

# **UNDERGRADUATE COOPERATIVE EDUCATION IN MARITIME CANADA: PLACEMENTS, PLACEMENT SECTORS, AND PLACEMENT LOCATIONS<sup>1</sup>**

**GRANT HILLIARD**

*Department of Cooperative Education  
Saint Mary's University*

**SHANI PEARSON**

*Department of Cooperative Education  
Mount Saint Vincent University*

**BRENT KING**

*Department of Public Relations  
Mount Saint Vincent University*

**JEFFREY D. YOUNG**

*Department of Business Administration  
Saint Mary's University  
Halifax, Nova Scotia, Canada*

## **Introduction**

Clearly, cooperative education in Canada has grown and will continue to grow in the future. In 1979, in Canada's Maritime provinces (New Brunswick, Nova Scotia and Prince Edward Island), there were only two cooperative education programs (Mount Saint Vincent University, Halifax, and the Technical University of Nova Scotia, Halifax), with an approximate enrollment of 426 students (McCallum & Wilson, 1988). Since then, the number of cooperative education programs being offered by Maritime universities has grown steadily. Today, 10 different Maritime universities currently are offering a range of 37 cooperative education programs including architecture, business administration, computer science, engineering, geography, human ecology, information management, public

---

<sup>1</sup>This research was funded in part by the Maritime Provinces Higher Education Commission. The authors gratefully acknowledge the assistance of Ms. Ondra Gordon in the collection and analysis of the data.

relations, sciences, and tourism and hospitality. Three of the cooperative education programs are available in New Brunswick: business administration, computer science and human ecology. The remaining cooperative education programs are offered by universities in Nova Scotia. At present, cooperative education programs are not offered at the postsecondary level on Prince Edward Island.

With the growth of these programs goes an increased demand for job placements and given the competition for jobs and an uncertain economy, job placement issues become critical. The purpose of this study was to provide a statistical profile of cooperative education in Maritime Canada (the first of its kind), identify trends in the field, and provide a base for future research. This paper explores the growth of undergraduate cooperative education in Maritime universities, in particular placement rates, placement sectors, and placement locations. The findings raise issues about declining job-to-student ratios in a period of increasing student enrollment, and alternative job strategies such as volunteer co-op positions and student self employment.

### **Methodology**

An extensive four-page mail survey was sent to coordinators of each cooperative education program at Maritime universities. The survey sought data relating to cooperative education admissions, placement, employment sectors, and program outcomes for the period September 1990 - April 1994. The surveys were personalized to track the respondents and simplify the follow-up phases. Two weeks past the deadline, coordinators who had not responded were contacted to elicit participation. Thirty-seven surveys were distributed, and in the end 35 were returned. However, not all surveys were fully completed.

### **Results**

*Job placements.* Student admissions to cooperative education programs are increasing with 1,045 students admitted in 1993-94 (n=29 programs), an increase of 369 (55%) over the 1990-91 (n=22) levels.

Regarding the numbers of students on work-terms, placements have almost doubled in the last four years. In 1993-94, there were 1,961 (n=33) students placed, an increase of 98% over the 1990-91 figures (n=26). Eighty-five percent of cooperative education students secured work term placements for 1993-94, down from the 91% placement rate of 1990-91.

During the same period there has been an increase in the number of students not placed. In 1993-94, 338 students did not secure work term placements, up from 96 in 1990-91, a 250% increase. Although the number

of students not placed has increased dramatically, the relative percentage of students has not increased proportionately. In 1993-94, 15% of the students did not secure work term placements, and in 1990-91, 9% of cooperative education students did not secure work term placements.

Table 1 presents the number of students placed and not placed relative to the total number of positions available for the period 1990-1994. Placement figures are somewhat lower than stated above because only 20 of the 35 programs provided data for all four issues presented.

