

TRENDS

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FIVE YEARS AFTER UNIVERSITY GRADUATION: STATUS OF THE MARITIME CLASS OF 1999 IN 2004 SURVEY HIGHLIGHTS

Look for the release of the full report in spring 2006

In spring 2006, the MPHEC will publish a full report on the findings of the Survey of Class of 1999 Maritime University Graduates in 2004. The report will include a full exploration of labour force outcomes and how graduates are coping with debt. In addition, it will examine the migration patterns of graduates prior to enrolling in their 1999 degree program and at two and five years after graduation.

Class of 1999 in 2004 Quick Facts

- In 2004, the employment rate for the Class was 96%, up two percentage points since 2001.
- Five years after graduating, average earnings stood at \$51,313, up 38% from 2001.
- Substantial earnings gaps based on gender, field of study and province/region of residence identified in 2001 remained at the five year mark.
- In 2004, 82% of graduates employed in both time periods reported their job was permanent and 83% said their job was at least somewhat related to their field of study.
- By 2004, 59% had returned for further education.
- By 2004, graduates had borrowed a total of \$25,832 to finance their 1999 degree and/or any educational programs taken since graduating in 1999. In 2004, graduates owed an average of \$14,616 on these loans.
- In 2004, 17% of graduates who had borrowed to finance their 1999 degree and/or further education owed at least \$30,000.

INTRODUCTION

This article presents highlights from the MPHEC's Survey of Class of 1999 Maritime University Graduates in 2004, and focuses on the transitions graduates have made between two and five years after graduation. These highlights cover four main areas: labour force and employment outcomes, returning for further study, student debt, and graduate outlook on their current situation.



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LABOUR FORCE AND EMPLOYMENT OUTCOMES

In 2004, Class of 1999 Maritime university graduates were, by many measures, realizing greater successes in the labour force than they were two years after graduating. Not only were they more likely to be employed, but they also achieved more stability in their careers. While earnings increased across the board, substantial earnings gaps based on gender, field of study, and province or region of residence remained.

Labour Force Status

Over the three years since the 2001 survey, the proportion of graduates who were in the labour force increased two percentage points from 91% to 93% (Table 1). In 2004, 96% of graduates who were in the labour force were employed (employment rate), up two percentage points from 2001.

No significant differences in labour force status were found based on gender, degree level, or province of residence.

By contrast, there were differences in labour force status based on field of study, with notable changes over the three years between surveys. In 2001, graduates of Agricultural & Biological Sciences (80%) and Humanities (84%) were significantly

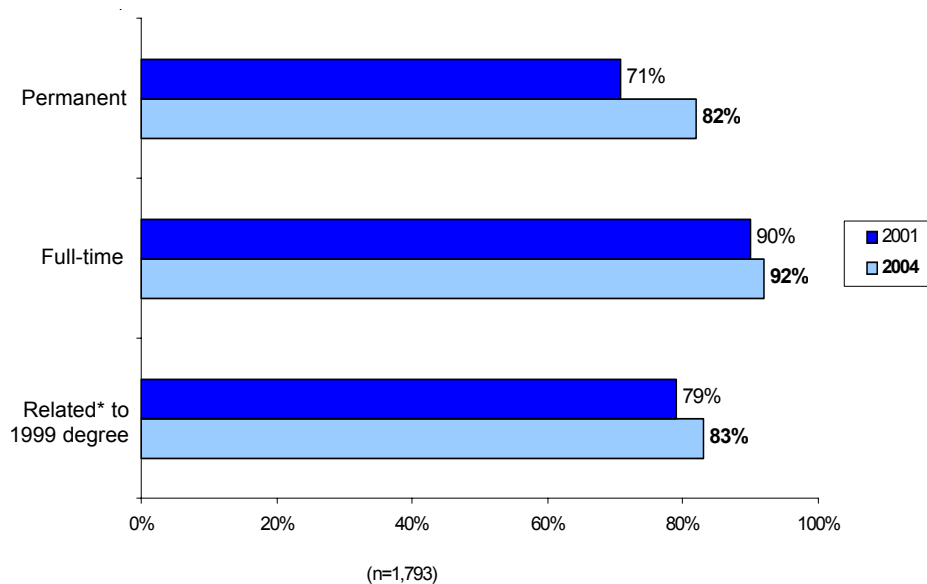
less likely to be in the labour force (and more likely to be in school) than were graduates of other fields. Three years later, only graduates of Agricultural & Biological Sciences (88%) had a significantly smaller presence in the labour force in relation to the other fields of study. By contrast, in 2001, graduates of Commerce & Administration (96%) were significantly more likely than expected (Chi-square test) to be in the labour force. Three years later their presence in the labour force had not changed (95%) significantly and their representation was now no different from the Class average.

