

BC Baccalaureate Graduate Survey

2006

REPORT OF FINDINGS
The Class of 2004
Two Years After Graduation

Prepared for
The University Presidents'
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Executive Summary

Surveys of graduates contribute to knowledge about the outcomes of the undergraduate experience in the post-secondary system and are regularly conducted in British Columbia. This supports ongoing review, renewal, and system accountability. The educational, social, and economic merits of a baccalaureate education are well supported in academic research. Ongoing surveys of degree graduates ensure that students obtain the knowledge and skills relevant to the workplace and to their lives beyond university. Outcomes survey data provide essential information on the labour market supply and demand issues that can assist university administrators in their efforts to maintain high quality and relevant programs. This information can assist prospective students, their parents, and secondary school and college advisors to match students' academic strengths and interests with a wide range of post-secondary options and jobs to which their degrees may lead.

In 2006, twelve B.C. post-secondary institutions together with the University Presidents' Council (TUPC) and the BC Ministry of Advanced Education partnered to survey the 2004 baccalaureate graduates. This is the first survey year to include baccalaureate graduates from both the university and the college and institute sector in British Columbia. In previous years only baccalaureate graduates from the universities were surveyed. Some of the comparisons made in this report use only those five "core" institutions to support historical consistency.

There were a total of 8,009 respondents included in the analysis for this report, from a cohort of 15,605 former students who had graduated from a baccalaureate program in 2004. The gross response rate was 51.3 percent; after removing ineligible students from the cohort the net response rate was 58.9 percent.

Variations in institution size and the results of previous outcomes surveys are reflected in the 2006 survey results:

- The majority of respondents were UBC graduates (2,611 respondents; 32.6% of the total), followed by SFU (1,958 respondents; 24.4%), UVIC (1,640 respondents; 20.4%) and UNBC (396 respondents; 4.9%).
- With relatively smaller student populations, graduates from the newer degree programs constituted smaller percentages of the survey: Malaspina's 331 respondents were 4.1% of the total responses, followed by University College of the Fraser Valley (245 respondents; 3.0%), Thompson Rivers University (224 respondents; 2.8%), BCIT (173 respondents; 2.2%), Royal Roads University (159 respondents; 2.0%), Kwantlen University College (115 respondents; 1.4%), Emily Carr Institute of Art and Design (95 respondents; 1.2%) and Capilano College (62 respondents; 0.8%).

Respondents answered a variety of questions on their degree program experience, including the skills they acquired during their studies, how they funded their education, their participation in further education, and their experience in the labour market. The survey also included a special section exploring internationalization.

Equity Groups

- Gender: Similar to the results from previous years, the number of females receiving baccalaureate degrees at public post-secondary institutions was significantly higher than the number of males (61% of

¹ Royal Roads University (RRU), Simon Fraser University (SFU), University of British Columbia (UBC), University of Northern British Columbia (UNBC), University of Victoria (UVIC), Thompson Rivers University (TRU), BC Institute of Technology (BCIT), Capilano College (CAP), Emily Carr Institute of Art and Design (ECIAD), Kwantlen University College (KWAN), Malaspina University College (MALA), and the University College of the Fraser Valley (UCFV)

students in the 2006 cohort were female). The survey respondents included 63% female respondents, with extensive variation in gender balance by program and sector type.

- **Age:** Respondents from the newer degree programs at university colleges, colleges, and institutes were typically older than those from universities. Two years after graduating with their bachelor's degree, the mean age for university respondents at the time of the survey was 29, while for other post-secondary institutions the mean age was 32.
- **Aboriginal:** 3% of respondents from universities and 5% of respondents from university colleges, colleges, and institutes self-identified as Aboriginal.
- **Visible Minority:** 29% of university and 18% of university college, college, and institute graduate respondents self-identified as being part of a visible minority group in Canada. These results vary by institution: there is a 33.0 percentage point difference between UBC (40% of respondents were members of a visible minority) and Malaspina (7%).
- **Disability:** 3% of university respondents and 5% of university college, college, and institute respondents self-identified as having a disability.

Satisfaction: Part of the survey asks participants to reflect upon their university education. The results demonstrated very high levels of satisfaction, with 96% stating that they were “satisfied” or “very satisfied”.

- 79% of respondents from universities and 84% from university colleges, colleges, and institutes responded that they would take the same program again. Most likely to say they would take the same program again were Law graduates from the university sector,

(90% affirmative) and Humanities graduates from the university colleges, colleges, and institutes (95%). Least likely to say they would select the same program again are Life Sciences graduates from the university sector (66%) and Fine and Performing Arts graduates from the university college, college, and institute sector (64%).

Skill Development: When asked which skills their institution had helped them to develop, respondents rated the following top three skills: skills to analyze and think critically, skills to learn on one's own, and communication skills (writing, speaking and reading). Skill development in mathematics and the use of computers were the skills rated lowest overall and had the highest proportion of survey participants who said this skill was “not applicable”.

Location: The majority of respondents resided in southwest BC at the time of the survey, with 63% from the universities and 62% from the other participating institutions living in the Lower Mainland or southwest BC.

Funding: Graduates were asked several questions about how they paid for their education. Student loans were the most important source of funding to pay for their educational program for 30% of respondents. The average total debt from either government or student loans, for those who borrowed, was \$21,102. At the time of the survey, 16% of university college, college, and institute graduates had completely paid off their student loans, and 22% of university graduates had done so.

Work Experience: 33% of respondents overall said that they had participated in some form of work experience as a part of their program. In the university sector, 79% of Engineering students and 35% of university respondents overall said that they participated in some form of work experience. In the university college, college and institute sector, the Health, Fitness and Kinesiology graduates were

most likely to state that they had participated in work experience (74%).

Internationalization: 10% of survey respondents said they had participated in opportunities to study or work abroad. Knowledge of other cultures was the aspect of internationalization that was identified as most important to the jobs the graduates had held since graduation.

Additional education: University graduates were more likely to have taken additional education than graduates from university colleges, colleges, and institutes (53% compared with 44%). Participation in further studies was also influenced by the program of study: graduates from Life and Physical Sciences were most likely to go on to further studies, followed by those from Health, Fitness and Kinesiology. The least likely to go on were respondents from Law and Education.

Employment: At the time of survey, 85% of respondents said they were working and 23% of respondents were both working and taking classes. Of those respondents who were working at the time of survey, 88% of respondents rated the knowledge, skills, and abilities they acquired during their baccalaureate education as useful or very useful in their work.

- 84% percent of those who were working were working full-time. The average income for respondents who were working full time was \$46,444 (median of \$43,000). Law graduates saw the highest income overall (mean \$71,740).
- On average, females earned significantly less than males: females earned an average of \$43,856 (median \$41,550) while males earned \$50,464 (median \$46,000).

Introduction

In 2004 the Ministry of Advanced Education and a group of post-secondary institutional representatives met to discuss the possibility of integration of the survey activities that were funded or partially funded by the province. With university colleges, colleges, and institutes granting an increasing number of baccalaureate degrees, consideration was given to the appropriate outcomes survey that would best meet government accountability and institutional needs. The provincial government wanted the outcomes of all baccalaureate graduates to be reported in a similar manner, regardless of the sector from which those graduates completed their degrees.

The University President's Council (TUPC) and six institutions participating in the College and Institute Student Outcomes (CISO) project agreed to take part in the 2006 BC Baccalaureate Graduate Survey (BGS). This meant that former students who had completed a degree at university colleges, institutes and one degree-granting college were included in the Baccalaureate Graduate Survey in 2006. At the same time graduates from the new Thompson Rivers University (formerly University College of the Cariboo) were included in the BGS for the first time. In this report, some comparisons are made with previous years' results using only the original five universities surveyed in previous years. As this is the first report to integrate the baccalaureate graduates from all types of institutions, the results presented in this paper are often categorized by institution type.