The increases shown in Table 1 could be attributed to several factors (quite speculative). For instance, from 1990 to 1994, 21 new co-op programs were introduced, which accounts for part of the increase. The number of cooperative education positions available has kept pace with the increasing number of cooperative education students seeking work term placements. In 1990-1991 there were almost two jobs for every cooperative education student. In 1993-1994, the job-to-student ratio dropped to 1.27:1. Although the number of cooperative education students not securing work term placements has increased, for each academic year from 1990-1994, there have been more jobs available than cooperative education students seeking work term placements.

Cooperative education requires that cooperative education students be remunerated for work term placements. However, with the dramatic increase in the number of students seeking work term placements, six co-op programs (of 37 surveyed) have approved a few unpaid cooperative education work term placements. For the period 1990-1992, all cooperative education students received remuneration.

**Table 1**  
**Number of Students Placed and Not Placed, Total Number of**  
**Positions Available, And Percentage Increase/decrease Over the**  
**Preceding Year for the Period 1990-1994<sup>1</sup>**

	1990-91 n=201	1991-92 n=20	1992-93 n=20	1993-94 n=20
Number of students place	392	551 (+40%)	713 (+29%)	810 (+13%)
Number of students not placed	16	36 (+125%)	152 (+322%)	68 (-55%)
Total number of students available	408	587 (+43%)	865 (+47%)	878 (+1%)
Number of positions available	768	825 (+7%)	1046 (+26%)	1114 (=6%)

<sup>1</sup> n = number of programs reporting.

In 1993-94, 18 students did not receive remuneration, up from four the previous academic year. The number of unpaid cooperative education work term placements represents 0.2% of the total number of placements for 1992-93 and 0.9% in 1993-94.

### **Placement Sectors**

Cooperative education employers represent a broad spectrum of the economy. Cooperative education students have been employed in increasing numbers in the public, for-profit, not-for-profit, and small business and entrepreneurship sectors. Table 2 provides the numbers of co-op students in various employment sectors and the percentage change over the previous year for those sectors.

For the period 1990-94 there has been consistent growth in the number of students working for all three levels of government: federal, provincial and municipal. The Government of Canada is the largest single employer of cooperative education students in Canada. The number of Maritime cooperative education students hired by federal government departments has increased every year for the period 1990-1994. In 1993-94 471 cooperative education students were employed by federal government departments, an increase of 143% over 1990-91 levels. Since 1990, the provincial and municipal governments' hiring of cooperative education students has increased in every year (except 1992-1993 for the provincial governments). However, this was followed by a 60% increase in the number of cooperative education students hired in 1993-94. Although increasing numbers of cooperative education students are being hired each year by the public sector, the rate of growth for federal and municipal government hiring has decreased in recent years.

The number of cooperative education students employed by profit oriented organizations has increased dramatically over the period. In 1993-94, there were 999 cooperative education students employed, a 173% increase over 1990-91 levels. Of the many different types of profit-oriented companies that hire cooperative education students, the four main sectors are: wholesale, retail, manufacturing and service. There has been a demonstrated increase in the hiring levels in all sectors. The service sector accounts for most of the cooperative education placements for the period. In 1993-94, there were 444 cooperative education students employed in the service sector, a 64% increase from 1990-91. There has been increasing participation in cooperative education hiring from this sector of the economy. In 1993-94 208 students were employed, an increase of 129% over 1990-91.

Over the past four years, small business (i.e., a business employing 50 employees or less) has hired cooperative education students in ever-

increasing numbers. The total number of cooperative education students employed in small business rose from a little more than 100 in 1990-1991 to almost 300 cooperative education students per year in 1993-1994.