No significant differences in employment rates were found based on gender, degree level, field of study or province of residence.

Job Characteristics Among Employed Graduates

In 2004, 82% of employed graduates reported their job was permanent, up 11 percentage points from 2001. This marked increase in job permanency was accompanied by smaller, though positive, shifts in two other measures of job quality. The percentage of graduates reporting their job was full-time increased two percentage points to 92%, and the percentage with jobs related to their 1999 degree rose four percentage points to 83% (Figure 1).

Figure 1
Job characteristics of graduates employed in the reference week (graduates were asked to refer to “last week” when responding to employment-related questions) in 2001 and 2004



*Graduate reported job is closely or somewhat related to the degree completed in 1999.

Table 1
Labour force status and employment/unemployment rates, 2001 and 2004

	2001	2004
In labour force	91%	93%
Employment rate	94%	96%
Unemployment rate	6%	4%
Not in labour force	9%	7%

(n=2,306)

The percentage of graduates reporting their job was permanent increased across the board, in particular among graduates of Education (up 15 percentage points to 81%), Agricultural & Biological Sciences (up 15 percentage points to 73%), Humanities (up 16 percentage points to 75%) and Social Sciences (up 10 percentage points to 79%). Nevertheless, these gains were not sufficient to close the gap with graduates of Commerce & Administration, Engineering & Applied Sciences and Health Professions, where 93%, 91% and 87% of graduates were employed in a permanent position in 2004, respectively. No significant differences in other job measures were found based on gender, degree level, field of study or province of residence.

Turning to other job characteristics, findings reveal a shift in the types of occupations reported by graduates (Figure 2). Teachers and professors remained the top category in 2004 at 22% of graduates employed in both time periods. The proportion of graduates in management occupations rose 3 percentage points while the proportion in administrative/clerical positions decreased by the same amount.

Evolution of Careers

Job turnover has abated somewhat over the three years between surveys: in 2001, graduates reported having held an average of two jobs in the two years since graduating; by 2004, this average had increased to three (or an average of one additional job over the next three years).

Further evidence of the stabilization of careers over time was found in graduates' description of their work situation as it related to their situation three years prior (Figure 3). Well over half of all gradu-

Figure 2
Top five occupations of graduates employed in the reference week (graduates were asked to refer to "last week" when responding to employment-related questions) in 2001 and 2004