There were a total of 8,009 respondents included in the analysis for this report, from a cohort of 15,605 former students who had graduated from a baccalaureate degree program in 2004. The gross response rate was 51 percent: removing the former students who should not have been included in the cohort increases the net response rate to 59 percent.

Students were from a diverse array of programs, from professional degrees such as education, engineering, nursing, and law to arts and sciences degrees such as English, biology, and history. All graduated from their institution with a four- or five-year baccalaureate degree, but many may have transferred there after several years at a different institution.

Table 1: BC post-secondary institutions awarding baccalaureate degrees 2004

Universities	Cohort	Net Frame	Respondents	Response Rate
Royal Roads University (RRU)	231	222	159	72%
Simon Fraser University (SFU)	3553	3216	1958	61%
Thompson Rivers University (TRU)	452	417	224	54%
University of British Columbia (UBC)	6008	4796	2611	54%
University of Northern BC (UNBC)	611	572	396	69%
University of Victoria (UVIC)	2947	2679	1640	61%
Total	13802	11902	6988	59%

University Colleges, Colleges and Institutes				
BC Institute of Technology (BCIT)	270	265	173	65%
Capilano College (CAP)	118	112	62	55%
Emily Carr Institute of Art and Design (ECIAD)	231	197	95	48%
Kwantlen University College (KWN)	231	212	115	54%
Malaspina University College (MALA)	490	466	331	71%
University College of the Fraser Valley (UCFV)	463	441	245	56%
Total	1803	1693	1021	60%

System Total	15605	13595	8009	59%
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Table 2: Program Groupings by Institution Type

Program Groupings	University		University College, College, Institute		Total respondents	
	n	%	n	%	n	%
1 Fine and Performing Arts	252	4%	118	12%	370	5%
2 Computing Science	295	4%	36	4%	331	4%
3 Engineering	333	5%	50	5%	383	5%
4 Education	846	12%	92	9%	938	12%
5 Law	126	2%	0	0%	126	2%
6 Health Professions	456	7%	158	15%	614	8%
7 Health, Fitness and Kinesiology	159	2%	27	3%	186	2%
8 Business	688	10%	230	23%	918	11%
9 Natural Resources	206	3%	3	0%	209	3%
10 Social Sciences	2057	29%	193	19%	2250	28%
11 Humanities	728	10%	80	8%	808	10%
12 Life Sciences	620	9%	28	3%	648	8%
13 Physical Sciences	222	3%	6	1%	228	3%
Total	6988	100%	1021	100%	8009	100%

Participating institutions and response rates

In 2006, twelve public post-secondary institutions in British Columbia participated in the Baccalaureate Graduate Survey. Six of the institutions were universities and six were other types of post-secondary institutions at that time: university colleges, colleges, and institutes. The majority of respondents were from universities (87 percent), and the three largest universities in BC encompassed 78 percent of respondents overall.

Baccalaureate programs

To allow summary analysis of post-secondary education at the system level in British Columbia, baccalaureate programs from universities, university colleges, colleges, and institutes were grouped according to the Classification of Instructional Program (CIP) codes that post-secondary institutions submitted to the University President's Council (TUPC) for the 2006 survey. The program groupings are broad categories that include a variety of subject areas; some categories have a wider scope of subject areas than others. For example, the categories Fine and Performing Arts, Computing Science, and Education are fairly limited in the range of programs offered, while the category Social Sciences includes a range of programs from Geography, Economics, and Social Work to Communication, Political Science, and Criminology. Respondents from Health Professions represent mostly nursing students, and those from Life Sciences represent mostly biology, microbiology and biochemistry students.

Results by program area are presented separately for universities and other post-secondary institutions offering baccalaureate degrees. Overall, though, the largest percentages of respondents were from Social Sciences, Education, Business, and Humanities.

Demographics

Respondents from university colleges, colleges and institutes were typically older than those from universities. The mean age for university respondents at the time of the survey was 29, while for other post-secondary institutions the mean age of respondents was 32.

The oldest students were those who had graduated from one of the colleges, institutes or university colleges: this age difference was evident in all program groupings, with a difference of approximately two years. Respondents from Health Professions, Law and Education tended to be the oldest, reflecting that those programs either have a transfer component or require an undergraduate degree. For other post-secondary institutions, respondents from Engineering and Humanities joined the list as amongst the oldest. Overall, the youngest respondents were from the Sciences or from Health, Fitness and Kinesiology.

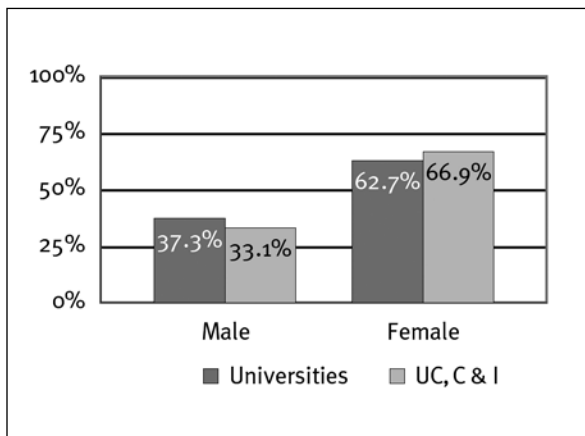
Table 3: Mean age of respondents by program grouping

Program Grouping	University	University College, College, Institute	Overall
Fine and Performing Arts	28	32	30
Computing Science	28	31	28
Engineering	27	36	28
Education	32	34	32
Law	32		32
Health Professions	33	35	33
Health, Fitness and Kinesiology	27	29	27
Business	28	30	29
Natural Resources	29	*33	29
Social Sciences	28	32	29
Humanities	30	35	31
Life Sciences	26	27	26
Physical Sciences	27	*26	27
Overall mean age	29	32	29

* Less than 10 respondents, interpret with caution

Similar to the results from previous years, the number of females receiving baccalaureate degrees at public post-secondary institutions was significantly higher than the number of males (61 percent of students included in the 2006 cohort were female). Women were also more likely to respond to the Baccaalaureate Graduate Survey than were men (63 percent of respondents were women; 37 percent were men). This gender difference was even more pronounced for university colleges, colleges, and institutes.

Figure 1: Gender distribution of respondents



Respondents to the Baccaalaureate Graduate Survey were typically located in the Lower Mainland of British Columbia at the time of the survey. Considering that 66 percent of respondents completed their studies at a post-secondary institution in the Lower Mainland/Southwest of BC, it is not surprising that the majority of graduates reside there at the time of the survey.

More than three-quarters of respondents from Computer Science baccalaureate programs were located in the Lower Mainland, and a slightly lower percentage of respondents from Health, Fitness, and Kinesiology programs as well as Engineering programs resided there.

An exception to this trend were graduates of Natural Resource programs—at the time of the survey only 30 percent resided in the Lower Mainland. Respondents from these programs were more likely to be located in Northern BC or another Canadian province.

On average, 11 percent of respondents resided outside BC two years after receiving their baccalaureate degree and only 1 percent were living in the United States. A few program areas typically had more than the average percentage living in another Canadian province—Law (26%), Natural Resources (21%), and Physical Sciences (15%).