**Table 2**  
**Numbers of Co-op Students in Various Employment Sectors and the Percentage Change over the Previous Year for Those Sectors<sup>1</sup>**

	1990-91	1991-92	1992-93	1993-94
<b>Government</b>	n=22	n=27	n=30	n=32
Federal	194	288 (+48%)	400 (+38%)	471 (+18%)
Provincial	122	140 (+14%)	136 (-2%)	217 (+60%)
Municipal	12	29 (+143%)	44 (+52%)	50 (+13%)
<b>Total</b>	<b>328</b>	<b>457 (+39%)</b>	<b>580 (+27%)</b>	<b>738 (+27%)</b>
<b>For-profit Sector</b>	n=20	n=27	n=31	n=34
Wholesale	13	28 (+115%)	41 (+46%)	54 (+31%)
Retail	9	68 (+665%)	113 (+66%)	181 (+60%)
Manufacturing	109	197 (+81%)	292 (+48%)	309 (+6%)
Service	271	254 (-6%)	352 (+38%)	444 (+26%)
<b>Total</b>	<b>402</b>	<b>547 (+46%)</b>	<b>798 (+46%)</b>	<b>988 (+24%)</b>
<b>Not-for-profit</b>	n=23	n=27	n=31	n=34
	91	102 (+12%)	135 (+32%)	208 (+54%)
<b>Small business</b>	n=18	n=18	n=21	n=23
	115	182 (+58%)	253 (+39%)	299 (+18%)
<b>Student Entrepreneurs</b>	n=27	n=28	n=29	n=31
	0	0	2	14 (+700%)

<sup>1</sup> n = number of programs reporting.

Many institutions are encouraging cooperative education students to start their own businesses as a cooperative education work term. Student Business loans, the YES Program sponsored by the Nova Scotia Economic Renewal Agency, and contests for scholarship money, have made cooperative education students more aware of entrepreneurial opportunities.

Cooperative education students began entrepreneurial ventures as cooperative education work term placements in 1992, with two such work-term placements. This number increased to 14 the following year.

### Geographic Location of Work Term Placements

Cooperative education students enrolled in Maritime universities are placed in work term placements across Canada and in other countries. Table 3 represents the number of placements by geographic location, and percent increases or decreases over the previous year, for the period 1990-1994.

Dramatic increases in the number of placements each year (except 1991-92) in the provinces of New Brunswick and Nova Scotia are noted, which in large part can be attributed to the 21 new co-op programs introduced between 1990 and 1994. In 1991-92, the number of placements remained the same in New Brunswick; however, in Nova Scotia the number of placements rose 45% over 1990-91 levels. From 1990-1994, the overall increase in the number of placements was 133% in Nova Scotia and 196% in New Brunswick. Since 1991-92, over half the placements for Maritime-based cooperative education students have been in Nova Scotia.

**Table 3**  
**Number of Placements by Geographic Location and the**  
**Percentage Change over the Preceding Year for the Period 1990-1994<sup>1</sup>**

	1990-91 n=24	1991-92 n=28	1992-93 n=32	1993-94 n=33
Nova Scotia	464	671 (+44%)	952 (+41%)	1090 (+13%)
New Brunswick	109	110 (+1%)	281 (+155%)	323 (+13%)
Newfoundland	16	17 (+6%)	25 (+47%)	38 (+52%)
Prince Edward Island	11	11 (0%)	33 (+200%)	46 (+39%)
Quebec	10	7 (-30%)	37 (+428%)	35 (-5%)
Ontario	123	193 (+56%)	290 (+50%)	327 (+12%)
Western Canada	29	18 (-37%)	41 (+127%)	75 (+82%)
Other	12	6 (-50%)	33 (+459%)	49 (+48%)

<sup>1</sup> n = number of programs reporting.

There has been a steady increase in the number of work term placements in Ontario for Maritime cooperative education students, from 123 in 1990-91 to 327 in 1993-94, a 165% increase. Quebec hires a few Maritime

cooperative education students also. Newfoundland and Prince Edward Island's modest numbers have nonetheless shown a steady increase each year. The modest number of cooperative education placements in Central and Western Canada has more than doubled over the period.

Other countries, for example the U.S., the Caribbean, Gambia and China, are now beginning to hire cooperative education students enrolled in Maritime universities. Many cooperative education students may be residents of that particular country and have arranged work term placements for themselves.

### **Discussion and Conclusions**

Cooperative education has grown significantly in the Maritimes for the period 1990-1994, as evidenced by the increased number of cooperative education programs offered and students admitted.