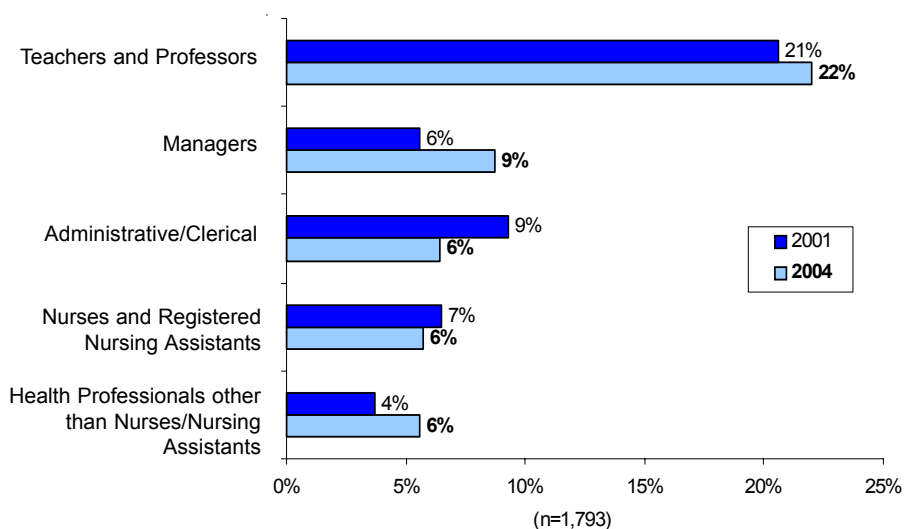
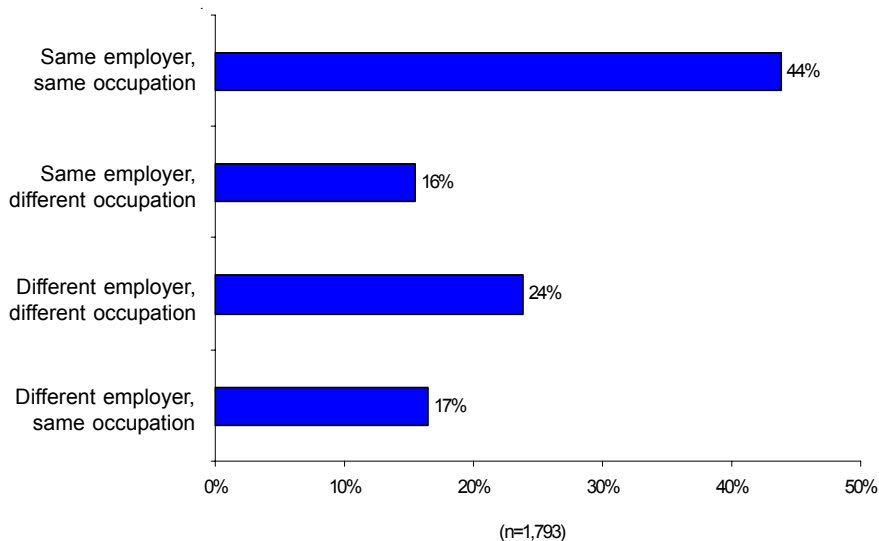


Figure 3
Work situation in 2004 compared to 2001 among graduates employed in the reference week (graduates were asked to refer to "last week" when responding to employment-related questions)



ates employed in both survey periods reported that in 2004, they were working for the same employer as in 2001 (Figure 3). Just under one quarter reported

they worked in a different occupation and for a different employer.

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Earnings

Five years after graduation, Class of 1999 Maritime university graduates reported average annual earnings of \$51,313, an increase of 38% over their 2001 earnings of \$37,292 (based on 2004 dollars, this represents an increase of 29% from \$39,808).

How do Class of 1999 Maritime university graduates compare to the general population of working Canadians? The average weekly earnings of employed Canadians aged 15 and over in October 2004 were \$683.44¹ while Maritime university graduates earned the equivalent of \$987/week in the fall of 2004, a difference of 44%.

In spite of the rise in the Class average, substantial gaps in earnings still exist. These gaps are based on degree level, gender, field of study and province or region of residence.

The level of education attained has an obvious impact on earnings - graduates with advanced degrees (first professional, master's and PhD) earned significantly more (\$67,566) than either bachelor's (\$47,749) or diploma/certificate (\$45,228).

The gender-based gap in earnings observed in 2001 remains, but has narrowed somewhat. In 2004, women earned an average \$48,094 while men earned \$56,824. This represents a gap of 15%; in 2001 the gap was 17%. Further analysis to determine the reasons for the gap and the factors involved in its reduction over the three years between surveys will be included in the full report.

