
NS	49%	46%	46%	48%
NB	28%	31%	31%	27%
	100%	100%	100%	100%
Degree				
Certificate	12%	10%	25%	11%
Bachelor's	74%	78%	34%	78%
First Professional	3%	4%	<1%	<1%
Master's	10%	7%	39%	9%
Earned Doctorate	<1%	<1%	<1%	1%
	100%	100%	100%	100%
Major Field of Study				
General Arts	<1%	<1%	1%	<1%
Education	16%	15%	38%	14%
Fine-Applied Arts	2%	3%	<1%	1%
Humanities	11%	12%	6%	14%
Social Sciences	24%	24%	15%	28%
Commerce	13%	12%	16%	16%
Agricultural-Biological	9%	10%	<1%	7%
Engineering	6%	6%	<1%	5%
Health	8%	8%	14%	4%
Math-Physical Sciences	4%	4%	<1%	4%
Information Technology	4%	3%	6%	5%
Certificate Programs	2%	3%	<1%	1%
	100%	100%	100%	100%

Those who studied exclusively on a part-time basis were older, on average 41 years of age in 1997, compared to 26 years for those who attended full-time. Women were slightly more likely than men to earn a degree by attending university part-time.

Those who attended exclusively part-time mentioned the following reasons for doing so:

? full-time work (76%);
? part-time work (9%);
? lack of financial resources (5%);
? family responsibilities (16%);
? health reasons (1%); and
? only a few credits required (3%).

Those who attended university through a combination of full-time and part-time study cited the following reasons for doing so:

? full-time work (31%);
? part-time work (18%);
? lack of financial resources (16%);
? family responsibilities (11%);
? health reasons (2%);
? lack of full-time program offering (2%); and
? only a few credits required (21%),

The information in Table 13 along with additional analysis, provides the basis for the following observations:

? overall patterns do not differ significantly across the provinces; and

? patterns differ significantly in relation to the degree received. For example, those who received a master's degree were more likely than those at other degree levels to attend part-time while those who received a first professional degree were least likely to attend part-time. This is probably due to the fact that many first professional programs are not offered on a part-time basis.

Accumulation of Degree Credits

Table 14 presents a summary of the degrees received in relation to the year in which the graduate began to accumulate credits towards that degree.

TABLE 14
Start Year for Credit Accumulation by Degree Received
(Weighted Data)

	Overall	Degree				
Year Accumulation of Credits Began		**Certificate**	**Bachelor's**	**First Professional**	**Master's**	**Earned Doctorate**
Prior to 1991	17%	15%	18%	7%	10%	46%
1991	19%	11%	22%	8%	8%	30%
1992	34%	14%	40%	45%	12%	14%
1993	14%	23%	10%	39%	21%	10%
1994	11%	25%	5%	<1%	37%	--
1995	5%	10%	4%	--	11%	--
1996	<1%	2%	<1%	--	<1%	--
	100%	100%	100%	100%	100%	100%

The information in Table 14 indicates that approximately 40% of graduates who received a bachelor's degree in 1996 began accumulating credits for that degree prior to 1992. Approximately 46% of those who earned a doctorate in 1996 began working towards that degree prior to 1991. Those who received a certificate in 1996 had the widest period for accumulation of credits.

Satisfaction with Aspects of the University Experience

Graduates were asked to reflect on their university experience and evaluate various aspects of the services provided by the university attended. Each graduate was asked about the following in their major field of study:

? the facilities available;
? the class sizes for courses;
? access to faculty; and
? the overall quality of teaching.

Graduates were also asked to rate the value of their education in relation to the financial investment and the personal investment of time required.

Each graduate was asked to express their level of satisfaction with each element through the use of a 5-point scale on which a '5' indicated the highest level of satisfaction, a '1' the lowest level and points '2', '3' and '4' indicated degrees of variation between the high and low points. The use of a 5-point scale was recommended following analysis of data from the pilot study in order to provide a more precise measure of satisfaction or dissatisfaction.

Table 15 and Table 16 present an overall summary of the mean scores calculated for the six elements explored. The narrative which follows is based on the information in these tables and on additional analysis of the information collected.

TABLE 15
Level of Satisfaction with Elements of the University Experience

	Satisfaction with :			
	Facilities	**Class Sizes**	**Access to Faculty**	**Quality of Teaching**
Overall	**3.69**	**4.11**	**4.03**	**3.83**
Province				
NFLD	3.8	3.81	3.79	3.71
PEI	3.61	4.4	4.36	3.96
NS	3.59	4.16	4.1	3.88
NB	3.78	4.23	4.05	3.81
Degree				
Certificate	3.77	4.12	4	3.94
Bachelor's	3.68	4.07	4.02	3.82
First Professional	4.02	4.32	4.2	3.89
Master's	3.57	4.34	4.08	3.73
Earned Doctorate	3.45	4.11	4.18	3.7
Major Field of Study				
General Arts	3.51	4.47	4.12	4.21
Education	3.74	4.26	3.97	3.72
Fine-Applied Arts	3.6	4.41	4.36	3.91
Humanities	3.78	4.15	4.22	4.03
Social Sciences	3.68	3.97	3.96	3.87
Commerce	3.67	4.09	3.99	3.8
Agricultural-Biological	3.62	3.91	4.08	3.93
Engineering	3.52	4.12	3.93	3.55
Health	3.76	4.28	4.01	3.78
Math-Physical Sciences	3.75	4.32	4.2	3.76
Information Technology	3.63	4.04	3.88	3.57
Certificate Programs	3.64	4.28	4.36	4.13

TABLE 16
Level of Satisfaction with Value of the University Experience

	Satisfaction with :	
	Financial Investment	**Investment of Time**
Overall	**3.83**	**4.1**
Province		
NFLD	3.85	4.09
PEI	3.91	4.19
NS	3.81	4.12
NB	3.83	4.07
Degree		
Certificate	3.9	4.2
Bachelor's	3.78	4.07
First Professional	4.12	4.31
Master's	4.01	4.18
Earned Doctorate	3.66	3.91
Major Field of Study		
General Arts	3.97	4.13
Education	3.92	4.13
Fine-Applied Arts	3.74	4.16
Humanities	3.83	4.19
Social Sciences	3.58	4
Commerce	3.96	4.13
Agricultural-Biological	3.81	4.11
Engineering	3.95	4.02
Health	4	4.21
Math-Physical Sciences	3.81	4.04
Information Technology	3.94	4.04
Certificate Programs	4.31	4.43

Satisfaction with Facilities

Overall, the majority of students were satisfied with the facilities such as libraries, laboratories and computing resources at the university attended. The mean ranking score was 3.69. There were no significant differences between the expressed levels of satisfaction based on provinces, degree or FOS; however, those with earned doctorates expressed the lowest level of satisfaction (3.45) while those with a first professional degree expressed the highest level (4.02).

Satisfaction with Class Sizes

The majority of graduates were satisfied (mean score of 4.11) with the size of the classes at Atlantic universities; however, graduates from universities in Newfoundland expressed a lower level of satisfaction (3.81), on average, than graduates as a whole. Graduates completing programs in Social Sciences (3.97) and the Agricultural - Biological sciences (3.91) indicated the lowest level of satisfaction with class sizes while graduates in Fine and Applied Arts (4.41) and Education (4.26) expressed the highest level of satisfaction.

Satisfaction with Access to Faculty

In order to narrow the focus for evaluation purposes, each graduate was asked to indicate their level of satisfaction or dissatisfaction with access to faculty in their major field of study. Overall ratings averaged 4.03, indicating that graduates were quite satisfied with their access to faculty.

Within the four provinces, the satisfaction level expressed by graduates from Newfoundland was lower (mean of 3.79) than mean scores for other provinces.

There was only limited variation in expressed levels of satisfaction in relation to the degree received and the major field of study. Those graduates who received their first professional degree (4.20) and an earned doctorate (4.18) expressed higher levels of satisfaction as did those who were in Fine and Applied Arts (4.36), Humanities (4.22), Math and Physical Sciences (4.20) and taking certificate programs (4.36).

Satisfaction with the Quality of Teaching

From an overall perspective, a mean score of 3.83 indicates that graduates were satisfied with the quality of teaching provided in their major fields of study, however, mean scores varied significantly when compared across provinces with graduates from Newfoundland reporting the lowest levels of satisfaction with the quality of teaching.

Levels of satisfaction did not vary significantly in relation to degree received; however, those in certificate programs expressed the highest levels of satisfaction with the quality of teaching (3.98) while those with an earned doctorate expressed the lowest levels of satisfaction (3.70).

When compared with graduates in other fields of study, those in certificate programs expressed the highest (4.13) level of satisfaction with the quality of teaching while those in Information Technology (3.51) and Engineering (3.55) expressed significantly lower levels of satisfaction.

Perceived Value of Required Investments

The ratings by graduates suggest that they believe the university experience was worth the investment of both time and money.

As indicated by the information in Table 16, there was little variation in the perceived levels of satisfaction with the financial investment required across the four provinces; however, those who received their first professional degree or a master's degree and those who were in certificate programs indicated higher levels of satisfaction with the financial investment required than the graduate population as a whole.

The expressed levels of satisfaction with the personal investment of time required were high and consistent across most sub-groups with the exception of those with an earned doctorate (mean 3.91). Those in first professional programs (4.31) and in certificate programs (4.20) expressed the highest levels of satisfaction about the time investment required.

Perceptions of Outcomes of a University Education

Graduates were asked for their assessments of the extent to which their university education contributed to the development of particular skills and to an awareness of employment opportunities.