Figure 2: Respondents' current residence

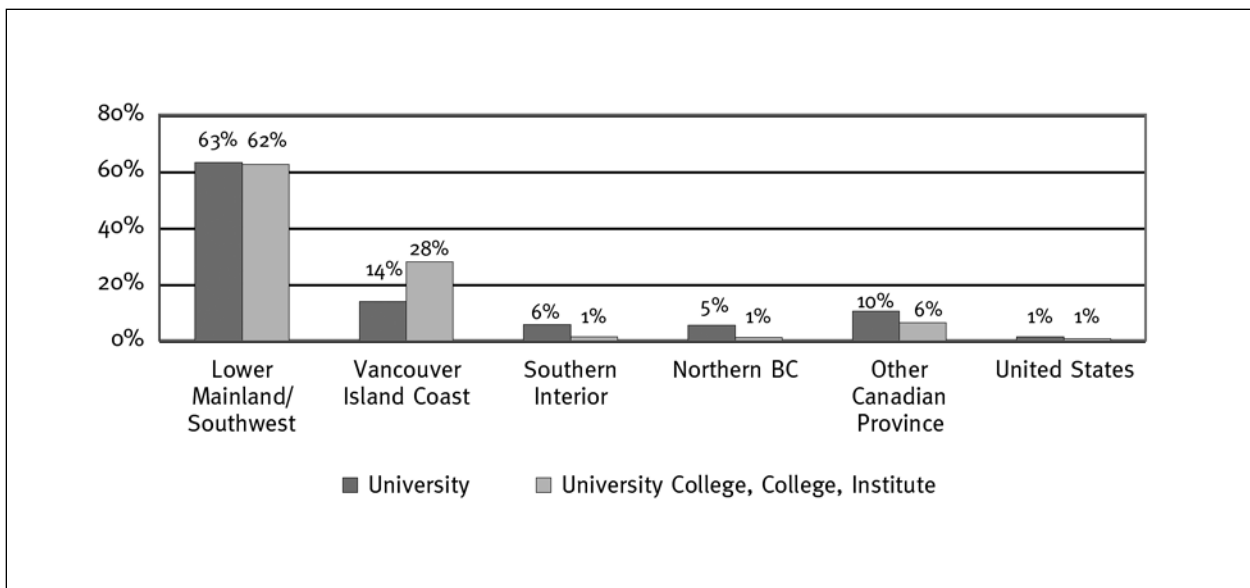


Table 4: Respondents' current residence by program grouping

	Lower Mainland/ Southwest	Southern Interior	Vancouver Island	Northern BC	Other Canadian Province	United States	N
Fine and Performing Arts	68%	4%	13%	1%	11%	3%	343
Computing Science	76%	3%	12%	4%	4%	1%	302
Engineering	71%	3%	10%	1%	12%	2%	345
Education	63%	7%	16%	7%	5%	0%	825
Law	57%	3%	14%	0%	25%	1%	102
Health Professions	54%	9%	17%	6%	12%	1%	545
Health, Fitness and Kinesiology	73%	2%	10%	2%	12%	1%	169
Business	65%	3%	16%	5%	9%	1%	820
Natural Resources	30%	13%	16%	21%	21%	0%	188
Social Sciences	63%	4%	17%	4%	10%	1%	2038
Humanities	61%	6%	19%	5%	8%	1%	730
Life Sciences	64%	4%	16%	4%	10%	2%	598
Physical Sciences	64%	9%	8%	2%	15%	2%	205
All respondents	63%	5%	16%	5%	10%	1%	
Number of respondents	4549	376	1124	353	714	94	7210

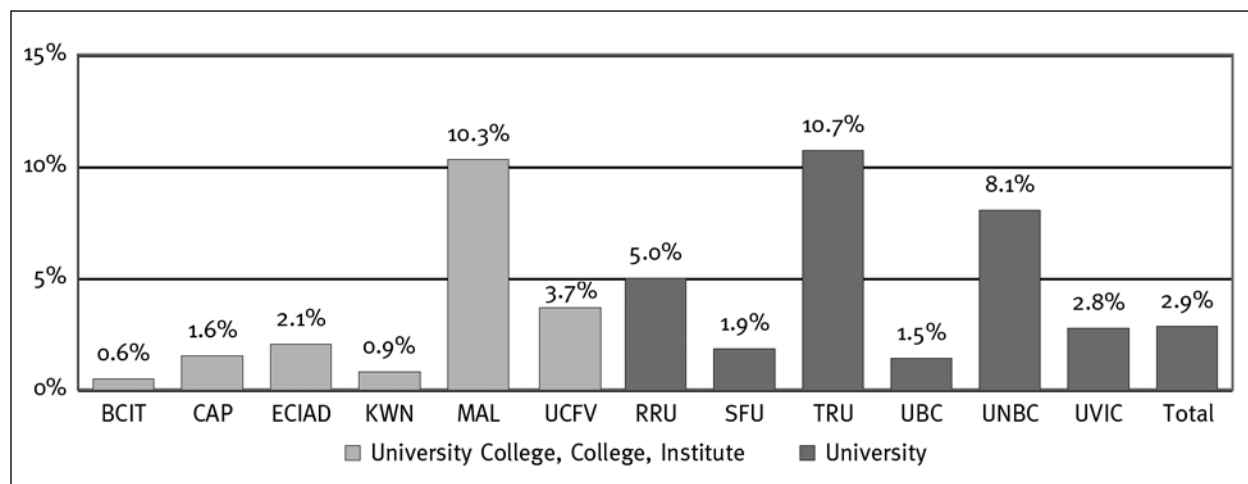
Equity groupings and diversity

A diverse and multicultural student body enriches the educational experiences of those pursuing post-secondary education. Respondents to the Baccalaureate Graduate Survey were asked if they belonged to any of three specific equity groups.

Respondents of native descent, such as Inuit, Métis, or North American Indian—either status or non-status—were asked to self-identify themselves as being “Aboriginal”. There was 2.9 percent of respondents overall who identified themselves as

such, a slight increase over the 1.9 percent who self-identified in the 2004 survey. There were differences in Aboriginal participation across post-secondary institutions, with those located in the interior or northern part of the province having a higher than average participation rate (Thompson Rivers University had 11 percent who self-identified as being Aboriginal and the University of Northern BC had 8 percent). Malaspina University College on Vancouver Island also had a higher than average rate of Aboriginal participation, at 10 percent.

Figure 3: Percentage of respondents who self-identified as Aboriginal



There were a substantial number of respondents who self-identified as being part of a visible minority in Canada—over one-quarter overall (examples were provided by interviewers all relating to ethnicity). There was a large range among institutions of participation rates for those who said they were part of a visible minority group—the highest percentages were for institutions located in the Lower Mainland: UBC, BCIT, SFU and Kwantlen University College, not surprising given the large population belonging to a visible minority living there.

Graduates were asked if they had a long-term physical or mental health condition that limited the kind of activity that they could perform on a daily

basis. Overall, only 3 percent gave an indication that this was the case—although a slightly higher percentage from university colleges, colleges, and institutes (5 percent) self-identified.

Quality of education

Graduates were asked about their overall satisfaction with their baccalaureate education two years after completing their degree. Almost all respondents were positive in their feedback (96 percent were satisfied) and only 4 percent of graduates overall said they were dissatisfied or very dissatisfied with the education they received.