Graduates of Agricultural & Biological Sciences achieved the greatest increase in earnings (up 62% to \$44,349),

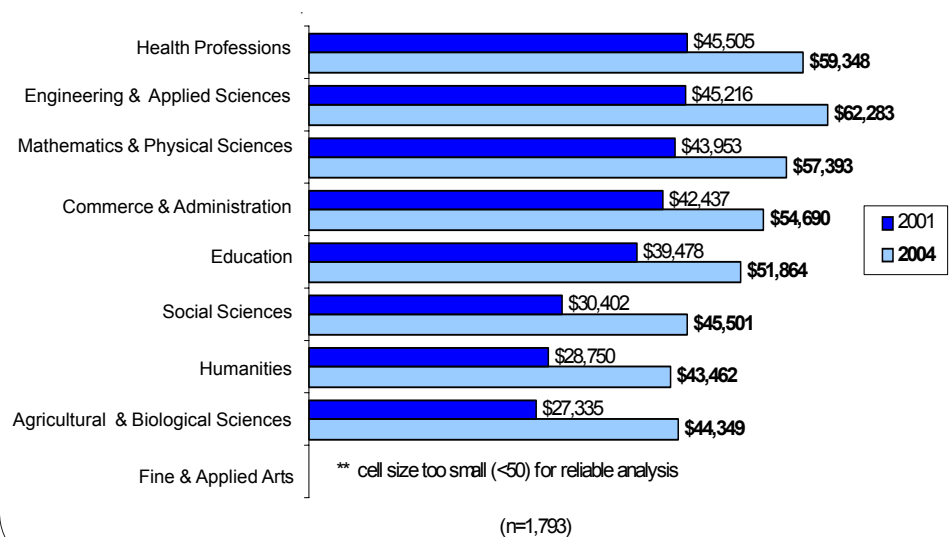
followed by graduates of Humanities (up 51% to \$43,462) and Social Sciences (up 50% to \$45,501), over the three years between surveys (Figure 4). In spite of these gains, graduates of these fields narrowed but did not close the gap in earnings that existed in 2001 with their counterparts in more vocationally-oriented/applied fields; in 2004, graduates of those fields earned average annualized incomes of between \$51,864 and \$62,283. Graduates of Engineering & Applied Sciences earned the highest incomes (\$62,283).

increased at a similar or even greater rate than those living beyond its borders since 2001, the gap originally observed at the two-year out mark remained.

MOBILITY

The fact that a substantial wage differential exists between this region and the rest of Canada and beyond raises important questions related to graduate mobility (i.e., migration patterns of graduates before and after graduation).

Figure 4
Average annualized earnings of graduates employed in 2001 and 2004



Average earnings were also dependent upon where graduates were living. While there were no statistically significant differences by province of residence among graduates living in Prince Edward Island (\$42,877), New Brunswick (\$47,626) or Nova Scotia (\$49,172) in 2004, taken as a group, graduates living in the Maritimes earned significantly less than their counterparts living outside the region (\$57,282). Although earnings of graduates living in the Maritimes had

For example, of the Maritime graduates who leave the region, what proportion do so specifically to pursue higher wages or a specific job opportunity? Are certain groups of graduates more likely to leave than others, and how does this affect earnings statistics? Do different groups of graduates cite different reasons for leaving? These questions will be part of a thorough analysis of the topic of mobility in the full report.

¹Source: Statistics Canada, telephone request (CANSIM 282-0069 and 282-0074)

