Class of '96
One-Year After Graduation

One Year Graduate Follow-up Survey of
1996 Baccalaureate Graduates
from BC's Public Universities

Report of Findings

Prepared for
The University Presidents' Council
of British Columbia
August 1999

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Executive Summary

Introduction

The Class of '96 is the third follow-up survey of British Columbia baccalaureate graduates. This survey of Simon Fraser University (SFU), the University of Victoria (UVic), the University of British Columbia (UBC), and the University of Northern British Columbia (UNBC) graduates was coordinated by the University Graduate Outcomes Committee (UGOC), a subcommittee of the University Presidents' Council of British Columbia (TUPC). The UGOC consists of the Secretary to Council and representatives from the public universities, the Ministry of Advanced Education, Training and Technology, and the Centre for Education Information Standards and Services. The Committee designed the *Class of '96* questionnaire which was then administered by telephone by private firms.

An important characteristic of this study is the large sample size which allows each university to link survey results with specific departments and provide feedback to practitioners and policy makers at the program level.

Undertaking this survey soon after graduation allowed for a detailed examination of transition to work patterns, the in-depth exploration of computer skills and the relationship between computer skills, programs and employment, and detailed student finance and debt load information.

Profile

A total of 6,251 graduates participated in the study, for a completion rate of 74.5%. UNBC, participating in the survey for the first time, had relatively few graduates (46) compared to SFU (1,670), UVic (1,584) and UBC (2,951).

Women represented 60.4% of all respondents. Women were more likely to graduate from Arts (67%), Education (72%), Fine and Performing Arts (66%), Health (76%) and Social (67%) professions, and are steadily increasing in numbers of graduates of Applied Science (26%), Science (44%) and Business (46%).

Graduates identified themselves as Aboriginal, disabled, or visible minority members. The data show that the overall percentage of Aboriginal graduates has steadily increased (from 1.4% in 1991, to 1.5% in 1993, to 1.7% in 1996), as have the percentages of visible minority graduates (17.1%, 19.4%, 22.2%). By contrast, disabled groups have decreased (3.0%, 2.7%, 2.4%).

The majority of graduates (94%) reside in British Columbia, primarily the Lower Mainland (59%) and Vancouver Island (18%).

Aspirations and Experiences

The most frequently identified personal goals of graduates were to acquire skills for employment (46%) and to obtain a bachelor degree (19%). Approximately 70% of graduates indicated they felt they had achieved their personal goals. Most graduates (61%) selected their field of study because they were interested in the subject, rather than because of a career goal (18%).

Approximately 9% of graduates had completed a co-op education program. Over 85% indicated their co-op program was very or somewhat related to their program of study, and just under 90% reported that their co-op program was either excellent or good. Overall, co-op students tended to be very satisfied (52%) with their educational program compared with graduates who had not completed a co-op program (41%).

Overall, 96% of graduates were very or somewhat satisfied with their bachelor's program, and just under 74% would take the same program again. Almost all graduates (95%) agreed or strongly agreed that they learned a great deal in their program and found their workload either very or somewhat manageable.

Computer skills was a specific focus of this survey. Over 86% of all graduates thought computer skills were extremely or somewhat important to graduates. Although significant numbers of graduates had computer skills prior to enrolling in their program (76%), the skills were primarily word processing (93%) and keyboarding/data entry skills (70%). Additional computer skills acquired through their program were specialized computer (57%), word processing (43%) and internet (41%) skills. Of those graduates who were employed, a total of 81% indicated computer skills were extremely or somewhat important to their job.

Further education was undertaken by 62% of graduates one year following graduation. Most frequently graduates pursued further education in order to achieve a career goal (45%) or for professional development reasons (19%).

Finance and Debt Load

Just over 71% of graduates received some kind of financial support while completing their degree. The most common form of support was student loans (60%) followed by parents (33%). Fewer than half of all graduates indicated they had some form of financial debt after graduation. Of this group, the majority (60%) had debt load below $20,000.

Labour Force Experiences

For the *Class of '96*, the overall employment rate is 93%.

Approximately 81% of graduates found their education very or somewhat useful in finding a permanent job and the same percentage found adjustment to work very or somewhat easy. Just over 77% thought their education was very or somewhat useful in

performing their job and 68% of graduates indicated their job was very or somewhat related to their studies.

Approximately 60% of all graduates were employed in the professions. This was true whether or not they had pursued further education. Overall, 7.8% of graduates indicated they were self-employed, and self-employment was more common among those who graduated from the Fine and Performing Arts (27.7%) and the Social Professions (10.3%) compared with Education (1.8%). Most self-employed graduates worked alone (81%) but 18% hired at least one other person.

The annual earnings of 34% of university graduates was between $30,000 and $39,999; 17% earned between $40,000 and $49,999 per year. The lowest median earnings were among FPA graduates at $31,000 and the highest among Health Professionals at $48,000.

Almost 46% of graduates saw their current job as temporary while they looked for something better, and 47% anticipated promotion within one year. In order to get a better job, 38% of graduates thought they needed additional education, particularly a Master's level degree (39%).

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Introduction

This report summarizes the results of the follow-up survey of 1996 baccalaureate graduates from British Columbia public universities one year following graduation. Graduates of Simon Fraser University (SFU), the University of Victoria (UVic), the University of British Columbia (UBC), and the University of Northern British Columbia (UNBC) participated in the study.

The *Class of '96* survey is the third survey of a research program coordinated by the University Graduate Outcomes Committee (UGOC), a subcommittee of The University Presidents' Council of British Columbia (TUPC). The Committee consists of the Secretary to Council and representatives from the public universities, the Ministry of Advanced Education, Training and Technology, and the Centre for Education Information Standards and Services. The Committee designed the *Class of '96* questionnaire which was then administered by telephone by the private firms Points of View Research and Consulting and Venture Market Research.

The *Class of '96* survey is the first to provide data on graduates' reports of their educational and employment experiences and activities one year following program completion. In addition, the questionnaire focuses on two areas of current interest: computer skills assessment and financial support and debt-load.

This Report is divided into three sections. The first reports graduates' educational aspirations, program satisfaction and outcomes, and further education following graduation. Graduates were asked to provide reasons why they would not take the same program again, and were given the opportunity to identify the most significant positive and negative aspects of their university experience. These open-ended responses are included in this section, as are responses to the computer skills questions.

The second section examines the borrowing patterns and debt-load of graduates. There is evidence of increased borrowing and consequent debt-load among students. Finance questions in this survey continue previous efforts to track student debt-load and expand our knowledge by asking a series of questions about sources of support and debt levels.

The third section reports detailed information on graduates' employment experiences. Although graduates have not had sufficient time to establish themselves firmly in the work force, the majority have taken initial steps. This survey provides data on the first stages of graduates' transition toward eventual establishment in the work force and for those who are employed, explores the nature of that employment, job satisfaction, and relatedness of graduates' main jobs to their bachelor programs.

The participating universities comprise hundreds of programs and departments. For the purposes of this Report, which offers a comprehensive overview of survey

results, programs are grouped into eight major areas. UNBC, the newest of the four participating universities, graduated students from four of these areas (Arts, Science, Business, and Health). SFU does not offer programs that are classified under either the Health or Social Professions categories.

> ***Arts*** includes Social Sciences and Humanities.
> ***Education (Educ***) includes those who have completed a teacher training program (Professional Development Program at SFU), most of whom have completed a four-year bachelor's degree.
> ***Applied Science (ApSc)*** consists mainly of Engineering, but also includes applied areas such as Forestry and Agricultural Sciences.
> ***Science (Sc)*** includes basic science and is dominated by graduates from life sciences.
> ***Business (Bus)*** includes graduates from the Faculty of Commerce at UBC and UNBC, the Faculty of Business at UVic, and the Faculty of Business Administration at SFU.
> ***Fine and Performing Arts (FPA)*** includes Dance, Film, History in Art, Writing, Music and Theatre.
> ***Health Professions (Health)*** includes Medical Lab Science, Pharmacy, Occupational and Physical Therapy, Dentistry, Human Kinetics and Nursing from UBC; Human Performance, Nursing and Leisure Service Administration from UVic; and Nursing from UNBC.
> ***Social Professions (Social)*** consists of Law and Social Work at UBC, and Social Work, Child and Youth Care, and Law at UVic.

These program areas are consistent with those used in previous graduate follow-up survey reports.

The graduate survey research program is designed to map the university experiences, workforce transition and employment patterns of graduates from BC's public universities. The first UGOC report provided an overview of a two year follow-up of 1993 baccalaureate graduates, and the second of a five year follow-up of 1991 graduates. A longitudinal survey of the 1993 graduate cohort, now five years following graduation is currently underway. Survey results and questionnaires are available at the TUPC web site: www.inst.uvic.ca/tupc.html

Some questions from the 2-year out (*Class of '93*) and the 5-year out (*Class of '91*) follow-up surveys are similar or the same as those asked in the *Class of '96* survey. Where appropriate comparative data are included in this report.

RESPONSE RATES

To enable program level analysis and feedback at the departmental level, attempts were made to contact all of 9,787 graduates from the four universities. Telephone numbers were provided by alumni and registrar offices for 8,385 graduates. Of these, 824 resulted in refusals to participate and graduates who were not re-contacted after an initial contact. Including call-back failures, the refusal rate was 11.6%. The Social Professions had the highest refusal rate at 14.7% and Applied Science the lowest at 7.6%. There were no significant differences between universities. (Visa students are excluded from the sample.)

Table 1: Survey completion and refusal rates

Refusal Rate by Program	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
1996 Graduates	3,152	1,370	504	1,324	675	274	670	416	8,385
Sample	2,637	1,176	432	1,128	565	225	573	339	7,075
Completions	2,288	1,061	399	1,007	502	197	508	289	6,251
Refusals/Call backs	349	115	33	121	63	28	65	50	824
Refusal Rate by Program	13.2%	9.8%	7.6%	10.7%	11.2%	12.4%	11.3%	14.7%	11.6%

Refusal Rate by University	SFU	UVic	UBC	UNBC	Total
1996 Graduates	2,219	2,116	3,990	60	8,385
Sample	1,894	1,775	3,354	52	7,075
Completions	1,670	1,584	2,951	46	6,251
Refusals/Call backs	224	191	403	6	824
Refusal Rate	11.8%	10.8%	12.0%	11.5%	11.6%

Note:
There were 9,787 graduates in 1996 and contact information was provided for 8,385 of them.
Refusals/call-backs include those graduates who refused to participate in the study and those who partially completed the survey but were not recontacted.
Sample = Completions + Refusals/call-backs. Not in Service is not included.
Graduates living outside of North America and those who graduated from Medical and Dental programs are excluded.
Refusal rate = Number of Refusals/call-backs / Number of Graduates Sampled.

Figure 1: Distribution by program

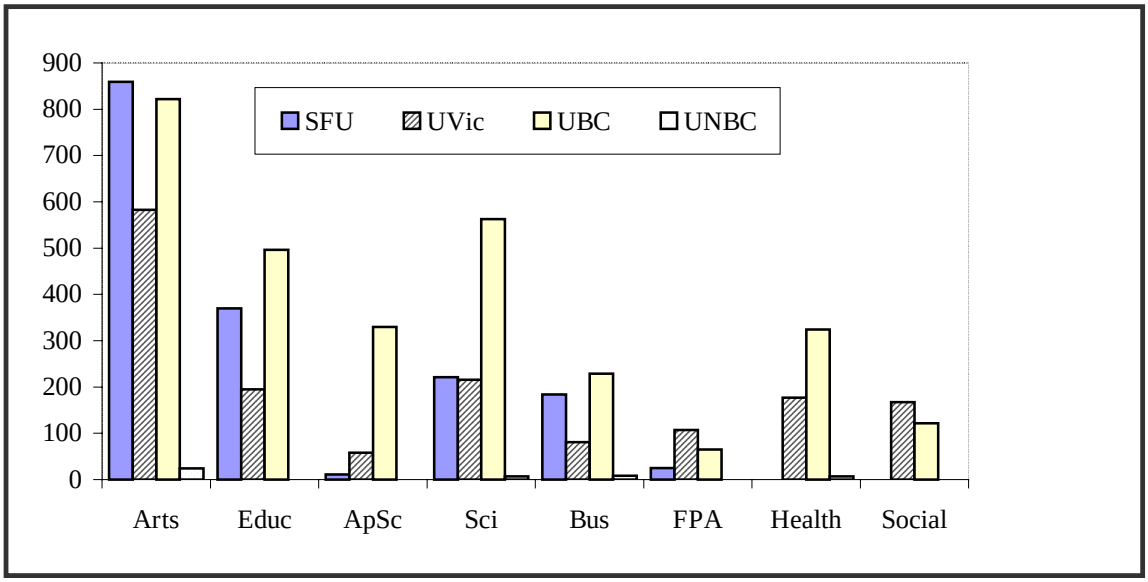


Figure 1 shows the distribution of respondents by program and university. The sample is fairly representative of the population at each university. As with past surveys Arts students comprise the majority of graduates from all four universities. It should be remembered when interpreting results that the numbers from UNBC (46) are considerably smaller than those from SFU (1,670), UVic (1,584), and UBC (2,951). Applied Science, Science and Health graduates are predominantly UBC students.

ENROLMENT STATUS

As seen in Table 2, the majority of graduates identified themselves as full-time students. Those studying in the Health and Social Professions and in the Arts were more likely to study part time. These figures reflect students own definitions of part-time study and are not consistent with institutional definitions, which reflect higher rates of part-time enrolments.