Figure 4: Percentage of respondents who are members of a visible minority

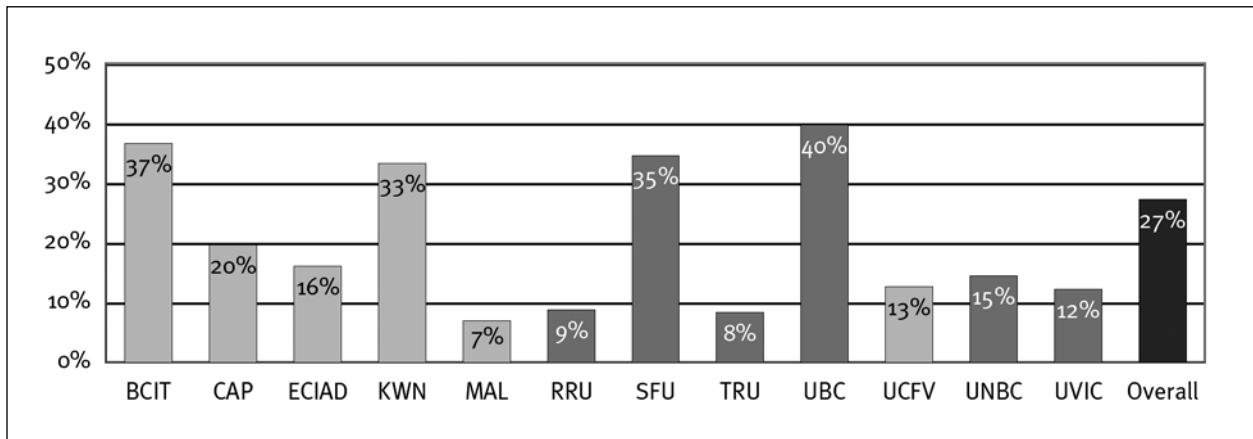
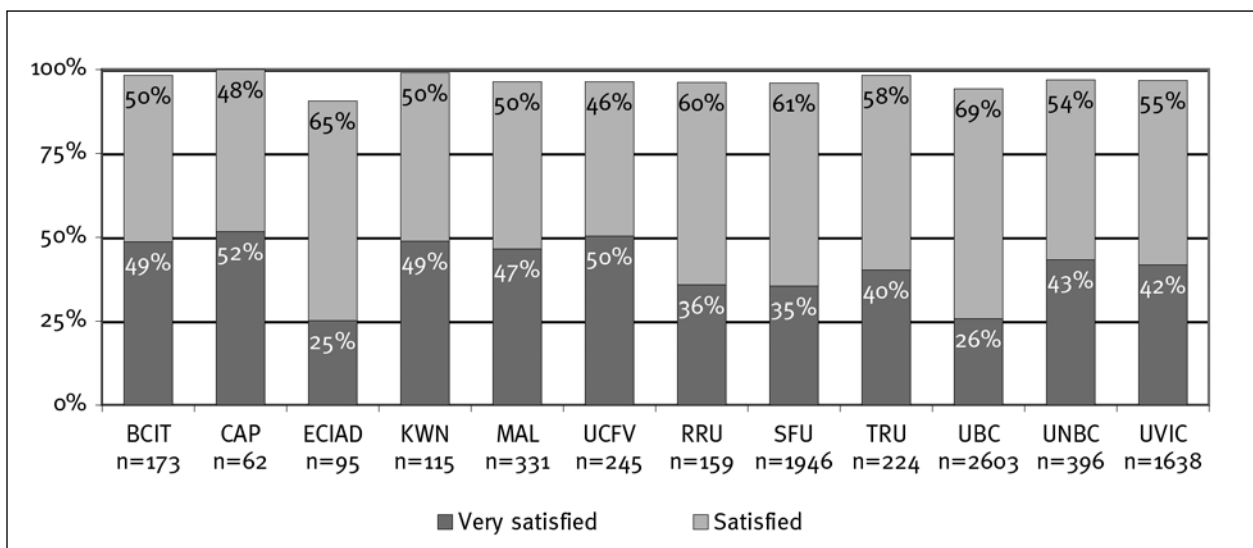


Figure 5: Satisfaction with education



There were, however, some differences by institution on the most positive end of the scale—those who said they were “very satisfied”. Subsequent analyses in this report should help to highlight or explain these differences in satisfaction—previous research has pointed to institution size, program type and the ability to make connections in a smaller community within the institution.² Capilano College had 52 percent of baccalaureate respondents “very satisfied” with their education followed by the University College of the Fraser Valley, Kwantlen University College and BCIT.

Quality of course instruction is fundamental to students’ educational experience.³ In the 2006 survey, graduates were asked to rate the quality of instruction during their studies using the scale “very good”, “good”, “poor”, or “very poor”—positive ratings were given by 95 percent of respondents overall. To better differentiate between programs and institutions, comparisons are made

using the top category (a total of 31 percent of respondents overall said the quality of instruction was “very good”).

There are differences in the results for the “very good” category by institution and program type (there are also individual variations at the departmental and course level, but these will not be investigated in this report). Overall, graduates from the Humanities gave the highest ratings to “quality of instruction”, followed by graduates from Health, Fitness and Kinesiology and those from Law. The lowest percentage of respondents who said “very good” to instruction was from Engineering, Computing, and Life Sciences.

² 2002 BC University Baccalaureate Graduate Survey; The Class of 2000 Two Years After Graduation, Report of Findings; The University Presidents’ Council of BC and the Ministry of Advanced Education. <http://www.tupc.bc.ca>

³ Correlation is significant at the 0.001 level (2-tailed).

Table 5: Quality of instruction rated “very good”, by institution and program grouping

	University College, College, Institute						University						Overall	
	BCIT n=172	CAP n=62	ECIAD n=95	KWN n=114	MAL n=331	UCFV n=245	RRU n=159	SFU n=1951	TRU n=223	UBC n=2586	UNBC n=394	UVIC n=1630		
Fine and Performing Arts		30%	15%	18%					47%		32%		45%	34%
Computing Science				29%		21%		10%		29%	19%	15%		20%
Engineering	28%							26%		13%		15%		17%
Education					33%			38%	24%	21%	11%	27%		28%
Law										21%		59%		37%
Health Professions	36%	20%		40%	36%	47%			36%	21%	11%	38%		31%
Health, Fitness and Kinesiology						67%		37%		27%		52%		38%
Business	27%	57%		34%	31%	29%	33%	21%	16%	26%	24%	41%		29%
Natural Resources							22%	23%	29%	47%	23%			31%
Social Sciences					54%	42%		35%	38%	27%	51%	33%		35%
Humanities					70%	65%		41%	32%	33%	62%	46%		43%
Life Sciences					71%	64%		22%	33%	17%	48%	26%		24%
Physical Sciences								32%	60%	21%	67%	35%		32%

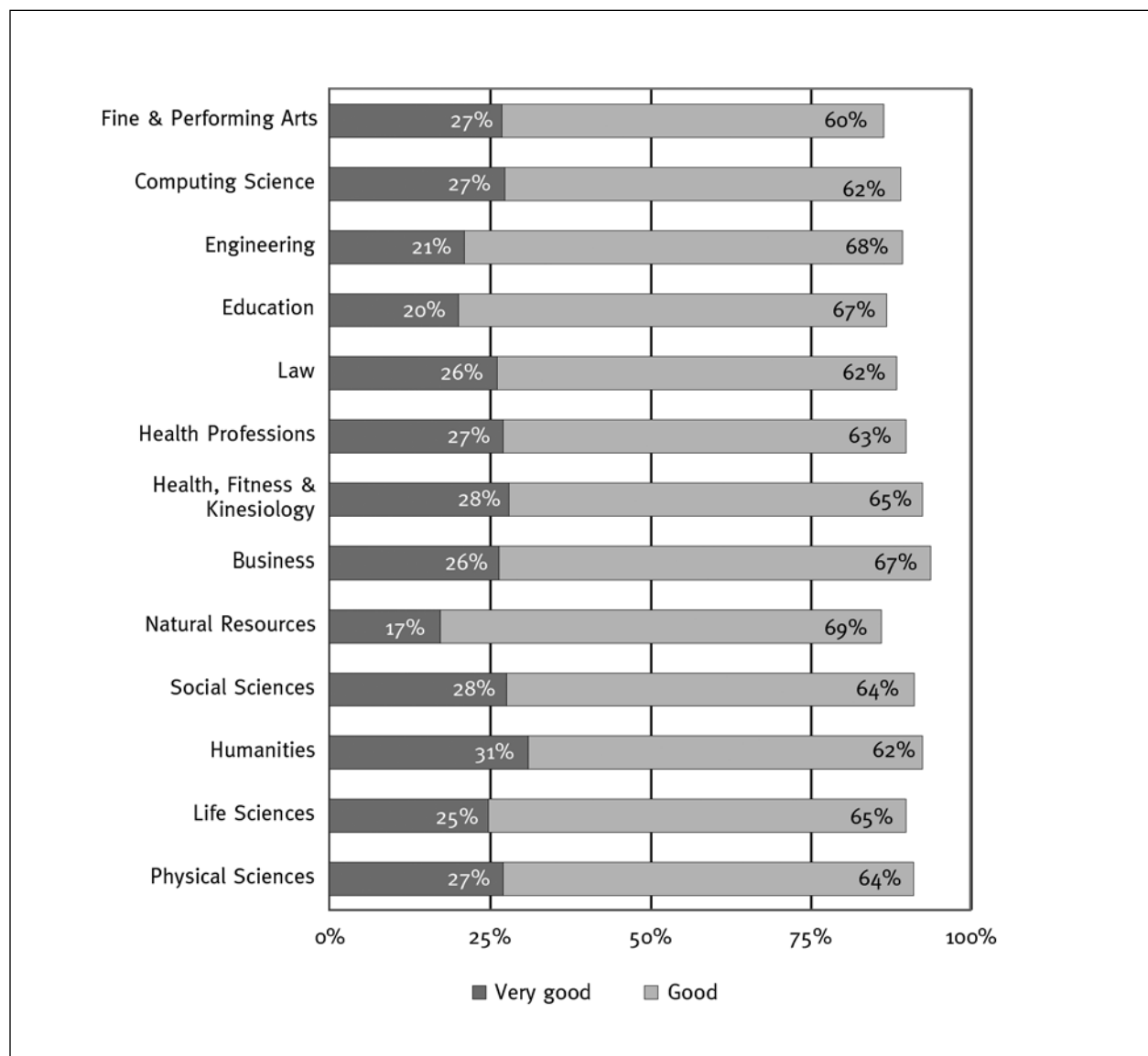
* Any program that had fewer than 10 respondents is not reported in this table