Skill Development

Graduates were specifically asked for their assessment of the extent to which a university education contributed to the development of writing, math, communication and decision-making skills as well as development of the ability to think independently and critically. Table 17 presents a summary of the assessments provided in relation to the degree received. Statistical testing of the information in Table 17 indicated that perceptions about the development of skills other than decision-making differed significantly across sub-groups based on the degree received. For example:

? those in a first professional or certificate program were significantly less likely than graduates in other programs to indicate that their writing skills had developed to at least some extent as a result of their university program; and

? those in a first professional degree and those in a master's program were less likely to indicate that their math skills were improved at least somewhat through their degree program.

In the pilot study in 1995, graduates indicated that their university experience made a more significant contribution to increasing their skills in communication, independent thinking and decision-making than to increasing their skills in writing and math. The same patterns were indicated by graduates from the Class of 1996 as demonstrated in Table 17.

TABLE 17
Graduates Perception of the Extent of Skill Development through a University Education
(Weighted Data)

		Degree Completed				
Extent of Skill Development	**Overall**	**Certificate**	**Bachelor's Degree**	**First Professional**	**Master's Degree**	**Earned Doctorate**
Writing Skills *						
Great Extent	38%	27%	40%	19%	40%	37%
Some Extent	44%	49%	43%	46%	43%	44%
Not Very Much	14%	20%	13%	28%	11%	16%
Not At All	4%	4%	4%	7%	6%	3%
Math Skills *						
Great Extent	21%	30%	22%	11%	10%	20%
Some Extent	31%	27%	32%	17%	25%	35%
Not Very Much	20%	20%	20%	22%	19%	24%
Not At All	28%	23%	26%	50%	46%	21%
Communication Skills *						
Great Extent	50%	41%	52%	49%	46%	43%
Some Extent	42%	45%	40%	44%	47%	46%
Not Very Much	6%	11%	6%	5%	5%	11%
Not At All	2%	3%	2%	2%	2%	--
Independent Thinking *						
Great Extent	62%	54%	63%	68%	60%	70%
Some Extent	33%	39%	32%	25%	33%	25%
Not Very Much	4%	6%	3%	5%	4%	5%
Not At All	1%	1%	1%	2%	3%	--
Decision Making						
Great Extent	46%	45%	47%	55%	42%	42%
Some Extent	45%	45%	45%	38%	47%	45%
Not Very Much	7%	8%	6%	5%	8%	10%
Not At All	2%	2%	2%	2%	3%	3%

* Statistically significant differences.

Knowledge About Career Opportunities

Approximately 18% of all graduates indicated that their university experience increased their knowledge about career opportunities "to a great extent". An overall summary of the assessments provided is presented in Table 18.

Those in programs leading to a first professional degree and an earned doctorate were more likely to suggest increased knowledge about career opportunities while those in programs leading to a bachelor's degree or a master's degree were least likely to suggest increased awareness of career opportunities.

TABLE 18
Extent of Knowledge Provided about Career Opportunities
(Weighted Data)

		Degree Granted*				
	Overall	Certificate	Bachelor's Degree	First Professional	Master's Degree	Earned Doctorate
Great Extent	18%	23%	17%	38%	13%	17%
Some Extent	46%	43%	47%	48%	44%	53%
Not Very Much	27%	24%	28%	12%	28%	21%
Not At All	9%	10%	8%	2%	15%	9%
	100%	100%	100%	100%	100%	100%

* Statistically significant differences

Interest in Lifelong Learning

Overall, 55% of all graduates indicated that the university experience had increased their interest in lifelong learning "to a great extent" while 38% suggested that the experience had increased their interest "to some extent". Only 7% of graduates suggested that their interest in lifelong learning had not increased as a result of their university experience.

Chapter 5 Financing a University Education

Fifty-three percent (53%) of students in the Class of 1996 borrowed at least some money to finance their education compared to 49% who borrowed in the Class of 1995. Eighty-eight percent (88%) of students in the Class of 1996 worked to finance part of the cost of a university education.

Among those who borrowed, the average debt incurred was $16,667, approximately $4,000 more than the average debt incurred by the Class of 1995.

Approximately 90% of those who incurred debt borrowed through government student loans, averaging a debt of $15,802, approximately $3,000 more than the average student loan debt for the Class of 1995. Approximately 14% of graduates borrowed through private sources to finance their education. While the percentage who used these sources was the same for the Class of 1995, the average amount borrowed increased from $7,087 to $9,701.

Approximately 10% of the students who had borrowed managed to repay their total debt (an average payment of $9,291) in the year following graduation. The graduates who had outstanding debt one year after graduation found themselves carrying an average debt of $15,540 in August 1997. Those carrying a higher debt load included graduates from the Health Professions ($22,019) and those with degrees in Fine Arts ($17,012). Those carrying a lower debt load included graduates from General Arts and Sciences ($7,429) and certificate programs ($7,824).

***As with the Class of 1995, one in four graduates experienced problems in repaying their government student loans in the first year after graduation. Within this group, one in four were not employed at the time of this survey and the average outstanding balance on the student loan stood at $16,489. Eighteen percent (18%) of those who borrowed through private sources also experienced difficulty with re-payment in the first year*.**

Financial Responsibility for a University Education

Seventy percent (70%) of graduates indicated that they had been personally responsible for financing the cost of their university education, 21% indicated that the financial responsibility had been carried by parents or other relatives and 3% indicated that the

responsibility had been shared by the graduate and parents or other relatives. Two percent (2%) financed their most recent degree through a full scholarship, 2% indicated that an employer had covered the cost of the university degree completed, and 2% indicated the primary responsibility had either been carried by the Department of Indian Affairs, Veterans' Affairs, Human Resource Development Canada or some other organization or sponsor.

Financial Resources

Graduates used the following means to help cover the cost of a university education:

- 90% worked to finance part of the cost of university;
- 50% borrowed money through a government student loan program;
- 44% received a scholarship or bursary;
- 13% received funding through an employer or a government program;
- 14% borrowed money from a lending institution or other private sources; and
- 9% participated in a co-op program.

How students chose to finance their university education depended somewhat on the degree program in which they enrolled. The narrative which follows summarizes the different resources used.

? Scholarships

Forty-five percent (45%) of those receiving a bachelor's degree and 41% of those receiving a master's degree received a scholarship or bursary. This compares with 92% of graduates at the doctoral level and 64% at the first professional level who indicated that scholarships had been used to finance a part of their university education.

? Student Loans

Approximately 48% of all graduates borrowed money through a government student loan. Seventy-two (72%) of those studying for their first professional degree borrowed through a government student loan compared to 52% of those receiving a bachelor's degree and 27% of those receiving a master's degree. Two percent (2%) of those with an earned doctorate borrowed through a government student loan.

? Other Loans

Fourteen percent (14%) of graduates borrowed through private loans to finance their university education. Those at the first professional degree level, such as law or medicine, were most likely to borrow through sources other than government student loans (39%).

? CO-OP

Approximately 9% of graduates participated in a co-op program over the course of their university career. Co-op participation varied across the four provinces: 15% of graduates from universities in Newfoundland were in co-op programs as were 11% in Nova Scotia and 3% in New Brunswick. Only one graduate from Prince Edward Island reported a co-op placement.

On average, co-op students received 2.9 work placements. The average number of placements varied by province: graduates from universities in Newfoundland averaged 3.4 placements; graduates from Nova Scotia averaged 2.5 placements; and graduates from New Brunswick averaged 3.3 placements. The information collected indicates that the majority of co-op placements were paid placements.

? NS Links

University students in Nova Scotia have the opportunity to participate in NS Links, a program which provides students with workplace-based learning experiences and work placements. Overall, 3% of graduates from universities in Nova Scotia participated in this program.

? Employment During University

Among those who worked during at least part of their university career (n=4,544):

? 62% worked during the school year and during the summer;
? 5% worked only during the school year; and
? 33% worked during summers only.

The degree program in which a graduate was enrolled appeared to influence variations in their pattern of work :

? at the bachelor's level, 59% reported working during the school year as well as summers and 31% reported working only during the summers;

? at the first professional degree level, 44% reported working during the school year and the summers while 50% reported working only during summers:

? those with an earned doctorate were most likely (50%) to report that they did not work during the summers or the school year.

The use of resources to finance a university education also varied in relation to a graduate's province of study:

? graduates from Newfoundland were least likely (30%) to report the receipt of scholarships or bursaries and most likely (16%) to report assistance through government programs;

? graduates from Nova Scotia were least likely (46%) to report use of student loans while graduates from Newfoundland were most likely (57%); and

? graduates from Nova Scotia were most likely (17%) to report the use of other loans while graduates from Newfoundland were least likely (10%) to report use of other loans.

Table 19 presents a summary of financing resources used by the province in which the program was completed. Table 19A summarizes the use of financing resources in relation to the province of residence prior to enrollment.