Table 2: Enrolment status

Enrolment by Program	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
Full-time	84%	93%	99%	95%	94%	93%	76%	83%	89%
Part-time	10%	4%	0%	3%	4%	3%	20%	13%	7%
Full-time & Part-time	6%	3%	1%	2%	2%	4%	4%	4%	4%

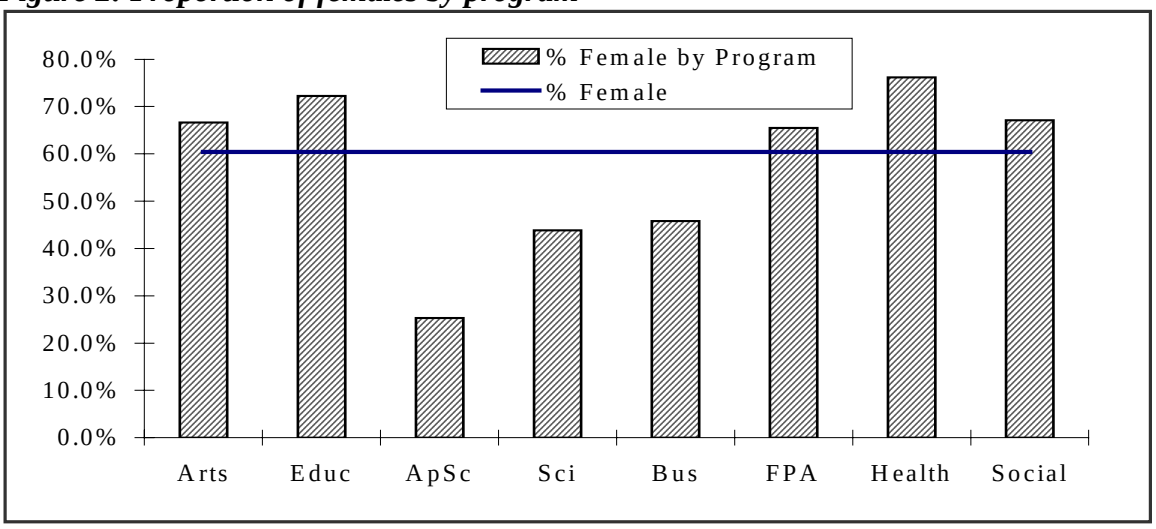
Enrolment by University	SFU	UVic	UBC	UNBC
Full-time	83%	85%	94%	91%
Part-time	11%	11%	3%	2%
Full-time & Part-time	6%	4%	2%	7%

Enrolment by Gender	Female	Male
Full-time	86%	93%
Part-time	9%	4%
Full-time & Part-time	4%	3%

Note: Excludes "don't know"

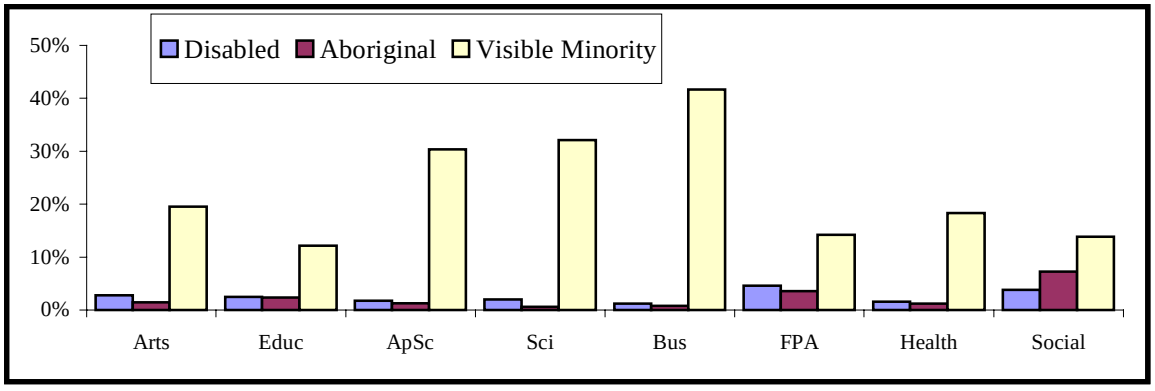
Figure 2 shows the distribution by sex. Female post-secondary participants are less likely to enroll in and graduate from traditionally male dominated fields but data from the 1991 and 1993 surveys show that the percentages of women in Science, Applied Science and Business have steadily increased. Enrolments of women in Science went from 37.8% (1991), to 42.8% (1993) to 43.8% (1996). Applied Science showed an overall increase of 33%, increasing from 15.3% (1991) to 16% (1993), to 25.3% (1996).

Figure 2: Proportion of females by program



The universities recognize the importance of participation in higher education and the labour market by members of designated equity groups. Questions inviting respondents to identify themselves as Aboriginal, disabled, or visible minority were asked. The data show that the overall percentage of Aboriginal graduates has steadily increased (from 1.4% in 1991, to 1.5% in 1993, to 1.7% in 1996), as have the percentages of visible minority graduates (17.1%, 19.4%, 22.2%). By contrast, disabled groups have decreased (3.0%, 2.7%, 2.4%).

Figure 3: Equity groups by program – BC system

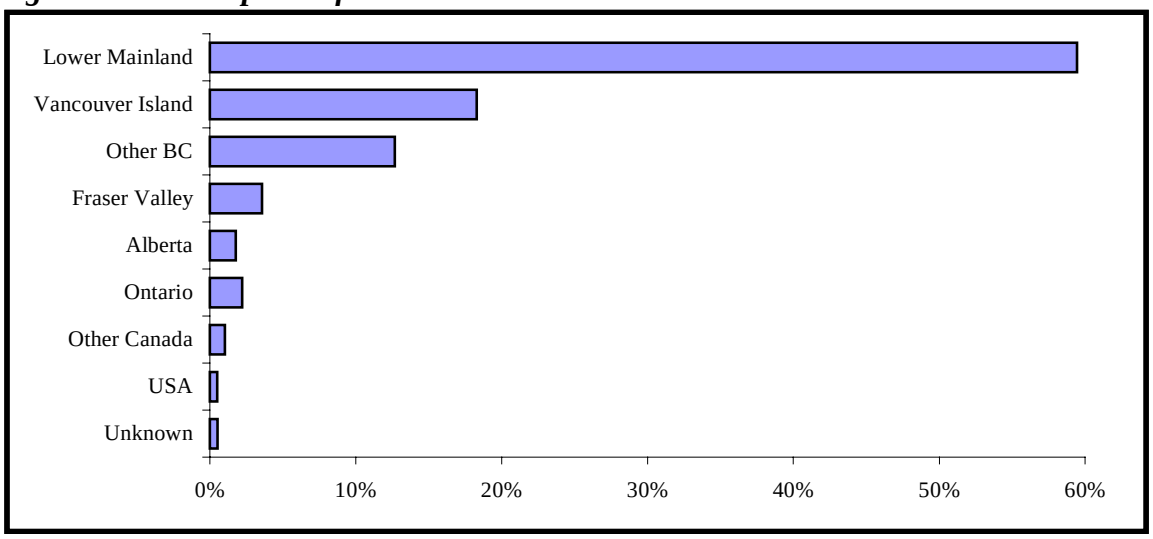


For the *Class of '96*, there is a greater proportion of visible minority members in Business and the Sciences, and fewer in Education, Social Professions and Fine and Performing

Arts. Aboriginal respondents are more prevalent in the Social Professions (7.3%) and Fine and Performing Arts (3.6%) but less so in Science (0.6%) and Business (0.8%). Of those who identified themselves as disabled, 4.6% were enrolled in the Fine and Performing Arts and 3.8% in the Social Professions.

Figure 4 shows respondents' place of residence at the time of the survey. The majority (94%) of BC graduates reside in the province, most in the lower mainland or on Vancouver Island.

Figure 4: Current place of residence



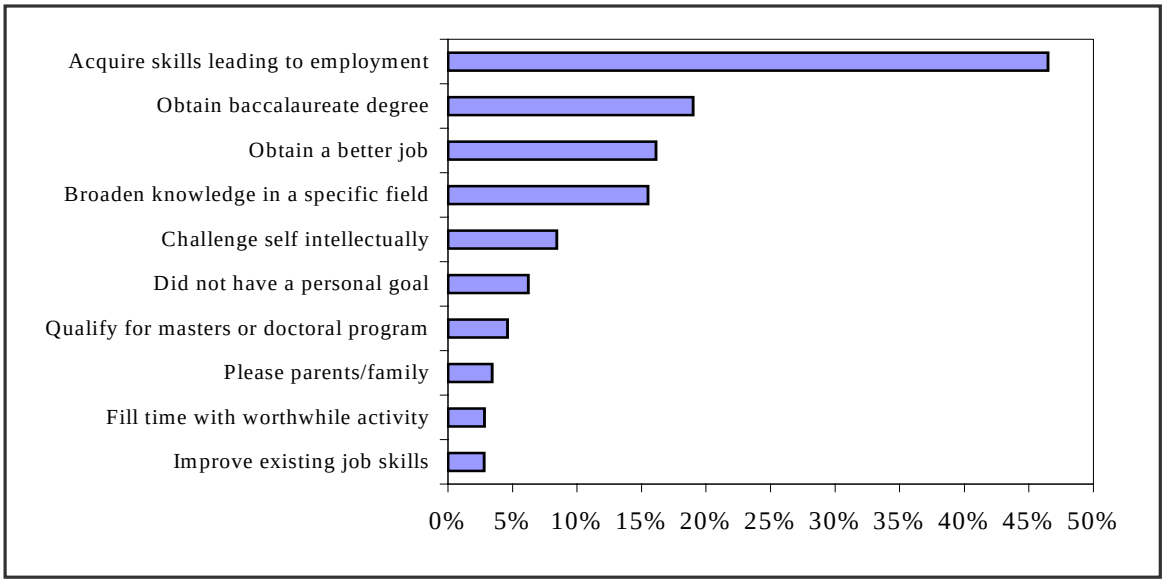
One year after graduation, fewer than 1% (31 graduates) were contacted in the United States. The 5-year out survey data suggest that this pattern persists, with 3.2% residing in the US five years after graduation. (It should be remembered, however, that no attempt was made to contact visa students or graduates residing outside of North America.) However, 7.7% of the initial survey sample were identified as residing "outside of Canada."

Aspirations and Experiences

PERSONAL GOALS

Graduates were asked to think back to the start of their degrees and identify the personal goal(s) that led to their pursuit of university level education. The most frequently identified goal was employment related. Slightly more than 46% of respondents identified the goal of 'acquiring skills for employment', and a distant second was the goal of 'obtaining a bachelor degree' (19%).

Figure 5: Personal goal leading to pursuit of university education



Graduates from Health and Social Professions were slightly more likely to identify 'improving existing job skills' as a goal compared with graduates in other fields. Science graduates were significantly more likely to identify 'qualification for advanced degree study' as a goal. 'Broaden knowledge in a specific field', 'obtaining a bachelor degree', and 'intellectual challenge', were more frequently identified by Arts and Fine and Performing Arts graduates.

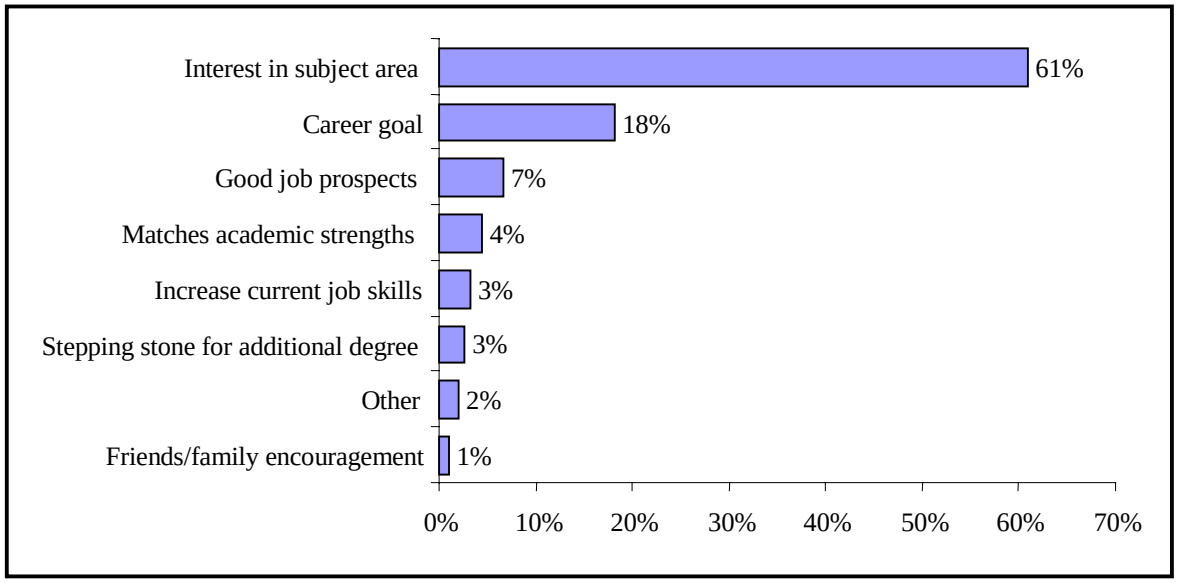
Table 3 shows that just under 70% of all graduates indicated they felt they had attained their personal goal(s). Education graduates (85%) were most likely to feel this way and Science graduates (59%) least likely.

Table 3: Goal attainment

Program	Completely Attained	Mostly Attained	Completely or Mostly	Partly Attained	Not At All	Don't Know
Arts	32%	32%	64%	29%	6%	1%
Education	56%	29%	85%	14%	1%	0%
Applied Science	39%	34%	73%	24%	3%	0%
Science	31%	28%	59%	32%	8%	1%
Business	32%	38%	70%	26%	4%	0%
FPA	36%	29%	65%	31%	1%	2%
Health	44%	31%	75%	20%	5%	1%
Social	48%	26%	74%	19%	5%	1%
Total	38%	31%	69%	25%	5%	1%

Although employment related goals were identified most frequently as leading to the pursuit of higher education, interest in a particular subject area was most frequently identified as the main reason for selecting a particular field of study. See Figure 6.