Graduates were also asked to evaluate their program in terms of how well the core program of required courses provided a comprehensive understanding of the field of study. Most were positive (90 percent said it was “good” or “very good”) and more than one-quarter overall were in the top category. There were slight variations by program grouping, with Natural Resources having the lowest percentage of positive responses.

Respondents to the baccalaureate graduate survey were asked, given their experiences in their program, whether they would select the same

program again. Data for the system as a whole showed that respondents from Law were most likely to say they would select the same program again (90 percent), followed by those from Health Professions (87 percent), Business (85 percent), and Education (85 percent). Least likely to select the same program were respondents from Life Sciences (67 percent), Fine and Performing Arts (69 percent), Natural Resources (72 percent), and Physical Sciences (74 percent). There were also some differences by type of institution offering the program.

Figure 6: Core program provided comprehensive understanding of field of study

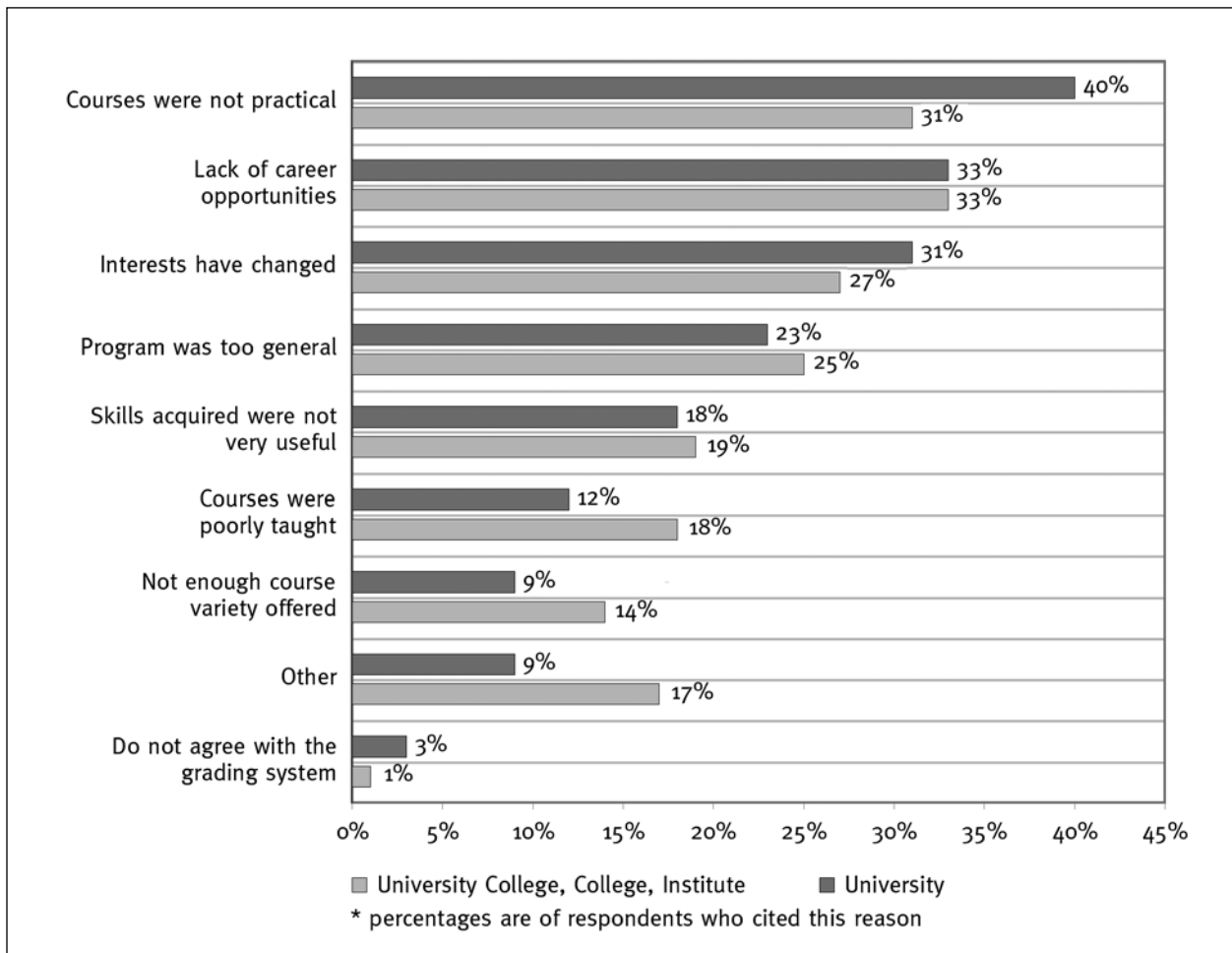


The 21 percent of graduates who said they would not select the same baccalaureate program gave a variety of reasons, but most were centered on the lack of career opportunities and the non-practical nature of their studies. Almost two-thirds (63 percent) gave reasons related to not being able to apply their education to the “real” world (they couldn’t find work, the courses were too general, or the skills provided were not very useful). Some respondents said that their interests had changed—17 percent overall. Only a small minority (14 percent) were dissatisfied with the quality of the courses or grading system, and 5 percent had some “other” reason.

Table 6: Would select same program again

	University	University College, College, Institute
Fine and Performing Arts	71%	64%
Computing Science	81%	77%
Engineering	78%	86%
Education	85%	87%
Law	90%	n/a
Health Professions	85%	91%
Health, Fitness and Kinesiology	83%	88%
Business	86%	83%
Natural Resources	72%	n/a
Social Sciences	78%	84%
Humanities	79%	95%
Life Sciences	66%	91%
Physical Sciences	74%	n/a
All respondents	79%	84%
Number of respondents	6655	963

Figure 7: Reasons for not selecting same program again



Skill Development

The development of intellectual and social skills is one of the primary objectives of baccalaureate education. Most survey respondents indicated that their institution had helped them to develop a variety of intellectual and social skills. The skills to analyze and think critically were the items rated the highest (90 percent “high” or “very high”), followed by the skills to learn on one’s own (89 percent). Also highly rated were communication skills, with an average of 81 percent of graduates affirming that the institution had helped them develop those skills (writing, speaking, and reading combined).