TABLE 19
Use of Financial Resources by Province of University Attended
(Weighted Data)

	Overall	NFLD	PEI	NS	NB
Scholarships/Bursaries *	44%	30%	53%	45%	50%
Assistance from government/employers*	13%	16%	7%	13%	11%
Government student loans*	50%	57%	51%	46%	52%
Other loans*	14%	10%	11%	17%	13%
Work *					
Summer and School Year	57%	64%	65%	58%	49%
During School Year Only	5%	9%	2%	4%	4%
Summer Only	29%	27%	26%	26%	36%
No Work	9 %	--	7%	12%	11%

* Statistically significant differences across provinces

TABLE 19A
Use of Financial Resources by Province of Residence Prior to Enrollment
(Weighted Data)

	Overall	NFLD	PEI	NS	NB
Scholarships/Bursaries *	44%	33%	57%	43%	53%
Assistance from government/employers*	13%	16%	9%	13%	11%
Government student loans*	50%	56%	52%	45%	52%
Other loans*	14%	12%	15%	17%	13%
Work *					
Summer and School Year	55%	62%	62%	62%	49%
During School Year Only	5%	9%	1%	4%	4%
Summer Only	28%	27%	30%	24%	37%
No Work	12%	2%	7%	10%	10%

* Statistically significant differences across provinces

The statistically significant differences for the information in these tables provide the basis for the following observations:

? graduates who attended school in Newfoundland, as well as graduates residing in Newfoundland prior to enrollment at a university in Atlantic Canada, were the least likely to use bursaries or scholarships to finance their university education;

? graduates who resided in Nova Scotia prior to enrollment were least likely to obtain government loans to finance their education; and

? graduates attending universities in PEI and Newfoundland were the most likely to work during both the summer months and the school year while graduates attending school in, or residing in, New Brunswick were least likely to work during the summer and school year to finance their university education.

Government Student Loans

Approximately 48% of the graduates who received a degree from an Atlantic university in 1996 used a government student loan to finance at least a portion of the cost. The term "government student loan" is used as a generic term without reference to a particular type of student loan.

The total amount borrowed through government student loans ranged from $390 to $85,000, averaging $15,802. The median loan borrowed was $15,000 and the most frequently reported amount was $20,000. Table 20 compares the information collected from the Class of 1995 with that collected in this survey with the Class of 1996. In order to ensure consistency in the comparison of data, Table 20 presents information for only 1996 graduates from institutions in the Maritime provinces in addition to the information from the overall (Atlantic) sample.

TABLE 20
Comparative Summary of Government Student Loans (1995 - 1996)

	Maritime Universities 1995	Maritime Universities 1996	Atlantic Universities 1996
Total Borrowing	49%	48%	50%
Range	$200 - $65,000	$390-$75,000	$390-$85,000
Mean	$12,478	$15,175	$15,802
Mode	$10,000	$20,000	$20,000
Median	$11,000	$15,000	$15,000

Use of government student loans varied in relation to the degree received:

? 76% of those who completed their first professional degree borrowed money through the government student loan program;

? 54% of those who received a bachelor's degree borrowed money through the government student loan program;

? 42% of those receiving a certificate borrowed through a government loan program; and

? 27% of those who received a master's level degree borrowed through the government student loan.

The amount of government student loans borrowed and outstanding at each degree level for the Class of 1996 is presented in Table 21.

TABLE 21
Summary of Government Student Loans Over Program of Study Completed in 1996
(Weighted Data, n=2,484)

Degree Received*	Range of Borrowing	Mean**	Median	Mode***
Overall				
Amount Borrowed	$390 - $85,000	$15,802	$15,000	$20,000
Amount Outstanding	$0 - $ 60,000	$13,601	$12,000	$ 0
Certificate				
Amount Borrowed	$ 600 - 40,000	$13,165	$12,000	$20,000
Amount Outstanding	$ 0 -$40,000	$10,772	$ 8,500	$ 0
Bachelor's				
Amount Borrowed	$390 - $85,000	$16,089	$15,000	$20,000
Amount Outstanding	$0 - $60,000	$14,094	$13,000	$ 0
First Professional				
Amount Borrowed	$800 - $50,000	$20,592	$20,000	$25,000
Amount Outstanding	$0 - $50,000	$15,328	$15,000	$ 0
Master's				
Amount Borrowed	$500 - $38,000	$12,470	$11,000	$15,000
Amount Outstanding	$0 - $35,000	$10,096	$ 9,000	$ 0

* Since only 1 graduate with an earned doctorate provided financial information, that information is not reported.

** The means are based on the amounts reported by those who have loans outstanding (balance not equal to zero).

*** The mode of $ 0 indicates that no outstanding balance was the number occurring most frequently - that is, more had a zero balance than had any other single amount.

The information presented in Table 21 indicates:

? that the average amount borrowed through a government student loan was $15,802 and the average amount of government student loan outstanding one year after graduation was $13,610;

? the average amount borrowed by those at the first professional level was significantly higher than for graduates receiving other degrees;

? at levels other than first professional degree, those receiving a bachelor's level degree had the highest level of borrowing;

? approximately 10% of graduates repaid the full amount of their government student loan in the first year; and

? on average, 14% of outstanding government student loan debt was repaid in the first year following graduation.

Within the group of graduates (10%) who repaid the full amount of government student loan by the time of survey contact, the amount borrowed ranged from $390 - $36,000, averaging $9,421, with a median of $6,300 and a mode of $6,000.

While those who received a first professional degree were most likely to borrow (largest percent of students within degree) and to borrow the largest amount of money on average, 81% of all who borrowed through government student loans were at the bachelor's level.

Twenty-six percent (26%) of those who borrowed through a government student loan reported difficulty in meeting the loan payments over a period of 2 months or more since graduation. Within this group, the average amount borrowed was $18,170 with an average outstanding balance of $16,489. Within the group indicating difficulty with loan repayment, 26% were not employed at the time of survey.

Other Loans

Fourteen percent (14%) of graduates borrowed from sources other than government student loans, with 9% borrowing from both private and government loan sources and 5% borrowing exclusively from private sources .

Among those who borrowed through private sources:

- 39% borrowed from families; and
- 92% borrowed from a financial institution.

The amounts borrowed from non-government sources ranged from $300 to $100,000, averaging $9,701 with a mode of $5,000 and median of $6,000. The average private loan debt outstanding in August 1997 was $6,829.

Approximately 19% of graduates who borrowed through private sources experienced difficulty with repayment in the first year following graduation.

Table 22 summarizes the amount of private loans borrowed and the amount outstanding by degree received. Approximately 19% of those who had borrowed through a private loan had repaid the total loans by the time of survey contact.

TABLE 22
Summary of Private Borrowing
(Weighted Data n=699)

Overall	Range	Mean	Median	Mode
Amount Borrowed	$300 - $100,000	$9,701	$6,000	$5,000
Amount Outstanding	$360 - $85,000	$6,829	$4,500	$0
Certificate				
Amount Borrowed	$500 - $30,000	$7,111	$5,200	$4,000
Amount Outstanding	$400 - $27,000	$4,743	$2,000	$0
Bachelor's Level				
Amount Borrowed	$300 - $78,000	$8,822	$6,000	$5,000
Amount Outstanding	$300 - $78,000	$5,913	$4,500	$0
First Professional				
Amount Borrowed	$2,000 - $90,000	$20,006	$13,500	$5,000
Amount Outstanding	$1,000 - 85,000	$18,430	$11,000	$0
Master's Level				
Amount Borrowed	$1,400 - 100,000	$11,172	$5,000	$5,000
Amount Outstanding	$300 - $93,000	$6,665	$4,500	$0

Overall Borrowing

Within the total sample of graduates contacted:

- ? 41% borrowed exclusively through student loans;
- ? 8% borrowed money through government student loans and through private sources;
- ? 5% borrowed exclusively through private sources; and
- ? 47% did not borrow any money to cover the cost of their university education.

Table 23 presents an overall summary of the total borrowed and total debt carried by the 53% of graduates who borrowed money to finance at least a part of the cost of their education.

TABLE 23
Average Borrowed and Amount Outstanding
(Weighted Data n=2,673)

Overall	Range	Mean	Median	Mode
Average Borrowed	$390 - $100,000	$16,662	$15,000	$20,000
Amount Outstanding	$100 - $93,000	$13,957	$12,000	$0
Certificate				
Amount Borrowed	$1,200 - 42,000	$13,375	$12,000	$5,000
Amount Outstanding	$100 - $40,000	$10,691	$ 8,000	$0
Bachelor's Level				
Amount Borrowed	$390 - $ 85,000	$16,654	$15,000	$20,000
Amount Outstanding	$130 - $78,000	$14,162	$13,000	$0
First Professional				
Amount Borrowed	$2,300 - $90,000	$28,053	$25,000	$15,000
Amount Outstanding	$1,00 - $85,000	$22,597	$18,000	$0
Master's Level				
Amount Borrowed	$500 - $100,000	$13,631	$12,000	$15,000
Amount Outstanding	$300 - $41,000	$10,148	$ 9,000	$0

The information collected suggests that approximately 53% of the 1996 graduates had incurred a debt with an outstanding average balance of $13,986 in August 1997.

In the first year following graduation, approximately 10% of the graduates who had borrowed money had fully repaid their outstanding debt.

In the first year following graduation, the average debt incurred had been reduced by 16% overall, to $13,984. Those with an outstanding debt in July 1997 were carrying an average debt of $15,547.

Among those who borrowed $25,000 or more through a government student loan (n=610):

- 81% received a bachelor's level degree;
- 11% received a professional degree;
- 5% received a certificate; and
- 3% received a master's degree.

Table 24 summarizes the total debt load of graduates within key sub-groups for the Class of 1996.

Table 25 presents a summary of total debt in relation to the major area of study for the graduate.