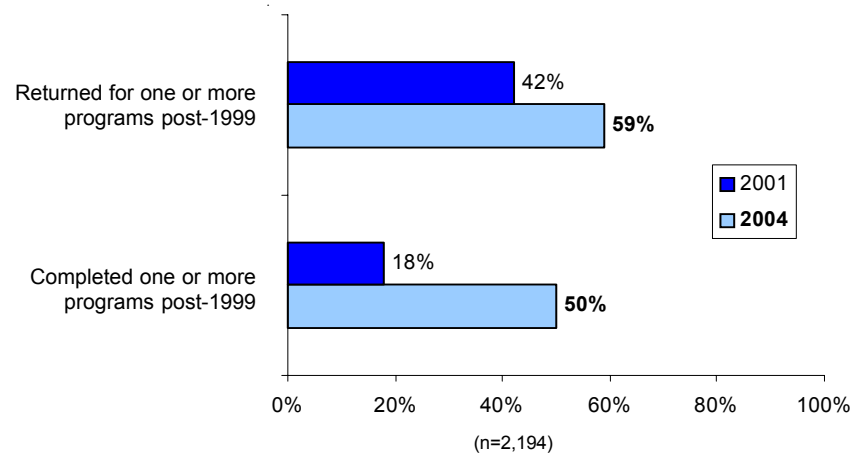
RETURNING FOR FURTHER STUDY

For the majority of graduates, their 1999 degree was a springboard to continue on to further studies. For those graduates who chose to return, most returned within two years of graduating (42%) (Figure 5). By 2004, nearly 2 in 3 respondents reported they had continued their education. The proportion who had completed one or more programs leading to a degree, diploma or certificate increased by 32 percentage points to 50% by five years after graduation.

Among those who were more likely to return for further education by 2004 were those who graduated with a bachelor's degree (65%). Those who graduated with an advanced degree returned at a lower rate (38%), likely because they had already returned for further study (their 1999 degree). Graduates of Humanities (75%) and Agricultural & Biological Sciences (77%) were more likely than graduates of other fields of study to have returned for further education by 2004.

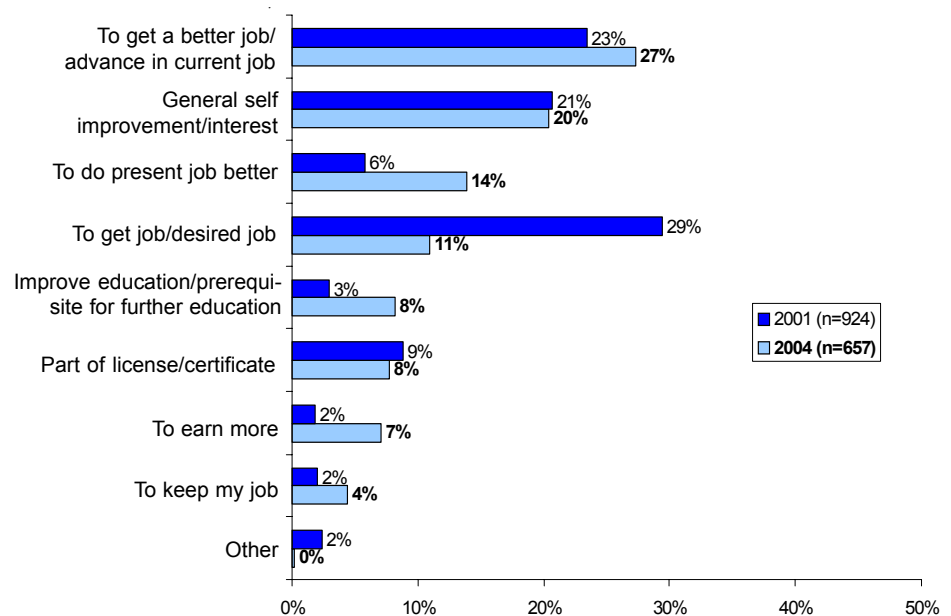
Findings seem to indicate that as graduates' goals move from landing their first job through to progressing in their careers, their motives for continuing their education shift. In 2001, 29% of graduates gave the reason "to get a job/desired job"; by 2004, just 11% of graduates gave this reason (Figure 6). At the same time, the number saying they went back in order to "get a better job/advance in current job" (23% in 2001 and 27% in 2004) or "to do present job better" (6% in 2001 and 14% in 2004) or "to earn more" (2% in 2001 and 7% in 2004) increased over the three years between surveys.

Figure 5
Percent of graduates who...



Note: excludes 112 graduates who in 2004 changed the response given in 2001

Figure 6
Main reason given by graduates for returning for further education



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STUDENT DEBT

By five years after graduation, although some graduates had made significant progress in repaying the debt they accumulated to finance their education, many still carried substantial debt.