Skill development in mathematics and the use of computers was rated lower overall (51 and 59 percent respectively said “high” or “very high”),

and those questions also had the highest proportion of survey participants who said this skill was “not applicable” (25 percent and 15 percent of respondents, respectively).⁴

The range of skill ratings is quite diverse when results are compared by program grouping. For example, 79 percent of survey participants overall thought that the degree of skill development to work effectively with others was “high” or “very high”. By program area, however, the results ranged from a high of 91 percent in Education, Health, and Business, to 56 percent in Law.

⁴ Percentages for ratings (“very high” to “very low”) exclude the respondents who said “not applicable”.

Figure 8: Development of skills during studies

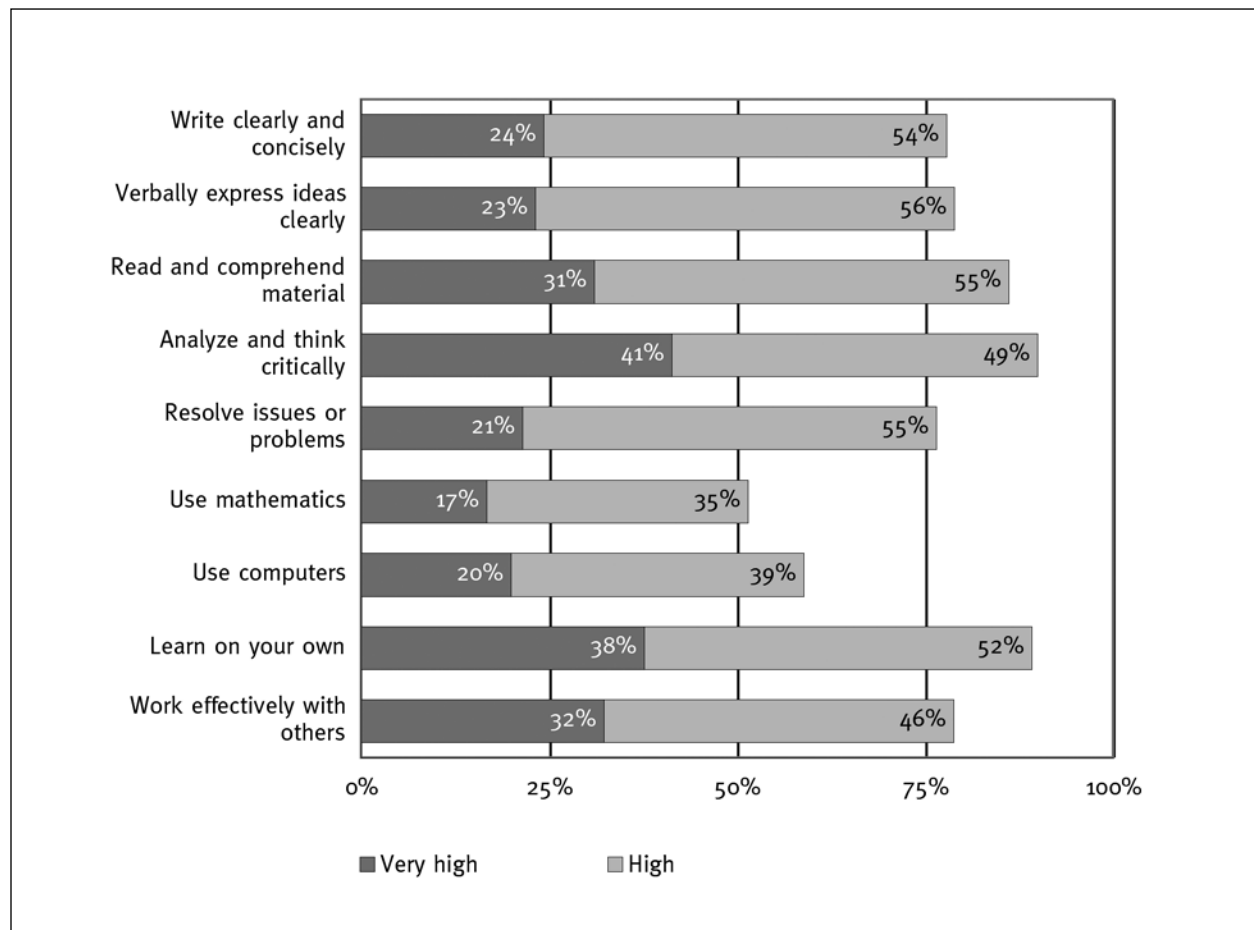
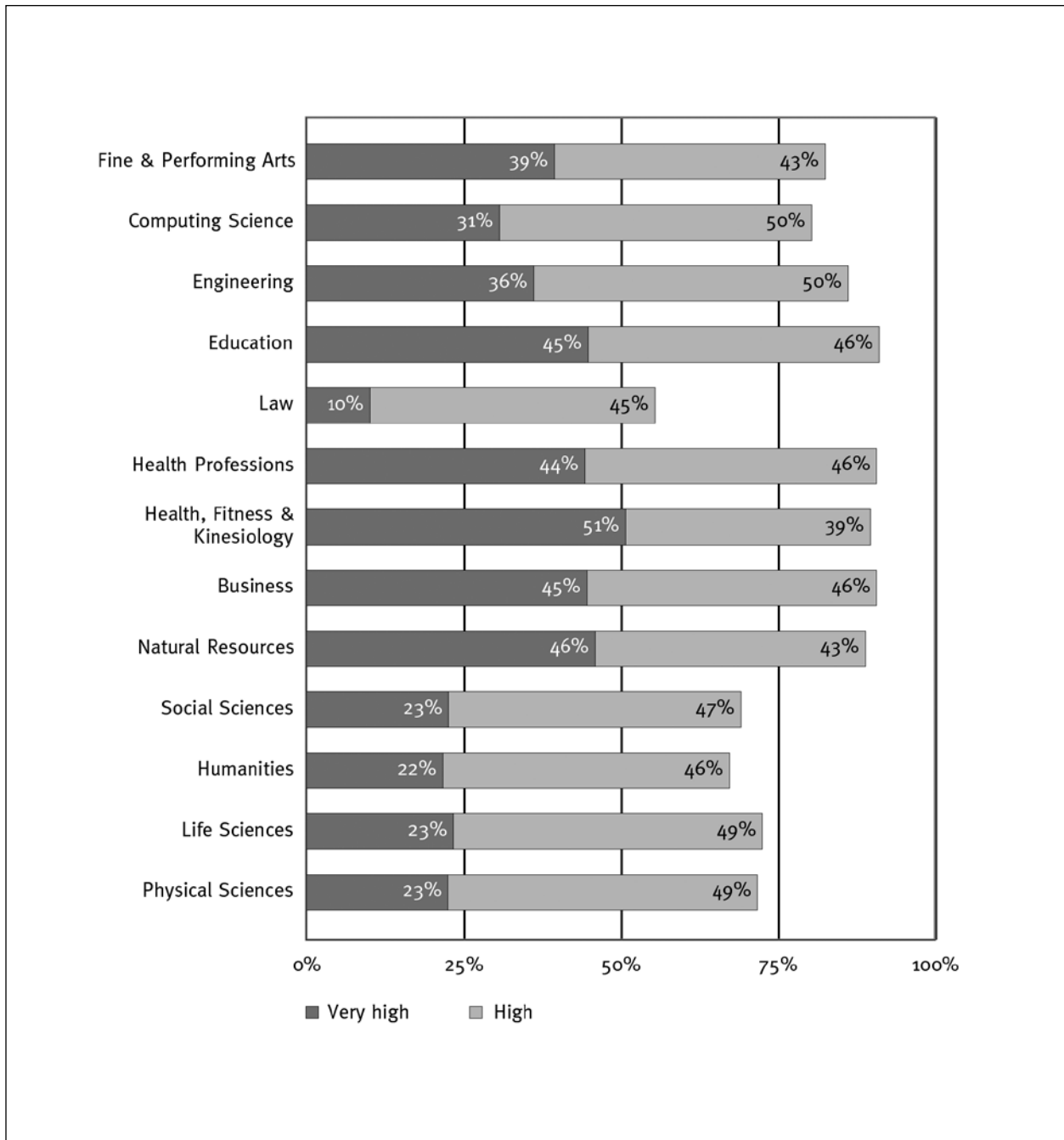


Figure 9: Development of skill to work effectively with others



Work experience as part of the program

Experiential learning during post-secondary studies is a recognized contributor to educational success and student engagement⁵ (George Kuh, National Survey of Student Engagement). In the Baccalaureate Graduate Survey, graduates were asked whether they had participated in paid or unpaid work experience as part of their program. A full one-third of respondents said “yes”, although there were some differences by program and institution type. University graduates from

Engineering and Health, Fitness, and Kinesiology were the most likely to report that they had participated in experiential learning during their program, followed by those from Computing Science, Law and Health. Graduates from university colleges, colleges and institutes who had obtained a baccalaureate degree from Health, Fitness, and Kinesiology and those from Computing Science were most likely to report that they had participated in experiential learning.