Figure 6: Main reason for choosing field of study



As shown in Table 4, graduates from Education, Business, Health and Social Professions identified 'subject area interest' less than 50% of the time whereas those from all other program areas were more likely to select this as a main reason. Job prospects were a deciding factor for Business, Applied Science and the Professions graduates.

Table 4: Main reason for choosing field of study

Main Reason	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
Interest in Subject Area	73%	43%	61%	71%	47%	78%	43%	46%	61%
Had a Career Goal	12%	44%	11%	8%	14%	9%	22%	20%	18%
Good Job Prospects in this Field	2%	2%	15%	7%	26%	0%	11%	10%	7%
Matches Academic Strengths	4%	4%	7%	5%	4%	9%	3%	4%	4%
Increase Current Job Skills	1%	2%	2%	1%	2%	1%	16%	11%	3%
Stepping Stone for Additional Degree	3%	1%	0%	6%	1%	1%	2%	1%	3%
Other	3%	2%	2%	1%	2%	1%	1%	3%	2%
Friends/family Encouragement	1%	1%	2%	1%	2%	1%	1%	1%	1%
Don't Know	1%	1%	1%	1%	2%	1%	1%	3%	1%

The same question was asked of 1993 graduates two years after graduation. These graduates were slightly less likely to identify interest is the subject area (56%) as the main reason for choosing their field of study.

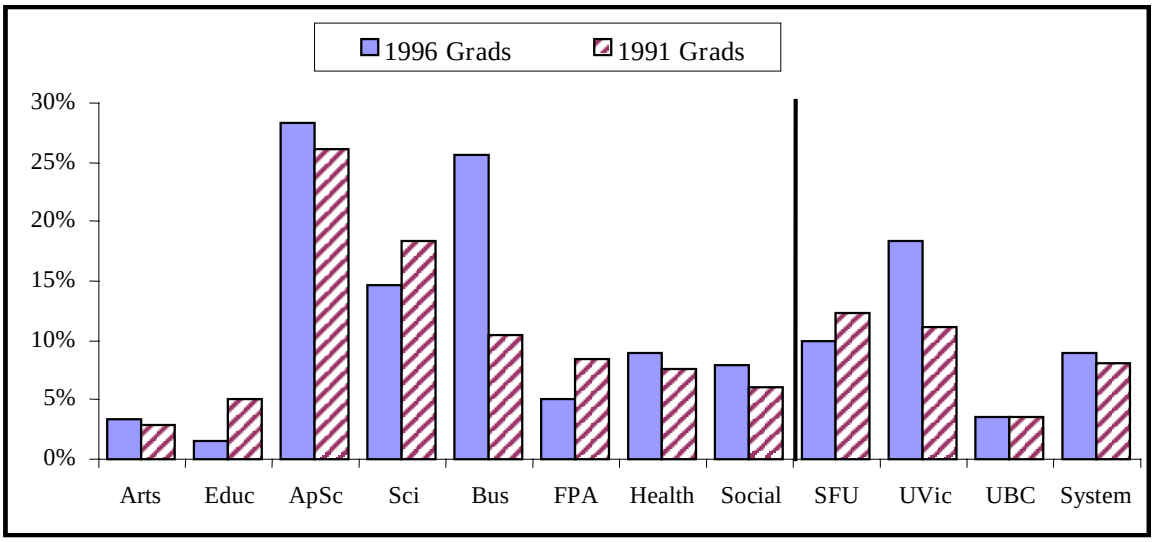
It is interesting to note that so few Education graduates thought there were good job prospects in their field compared with Applied Science, Business and the Professions, yet as will be seen in the employment section, had the highest employment rate one year after graduation.

CO-OPERATIVE EDUCATION

Co-op education refers to a collaborative partnership between students, the university and employers and is designed to enhance the educational experiences of students by providing opportunities for paid, productive and practical work experience in business, industry, government, professions and social services directly related to students' fields of study. Typically co-op students spend between 30% and 50% of one or two academic years engaged in work experience arranged by the university and an employer. All four universities participating in this survey offer co-operative education programs in a wide range of programs such as dance and engineering or history and mathematics. UNBC, however, did not graduate any respondents who had participated in co-operative education programs.

In past surveys an average 8% of respondents indicated they had taken and completed a co-operative education program. Figure 7 shows the distribution of *Class of '96* and 1991 graduates who completed a co-op program by program and by university. The increase in co-op education students in the Business program area is a consequence of the new Faculty of Business at UVic in which co-operative education is a compulsory component of the curriculum. Changes at UVic have contributed to a 1% overall increase in co-op completion and a dramatic 16% increase in the Business program area. Compared with 1991 graduates there was a 3% decrease in Education, Science, and Fine and Performing Arts. The decline in co-op in the area of Education reflects a correction of past surveys in which students identified the practicum as co-op.

Figure 7: Co-op participation by program and by university



Co-op education participation varies significantly by program area. The Business program at UVic and Applied Science programs at SFU and UVic have compulsory co-op components built into the curriculum, resulting in 100% completion rates. By comparison, 13.3% of Applied Science graduates at UBC completed a co-op program.

Science graduates at SFU (33.0%) and UVic (27.8%) reported the second highest completion rates. The second highest rate at UBC was reported by Business graduates (7.9%).

In order to elicit more detailed information about co-op experiences compared with previous surveys, the *Class of '96* graduates were asked about the relatedness of their co-operative education work to their programs of study and the adequacy of preparation for co-op jobs. Overall, 85% of graduates indicated their co-op work terms were very or somewhat related to their programs of study. As illustrated in Figure 8, the highest levels of relatedness were reported by Fine and Performing Arts graduates (100%) and the lowest by Arts graduates (75.6%).

Figure 8: Relatedness of co-op work terms to program of study

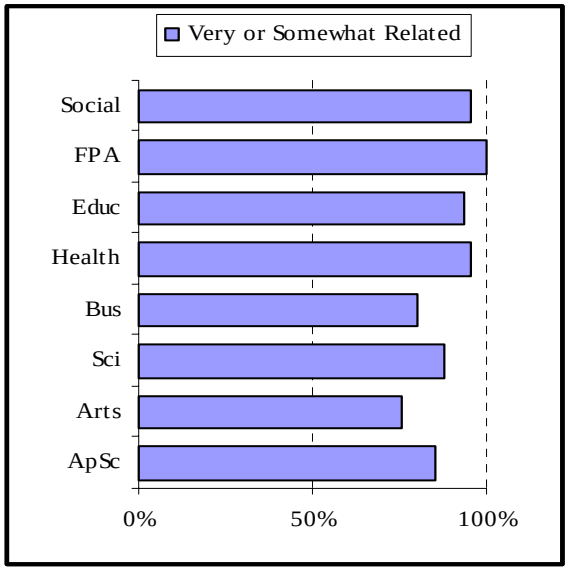
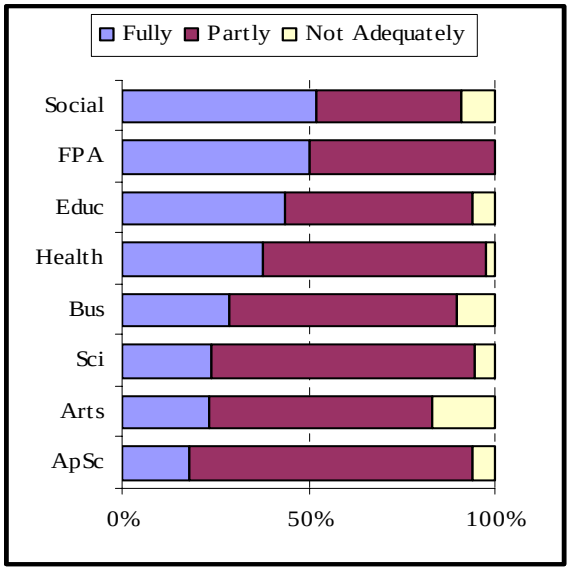


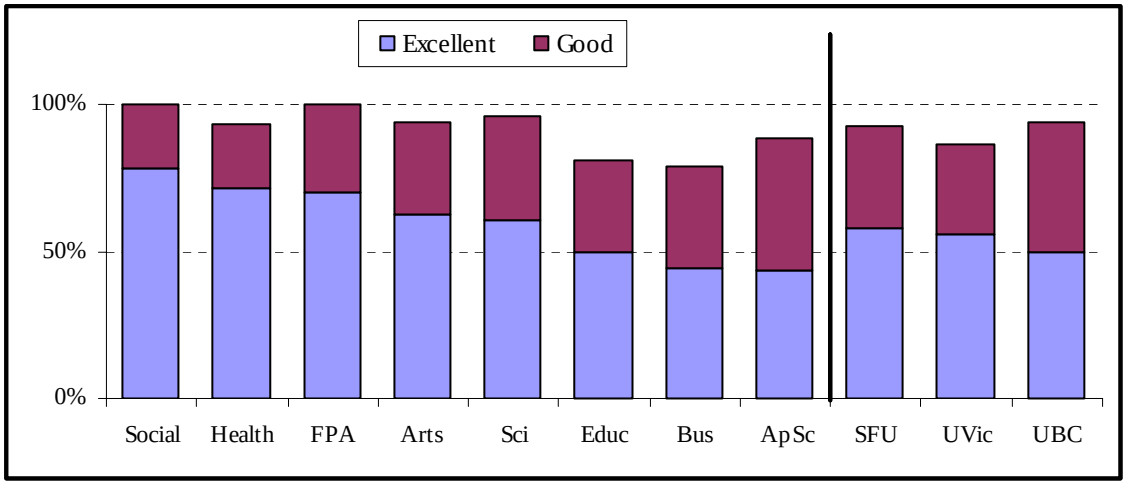
Figure 9: Program adequately provided necessary skills for co-op jobs



As shown in Figure 9, in all program areas except Arts (83%) over 90% of graduates indicated that their program either fully or partly provided the necessary skills and knowledge required in their co-op jobs. Graduates of the Social Professions (52%) and Fine and Performing Arts (50%) most frequently reported that their co-op programs *fully* provided necessary skills and knowledge. Graduates of other program areas were more likely to indicate this was partly the case.

Class of '96 co-op students reported high levels of overall satisfaction with their co-op education experiences with just under 90% of all graduates reporting their program was either excellent or good. Fine and Performing Arts (70%), Health (71%) and Social Professions (78%) all reported high excellent ratings. Graduates from SFU (57%) and UVic (56%) were slightly more likely to give an excellent rating compared to those from UBC (50%). See Figure 10.

Figure 10: Co-operative education program rating



The 1993 survey of graduates two years after graduation also asked about satisfaction with co-operative education programs. Overall, 95% of respondents indicated their co-op education program was very good or good. Although the question wording is somewhat different from the *Class of '96* survey, graduates continue to report high levels of satisfaction.

PROGRAM SATISFACTION AND ASSESSMENT

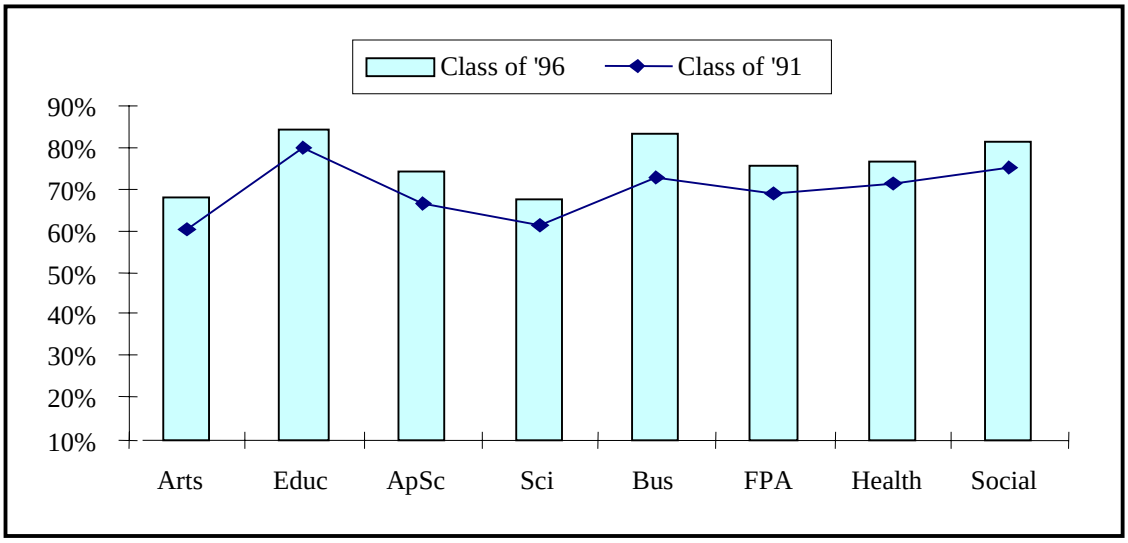
Satisfaction

Analysis of data from the survey of 1991 graduates five years out revealed that co-op education students tended to be more satisfied with their overall program than were non-co-op students. Results of that survey showed 90% of co-op and 82% of non-co-op graduates reported satisfaction with their programs. The same analysis was done with the *Class of '96* graduates, with similar though less dramatic results. Graduates who had participated in a co-op program were more likely to be *very* satisfied (52%) compared with those who had not (41%), and overall 96% were *very* or *somewhat* satisfied compared with 92% of non-co-op graduates.

Overall however, over 90% of all *Class of '96* graduates indicated they were very or somewhat satisfied with their bachelor's program. UNBC graduates, none of whom had completed a co-op program, responded to this question about overall program satisfaction and are included in Figure 11. UNBC graduates reported the highest levels of satisfaction with 70% reporting they were very satisfied, compared to 49% for UVic, 44% for SFU, and 37% UBC. These figures should be interpreted with caution, however, given the small UNBC sample size.

Another measure of satisfaction is whether graduates would, given their experiences since graduation, select the same program again. Just under 74% of all graduates indicated they would take the same program again, with the highest percentage in Education (84.4%) and the lowest in Science (67.6%). As shown in Figure 11, overall, these percentages are higher than those for graduates five years after graduation.