Financing the 1999 Degree

To finance their 1999 degree, 56% of all graduates borrowed money from one or more sources. At the time of graduation, graduates had accumulated an average of \$20,290 in loans from all sources; by 2001 they owed \$15,581 and by 2004, \$9,252 (Figure 7). Over the five years since graduation, graduates had reduced their average overall debt by \$11,038 (a 54% reduction) and 39% of borrowers had repaid all loans taken to finance their 1999 degree. In addition, the proportion of graduates owing \$30,000 or more declined from 17% of all borrowers to 7%.

No notable differences in the range of overall outstanding debt (for the 1999 degree) in 2004 were found based on

gender, field of study, or province of residence in 2004. A graduate's level of education was a determining factor, however, with 54% of graduates of first professional/master's/PhD programs owing nothing compared to 37% of bachelor's graduates. The difference is likely influenced by the fact that graduates of advanced degrees earned more than bachelor's graduates.

Those who borrowed from government student loan programs (44% of all graduates) had accumulated an average \$19,647 in loans by the time they graduated in 1999 (Figure 7); five years later, they had repaid \$9,357 or 48%. Twenty-nine percent had repaid their government student loans. The proportion of graduates owing \$30,000 or more on loans from government sources declined from 16% in 2001 to 6% in 2004.

It should be noted that 58% of graduates who had borrowed directly from banks or other financial institutions had completely repaid these loans as compared to the 29% of government borrowers who had repaid their debt. This largely explains the somewhat

smaller outstanding average debt for all sources as compared to government sources alone.

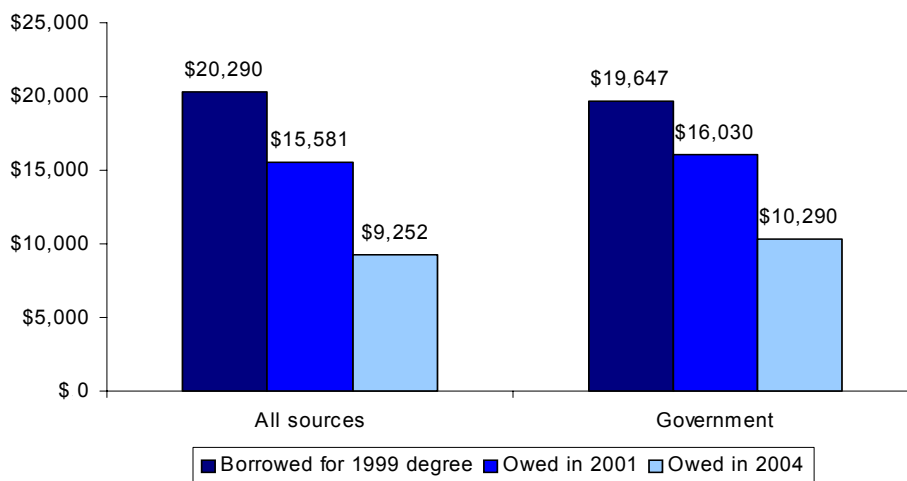
Overall Debt - Financing the 1999 degree and/or further education

To get a complete picture of how Class of 1999 graduates are coping with the debt they have taken on to finance their education, any debt accumulated to finance post-1999 education must also be considered. In total, 67% of all graduates borrowed to finance the 1999 degree, post-1999 education or both.

Figure 8 illustrates the overall debt situation for loans graduates accumulated from all sources to finance their 1999 degree, post-1999 education, or both. By 2001, graduates had borrowed a total of \$24,057 and had repaid \$4,686 (19%). By 2004, the amount graduates had borrowed increased somewhat to a total of \$25,832, but by then they had repaid \$11,216 (43%). By 2004, 30% of graduates who borrowed for either or both time periods had repaid their debt. In 2004, 17% of those who borrowed in either or both periods owed at least \$30,000.