⁵ http://nsse.iub.edu/pdf/conceptual_framework_2003.pdf

Table 7: Participation in work experience as part of the program

Program Grouping	University	University College, College, Institute	Overall
Fine and Performing Arts	29%	35%	31%
Computing Science	52%	51%	52%
Engineering	79%	33%	73%
Education	26%	23%	26%
Law	49%	n/a	49%
Health Professions	49%	35%	45%
Health, Fitness and Kinesiology	68%	74%	69%
Business	37%	32%	36%
Natural Resources	32%	*67%	33%
Social Sciences	23%	24%	24%
Humanities	14%	16%	14%
Life Sciences	41%	25%	40%
Physical Sciences	41%	*0%	40%
All respondents	34%	31%	33%
Number of respondents	2348	314	2662

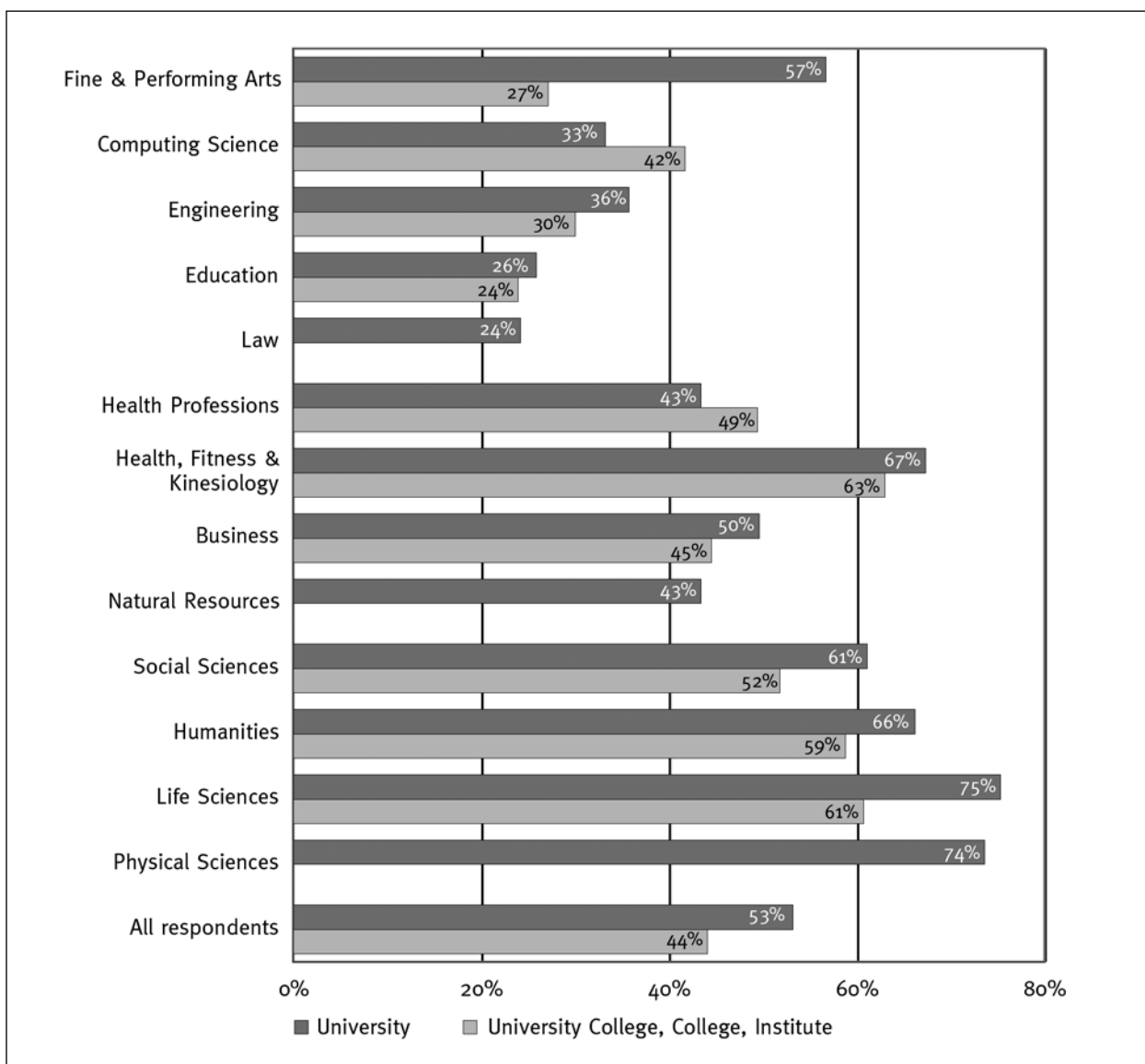
* Less than 10 respondents, interpret with caution

Participation in further education

University graduates were more likely to have taken additional education compared with baccalaureate graduates from university colleges, colleges, and institutes (53 percent compared with 44 percent). Participation in further studies was also influenced by the program of study. Graduates from Life and Physical Sciences were most likely to go on to further studies, followed by those from Health, Fitness and Kinesiology. Least likely to go on were respondents from Law and Education.

There is a noticeable interaction between labour market conditions in the province and rates of further studies. When the class of 2002 was surveyed the unemployment rate for participants was 5.3 percent while in 2006, the unemployment rate for respondents from the same group of institutions was only 4.1 percent. Since the 2004 survey of 2002 graduates, there has been a slight decrease in the percentage of respondents who took additional formal post-secondary education after graduating (from 54 percent to 53 percent for the same five universities in 2006).

Figure 10: Further education by program and institution type



Overall, about one-quarter of the respondents were in another undergraduate program, one-quarter were taking a masters degree and about one-fifth were taking a professional association certification. Results varied quite a bit by institution—programs offered at the different types of post-secondary institutions would of course impact the type of further study that graduates would likely undertake.

Overall, most of those who continued on to master’s or doctoral programs felt that their program had prepared them academically for the challenges of their further education (89 percent gave a positive response). Graduates from university colleges, colleges and institutes were somewhat more positive, as 50 percent said their studies had prepared them very well, compared with 38 percent of universities. Combining the top two categories, however (well and very well), resulted in similar results for the two sectors (89 percent for universities and 90 percent for the other institutions). Responses about academic preparation were very similar across program groupings, with the majority of respondents from all programs reporting high levels of academic preparation.

Graduates who are working

At the time of the survey, 85 percent of survey participants were working—and almost three-quarters of those said their job was related to their program of study (73 percent). The results were even more positive for baccalaureate graduates from university colleges, colleges, and institutes—82 percent said they were in training-related jobs (compared to 71 percent of university graduates only).

A substantial number of respondents who were working also said that they had gone on to further studies (23 percent of those working). As one might expect, respondents from universities who said that their main job was not related to their original program were more likely to be working and studying compared with those who said their job was related to their baccalaureate program (28 percent versus 22 percent). This effect was only relevant to universities, however, and the differences are probably related to the variety of programs offered at the different types of post-secondary institutions.