Figure 11: Percentage who would select the same program again



Approximately one in five respondents indicated they would not take the same program again and provided reasons for this decision. These reasons were coded and sorted into four thematic groups. Approximately one in ten indicated concern over their employment prospects. The following four comments are typical:

> *Lack of job skills from this degree.*
> *I didn't feel that the program would help me get a job.*
> *There is no career preparation and you are not qualified to work with a bachelors degree.*
> *I don't like the jobs in my field.*

A few students identified a program they would take instead, or commented on some aspect of their completed program they did not like.

> *Would want to choose a more broad focus.*
> *Some of the courses were a waste of time.*
> *I would now choose a different [program] within the same department.*
> *I would rather go into [specific program].*

Other comments reflected a greater awareness of personal skills and abilities, changed interests, or a desire to "try something different":

Now aware of other options, better ways to reach goals.
Interests changed as I went through the degree process.
Once I got into the program, I discovered it was not really what I wanted to do.
Not personally able to do it.
Life experience has led me to other priorities.

Finally, other comments reflected unhappiness with the quality of instruction or campus experiences more generally.

Same program, but different university.
In retrospect some of the instructors I had were good academically but not good teachers as such.
I found [my] department inflexible and hard to deal with.

As will be seen further on in this document, these themes are also evident in students' comments about significant negative *and* positive aspects of their university experiences.

Learned a great deal

Overall 95.2% of graduates agreed or strongly agreed that they learned a great deal in their program. This compares with a 95.4% rating from 1993 graduates two years after graduation. *Class of '96* graduates of the Fine and Performing Arts (49.7%) had the highest percentage of graduates who *strongly* agreed with this statement and Business graduates (29.7%) the lowest.

Program evaluation

Graduates were also asked to rate various aspects of their program. There were differences between programs and between universities which are displayed in Table 5 and Table 6. UBC consistently ranked lower than the other universities on all measures except availability of courses, on which UNBC was lowest. UNBC consistently ranked highest, again except on availability of courses. However, the small UNBC sample size must be taken into consideration.

Table 5: Excellent or good aspects of programs by university

Excellent or Good	SFU	UVic	UBC	UNBC	Total
Quality of instruction	87%	85%	78%	93%	82%
Program content	84%	81%	74%	85%	79%
Text books & learning material	66%	65%	55%	76%	60%
Amount of practical experience	42%	44%	32%	57%	38%
Availability of instructors/tutors	81%	82%	72%	98%	77%
Availability of courses	63%	70%	78%	61%	72%

Program differences were most evident in the assessment of practical experience, in which Education (77%) had the highest percentage and Arts (20%) the lowest. Next to

practical experience, text books and learning materials received the lowest overall percentage of excellent or good ratings; quality of instruction received the highest. Three program areas, Education (78%), Science (78%), and Applied Science (76%) rated the quality of instruction below 80%.

Table 6: Excellent or good rating of program aspects by program

Excellent or Good	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
Quality of instruction	85%	78%	76%	78%	85%	86%	84%	83%	82%
Program content	85%	68%	73%	78%	83%	80%	78%	75%	79%
Availability of instructors/tutors	77%	81%	75%	71%	79%	84%	81%	81%	77%
Availability of courses	64%	75%	79%	72%	79%	68%	81%	81%	72%
Text books & learning material	66%	50%	56%	56%	60%	59%	67%	65%	60%
Practical experience	20%	77%	31%	31%	33%	63%	47%	54%	38%

Students were asked to identify the overall, most significant positive aspects of their university experience. *Education received* (49% of responses) was most frequently identified as a significant positive aspect, followed by *social interaction* (38%), and *personal growth* (25%). Twenty-six percent of responses identified some *other* aspect. Almost one third of *other* reasons were related to personal and intellectual development:

> *Learn to be different.*
> *Thinking critically and meeting people from all walks of life. I became more open minded.*
> *Exposure to different perspectives, authors and writers.*

Just under one quarter were related to "practical" aspects of the program including co-op education, practicum experiences, and work experience. Often these comments were only one or two words (*e.g.,* teaching practicum; co-op program). More detailed comments (15%) reflected the positive faculty-student relationships:

> *Some great professors.*
> *I had a lot of good professors which increased my passion for [my subject].*
> *The quality of instruction and pleasant instructors.*
> *Instructors were really well trained, and that it was a high calibre program.*

Other themes included course content (10%) and classroom experience (5%), campus community (6%), facilities and services (5%).

When asked to identify the most significant negative aspects of their university experiences, 21% of the 6,251 respondents indicated there was *nothing* negative about their experiences, 14% indicated *financial problems*, 14% *stress or a heavy workload*, 5% *lack of suitable employment opportunities,* and 49% *other*.

In the analysis of other comments it was found that students frequently identified a particular course or classroom experience that they were unhappy with. These comments comprised over one third of all negative comments. The following are typical:

Courses that were not relevant or could have been covered in a shorter time.
Not enough courses to choose from.
Overcrowded classrooms at upper undergraduate level, an absence of seminar-type learning opportunities.

Over 20% of comments related to unsatisfactory interactions with professors/instructors and the quality of teaching.

Quality of some of the instruction was bad.
Some professors really didn't like what they were teaching and that really affected the students.
Lack of lecturing skills of some professors.
Disagreement with professors over their teaching methods, personal approachability and consistency.

Over 15% of negative comments reflected students' dissatisfaction with the institutional environment. This was often referred to as encounters with the "bureaucracy" or a sense of alienation.

The [particular] program is too big and there is no camaraderie between students.
Impersonal and unfair with rules and regulations.
Politics and bureaucracy. I think the bureaucratic setup is too onerous, inflexible, very inflexible from the outside.
Impersonal relations with the institution.
Lack of school spirit.

The relationship between university education and the "real world," especially the real world of work, continues to be a concern for students. Approximately 15% of comments reflected dissatisfaction with the "practical" nature of courses or programs and a seemingly tenuous link with employment opportunities and options, despite evidence of high employment levels.

Not enough practical experience
False sense of security that the degree would automatically lead to a job.
Lack of work experience or work contacts.

Other themes to emerge from the analysis of these comments (each comprising approximately 5% or less of all comments) included concerns with grading practices and student evaluation, availability and accessibility of facilities, commuting and parking, and time management stress and academic pressure to succeed.

Workload

Graduates were asked to assess the manageability of their program workload. Overall 95% of respondents found the workload either very or somewhat manageable. Applied Science program students found the workload substantially less manageable than those in all other program areas. As shown in Table 7, 16% of Applied Science graduates found their program workload very manageable. Graduates of Arts and Social Professions were most likely to find their workload very manageable, but Health and Education program areas were not far behind in this assessment.

Table 7: Workload manageability

Program	Very Manageable	Somewhat Manageable	Very or somewhat manageable	Not very manageable	Not at all manageable
Arts	45%	53%	98%	2%	0%
Educ	44%	51%	95%	5%	0%
ApSc	16%	63%	79%	18%	3%
Sci	33%	62%	95%	4%	0%
Bus	40%	58%	98%	2%	0%
FPA	39%	55%	94%	6%	0%
Health	44%	54%	98%	2%	0%
Social	45%	50%	95%	3%	1%
Total	40%	55%	95%	4%	1%

COMPUTER SKILLS

A dominant feature of the knowledge based economy is the proliferation of information technology, particularly desktop computers, in the work place. Familiarity with and an ability to operate computers is increasingly important for workers competing in a global economy. *Class of '96* respondents were asked to provide information about computer skills acquired through their degree programs and the importance of those skills for their employment activities. Over a dozen questions were posed, providing detailed feedback on relationships between computer use and skills, university programs, and employment.

Computers were seen to be extremely or somewhat important to graduates of all programs. Fine and Performing Arts (71.6%) were least likely to make that assessment and Business (98.0%) and Applied Science (97.5%) were most likely.

Table 8: Computer skills are Extremely or Somewhat important to graduates

	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
BC System	80.6%	90.3%	97.5%	85.5%	98.0%	71.6%	88.0%	87.9%	86.2%
SFU	83.1%	87.8%	100.0%	95.0%	98.4%	84.0%			87.5%
UVic	79.1%	94.9%	100.0%	94.0%	100.0%	70.1%	93.2%	89.8%	87.0%
UBC	78.7%	90.3%	97.0%	78.3%	96.9%	69.2%	84.9%	85.2%	84.8%
UNBC	91.7%			100.0%	100.0%		100.0%		95.7%

FPA graduates from SFU were slightly more likely, compared with those from the other institutions, to identify computers as important to graduates and Science graduates from UBC were less likely to do so compared to other Science graduates.

On average, 76% of graduates indicated they had computer skills prior to entering their program. Prior skills were most prevalent among those enrolled in the Social Professions (87.5%) program area and least prevalent among those in Fine and Performing Arts (67%).

Figure 12: Prior computer skills

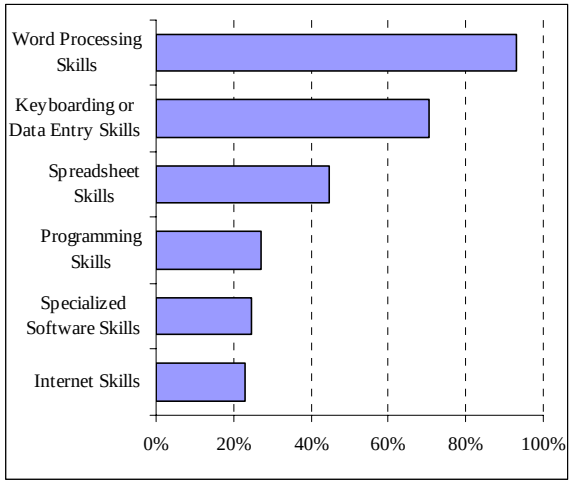


Figure 13: Prior skills were sufficient

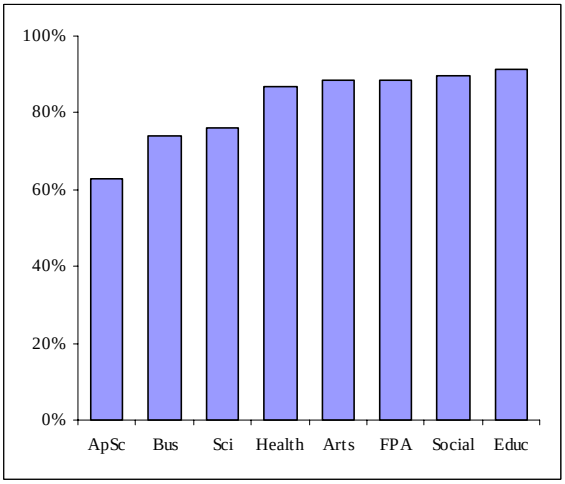


Figure 12 shows the most frequently identified skills prior to entering a program were word processing (93.1%) and keyboarding/data entry skills (70.6%). Least prevalent were internet skills (23%). There were no significant differences between universities on this item. Applied Science graduates (62.7%) were less likely to identify prior skills as sufficient (Figure 13) as were graduates of Business (74.0%) and Science (76.2%). On average 89% of graduates from all other program areas identified prior computer skills as sufficient. That internet skills are least prevalent should not be surprising given that 1996 graduates would have started their programs when the Internet was in its infancy.

As shown in Table 9, the majority of graduates indicated they acquired additional computer skills during their program. Applied Science, Science and Business graduates were most likely to have done so. UBC graduates overall were less likely to have acquired additional skills during their program.

Table 9: Skills were acquired during program

	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
BC System	62.5%	54.0%	90.7%	73.1%	88.0%	65.5%	60.6%	64.7%	66.7%
SFU	63.7%	50.0%	100.0%	87.8%	84.8%	80.0%			66.6%
UVic	72.9%	63.6%	86.2%	80.6%	90.1%	71.0%	70.6%	68.3%	73.3%
UBC	54.0%	53.2%	91.2%	64.3%	90.4%	50.8%	54.3%	59.8%	63.0%
UNBC	58.3%			85.7%	75.0%		100.0%		71.7%

Just under 62% of graduates indicated they acquired additional computer skills either through their degree program or through a combination of their program and on their own and just over 38% indicated that they acquired additional skills outside of their program.

Specialized software skills (57.4%), the second least likely to be identified pre-existing skills, were identified as most frequently acquired over the course of enrolment in a bachelor's program. Internet skills (41.2%), least frequently identified, were third most likely to be acquired.