The number of students on work term positions has doubled since 1990. To date, the number of available cooperative education positions has kept abreast with the requirements of the programs. However, the ratio of jobs to students is decreasing. Despite the sufficient number of cooperative education positions available, the number of cooperative education students not securing a work term has increased each year.

Placement rates have leveled off at 85% from 1991-1992 to the present, down from 91% in 1990-1991. Although the number of cooperative education students not securing work term placements has increased for each year studied, the number of jobs available was always higher than the number of cooperative education students seeking work term placements. It should be noted, however, that the ratio of jobs to students has fallen from 2:1 in 1990-1991 to 1.27:1 in 1993-1994. The causes of variability of placement rates across academic disciplines and geographic sectors were not specifically explored in this paper nor were they speculated upon. However, these issues represent opportunities for future research.

Cooperative education employers play an integral role in the success of cooperative education programs by providing work term opportunities for cooperative education students. Governments, at all three levels, are major employers of cooperative education students (38% of placements in 1993-1994). However, the rate of growth is declining which could be attributed to many factors including government cut-backs. The percentage change over previous years has slowed to 27% for 1992-1994, down from 39%.

Increases in the number of students employed by the private sector were in evidence. Private sector hiring accounted for 37% of placements in 1990-1991 and 51% in 1993-1994. In 1992-1993, large to medium size busi-

nesses hired 60% more cooperative education students than the previous year, and small business hiring was up by 39%. The largest percentage overall growth for the period 1990-1994, has been in the profit sector: small business experienced a 160% increase in hiring level, and medium to large organizations hiring levels are up 179%. Cooperative education hiring in the not-for-profit sector increased for the period as well, 129% more placements in 1993-1994 over 1990-1991.

If the ratio of jobs available to placements required continues to decrease, it will be more difficult for cooperative education programs to continue to have the same levels of success in placements. Although traditional sources of cooperative education work term placements continue to increase their level of cooperative education hiring, this activity has not kept pace with the increased demand for work term placements. The decreasing rate of government hiring, and the increasing rate of employment in the service and small business sectors support this view. The decreases in government hiring will continue given the current economic climate.

While admittedly minuscule currently, the numbers of students creating their own co-op opportunities implies less reliance on the co-op office and coordinators. This trend seems to fit well with more focus on entrepreneurship, not only in business schools, but in the broader society as well.

That said, the notion of increased volunteer positions is even more disconcerting, given the prominent role of remunerated positions in co-op practice and philosophy. This may suggest a saturated co-op market in the Maritimes. It also brings the whole question of quality of placements to the fore. The underlying issue, given the rationale of co-op, is how to reconcile students being forced to accept volunteer/unpaid positions versus going unplaced.

In terms of geographic issues, the increased hiring outside the home provinces suggests that co-op coordinators may need to look elsewhere for organizations to hire co-op students. These new job markets must be explored because of decreasing job/student ratios in an arguably saturated Maritime co-op market.

Cooperating employers are essential to the continued growth and survival of cooperative education. Cooperating employers must have the resources, time and commitment to cooperative education to provide the necessary work term opportunities for students. Without their participation, cooperative education students would not gain the practical experience necessary for their program. There is a definite need to research employment sectors to identify new areas for growth and to determine attitudes toward cooperative education. It is also imperative that cooper-

ating employers continue to support programs by continuing to offer placement opportunities. However, as the economy changes and cooperating-employer organizations streamline operations, new sources of cooperative education placements must be identified. If cooperative education students are to continue having the opportunity to gain practical experience in the workplace, new cooperating employers must be recruited as partners in the cooperative education process.

It is also possible that co-op student entrepreneurship and volunteer/unpaid positions may become larger components of co-op programs.

### References

- McCallum, B. A., & Wilson, J. C. 1988. They Said it Wouldn't Work (A History of Cooperative Education in Canada). *The Journal of Cooperative Education* XXIV(2-3):61-67.