TABLE 24
Educational Borrowing within Sub-Groups

	Average Borrowed*	Average Debt Outstanding**
Overall	**$16,667**	**$13,984**
Province		
Newfoundland	$18,930	$16,427
Prince Edward Island	$14,360	$11,594
Nova Scotia	$16,302	$13,487
New Brunswick	$15,730	$13,140
Gender		
Males	$16,888	$14,484
Females	$16,313	$13,175
Labour Force Status**		
Employed	$16,218	$13,271
Unemployed	$18,357	$16,212
Not in the Labour Force	$17,877	$16,558
Work through Program		
Summer and School Year	$15,398	$12,728
School Year Only	$16,805	$13,747
Summer Only	$17,774	$15,090
No Work During Program	$17,229	$14,645

*Average for all who borrowed including full repayment. ** see Chapter 6

TABLE 25
Major Field of Study by Total Borrowed and Outstanding

	Sub-Group	Percent Borrowing	# Borrowing	Average Amount Borrowed	Average Debt August 1997
Overall	**5192**	**53%**	**2763**	**$16,667**	**$13,984**
General Arts	29	39%	11	$ 9,949	$6,672
Education	876	52%	457	$16,243	$13,182
Fine-Applied Arts	**110**	**63%**	69	**$18,324**	**$15,880**
Humanities	597	53%	313	$17,191	$15,254
Social Sciences	1244	59%	735	$16,971	$14,957
Commerce	673	50%	336	$14,380	$11,032
Agriculture-Biological	468	51%	239	$16,301	$14,672
Engineering	297	58%	172	$15,010	$12,100
Health	**399**	**55%**	**217**	**$23,577**	**$19,155**
Math-Physical Sciences	196	39%	77	$15,179	$12,454
Information Technology	177	44%	78	$13,944	$10,325
Certificate Programs	125	48%	60	$12,215	$7,416

Responsibility for Financing a University Education and Borrowing

Table 26 links the person responsible for the financing of a graduate's university education with the debt load carried by the graduates.

TABLE 26
Graduate's Average Debt Carried by Party Responsible for Financing

Person/Party Primarily Responsible	Percent within Groups who Borrowed	Outstanding Debt
Graduate Alone	64%	$15,129
Parents/Relatives	30%	$ 7,439
Graduate and parent	42%	$ 8,203
Employer	8%	$ 7,674
Full Scholarship	17%	$ 7,470
Combination	21%	$13,052

The differences in patterns of financing an education included the following:

? those studying at the first professional level or higher were least likely to suggest anyone other than the graduate was responsible for costs; and

? those at the bachelor's level were most likely (24%) to suggest that the educational costs were the responsibility of someone other than the graduate.

Non-Borrowers

As noted, approximately 47% of the graduates in the Class of 1996 did not borrow money to finance their education. Analysis of the information collected does not provide the basis for solid differentiation between those who borrowed and those who did not. For example:

? the percentage who borrowed to finance at least a part of their university education did not vary significantly across provinces;

? the variation in relation to degree completed indicates that those completing a first professional degree (81%) and a bachelor's level degree (57%) were most likely to have borrowed while those completing an earned doctorate (5%), a master's level (32%) and a certificate program (45%) were less likely to have borrowed;

? borrowing patterns did not differ in relation to the gender of the graduate; and

? borrowing patterns (the percentage borrowing) did not differ in relation to the educational level of the parents although the amount of debt outstanding did: graduates from households in which neither parent had completed high school had an average debt of $16,804 compared to graduates from households in which both parents had some level of post-secondary education who were carrying an average debt of $13,705.

Chapter 6 Employment Experience of Graduates

Before entering university, 63% of the Class of 1996 had held at least one full-time job and 70% had at least one part-time job. Since graduating, nearly everyone (95%) in the Class of 1996 has held at least one job with each graduate averaging 1.8 jobs since graduation.

Compared to the previous year, graduates appeared to face slightly brighter job prospects. The overall unemployment rate for the Class of 1996 was 13.4% --down a full percentage point from the 14.5% experienced by Class of 1995 graduates. Seventy-eight percent (78%) of the Class of 1996 reportedly found jobs, most of which (87%) were full-time positions. The jobs were directly related to their field of study in about half the employment situations.

Of the unemployed graduates, 82% had completed a bachelor's degree. Graduates in Newfoundland and New Brunswick faced the toughest job markets. Those graduates with the highest rates of unemployment held degrees in Education (21.7%), the Humanities (16.9%), and in Math/Physical Sciences (15.3%).

The fields with low rates of unemployment were Health (2.7%) and Information Technology (7.0%)

Use of Terminology

This chapter requires use of terminology which may be most familiar to those who have had experience with labour market statistics. In order to enhance the clarity of the information presented in this chapter, the following definitions may prove useful:

Employed full-time: graduates working at a job or business thirty hours or more per week;

Employed part-time: graduates working at a job or business less than 30 hours per week;

Unemployed: graduates not working but looking for work as well as those who have accepted a full-time job to start in the future;

Labour force: graduates working (employed), not working but looking for work (unemployed) and graduates not working who have accepted a full-time job to start at a definite date in the future (unemployed);

Not in the labour force: graduates who are not working and not looking for work or unavailable for work;

Unemployment rate: the number of unemployed graduates as a percentage of the graduates in the labour force (employed and unemployed); and

Labour force status: whether graduates are employed, unemployed or out of the labour force.

Overall Employment Since Graduation

Since graduating in 1996, 95% of the graduates have held at least one employment position with the total class averaging 1.80 different jobs. Table 27 summarizes the overall patterns of employment since graduation.

TABLE 27
Employment Since Graduation
(Weighted and Unweighted Data)

Total Jobs Since Graduation	Overall (Weighted)	NFLD	PEI	NS	NB
No Employment	5%	8%	2%	5%	5%
One Job	45%	48%	39%	45%	45%
2-3 Jobs	42%	37%	48%	43%	42%
4 or More Jobs	8%	7%	11%	7%	8%
Total	100%	100%	100%	100%	100%
Average # Jobs Since Graduation	1.80	1.87	2.01	1.79	1.79

The differences in patterns across provinces are statistically significant, primarily as a result of the different patterns of employment in Prince Edward Island and Newfoundland. Newfoundland graduates appear to have a higher probability of one job in the first year following graduation while graduates in Prince Edward Island have a higher likelihood of multiple jobs in the same period.

Among those who have not been employed since graduation (n=276 in the weighted data set):

- 76% had completed a bachelor's level degree, 13% had completed a certificate program and 8% had completed a master's degree;

? 33% were from Newfoundland, 1% were from Prince Edward Island, 40% were from Nova Scotia and 26% were from New Brunswick;

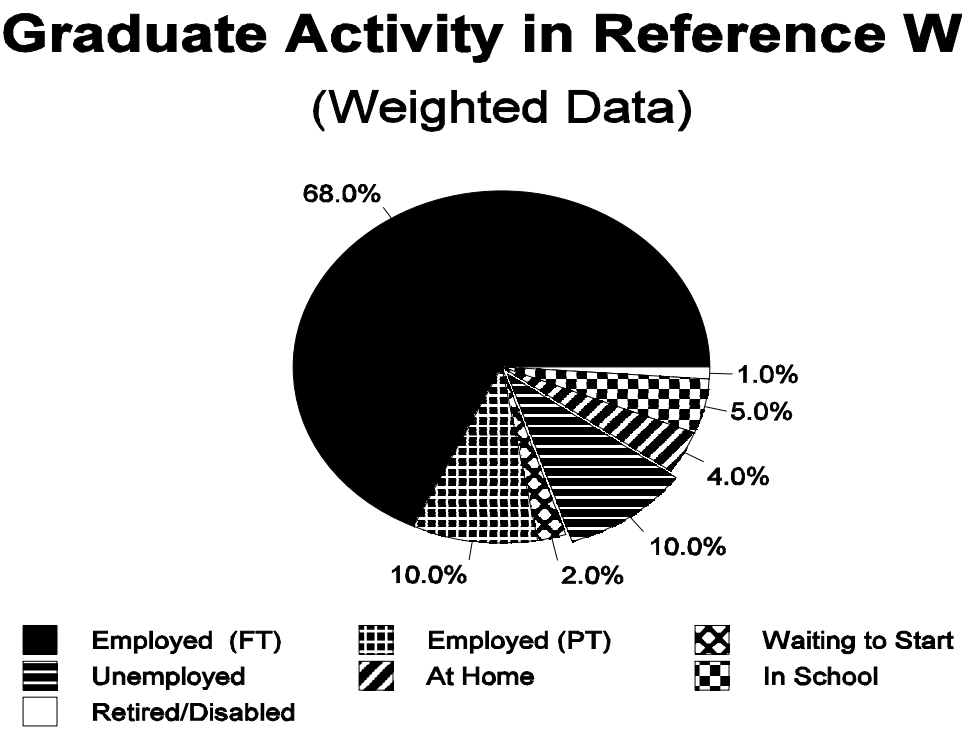
- there appeared to be no common patterns related to majors although those in English Language/Literature (7%), Psychology (6%), Biology (6%), Sociology (6%), History (6%), Business/Commerce (4%) and Pre-Med (4%) accounted for a total 38% of graduates in this group;

- like the overall sample, 59% were women and 41% were men;
- 71% had returned to school by the time of survey contact; and
- 35% considered themselves to be unemployed and seeking employment at the time of survey contact while 65% were not in the labour force.

Employment Activity in Reference Week

In order to establish a common point for measurement of change over time, graduates were asked about their specific employment activity in the last week of June 1997. This period is referred to as the reference week in this report.

The chart which follows presents a summary of overall activity in the reference week.



The chart indicates that 68% of all graduates were employed in full-time positions and 10% were employed in part-time positions in the reference week.

Labour Force Participation and Employment Rate

According to Statistics Canada, the labour force consists of those who are employed, those waiting for a job to start (within a specific period) and those who are actively looking for work.