Figure 14: Acquisition of additional skills

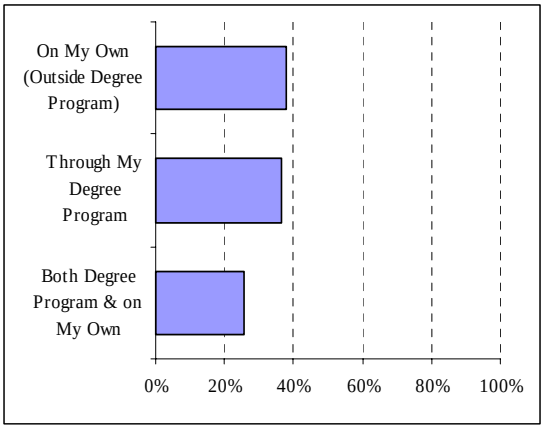
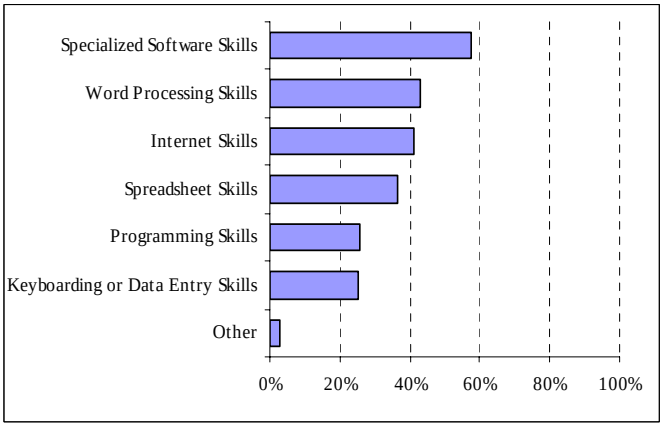
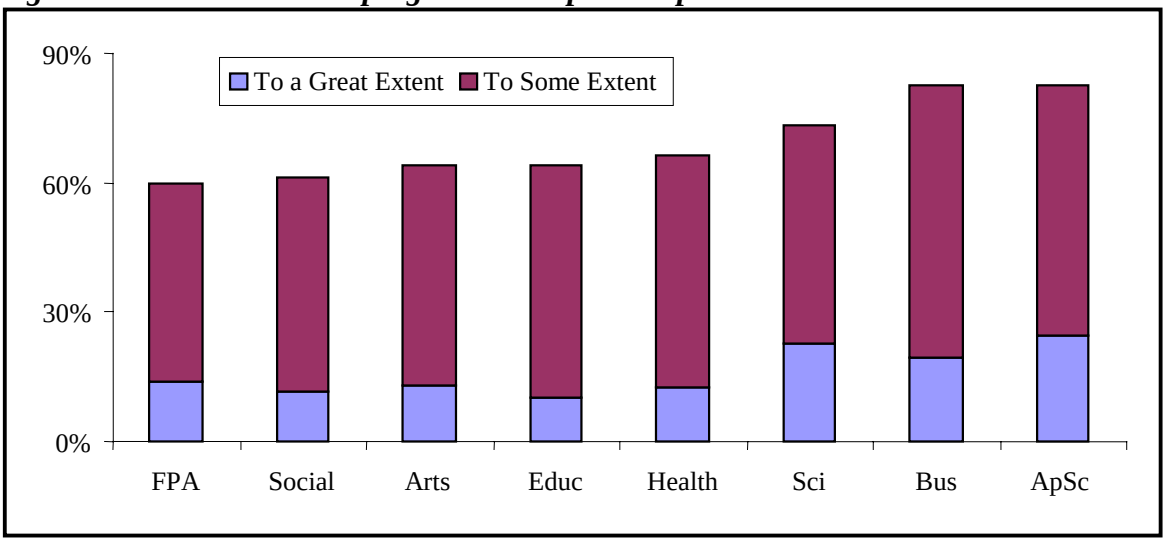


Figure 15: Skills acquired during program



For those respondents (n=2,577) who indicated they acquired additional skills through their degree program, most found their program developed those skills to a great or some extent.

Figure 16: Extent to which program developed computer skills



A total of 2,311 respondents indicated there were skills they did not acquire but would have found useful in their program (Table 10). The skills that would have been most useful were specialized computer skills, followed by internet skills and spreadsheet skills. Respondents from all program areas except Applied Science identified specialized software and internet as the two skills that would have been useful if acquired during their program. Applied Science graduates identified programming skills as the second most useful skill.

Table 10: Skills that would have been useful if acquired during program

BC System	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
Specialized Software Skills	46.6%	56.9%	67.9%	49.5%	60.7%	65.2%	40.8%	43.0%	52.3%
Internet Skills	42.3%	36.0%	10.9%	25.3%	32.0%	24.2%	39.7%	45.2%	34.1%
Spreadsheet Skills	21.3%	19.5%	7.1%	18.1%	10.5%	6.1%	23.0%	10.8%	17.5%
Programming Skills	11.1%	11.4%	26.6%	23.7%	18.3%	4.5%	13.8%	3.2%	14.8%
Word Processing Skills	16.4%	9.4%	3.3%	9.8%	4.6%	12.1%	13.2%	12.9%	11.1%
Keyboarding or Data Entry Skills	10.1%	7.7%	3.3%	7.2%	3.2%	6.1%	9.2%	9.7%	7.7%

Those graduates who were employed were asked to indicate how important computer use was to their job. A total 81% indicated computer use was extremely or somewhat important. As illustrated in Figure 17, there were significant differences in the level of importance between program areas. Applied Science (94.2%) had the highest percentage of graduates who thought computer skills were important to their job, with 74.7% finding them extremely important. By comparison, 87.3% of education graduates identified skills as important, with 37.8% identifying them extremely so.

Figure 17: Importance of computer skills in the workplace

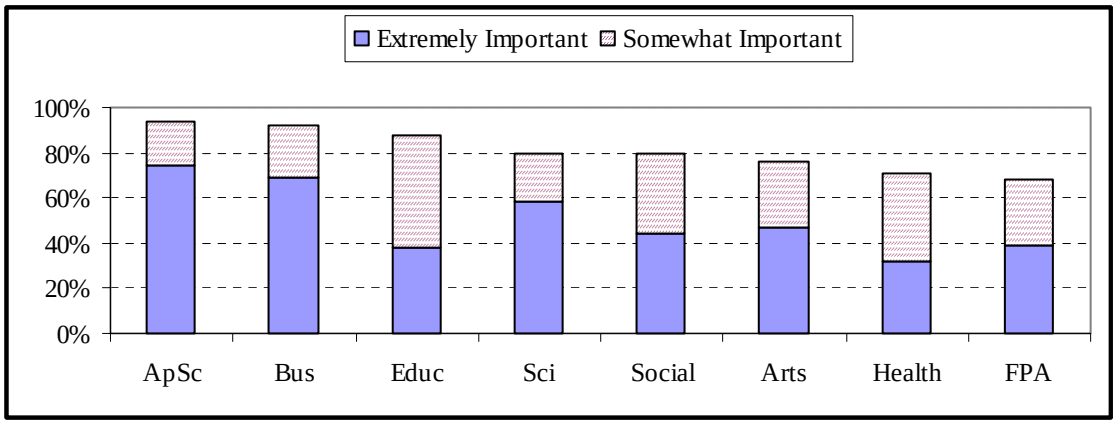


Figure 18 shows the percentages of graduates who reported there were computer skills that would have been useful to them in the current job, but were not acquired during their program. The highest percentage was among Applied Science (50.7%) graduates and the lowest among those from the Social Professions (28.3%). Once again specialized software skills (64.5%) would have been most useful, followed by internet skills (25.6%) (Figure 19).

Figure 18: Computer skills needed for job but not acquired

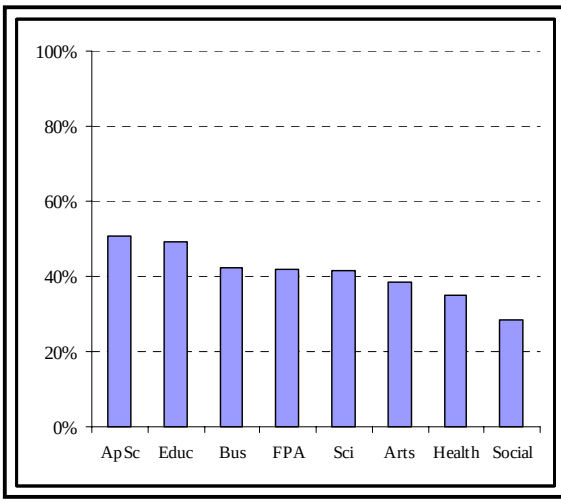
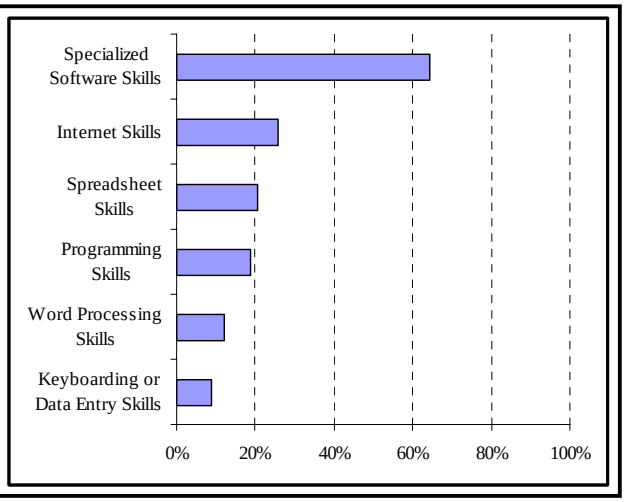


Figure 19: Skills that would have been useful in job



FURTHER EDUCATION

As was done in the analysis of the *Class of '91* survey data, graduates most likely to be responding to this questionnaire based on their experiences in a second degree program (*e.g.*, law or education) were excluded from the further education analysis. This adjusts for those second degree graduates who are not as likely to pursue a third degree compared with first degree graduates pursuing a second. Also excluded from this analysis are those graduates whose further education consisted only of technical or multiple short courses or individual academic credit courses.

Of those graduates of first degree programs 62.2% had gone on to further education within a year of graduating from their bachelor's program. Arts, Science and Business graduates were more likely to pursue further education within that time frame and Applied Science graduates were least likely to do so.

However, as shown in Table 11, Applied Science graduates who did go on were most likely to pursue a master's level degree or technical/vocational training. FPA graduates were also more likely to pursue masters level education. Almost 71% of Business graduates enrolled in professional certification programs. Arts graduates (19%) had a high rate of enrolment in teacher training programs.

Table 11: Further education by program

Type of Further Education	Arts	ApSc	Sci	Bus	FPA	Total
Another Bachelor's Degree	16.4%	3.1%	19.3%	2.7%	15.9%	14.7%
Master's Degree	20.6%	39.5%	22.6%	7.3%	40.2%	21.3%
Doctoral Degree	1.5%	1.6%	7.3%	0.0%	1.2%	2.7%
Technical or Voc. Training	23.9%	36.4%	19.9%	14.5%	24.4%	22.6%
Teacher Training	18.9%	0.8%	9.5%	1.5%	11.0%	13.2%
Law Degree	5.6%	0.8%	0.7%	5.0%	1.2%	3.9%
Medicine Degree	0.5%	0.8%	10.6%	0.4%	0.0%	2.9%
Dentistry Degree	0.2%	0.0%	2.6%	0.0%	0.0%	0.7%
Other Univ. Professional	1.7%	1.6%	1.5%	1.1%	3.7%	1.6%
Prof. Certification Prgms.	14.7%	20.2%	9.1%	70.6%	4.9%	19.8%
% Further Education*	64.1%	42.2%	66.1%	63.3%	53.9%	62.2%

*Excludes technical/multiple short courses and 2nd degree programs (Health, Educ, Social Prof.)

The most frequently identified reason for pursuing further education was to achieve a career goal (45%) distantly followed by personal development (19%). There were also program differences in reasons for choosing further education among first degree graduates. Business and Applied Science graduates, were most likely to identify professional development than were graduates of other programs. Applied Science graduates were also more likely to want to study at an advanced level as were those from FPA programs. See Table 12.

Table 12: Reasons for enrolling in further education

Reason	Arts	ApSc	Sci	Bus	FPA	Total
To achieve a career goal	48%	21%	42%	51%	39%	45%
Professional development	17%	29%	17%	32%	17%	19%
General interest/personal	11%	15%	12%	5%	16%	11%
Lack of suitable employment opps.	11%	10%	11%	4%	11%	10%
Wanted to study at advanced level	8%	18%	11%	4%	15%	9%
Wanted to change fields	4%	5%	5%	3%	2%	4%
Other	2%	2%	2%	2%	0%	2%
Don't know	0%	1%	0%	0%	0%	0%
Total*	100%	100%	100%	100%	100%	100%

*Excludes other technical/multiple short courses

The majority (65.3%) of graduates involved with further education had not completed their programs. Almost all were still enrolled.

Finance and Debt-load

FINANCIAL SUPPORT

Slightly over 71% of graduates received some kind of financial support while completing their bachelor's program. There were some differences between universities: 65% of graduates at SFU, 72% at UBC and 76% at UVic. Half of the 46 UNBC graduates reported receiving support. The range by program went from 68% in Business to 84% in Fine and Performing Arts.

Students were asked to identify all significant sources of support. Two thirds of graduates relied on one source of support only and 26% on two sources.

Figure 20 shows the multiple sources identified. The type of financial support most commonly received was in the form of student loans (60%). Parents (33%) were the second most frequent source, followed by scholarships, awards, fellowships, or other prizes (29%).

Figure 20: Type of financial support

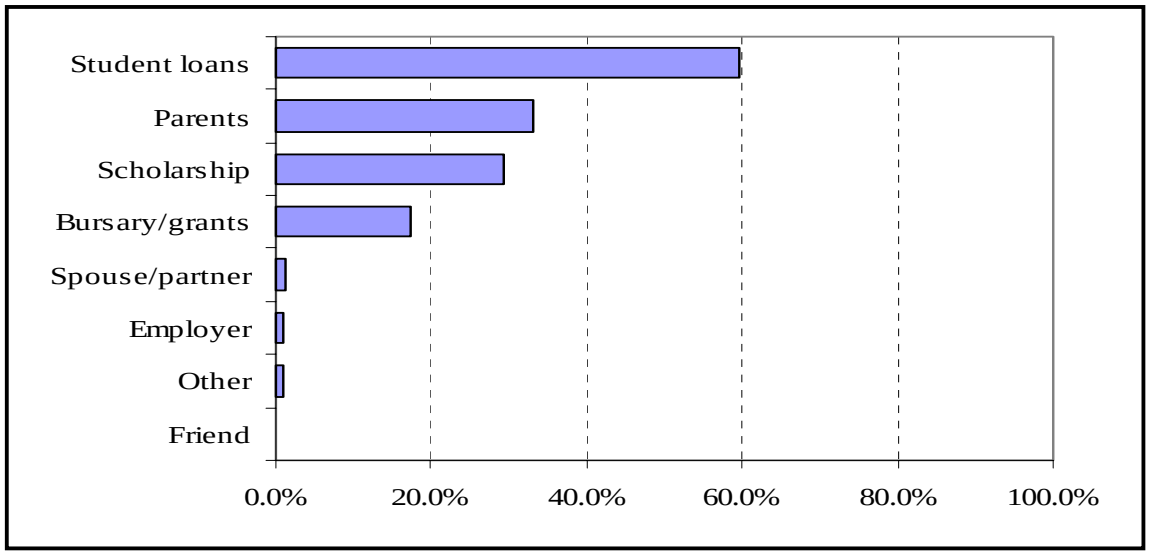


Table 13 shows the sources of financial support received by program area. Graduates of Education and Social Professions were more likely to rely on student loans or financial aid compared with graduates of other programs. Science and Applied Science graduates were slightly more likely to have received scholarship awards.