No notable differences in the range of overall outstanding debt in 2004 were found based on gender or province of residence in 2004. A graduate's level of education was a determining factor, however, with 46% of graduates of first professional/master's/PhD programs owing nothing compared to 28% of bachelor's graduates. The difference is likely influenced by the fact that graduates of advanced degrees were less likely to have returned for further study and therefore accumulated less overall debt, and also that they earned more than bachelor's graduates.

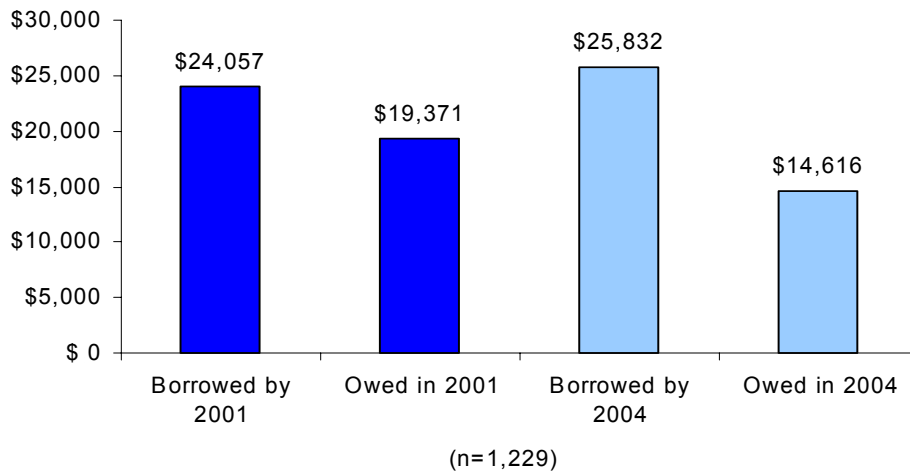
Figure 7
Student loan status among graduates who borrowed to finance the 1999 degree



(n=1,154)

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Figure 8
Student loan (all sources combined) status among graduates who had borrowed to finance their 1999 degree, post-1999 education, or both



Compared to the class average, graduates of Agricultural & Biological Sciences (53%) and Health Professions (53%) were significantly more likely to have borrowed \$30,000 or more to finance education in one or both periods. This is likely due to the fact that graduates of these fields returned for further study in greater numbers. Education graduates, on the other hand, were less likely (17%) than the average graduate to have borrowed in this range. Compared to the Class as a whole, in 2004, Agricultural & Biological Sciences graduates were significantly less likely (20%) and Education graduates significantly more likely (43%) to have repaid their student debt

A full exploration of student debt, including an examination of debt burden, will be included in the full report.

GRADUATE OUTLOOK

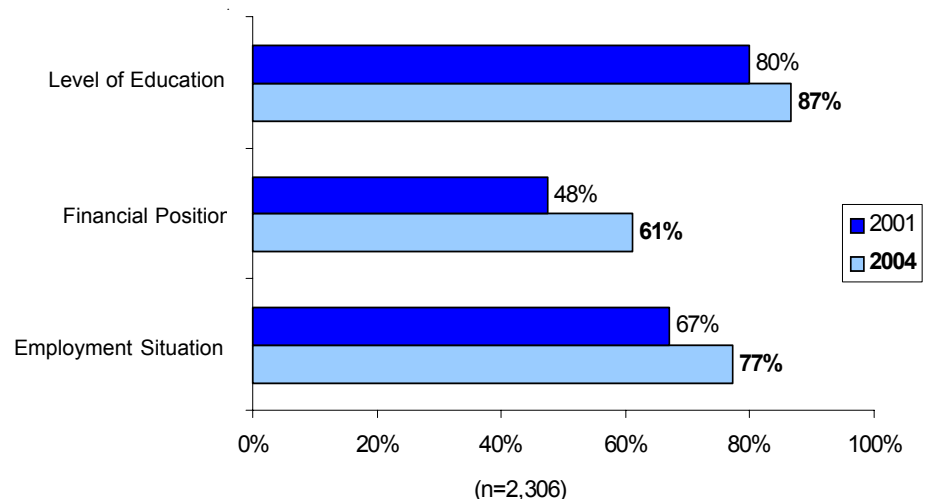
The gains made by graduates in the labour force, in obtaining further education, and in paying down their student debt, are clearly reflected in their responses to questions on their general outlook five

years after graduation (Figure 9). Comparing responses in 2001 with those given in 2004 on graduates' degree of satisfaction with their level of education, financial position and employment situation reveals increased satisfaction across the board.