Table 28 presents the information collected related to labour force activity and employment rates for 1996 graduates. Table 28A presents a comparison of the employment rates for graduates in the four provinces with the population as a whole. The information in Table 28A indicates that graduates in Nova Scotia and PEI were more likely than the general population to be employed in July 1997 while graduates in Newfoundland were as likely to be employed as the general population of that province. The information about the employment rate for New Brunswick indicates that graduates were less likely than the general population to be employed in July 1997.

TABLE 28
Labour Force and Employment Rate in Reference Week by Province
(Weighted and Unweighted Data)

	Overall (Weighted)	NFLD	PEI	NS	NB
LABOUR FORCE INVOLVEMENT					
Employed	77.4%	67.9%	83.7%	82.4%	74.9%
Unemployed	12.0%	16.8%	8.3%	9.0%	14.0%
Not In Labour Force	10.6%	15.3%	8.0%	8.6%	11.1%
LABOUR FORCE					
Employed	86.6%	80.2%	91.0%	90.1%	84.2%
Unemployed	13.4%	19.8%	9.0%	9.9%	15.8%

TABLE 28A
Employment Rate for Graduates and Employment Rate for the General Population by Province
(Weighted and Unweighted Data)

	NFLD	PEI	NS	NB
EMPLOYMENT RATE				
1996 Graduates	80.2%	91.0%	90.1%	84.2%
General Population*	80.6%	85.3%	88.5%	87.4%

* The statistics for the general population are based on Statistics Canada's Labour Force Survey for July 1997

Table 29 presents this information in relation to the degree received and Table 30 presents the information in relation to the major field of study.

The following observations are based on the information presented for the labour force in the Class of 1996:

? the overall unemployment rate of 13.4% is approximately one percentage point lower in 1996 than was reported in 1995 (14.5%);

• overall, graduates from Nova Scotia and Prince Edward Island have significantly lower unemployment rates than graduates from Newfoundland and New Brunswick;

? graduates with a first professional degree have the lowest unemployment rate (5.7%) while those who received a bachelor's degree have the highest unemployment rate (14.8%);

• those graduates in the field of health have the lowest (2.7%) unemployment rate for the reference week while graduates in education-related courses have the highest unemployment rate (21.7%).

TABLE 29
Labour Force and Employment Rate in Reference Week by Degree Received
(Weighted Data)

	Overall (Weighted)	Certificate	Bachelor' s Level	First Professional	Master' s Level	Earned Doctorate
LABOUR FORCE INVOLVEMENT						
Employed	77.4%	79.8%	75.3%	89.0%	86.0%	88.8%
Unemployed	12.0%	10.4%	13.1%	5.4%	7.5%	11.2%
Not in the Labour Force	10.6%	9.8%	11.6%	5.6%	6.5%	--
EMPLOYMENT RATE						
Employed	86.6%	88.4%	85.2%	94.3%	92.0%	88.8%
Unemployed	13.4%	11.6%	14.8%	5.7%	8.0%	11.2%

TABLE 30
Labour Force and Employment Rate in Reference Week by FOS
(Weighted Data)

	Arts - Science Gen.	Education	Fine - Applied Arts	Human-ities	Social Science	Com-merce	Ag-Bio Sciences	Engin. App. Sci	Health Prof.	Math-Phy Sci	Info Tech	C.C. Courses
LABOUR FORCE ACTIVITY*												
Employed	86.3%	71.0%	80.0%	70.7%	77.3%	85.5%	73.2%	77.3%	90.6%	68.9%	85.6%	83.1%
Unemployed	4.0%	19.6%	9.4%	14.4%	11.7%	8.2%	12.4%	11.1%	2.5%	12.4%	6.5%	11.4%
Not in Labour Force	9.7%	9.4%	10.6%	14.9%	11.0%	6.3%	14.4%	11.6%	6.9%	18.7%	7.9%	5.5%
EMPLOYMENT RATE *												
Employed	95.6%	78.3%	89.5%	83.1%	86.8%	91.2%	85.5%	87.5%	97.3%	84.7%	93.0%	88.0%

Activities of Those Not Employed

Within the total sample, 23% (n=1,174) graduates were either unemployed or not in the labour force during the reference week. Within this group:

- 76% had held at least one job since graduation; and
- 49% were actively seeking employment in the reference week, with 95% of those seeking employment looking for full-time work.

Among those unemployed and not looking for work: (n=511)

- 64% had returned to school (representing 26% of the overall group not employed);
- 18% had personal responsibilities which limited their participation in the labour market;
- 1% cited a disability;
- 4% described the job search situation as hopeless and had stopped looking for work; and
- 13% cited a number of other reasons for unemployment (including travelling, and "just taking time off before looking for work or returning to school").

As with the overall sample of graduates, approximately 62% of unemployed graduates were women.

Eighty-two percent (82%) had received a bachelor's level degree in 1996, 10% completed a certificate program and 6% completed a master's level degree.

Among those not employed in the reference week, 24% were in Education-related programs, 22% were in Social Sciences-related programs, 15% had majored in Humanities and 11% were in the Agricultural-Biological Sciences and 8% were in Commerce.

Among those not employed in the reference week (n=1,174):

- 76% had income from employment in 1996;
- 9% had income from self-employment in 1996;
- 14% had investment income in 1996;
- 5% had income from pensions;
- 5% had income from social assistance; and
- 27% had income from unemployment insurance in 1996.

Employment in the Reference Week

The information in the sections which follow present information for the 3,999 graduates employed in the reference week.

Within the total sample of employed graduates (n=3,999) :

? 87% were working in full-time positions in the reference week;

? 85% of those employed were employed by one employer, 8% were working for more than one employer or more than one job, 3% were self-employed, and 4% were working in a paid position and self-employed;

? 63% of employed graduates were working in permanent, as opposed to temporary, employment positions;

? 41% were in salaried positions; 49% were in positions with pay based on an hourly wage; and 10% were in positions paid through contract, stipend or some other arrangement; and

? 69% of employed graduates were employed in positions directly (50%) or indirectly (19%) related to their field of study.

Nineteen percent (19%) of those employed in the reference week were in positions in which employment began prior to 1996; 45% started in the job held in the reference week in 1996 and 36% started in the reference week position in 1997.

Table 31 presents a summary of the 10 occupations most frequently cited by graduates as the reference week employment position along with the average wages reported by graduates working in these jobs in full-time or part-time positions.

TABLE 31
Primary Occupations (Top 10) Employing Graduates
(Weighted, Atlantic Data)

OCCUPATION	PERCENTAGE OF TOTAL EMPLOYED (n=3,999)	Average F-T Wages $	Average P-T Wages $
Sample Averages	--	562.70	272.09
Overall within Top Ten (NOC)	--	569.41	275.39
Elementary School Teachers (4142)	5%	685.84	326.14
Retail Salespeople (6421)	4%	341.62	174.99
Registered Nurses (3152)	4%	709.98	545.02
Secondary School Teachers (4141)	3%	781.60	352.28
Community and Social Service Workers (4212)	3%	408.87	311.45
Food and Beverage Servers (6453)	3%	296.74	158.68
Post-Secondary Teaching (4122)	2%	401.78	253.42
Computer Programmers (2163)	2%	671.78	235.08
College and Other Vocational Inst. (4131)	2%	733.95	260.73
Financial Auditors and Accountants (1111)	2%	545.48	300.00
Total Employment Represented in Top Ten	30.0%	--	--

Table 32 demonstrates the employment of graduates in relation to the National Occupational Classification. This matrix, used to classify all employment positions in Canada into 26 major groups, is based on the skill level and skill type demanded for each position. The skill level is generally defined as the amount and type of education and training required to enter and perform the duties of an occupation. The skill levels range from those at which up to two years of secondary school and short work experience are required (D) to those occupations which require a university degree (A). The degrees required are not specified for Skill Level A. Theoretically, all graduates who have received a bachelor's level or higher would be employed at Skill Level A. Material has been provided in Appendix D to provide a more detailed description of this occupational classification matrix.

TABLE 32
DISTRIBUTION OF 1996 GRADUATES ACROSS EMPLOYMENT GROUPS
TOTAL EMPLOYED IN FULL-TIME POSITIONS IN REFERENCE WEEK = 3480

	NOC OCCUPATIONAL GROUPS											
SKILL LEVEL	1 Business, Finance/ Administration	2 Natural and Applied Sciences	3 Health	4 Soc. Sci, Education, Govt, Religion	5 Art, Culture, Recreation and Sport	6 Sales and Service	7 Trades, Transport, Equipment Operators	8 Occ. Unique to Primary Industry	9 Occup. Unique: Processing, Manufacturing, Utilities	Senior Mgmt.	Row Totals	Row %
										Group 00 n=7 (m)54% (f) 46%	7	.2%
										Gps 01-09 n=213 (m)48% (f) 52%	213	6.1%
A	Group 11 n=128 (m) 55% (f) 45%	Group 21 n=335 (m) 69% (f) 31%	Group 31 n=284 (m)17% (f) 83%	Group 41 n=717 (m)34% (f) 66%	Group 51 n=100 (m) 37% (f) 63%						1,564	44.9%
B	Group 12 n= 122 (m) 27% (f) 73%	Group 22 n=116 (m) 71% (f) 29%	Group 32 n= 34 (m)12% (f) 88%	Group 42 n=134 (m) 21% (f) 79%	Group 52 n=96 (m) 33% (f) 67%	Group 62 n=105 (m) 44% (f) 56%	Group 72/73 n=36 (m)86% (f) 14%	Group 82 n=34 (m) 79% (f) 21%	Group 92 n=12 (m) 60% (f) 40%		689	19.8%
C	Group 14 n=353 (m) 32% (f) 68%		Group 34 n= 26 (m) 40% (f) 60%			Group 64 n=357 (m) 30% (f) 70%	Group 74 n= 27 (m) 92% (f) 8%	Group 84 n=37 (m) 56% (f) 44%	Group 94/95 n=12 (m) 60% (f) 40%		812	23.4%
D						Group 66 n=115 (m) 40% (f) 60%	Group 76 n=24 (m) 75% (f) 25%	Group 86 n= 34 (m) 70% (f) 30%	Group 96 n=22 (m) 58% (f) 42%		195	5.6%
Column Totals	603 17.3%	451 12.9%	344 9.9%	851 24.5%	196 5.6%	577 16.6%	87 2.5%	105 3.0%	46 1.3%	220 6.3%	3,480 100%	100%

The information in Table 32 suggests that 49% of all graduates who were employed in full-time positions in the reference week were employed at or above Skill Level A. Table 32 confirms the traditional patterns of employment for men and women.