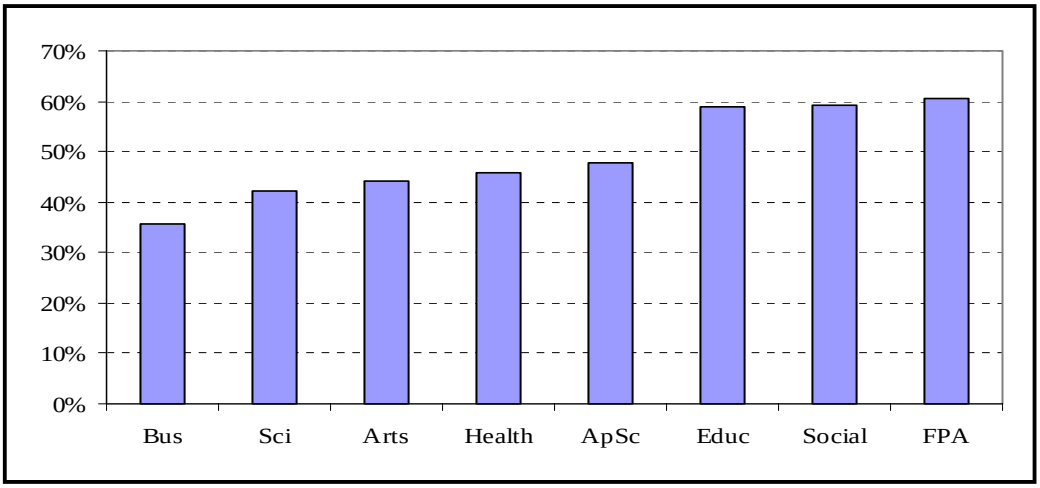
Table 13: Type of financial support by program

	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
Student Loans/aid	59%	74%	58%	50%	46%	64%	56%	74%	60%
Parents	36%	22%	31%	38%	46%	28%	27%	25%	33%
Scholarship	25%	18%	43%	40%	38%	33%	29%	24%	29%
Bursary/grants	14%	21%	16%	14%	11%	22%	29%	24%	17%
Spouse/partner	1%	3%	0%	0%	0%	0%	1%	3%	1%
Employer	1%	0%	0%	0%	3%	0%	3%	3%	1%
Other	1%	1%	1%	1%	1%	1%	1%	.5%	1%
Friend	0%	0%	0%	0%	0%	0%	0%	1.8%	0%
Don't Know/Refused	0%	0%	0%	1%	0%	0%	0%	0%	0%
Total	1572	746	314	743	343	166	357	217	4458

DEBT-LOAD

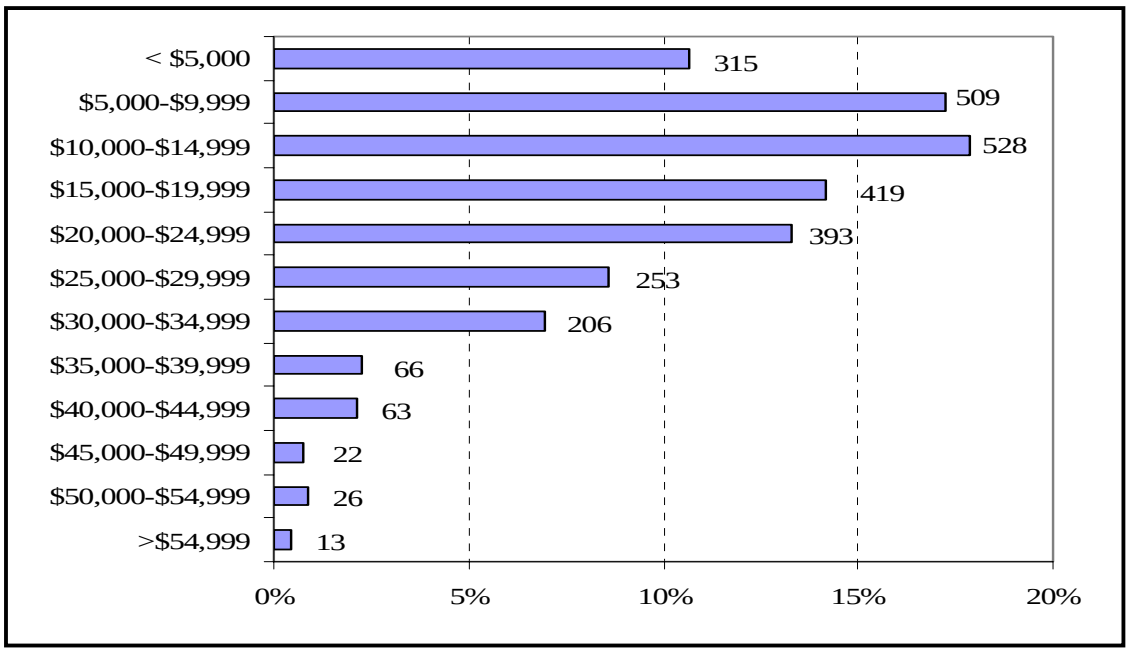
Graduates were asked if they had financial debt once they had completed their degree. Slightly over 47% indicated they did. UVic graduates were slightly more likely to answer yes to this question at 56% compared with SFU (46%), UBC (44%) and UNBC (39%). Program differences were also evident. As shown in Figure 21, having financial debt ranged from 36% for Business to 60% for FPA graduates.

Figure 21: Had financial debt after graduation



As shown below, 60% of graduates who indicated they carried debts after graduation had debt-loads below $20,000.

Figure 22: Amount of debt



The average debt-load for all respondents with debt was $20,400; the lowest average debt was carried by Applied Science graduates at $16,800 and the highest by graduates of the Social Professions from UBC and UVic at $25,400.

Labour Force Experiences

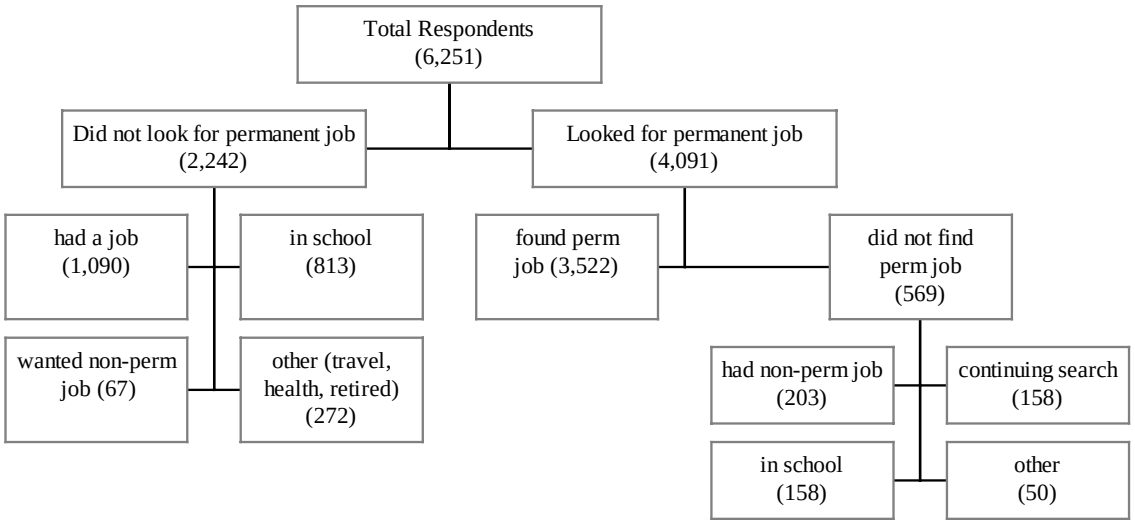
TRANSITION TO THE LABOUR FORCE

Job Search

Not all graduates are interested in obtaining a permanent job after graduation. Some take time off for travel and recreation and others enroll immediately in full-time further education.

Many of the *Class of '96* who did not look for permanent jobs (2,242 or 35.9%) already had one prior to graduation (45.6%) or were attending school (36.3%). Slightly more than 3% had been offered a job immediately after graduation, 3% preferred non-permanent jobs, and remainder said there were other reasons. See Figure 23 for a breakdown of those graduates who did and did not look for a permanent job.

Figure 23: Job search schematic



Of the graduates who did look for a permanent job (4,091 or 65.4% of all respondents), approximately 37% began their job search an average of 5.5 months prior to graduation, while 27.9% waited for an average of 4 months following graduation. On average, graduates spent 5.9 months looking for their first permanent job, ranging from 7 months for Education graduates, to 4.2 months for Applied Science graduates. (A permanent job was defined as a job that lasted or was expected to last more than six months.)

The majority of graduates found the transition to the work force in terms of finding a permanent job very easy (26.0%) or somewhat easy (29.0%); however a significant percentage (26.6%) found it somewhat or very (17.3%) difficult.

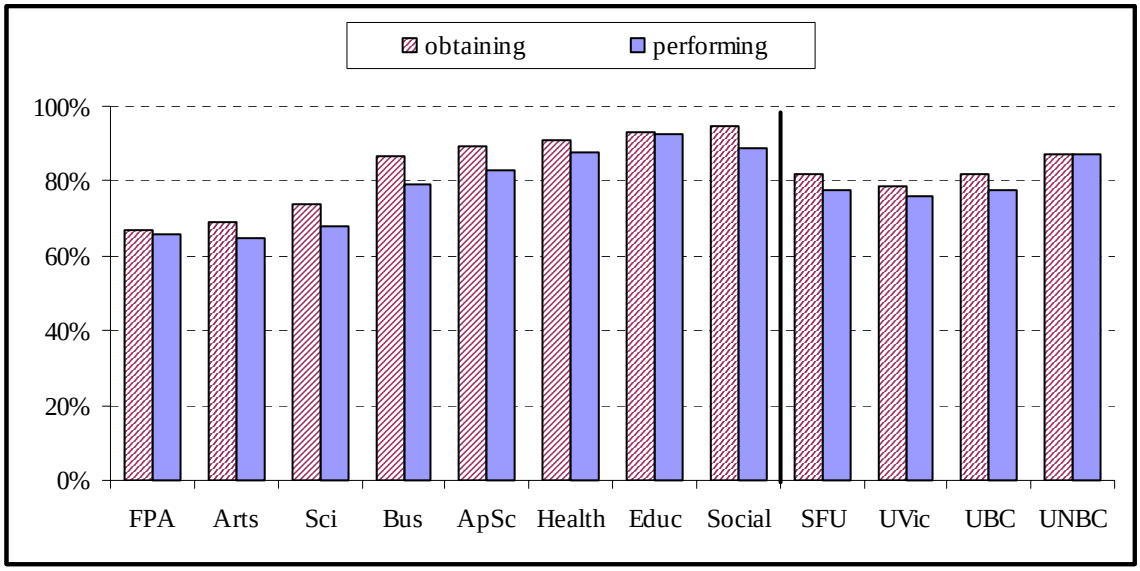
Of those searching for work, 86.1% found a permanent job. The range among program areas was from 82.9% of Arts graduates to 94.4% of Applied Science graduates. For 79.6% of graduates the job was a full-time position.

The majority of graduates who had a permanent job found it on their own (33.6%) or were referred by friends or family (16.7%). On-campus career services was identified by 11.0% of graduates. Other sources included: newspaper advertisement or posted notice (10.7%), past experience with an employer (10.7%), co-operative education (3.8%), and instructor referral (2.9%).

Figure 24 compares the usefulness of graduates' university education in terms of performing and obtaining a permanent job. In all program areas, education was more useful for obtaining a job than performing the job. FPA, Arts, and Science program areas gave the lowest rankings. Overall, 81.3% of graduates found their education very or somewhat useful in finding a job, with UNBC (86.9%) ranking slightly higher than SFU (82.1), UBC (82%) and UVic (78.3%). In terms of performing the job, the overall rating

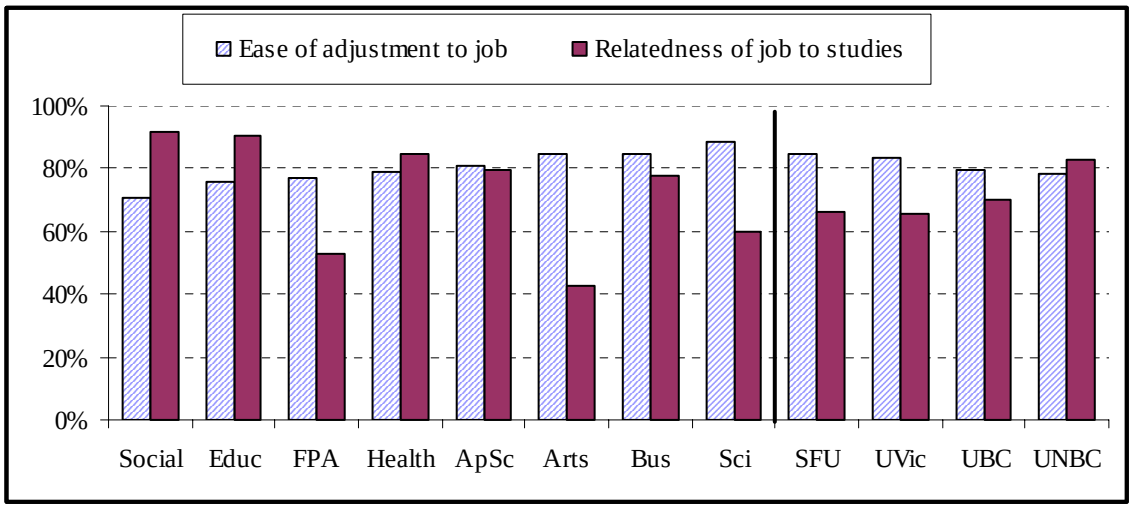
was 77.2% very or somewhat useful, with similar rankings between universities: UNBC (86.9%), SFU (77.8%), UBC (77.4%), and UVic (76%).