Between two and five years after graduation, the percentage of graduates reporting they were satisfied or very satisfied with their level of education increased by seven percentage points to 87%, while the percentage reporting this same level of satisfaction with their employment situation rose ten percentage points to 77%. Of the three aspects, graduates were least satisfied with their financial position. In 2001, 48% of graduates reported they were satisfied or very satisfied with their financial position; in 2004, 61% reported this level of satisfaction (an increase of 13 percentage points).

In 2004, 80% of all graduates agreed that their university experience was worth (rated 4 or 5 on scale from 1 to 5 where 5=well worth it and 1=not at all worth it) the financial investment required and 87% agreed their experience was worth the personal investment of time required for classes and studies.

Figure 9
Percent of all graduates reporting they were satisfied or very satisfied (rated 4 or 5 on scale from 1 to 5 where 1=very dissatisfied and 5=very satisfied) with their current...



CONCLUSION

The highlights presented here indicate that the overall status of the average graduate of the Class of 1999 has changed on many fronts since the 2001 interview. Most graduates have returned for further education, often for reasons related to improving their employability. They are now more likely to be employed in a relatively more stable and better paying job, and they have made substantial reductions in their education-related debt. It is little wonder then, that these general trends have been accompanied by more graduates expressing satisfaction with these aspects of their lives.

However, not everyone is the 'average graduate' - the highlights presented here confirm that some of the gaps in graduates' overall successes, based on, among other factors, gender, degree level, field of study and province or region of residence still exist.

Although all groups have posted gains, in many cases these gains were not enough to overcome the differences recorded at the two-year-out mark. The reader is therefore cautioned to note that the achievements of the Class as a whole mask important differences based on these and other variables. In the full report, these differences will be fully explored and important factors behind differences in outcomes elucidated; in addition, the topics of graduate mobility patterns and debt burden will be examined.

About the Survey of Class of 1999 Maritime University Graduates in 2004

The MPHEC surveyed Class of 1999 Maritime university graduates in 2001 and again in 2004. The original two-year-out sample consisted of 4,202 completed interviews; the five-year-out longitudinal subsample consisted of 2,306 completed interviews. The survey was conducted by EKOS Research Associates and made possible by funding from the governments of New Brunswick, Nova Scotia and Prince Edward Island.

This survey represents the Commission's fifth graduate survey. Previous surveys conducted are: the Class of 1995, surveyed one year after graduation and the Class of 1996 surveyed one and four years after graduation. The two-year-out survey of the Class of 2003 is scheduled to take place in fall 2005.

Statistical Analyses

The margin of error for findings from this sample of 2,306 is ± 1.3 percentage points, 19 times out of 20. In all cases, the confidence interval determining significance was set at 95%. All statistics presented have been generated from weighted data (longitudinal data file). Main effects (ratio/continuous data) were tested using one-way ANOVA. Differences between groups were tested using the Student-Neuman-Keuls test. Differences in proportions (ordinal/categorical data) were tested using Chi-Square (SPSS version 12.0). Notable differences were determined using adjusted standardized residuals.

For definitions of analytical categories, refer to Survey of 1999 Maritime University Graduates in 2001, pages 117-124. The report is available for download from www.mphec.ca; copies are also available by contacting the MPHEC at (506) 453-2844, by writing to 82 Westmorland Street, Suite 401, Fredericton NB, P. O. Box 6000, E3B 5H1, or by emailing at mphec@mphec.ca.

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