Employer Specifications for Full-time Employment

Among all graduates who were employed full-time in the reference week:

? 66% were in positions for which a certain level of education was specified; and

? 42% were in positions for which prior work experience was specified.

Table 33 presents a summary of the employer demands in relation to the degrees completed by graduates. The information in this table provides the basis for the following observations:

? approximately 70% of graduates at the bachelor's level and first professional degree level were working full-time and working in positions for which their specific degree level was required;

? the data suggest that graduates at the master's level who were employed full-time were more likely (51%) to be employed in positions for which a bachelor's degree was specified than in positions (36%) for which a master's level was specified; and

? those at the first professional level were most likely to be employed in full-time positions for which that level of degree was required.

TABLE 33
Employer Demands by Degree Received
(Weighted Data, Graduates Employed Full-Time)

Employer Specifications	Certificate	Bachelor's Level	First Professional	Master's Level	Earned Doctorate
Employers Specified Level of Education					
YES	62%	62%	98%	81%	83%
NO	38%	38%	2%	19%	17%
Level Specified					
High School Diploma or Lower	10%	8%	--	<1%	--
Post-Secondary	52%	19%	1%	7%	--
Bachelor's	34%	70%	26%	52%	11%
First Professional	1%	1%	71%	3%	--
Master's	2%	1%	--	37%	15%
Earned Doctorate	--	--	<1%	<1	74%
Other	1%	1%	1%	<1%	--
	100%	100%	100%	100%	100%
Employer Specified a Field of Study					
YES	62%	61%	82%	80%	83%
NO	38%	39%	18%	20%	17%
Was Specified FOS in Graduate's Field					
YES	93%	94%	99%	95%	95%
NO	7%	6%	1%	5%	5%
Was Work Experience Specified					
YES	41%	40%	26%	55%	48%
NO	59%	60%	74%	45%	52%

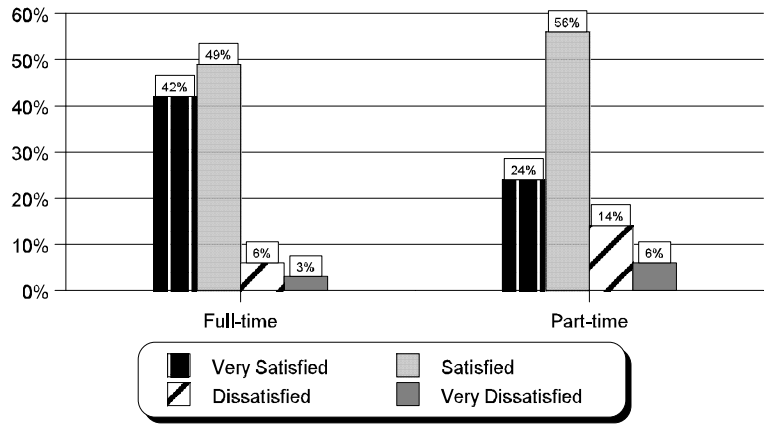
Eighty percent (80%) of graduates in full-time employment completed their degree requirements prior to the start of their first job following graduation. This statistic varies in relation to the degree completed. For example, those at the master's level (40%) and those working towards an earned doctorate (32%) were more likely to have accepted the reference week employment position before their degrees were completed. Those at the first professional level (96%) were most likely to have completed their degree before accepting employment. At the bachelor's level, 84% of graduates completed their degrees before accepting the reference week employment.

Satisfaction with Employment

Overall, the majority of graduates were satisfied with the employment position held in the reference week, but the level of satisfaction varied in relation to the full-time or part-time status of the position. This information is presented in the chart below.

In reviewing the data in relation to the gender of the graduate, no statistically significant differences were observed in the expressed levels of job satisfaction.

CHART 2: Satisfaction with Employment



Perceived Importance of Work in a Related Field

The majority of graduates at all degree levels perceived that it would be important for them to find work related to their field of study. As one would expect, perceived importance of work in a related field was highest among graduates with their first professional degrees (77%). Table 34 summarizes the overall opinions expressed.

TABLE 34
Importance of Work in an Area Related to FOS by Degree Received
(Weighted Data)

	Certificate	Bachelor's Level	First Professional	Master's Level	Earned Doctorate
Level of Importance					
Very Important	58%	55%	76%	64%	66%
Somewhat Important	33%	32%	19%	30%	23%
Not Very Important	7%	9%	4%	5%	8%
Not at All Important	2%	4%	1%	1%	3%

Based on the information in this chapter:

? the 1996 graduates of Atlantic universities were more likely to be employed than unemployed; overall, 95% had held at least one job since graduation and a significant percentage of those not working in the reference week had returned to school;

? overall, approximately 53% of graduates in full-time positions were in positions which they considered as directly related to their program of study;

? graduates in health-related studies had the lowest level of unemployment (2.7%), while those in education had the highest level (21.7%);

? graduates who received one of the certificates offered through Atlantic universities had high rates of full-time employment and employment in fields related to their area of study; this could be expected since most of these graduates are older, more likely to have been employed prior to enrollment, and more likely to be continuing employment over the course of study;

? gender-based differences related to both field of study and the types of employment obtained continue to be evidenced among members of the Class of 1996;

? the four provinces had statistically significant differences in the unemployment rate of their university graduates: 19.8% for Newfoundland and 15.8% for New Brunswick; 9.0% for PEI and 9.9% for Nova Scotia; and

? university graduates in Nova Scotia and Prince Edward Island were more likely than the general population to be employed in July 1997 while graduates in New Brunswick were less likely to be employed than the general population in that province; the employment rate for graduates from Newfoundland did not differ from the employment rate for the general population.

The chapter which follows explores the work situation for 1996 graduates in relation to their earnings from employment.

Chapter 7 Earnings of 1996 Graduates

On average, a member of the Class of 1996 was earning $562 a week--about $25 a week more than last year's graduates - employed in a full-time position. Overall, if full-time employment earnings were annualized, male graduates would earn an average of $32,708 in 1997 while female graduates would earn an average of $26,884.

Wages generally increase in proportion to the number of years spent in school and the degree received-- factors which suggest that a university education continues to be a good financial investment from an income perspective. For example, graduates with master's degrees earned, on average, $326 a week more than colleagues with bachelor's degrees; however, the leaders, when it comes to weekly wage-earners, were those who completed certificate programs ($775.84) and information technology programs ($733.36).

Women earned approximately 84% of the average wage of a male graduate, if both were employed in full-time comparable positions.

In 1997, employed graduates working full-time had an average gross weekly wage of $562. Weekly average wages reported for full-time positions ranged from $50 to $3,501. The employed graduate working in a part-time position in the reference week had an average gross weekly wage of $272.

Table 35 summarizes the overall wage patterns for employment in the reference week by gender.

TABLE 35
Weekly Gross Earnings in the Reference Week
(Weighted Data)

Average Wages	Overall	Females	Males
Full-Time Employment			
Mean	$ 562.70	$ 520.58	$ 623.60
Median	$ 500.00	$ 450.00	$ 550.00
Mode	$ 500.00	$ 500.00	$ 500.00
Part-Time Employment			
Mean	$ 272.09	$ 274.05	$ 265.45
Median	$ 200.00	$ 200.00	$ 225.00
Mode	$ 200.00	$ 200.00	$ 200.00

Table 36 presents the reported wages for full-time employment in relation to the degree received.

TABLE 36
Weekly Gross Earnings (Full-time Employment) by Degree Received
(Weighted Data)

Average Wages	Overall	Females	Males
Overall for Graduates	$ 562.70	$520.58	$623.60
Certificate	$ 571.48	$506.65	$645.82
Bachelor's Level	$ 508.91	$473.23	$564.66
First Professional	$ 709.33	$666.69	$755.81
Master's Level	$ 834.21	$809.21	$866.50
Earned Doctorate	$ 774.90	$693.66	$845.24

Table 37 presents the average, full-time wages in the reference week in relation to graduate's major field of study. Overall, patterns related to wages earned by graduates from Atlantic universities are consistent with the pattern reported in the pilot completed of the Class of 1995.

TABLE 37
Full-Time Weekly Wages by Major Field of Study

Major Field of Study	Full-time Average	Full-time Average for Males	Full-time Average for Females
Overall	**$562.70**	**$623.60**	**$520.57**
General Arts/Science	$424.13	$496.78	$381.56
Education	$687.13	$741.41	$660.05
Fine and Applied Arts	$438.27	$461.37	$422.60
Humanities	$428.64	$461.37	$412.93
Social Sciences	$454.19	$538.20	$417.06
Commerce	$590.01	$619.30	$561.83
Agro-Biological	$421.19	$489.37	$381.69
Engineering	$672.50	$673.87	$668.33
Health	$707.86	$713.19	$706.75
Math-Physical Sciences	$511.15	$565.07	$425.11
Information Technology	$733.36	$780.99	$624.88
Certificate Programs	$775.84	$821.96	$556.08

Generally, as confirmed in other graduate follow-up surveys and in the national graduate survey conducted by Statistics Canada, increased levels of education result in increased earnings. The exception to this pattern involves those completing certificate programs who have higher average wages than all other sub-groupings.