Figure 24: Education very or somewhat useful for obtaining and performing job



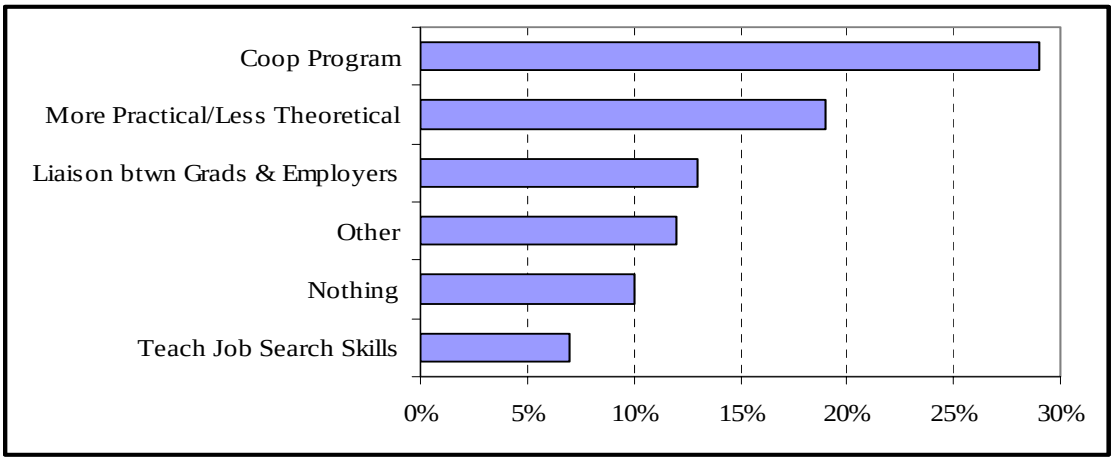
Graduates' adjustment to work in their permanent jobs overall was very or somewhat easy (81.8%).

Figure 25: Ease of adjustment to job and relatedness of job to studies



In order to improve work force integration, graduates suggested that the universities offer more co-operative education programs (28.6%) and more practical/less theoretical training (19%).

Figure 26: Changes to improve workforce integration of graduates



Similarly when asked what advice graduates would give to future graduates of their program, they suggested getting degree related work experience such as co-op education (31.5%). Using job networking (12.9%) was the next most frequent suggestion, followed by pursuing goals prior to graduating (11.3%).

CURRENT EMPLOYMENT AND OCCUPATIONS

Employment

In all past surveys self-reported rates of employment have been high. In the survey of graduates two years after graduation, the employment rate was 81% and this rate increased to 90% among the 5-year out cohort. The *Class of '96* overall self reported employment rate was 83.8%. There were significant differences between program areas with the highest rate among graduates of Education (96.9%) and the lowest among Science graduates (71.1%).

Among those who said they were working, 70.6% were doing so full-time, 24.6% part-time, and 4.6% a combination of both. Of those working part-time, 65.1% indicated they were doing so by choice. Almost 22% of graduates indicted their employment was a part of their education and 82.1% saw their job as part of their career path. Finally, 80.2% of employed graduates had one job, and 16.1% had two.

To reflect employment rates more accurately, adjustments are made for those graduates who are not in the labour force and so are not looking for work. Figure 27 displays the employment rate according to this definition for all program areas, one year, two years and five years following graduation. With the exception of Education which shows modest fluctuation in employment over the three periods and of Science which

shows a 1% decrease between two and five years, each program area shows an increase in employment rates over the three time periods.

For the *Class of '96*, the overall employment rate is 92.9%. Fine and Performing Arts graduates realize the lowest level of employment after one year at 87.3% and Education the highest at 97.7%.

Figure 27: Employment rate

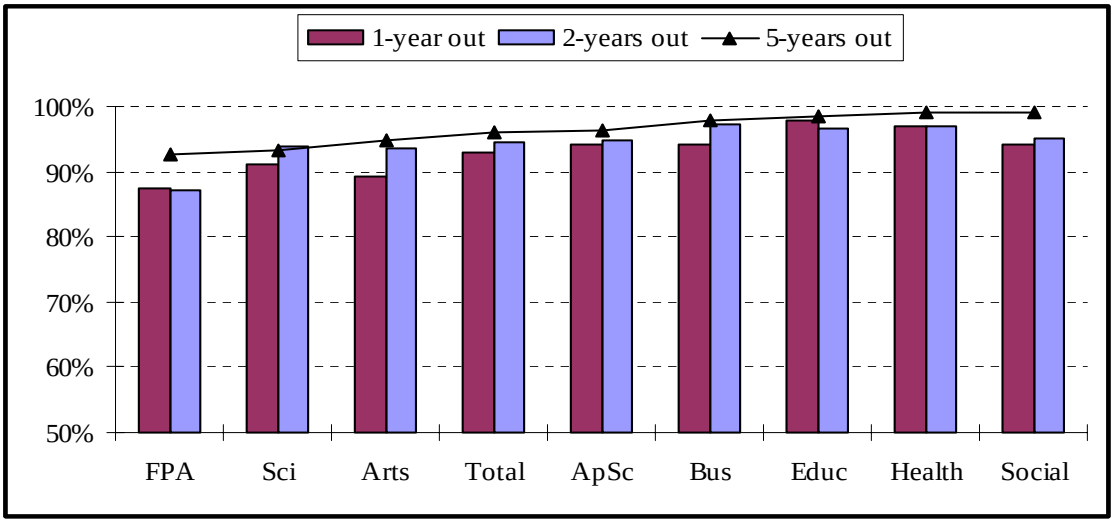


Figure 28 shows graduates perceptions of the degree of relatedness between their completed program and their job. Those in Education (72.5%) and the Social Professions (70.5%) were most likely to see them as very related and those in Arts (21.2%) least likely. The main reason jobs were not related to their field of study was because graduates could not find a job in their field (46.1%). In addition, 27.7% of graduates identified 'other' reasons. See Figure 29 below. The salient 'other' issues are illustrated with quotes below.

Figure 28: Relatedness of job to studies

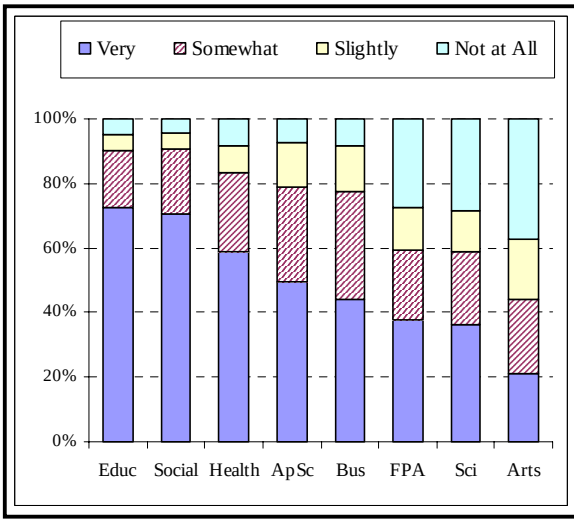
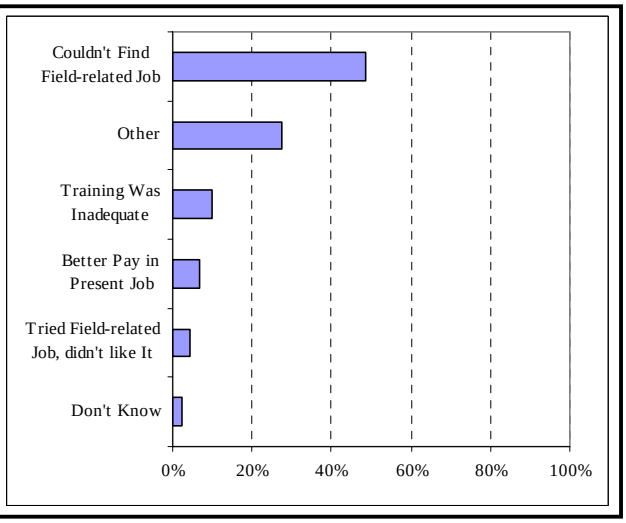


Figure 29: Reason job is not more related to studies



Over 43% of the reasons graduates gave for the lack of fit between their program and current employment related to personal decisions about work preferences. The following comments are representative:

> *Not willing to relocate to another city or another part of the country to work in my field.*
> *Changed career directions.*
> *I am satisfied with my current job.*
> *Didn't really want a job in this field.*

The second most frequently identified reasons were because graduates were pursuing further education or planned to do so in the future.

> *Doesn't fit school schedule.*
> *This is just a temporary job in between going to school.*
> *Going full-time to school so work is close to classes.*
> *Part-time job during school.*

Other reasons were directly related to the current job.

> *Current job has more security.*
> *Couldn't pass up this opportunity.*
> *I've had this job since my second year and I really like it.*
> *Already had experience so easy to get this for now.*

Finally, other reasons why the graduates' current jobs were not more related to their programs of study included not looking (6%), a lack of appropriate jobs (5%), or were working in family/own business (5%).

Occupations

The *Class of '96* graduates were employed in a variety of industries doing hundreds of different jobs. In order to simplify this for analysis, the National Occupational Classification codes were used to classify graduates jobs into the following ten categories:

> **Senior Managers**: *e.g.*, Corporate presidents and vice-presidents; legislators; senior government officials.
> **Middle and Other Managers**: *e.g.*, Bank managers, sales managers, government managers in policy development.
> **Professionals**: *e.g.*, Engineers, accountants, chemists, teachers, writers, artists.

Semi-professionals: *e.g.*, Technicians, estimators, inspectors, individual designers.
Supervisors: *e.g.*, retail trade supervisors; food service supervisors.
Administrative and Senior Clerical: e.g., Executive assistants, purchasing agents, event planners, recruitment officers.
Sales and service.
Skilled crafts and trades: *e.g.*, Electricians, carpenters.
Clerical workers: *e.g.*, Office clerks, computer operators.
Semi-skilled or manual labourers.

The NOC classification scheme uses skill level -- the amount of education and training needed to perform duties in particular occupations -- and skill type -- the type of work performed -- to organize occupations in the Canadian labour market. The first three categories listed above comprise jobs that require a university degree (or equivalent).

Table 14 shows the occupations of *Class of '96* graduates who did not pursue further education. The majority (60%) of all graduates were employed in the Professions. This was the case for those working full-time (57%), part-time (66%), and for those who worked a combination of part- and full-time employment (74%).

Table 14: Occupations for graduates who did not pursue further education after graduation

	Employed			FT Salary			
	FT	PT	FT & PT	Median	N	Min	Max
Senior Managers	6			$ 41,500	(4)	$ 35,000	$ 50,000
Middle and Other Managers	92	7	2	$ 33,000	(70)	$ 11,000	$ 75,000
Professionals	890	283	70	$ 37,000	(735)	$ 10,000	$ 360,000
Semi-professionals	148	39	2	$ 32,000	(123)	$ 11,000	$ 144,000
Supervisors	32	3	1	$ 32,000	(24)	$ 15,000	$ 120,000
Administrative and Senior Clerical	57	12	1	$ 35,000	(47)	$ 16,000	$ 50,000
Sales and service	162	53	12	$ 29,661	(124)	$ 2,400	$ 445,000
Skilled crafts and trades	11	1		$ 38,500	(8)	$ 20,000	$ 54,000
Clerical workers	126	25	6	$ 27,000	(89)	$ 1,650	$ 50,000
Semi-skilled or manual labourers	31	6	1	$ 32,000	(25)	$ 14,000	$ 60,000
Total	1,555	429	95	$ 33,766	(1,249)	-	-

Full-time workers are also concentrated in sales and service (10%), semi-professional jobs (9.5%), and clerical work (8%). As shown in Table 15, a similar pattern is evident for those who did pursue further education.

Table 15: Occupations of graduates who pursued further education after graduation

	Employed			FT Salary			
	FT	PT	FT & PT	Median	N	Min	Max
Senior Managers	12			$ 37,000	(12)	$ 10,000	$ 100,000
Middle and Other Managers	100	11	1	$ 40,000	(78)	$ 18,000	$ 80,000
Professionals	1,324	483	113	$ 37,000	(1079)	$ 1,000	$ 530,000
Semi-professionals	182	106	13	$ 32,000	(148)	$ 6,000	$ 600,000
Supervisors	49	8		$ 39,000	(42)	$ 11,000	$ 226,000
Administrative and Senior Clerical	104	20	5	$ 34,000	(93)	$ 10,000	$ 65,000
Sales and service	135	150	4	$ 30,000	(96)	$ 4,000	$ 125,000
Skilled crafts and trades	4	3		$ 32,500	(2)	$ 30,000	$ 35,000
Clerical workers	192	63	9	$ 27,000	(150)	$ 6,000	$ 56,000
Semi-skilled or manual labourers	22	9	2	$ 32,000	(15)	$ 6,500	$ 200,000
Total	2,124	853	147	$ 34,050	(1715)	-	-

The analysis of data from 1991 graduates five years following graduation shows a similar pattern to those displayed in Tables 14 and 15, but with greater percentages of full-time workers employed in the professions (65%) and middle management (15%) areas and fewer in clerical, sales and service, and semi-professions.

Table 16 shows the occupational distribution of *Class of '96* first degree only graduates. Again, after one year, there are few differences between those who pursued further education and those who did not. A notable exception is that Arts, Business and FPA graduates who do not pursue further education are more likely to be middle and other managers than those who do.