Wage differences based on gender reduce significantly beyond the bachelor's level and are reversed at the earned doctorate level. The wide gap at the certificate level between genders is probably indicative of the wide range of programs included (See Appendix D).

Table 38 presents information on the weekly full-time wages in relation to the major occupational groups on the NOC matrix. The information in this table confirms the variations in wages for men and women. Information on the NOC matrix is available in the technical appendix. (Refer to Appendix E for a description of the NOC groups).

TABLE 38
AVERAGE GROSS, WEEKLY WAGES FOR FULL-TIME EMPLOYMENT WITHIN MAJOR OCCUPATIONAL GROUPS BY GENDER (N=3033*)

NOC OCCUPATIONAL GROUPS												
SKILL LEVEL	1 Business, Finance/ Adminis-tration	2 Natural and Applied Sciences	3 Health	4 Soc. Sci, Education, Govt, Religion	5 Art, Culture, Recreation and Sport	6 Sales and Service	7 Trades, Transport, Equipment Operators	8 Occ. Unique to Primary Industry	9 Occ. Unique: Processing, Manufact-uring, Utilities	Senior Mgmt.	Row Totals	Row %
										Group 00 n=6 (m)$1,541 (f) $ 990	6	.2%
										Groups 01-09 n=179 (m) $829 (f) $725	179	5.8%
A	Group 11 n=111 (m)$648 (f) $562	Group 21 n=298 (m)$723 (f)$674	Group 31 n=237 (m)$845 (f) $734	Group 41 n=623 (m)$650 (f)$613	Group 51 n=90 (m)$509 (f)$512						1359	44.9%
B	Group 12 n=101 (m) $582 (f) $464	Group 22 n=103 (m) $704 (f) $490	Group 32 n=33 (m)$429 (f) $522	Group 42 n=116 (m) $455 (f) $423	Group 52 n=76 (m)$434 (f) $370	Group 62 n=90 (m)$523 (f)$394	Group 72/73 n=33 (m)$564 (f) $350	Group 82 n=31 (m) $883 (f) $479	Group 92 n=9 (m) $802 (f) $570		592	19.5%
C	Group 14 n=307 (m) $461 (f) $447		Group 34 n=24 (m)$397 (f) $298			Group 64 n=315 (m)$513 (f) $299	Group 74 n=26 (m) $456 (f) $484	Group 84 n=35 (m) $593 (f)$457	Group 94/95 n=11 (m) $697 (f)$391		718	23.7%
D						Group 66 n=105 (m)$315 (f)$252	Group 76 n=23 (m) $489 (f) $315	Group 86 n=29 (m) $496 (f) $384	Group 96 n=22 (m) $507 (f)$384		179	5.9%
Column Totals	519 17.1%	401 13.2%	294 9.7%	739 24.5%	166 5.5%	510 16.8%	82 2.7%	95 3.1%	42 1.4%	185 6.0%	3033 100%	100%

* Variations between cell sizes in Table 38 and Table 32 are the result of non-response on the wage question.

Chapter 8 Mobility of Graduates

This chapter explores the mobility patterns of graduates, taking into consideration where they lived prior to enrollment and their residence one year after completing university. It is clear from an analysis of the data that the Atlantic region retained about 87% of the people who lived in the region prior to attending a college or university. While there was some movement of graduates within the Atlantic Region, it is also true that the majority of graduates with a degree or certificate opted to remain in or return to their home province after graduation.

Many of the students who came to Atlantic Canada to attend school also stayed. Thirty-five percent (35%) of the students who came to Atlantic universities from other provinces remained in the region. As well, foreign students who made up 2% of the 1996 graduating class were three times as likely to remain in Canada as they were to return to their country of origin. Two-thirds of this small group remained in the region after graduation.

As for the (12%) of Atlantic Canadian graduates who left to go "down the road", the largest exports (by occupational group) include teachers, computer programmers, computer analysts and registered nurses.

The 1996 survey was designed to provide information on the overall mobility of graduates following receipt of a degree. The survey design also provided for the collection of information which would produce a profile of non-residents who chose to complete their university education at an Atlantic university as well as a profile of those who chose to relocate to other areas following the completion of the program of study.

In the survey, each graduate provided information on their residence at the time of enrollment and at the time of contact for the survey. Table 39 presents a summary of the pre-enrollment residence of graduates.

TABLE 39
Pre-enrollment Residence of Graduates by Location of University
(Weighted and Unweighted Data)

Pre-Enrollment RESIDENCE	Overall (weighted)	Location of University Attended			
		NFLD	PEI	NS	NB
Newfoundland	23.0%	**94.1%**	3.3%	5.7%	2.9%
Prince Edward Island	4.5%	--	**79.1%**	2.7%	2.5%
Nova Scotia	36.3%	1.5%	6.0%	**69.1%**	8.1%
New Brunswick	24.9%	0.4%	5.3%	7.1%	**75.7%**
Quebec	1.7%	0.2%	2.0%	1.6%	2.9%
Ontario	5.4%	2.5%	1.7%	7.5%	4.7%
Manitoba	0.2%	0.1%	0.3%	0.3%	0.1%
Saskatchewan	0.1%	--	--	0.2%	0.1%
Alberta	0.8%	0.2%	0.3%	1.4%	0.4%
British Columbia	0.8%	0.1%	1.0%	1.1%	1.0%
Yukon/NWT	0.1%	--	--	0.2%	--
USA	0.3%	--	--	0.6%	0.1%
Other Countries	1.9%	0.9%	1.0%	2.5%	1.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

The information in Table 39 indicates that the majority of graduates at universities within each province were residents of that province prior to enrollment: 94% of the graduates in Newfoundland were residents of Newfoundland prior to enrollment and comparable figures for Prince Edward Island, Nova Scotia and New Brunswick were 79%, 69% and 76%, respectively.

Table 40 presents a profile of the post-university residence of the Class of 1996 in relation to the province in which they completed their university education.

TABLE 40
Post Degree Residence of Graduates
(Weighted Data)

POST-DEGREE RESIDENCE	Overall	Location of University Attended			
		NFLD	PEI	NS	NB
Newfoundland	19.4%	**82.4%**	2.3%	3.7%	1.7%
Prince Edward Island	4.0%	--	**74.5%**	1.6%	2.6%
Nova Scotia	35.7%	2.4%	5.3%	**68.1%**	8.0%
New Brunswick	22.8%	0.6%	4.3%	6.0%	**70.5%**
Quebec	1.5%	0.2%	2.0%	1.3%	2.8%
Ontario	8.9%	7.1%	6.3%	10.6%	7.9%
Manitoba	0.4%	0.1%	0.3%	0.6%	0.4%
Saskatchewan	0.2%	0.1%	--	0.3%	0.1%
Alberta	2.4%	2.7%	1.7%	2.9%	1.3%
British Columbia	2.2%	1.4%	1.3%	2.3%	2.9%
Yukon/NWT	0.4%	0.7%	--	0.3%	0.4%
USA	1.6%	1.4%	2.0%	1.9%	1.3%
Other Countries	0.5%	0.9%	--	0.4%	0.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

According to the information presented in Table 40, the majority of graduates who completed a degree in any one of the four Atlantic provinces were more likely to remain in the region than to move; however, some differences exist. Graduates attending university in Newfoundland were most likely to remain in Newfoundland while graduates from universities in Nova Scotia were least likely to remain in Nova Scotia. It is important, however, to note that these patterns are different from graduates who were residents of these provinces prior to enrollment, as evidenced in a later section of this chapter.

The sections which follow present a profile of the mobility patterns of graduates based on their pre-enrollment residence.

Foreign Students

Approximately 2% (n=111) of the graduates interviewed resided outside Canada prior to their enrollment. Analysis of the information collected from foreign students has produced the following profile:

- Eight percent (8%) enrolled at Memorial, 2% enrolled at UPEI, 22% enrolled at universities in New Brunswick and the balance (68%) enrolled at universities in Nova Scotia.

- The majority (79%) of the graduates completed their programs on a full-time basis.

- Fifty-nine percent (59%) were females and 41% were males.

- The majority (71%) received a bachelor's level degree, 18% received a master's level degree, 1% received first professional degrees, 7% received earned doctorates and 3% were enrolled in certificate programs.

- Forty-nine percent (49%) were students in the 12 months before enrollment and 38% indicated that their primary activity in this period involved working. The percentage employed in the 12 months before enrollment was higher than the average percentage (24%) reported by graduates residing in Canada prior to enrollment.

- Ninety-one percent (91%) have held at least one employment position since graduation. In the reference week, 66% were employed in full-time positions, 7% were employed in part-time positions, 2% were awaiting the start of employment,

11% had returned to school, 5% were not seeking employment and 9% were actively seeking employment.

- These graduates enrolled in a wide range of fields of study. For example, 10% were in General Biology, 5% in English, 5% in Accounting and 5% in Political Science. No more than 5% of these graduates was represented in any other FOS.

- Forty-nine percent (49%) of graduates from outside Canada indicated personal responsibility for educational financing (significantly lower than the average of 70% reported for the overall population - see Chapter 5). Means used to finance university education included the following: scholarship or bursaries (50%), financial assistance through government agencies or employers (19%), student loans (33%) and personal loans (14%). The average debt load for a foreign student one year after graduation was $9,480, considerably below the average debt carried by a graduate who resided in Canada prior to enrollment.

? Thirty-nine percent (39%) of students who resided outside Canada prior to enrollment worked during the summer and the school year while attending university; 11% worked during the school year; 30% worked during the summer months and 20% did not work while completing their program.

- Following graduation, 78% of graduates who were living outside Canada prior to enrollment remained in Canada following graduation, residing in the following provinces: Newfoundland (5%), Prince Edward Island (1%), Nova Scotia (38%), New Brunswick (7%), Quebec (3%), Ontario (15%), the Prairies (6%), and British Columbia (3%). Those who did not remain in Canada are currently living in the United States (9%) or another country (13%).

? No clear pattern of employment was identified for those graduates who chose to reside in Canada. For example, 15% were employed at various levels of teaching, 5% were in financial services and 4% were in computer-related fields. The average, weekly, full-time salary for a non-resident choosing to live in Canada was $535 per week.

? Among those who chose to reside in Canada following graduation, 70% received a bachelor's level degree, 20% received a master's level degree, 6% earned a doctorate, 1% received a first professional degree and 4% completed a certificate program.

The points noted and further analysis of the information provide the basis for the following observations:

- other than issues related to the financing of education and pre-enrollment residence, the foreign student graduate is quite similar to the graduate who was a resident of Canada at the time of enrollment; and

- those who resided outside Canada before enrollment were more likely to remain in Canada following degree completion than to return to a residence outside Canada; approximately 66% chose to remain in one of the Atlantic Provinces.

Atlantic Canadian Graduates

Approximately 89% of the graduates from the Class of 1996 resided in one of the four Atlantic provinces prior to enrollment in their university program. Overall, 87% of Atlantic Canadians remained in the region following graduation.

Table 41 demonstrates the mobility of graduates from Atlantic Canada based on their pre-enrollment and post-degree residences.

TABLE 41
Mobility of Atlantic Canadian Residents
(unweighted data)

	Pre-Enrollment Residence of Graduates			
Post-Graduation Residence	**NFLD n=1,123**	**PEI n=340**	**NS n=1,898**	**NB n=1,233**
Newfoundland	**79.1%**	0.6%	0.9%	0.5%
Prince Edward Island	0.3%	**75.9%**	0.5%	1.3%
Nova Scotia	5.6%	9.4%	**82.4%**	5.7%
New Brunswick	0.7%	3.2%	3.1%	**81.0%**
Quebec	0.3%	1.2%	0.4%	1.0%
Ontario	6.8%	5.0%	6.4%	5.4%
Manitoba	0.3%	0.3%	0.3%	0.2%
Saskatchewan	0.1%	--	0.1%	0.2%
Alberta	2.8%	2.1%	2.2%	0.9%
British Columbia	1.6%	1.5%	2.0%	1.8%
Yukon/NWT	0.6%	--	0.1%	0.4%
USA	1.4%	0.8%	1.5%	1.5%
Other Countries	0.4%	--	0.1%	0.1%
Total	100.0%	100.0%	100.0%	100.0%

While the majority remained in the region, it is interesting to profile the occupations of those graduates who chose to relocate to another province.

Table 42 presents a summary of the five most frequently mentioned occupations of those residents who chose to relocate from their pre-enrollment residence to another area.

TABLE 42
Occupations of Atlantic Residents Who Relocated from Home Province

Prince Edward Island
82 residents have relocated

Reference Week Occupations
Retail Sales (n=5)
Economic Development Officers (n=5)
Auditors/Accountants (n=3)
Mining Engineers (n=3)
Veterinarians (n=3)

Degrees Received in 1996
Certificate 4%
Bachelor's Level 84%
First Professional 6%
Master's Level 5%
Earned Doctorate 1%

Nova Scotia
333 residents relocated

Reference Week Occupations
Computer Programmers (n=15)
Computer Systems Analysts (n=9)
Food/Beverage Servers (n=9)
Registered Nurses (n=8)
Post Secondary Instructors (n=8)

Degrees Received in 1996
Certificate 6%
Bachelor's Level 74%
First Professional 9%
Master's Level 10%
Earned Doctorate 1%

New Brunswick
234 residents relocated

Reference Week Occupations
Registered Nurses (n=10)
Post Secondary Teachers (n=7)
Elementary School Teachers (n=7)
Auditors/Accountants (n=6)
Retail Sales (n=6)

Degrees Received in 1996
Certificate 5%
Bachelor's Level 80%
First Professional 5%
Master's Level 9%
Earned Doctorate 1%

Newfoundland
235 residents relocated

Elementary School Teachers (n=9)
Accounting and Related Clerks (n=6)
Post-Secondary Teaching (n=6)
Community and Social Services (n=6)
Computer Programmers (n=6)

Degrees Received in 1996
Certificate 18%
Bachelor's Level 75%
First Professional 3%
Master's Level 3%
Earned Doctorate 1%

The information presented in this section clearly indicates that approximately 8 out of 10 Atlantic Canadian residents prior to enrollment have chosen to remain in the region following completion of their degrees.

Other Canadian Graduates

Approximately 9% of graduates from the Class of 1996 were residing in a province outside Atlantic Canada prior to enrollment. Table 43 presents a summary of the pre-enrollment and post-degree residences for these graduates.

TABLE 43
Residence Patterns for Other Canadian Residents

	Pre-Enrollment Residence					
Post-Degree Residence	**Quebec n=87**	**Ontario n=285**	**Prairies n=17**	**Alberta n=44**	**British Columbia n=46**	**Yukon/ Territories n=4**
Newfoundland	1.1%	5.6%	5.8%	4.5%	2.2%	--
Prince Edward Island	1.1%	1.8%	5.8%	6.8%	6.5%	--
Nova Scotia	16.1%	19.6%	23.5%	27.3%	17.4%	50.0%
New Brunswick	14.9%	6.3%	5.8%	4.5%	13.0%	--
Quebec	44.8%	1.4%	5.8%	6.8%	2.2%	--
Ontario	14.9%	55.5%	5.8%	4.5%	8.7%	--
Manitoba-Sask.	1.1%	5.1%	41.2%	38.7%	--	--
Alberta	--	3.5%	5.8%	36.4%	4.3%	25.0%
British Columbia	1.1%	1.8%	5.8%	4.5%	45.7%	--
Yukon/Territories	2.3%	0.7%	--	--	--	25.0%
United States	2.3%	2.5%	--	2.3%	--	--
Other Country	--	0.4%	--	--	--	--
Total*	99.7%	100.7%	99.5%	99.9%	100.0%	100.0%

* Discrepancies due to rounding

Analysis of the information collected indicates that approximately 35% of Canadians from other provinces who enrolled in an Atlantic Canadian university chose to remain in the region following completion of their degree program.

Overall Patterns

Overall mobility patterns can be summarized as follows:

? 2% of graduates from the Class of 1996 were residents of the United States or other countries prior to enrollment and 78% have chosen to remain in Canada following completion of their degrees; 52% have remained in Atlantic Canada;

? 9% of graduates from the Class of 1996 were residents of one of the non-Atlantic Canadian provinces/territories prior to enrollment and 35% have chosen to remain in Atlantic Canada following graduation;

? 89% of graduates were residents of Atlantic Canada prior to enrollment and 87% have chosen to remain in Atlantic Canada following graduation; and

? 6% have relocated to Ontario, 5% have relocated to other provinces and 2% have relocated to another country.

Chapter 9 Academic Studies Following Graduation

Following receipt of a degree, approximately 37% of the Class of 1996 returned to school in order to complete a program or take courses for credit. This represents a 2% increase in the number of graduates returning to school from the class of 1995 (35%).

The percentage returning to school varied across the four provinces: 40% of graduates from Newfoundland returned to school following graduation as did 41% of PEI graduates, 35% of graduates from universities in Nova Scotia and 37% of graduates from universities in New Brunswick.

Overall:

? 40% of graduates who completed a certificate program in 1996 returned to school, most frequently to pursue a bachelor's degree;

? 41% of those who received a bachelor's degree in 1996 returned to school since graduation; within this group, 35% have pursued a second bachelor's degree, 17% a certificate program and 24% a master's degree;

? 17% of those who received a first professional degree have returned to school since graduation: within this group, 25% have pursued a certificate, 17% a master's program and 43% an additional professional degree such as a medical specialization;

? 15% of those who received a master's degree in 1996 have returned to school since graduation; 28% have continued with work towards an earned doctorate while others have continued with a variety of programs; and

? 6% of those with an earned doctorate have returned to school with 100% working towards a professional degree.

Those graduates who returned to school were younger (26 years of age) on average, than those who have not returned to school (29 years of age). No other significant differences between those who returned to school and those who did not were observed.

Among those who completed the program for which they returned to school (24%):

? 36% completed the requirements for a bachelor's degree;
? 29% completed a post-bachelor's certificate;
? 13% completed another type of certificate;
? 14% completed a program of study at a community college;
? 7% completed the requirements for a master's program; and
? 1% completed a professional degree or another course.

Those who had returned to school had spent an average of 8.3 months in a program since graduation.

The five most frequently mentioned programs which have been completed included the following: computer programming (13%), general business courses (9%), general education courses (7%), French (7%) and elementary education (5%).

In addition to the graduates who returned to school for credit courses/programs, approximately 23% had taken other courses since graduation.

Approximately 3% of graduates had completed a course through distance education since graduation. The utilization of distance education did not vary across the three provinces.