Table 16: Distribution of occupation in first degree programs

	Arts		ApSc		Sci		Bus		FPA	
Further Education	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Senior Managers	1%	0%	0%	0%	0%	0%	2%	3%	0%	0%
Middle and Other Managers	6%	12%	3%	1%	3%	4%	8%	14%	7%	12%
Professionals	41%	30%	67%	70%	65%	46%	60%	28%	46%	31%
Semi-professionals	11%	9%	16%	14%	14%	23%	2%	2%	12%	21%
Supervisors	3%	2%	8%	6%	2%	3%	3%	4%	2%	2%
Administrative and Senior Clerical	8%	7%	1%	1%	2%	3%	11%	10%	4%	0%
Sales and service	11%	20%	2%	3%	5%	9%	4%	17%	19%	21%
Skilled crafts and trades	0%	1%	0%	2%	0%	1%	0%	2%	2%	0%
Clerical workers	18%	16%	2%	3%	7%	7%	10%	17%	9%	12%
Semi-skilled or manual labourers	2%	3%	1%	1%	2%	5%	0%	2%	0%	0%

There are also interesting differences between program areas. Arts, Business and FPA graduates tended to be employed in sales and service and clerical jobs to a greater extent than other graduates. The same program areas also have more graduates employed in middle and other management occupations.

Self-employment

As with other graduates, the self-employed are working primarily in the professions, but greater percentages are in middle and other management jobs. Table 17 also shows that the Arts and Business self-employed are more likely to be working in sales and service and middle and other management positions. Business graduates are also more likely to be senior managers.

Table 17: Occupational categories of self-employed with first degree

	Arts	ApSc	Sci	Bus	FPA	Total
Senior Managers	1%	0%	2%	14%	0%	3%
Middle and Other Managers	14%	0%	6%	19%	9%	11%
Professionals	48%	54%	50%	41%	63%	50%
Semi-professionals	13%	23%	26%	5%	21%	16%
Supervisors	2%	19%	4%	3%	0%	4%
Administrative and Senior Clerical	3%	0%	2%	3%	2%	3%
Sales and service	13%	0%	8%	11%	0%	9%
Skilled crafts and trades	1%	4%	0%	3%	2%	1%
Clerical workers	3%	0%	0%	3%	2%	2%
Semi-skilled or manual labourers	2%	0%	2%	0%	0%	1%
Total	162	26	50	37	43	318

Entrepreneurship in the form of contract work and self-employment are defining feature of the growing economy and as such an important area for exploration among graduates. Overall 7.8% of graduates indicated they were self-employed, a percentage comparable to that among 1993 graduates (8.0%). However, the 1991 survey indicate a growing self-employment rate of 12.9%, suggesting a tendency toward self-employment over time. There are differences between program areas.

Table 18: Self-employed by program

	FPA	Social	Health	Arts	ApSc	Bus	Sci	Educ	Total
Self-employed	27.7%	10.3%	9.0%	9.0%	7.6%	8.2%	7.0%	1.8%	7.8%

Table 18 shows that self-employment is more common among Fine and Performing Arts graduates and those in the Social Professions, and least common among Education graduates.

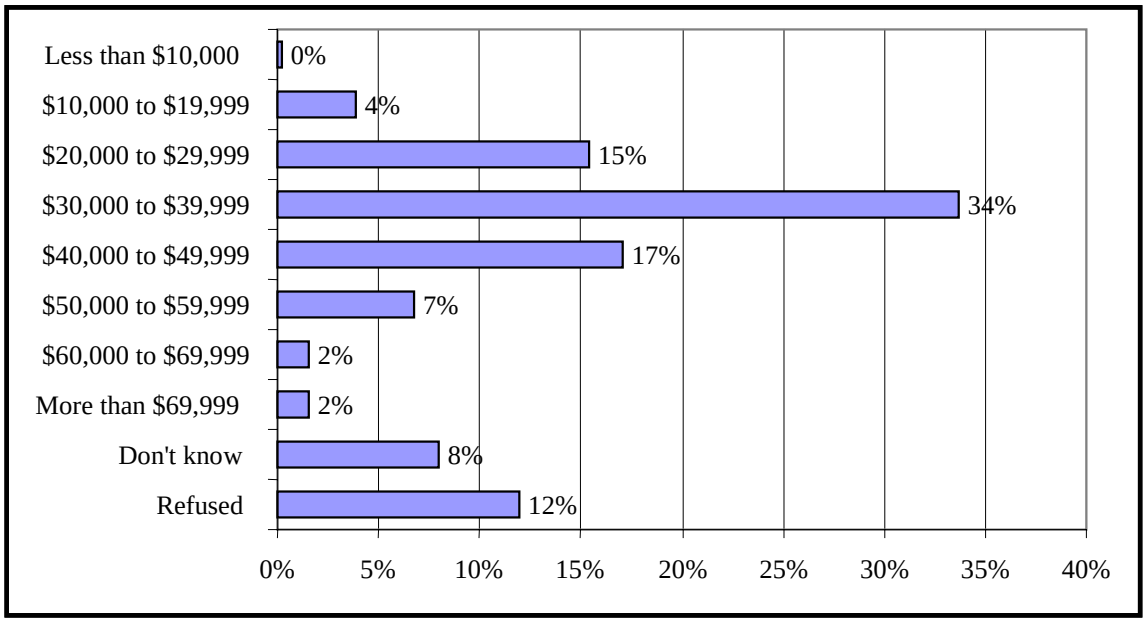
Those who were self-employed among the *Class of '96* tended not to hire additional employees; 80.8% (329 graduates) worked alone and 17.9% hired at least one person. However, the greater the time after graduation, the more likely the self-employed are to hire others. Almost 30% of 1993 graduates and 47% of the 1991 graduates hired at least one other employee.

Including themselves, the *Class of '96* employed 818 individuals, the 1993 graduates employed 1,884 and the 1991 graduates employed 882. Looking at these data in another way, over the last three survey years, fewer graduates are becoming self-employed: 407 of the 1996 graduates were self-employed in 1997; 498 of the 1991 graduates were self-employed in 1996; and 601 of the 1993 graduates were self employed in 1995.

Salary

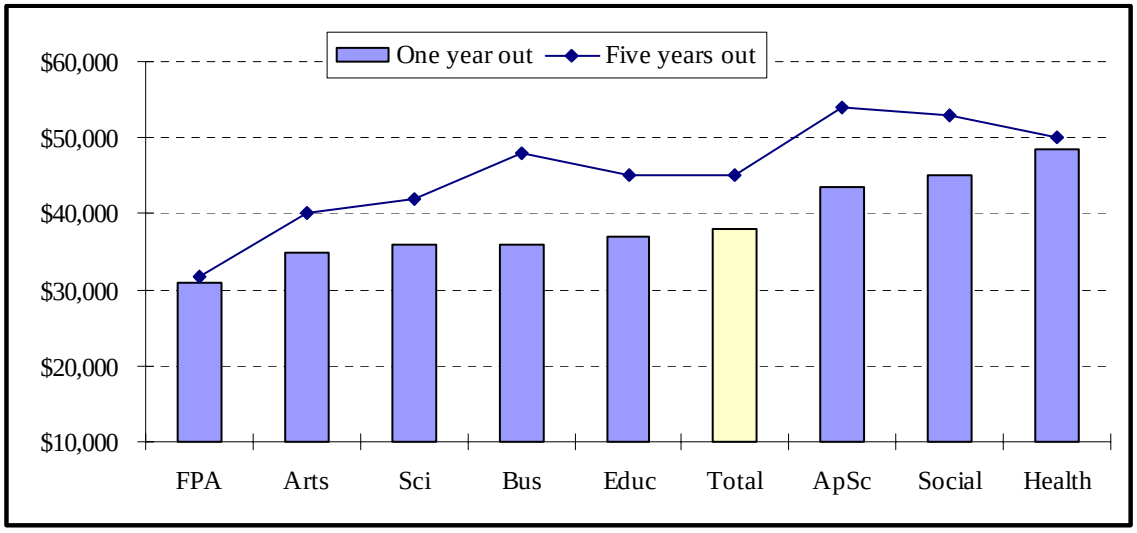
Figure 30 shows the annual earnings of university graduates. About 34% of graduates earn between $30,000 and $40,000 per year.

Figure 30: Annual salary of full-time employed graduates with no further education beyond 1996



Median salary by program area is shown in Figure 31. The lowest median earnings were among FPA graduates at $31,000 and the highest among Health Professionals at $48,000. Within five years, these figures increase, albeit to varying degrees, for each program area. The greatest increase is in the Business program area of $11,840, and the smallest in Fine and Performing Arts at $800.

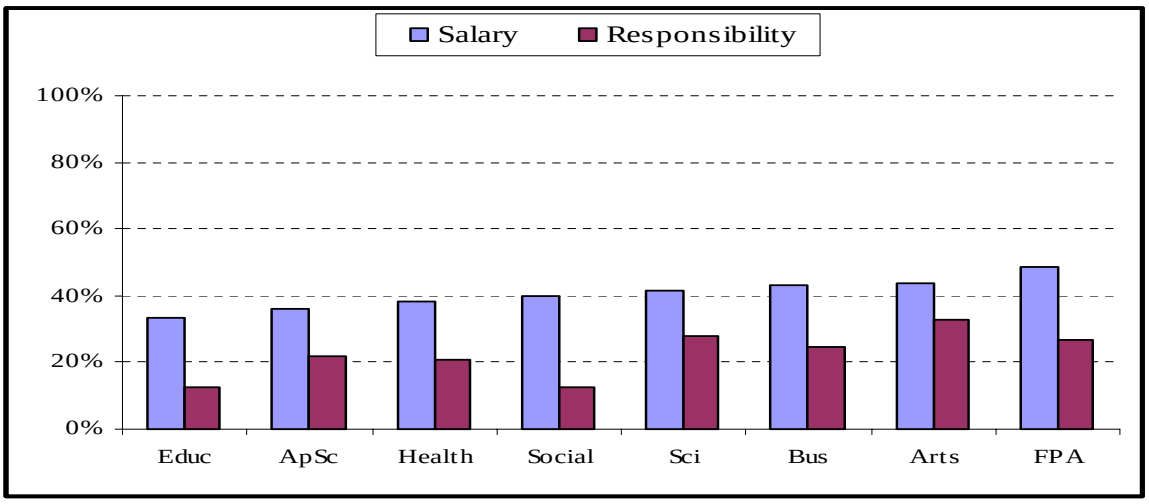
Figure 31: Median salary of full-time employed graduates with no further education beyond 1996



Among those graduates who were employed, 37% were working in jobs which did not require a degree. Programs ranged from Fine and Performing Arts (65.6%) to Education (10.3%).

A second measure of underemployment is that declared by graduates, in terms of both salary and responsibilities. Figure 32 shows that overall graduates saw themselves as underemployed in both respects with salary dominating in all program areas.

Figure 32: Self-declared underemployment in terms of salary and responsibility



A significant proportion (45.8%) of graduates saw their jobs as temporary while they looked for something better. Fine and Performing Arts graduates (58%) were most likely to do so and Social Professions graduates (27.6%) least likely. Just over 47%

anticipated promotion within one year, with Business (61.9%) having the highest expectation and Social Professions (36.4%) the lowest. For over a quarter of graduates, their job was based on a limited term contract. This was especially prevalent among Education graduates (36.6%) compared with Business graduates (12.0%). See Table 19.

Table 19: Job characteristics

	Arts	Educ	ApSc	Sci	Bus	FPA	Health	Social	Total
Viewed as temp. (looking for better)	55%	44%	29%	49%	36%	58%	39%	28%	46%
Anticipate promotion within one year	49%	46%	48%	44%	62%	43%	39%	36%	47%
Based on limited term contract	26%	37%	15%	30%	12%	35%	15%	25%	26%

In order to get a better job 38% of graduates thought they needed additional education. Most frequently identified type of education was a Master's level degree (38.9%). Masters education was identified by Social Profession (72.1%) and Education (65.1%) graduates. Business (23.1%) and FPA (28.6%) graduates were least likely to identify a Master's degree as being necessary for obtaining a better job.

Conclusion

The *Class of '96* graduates reported high levels of employment success with an employment rate of over 93% one year after graduation. Graduates were primarily employed in the professions working at jobs for which a university degree (or equivalent) was required and were earning relatively high wages which, as suggested by the study of graduates five years after graduation, could be expected steadily to increase. By remaining, for the most part, in British Columbia after graduation, BC graduates contribute socially and economically to the well being of the province. Self-employed graduates make significant contributions to local economies by employing over 800 individuals.

The transition from university to the work force in terms of finding a permanent job was very or somewhat easy for the majority of graduates, but a significant proportion experienced difficulties. Once they had found a job, the adjustment to work for the majority of graduates was very or somewhat easy. Most graduates reported that their job was very related to their program of study. Those in less applied program areas were less likely to report a high correlation. Most graduates suggested co-operative education programs or more practical curriculum as a way to improve workforce integration.

Fewer than half of survey respondents indicated they had some kind of debt-load after graduation. The debt-load of those who did borrow was approximately $20,000. Most often students relied on government loans and parents to finance their education.

Many graduates tended to pursue further education, primarily for career goal and personal or professional development reasons. Few graduates re-enrolled in education for employment related reasons. The majority of graduates pursued further university level education such as a second bachelor's degree or a master's degree. Technical or vocational training was a direction followed by some.

This survey provided considerable data on computer use and skills. Although many graduates had some computer experience before entering their program, most acquired additional skills while in university and indicated that their program developed their computer skills to a great or some extent. Specialized software and word processing skills were most frequently identified as skills provided by their program. The majority of graduates indicated computer use was very important for their job.

Graduates reported high levels of satisfaction with their university programs. The majority of graduates would take the same program again, a slightly higher percentage reporting so than reported by 1991 graduates five years out. Although the majority of those graduates who would not take the same program again cite concern with employment prospects, the employment data indicate that their concerns may be misdirected.

Appendix: Frequency Tables