Employed graduates were asked to rate the usefulness of knowledge, skills, and abilities they

Figure 11: Type of further education

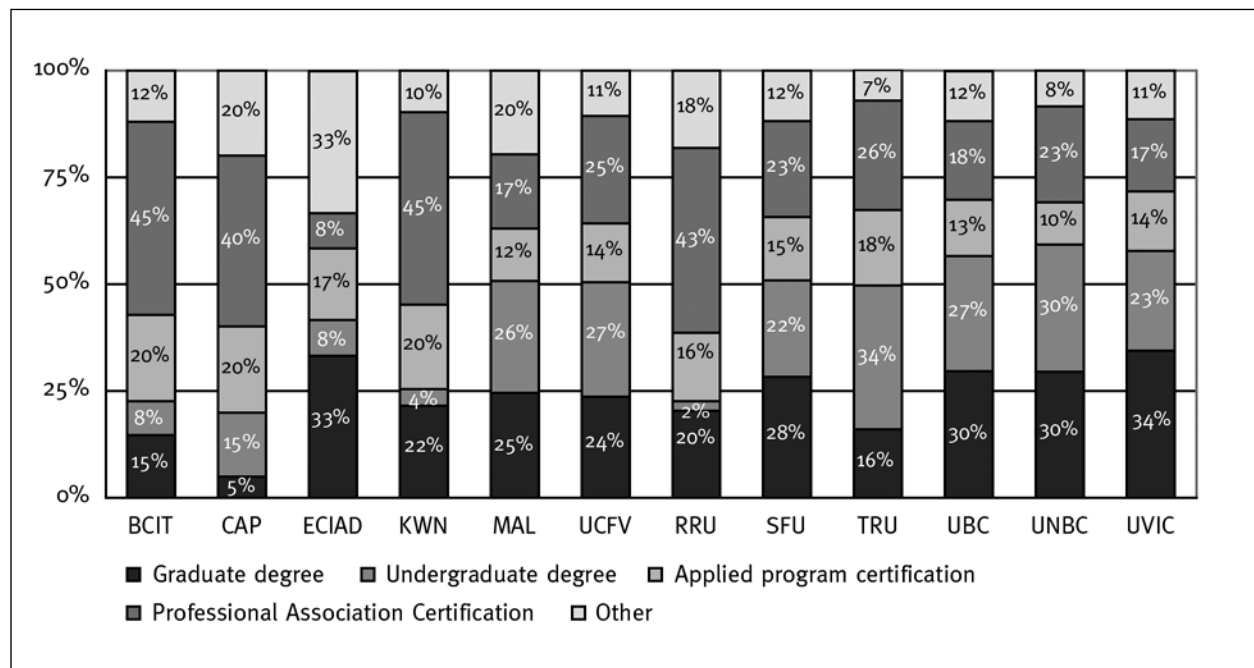


Figure 12: Percentage of graduates studying and working at the time of the survey

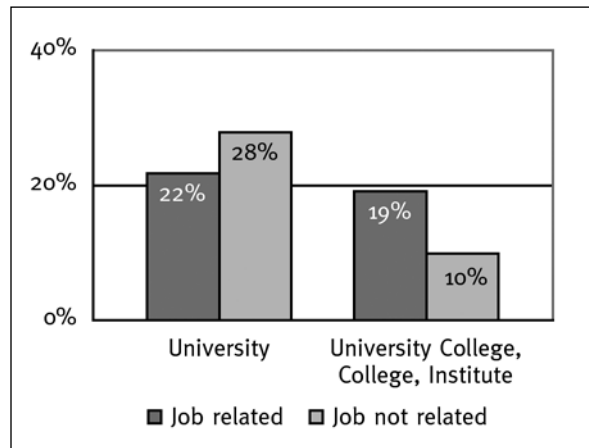
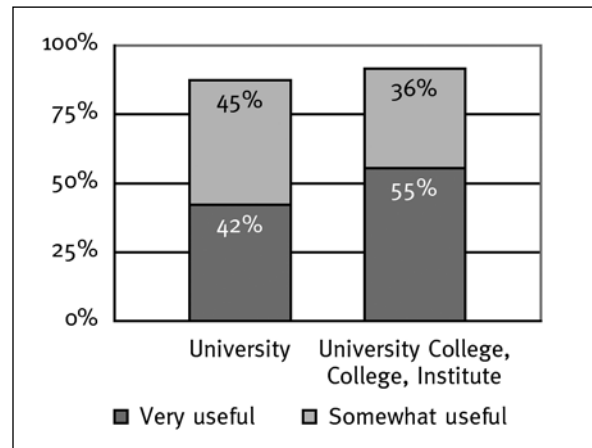


Figure 13: Usefulness of skills acquired for employment



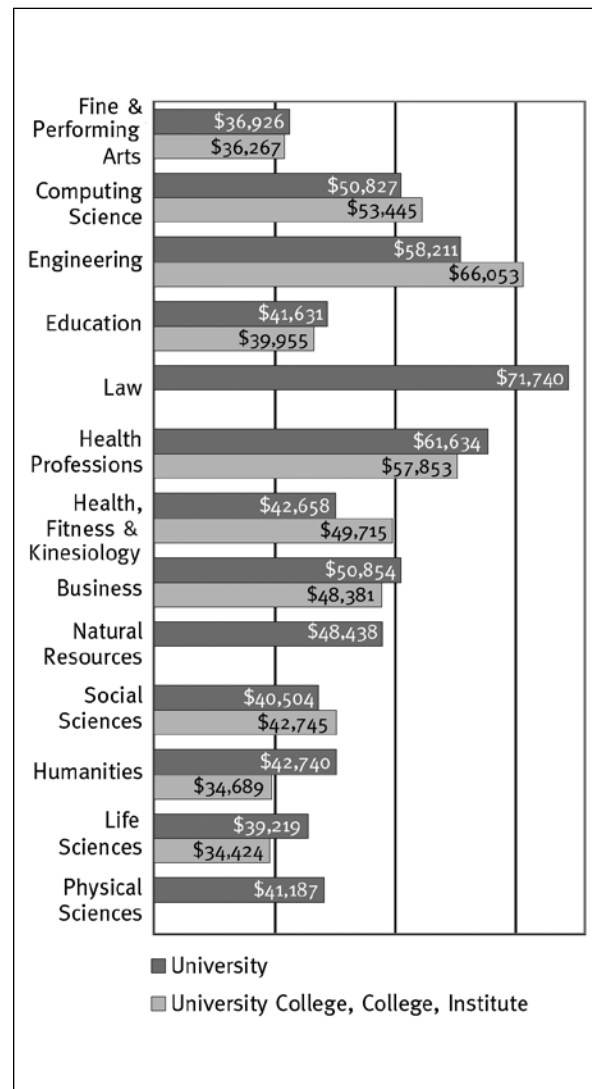
acquired during their baccalaureate education in their work. A total of 88 percent responded that they were “very useful” or “somewhat useful”.

Most of those employed were working full-time (84 percent); results were similar for universities and the other post-secondary institutions. Of those working full-time, 15 percent of those from universities had more than one job as did 18 percent of those from other institutions.

Full-time salaries for university graduates have increased since 2004⁶ to an average of \$46,444 (median of \$43,000). Results for all baccalaureate graduates varied by program area; Law graduates had the highest average earnings followed by those from Health Professions. The lowest average earnings were reported by respondents from Fine and Performing Arts and Life Sciences.

There were also differences in average full-time salaries by type of post-secondary institution in some program areas⁷, suggesting that types of employment within the program groupings may be somewhat different. On average, however, graduates from the colleges, university colleges and institutes (\$47,544) earned as much as those from universities (\$46,283).⁸

Figure 14: Average income for graduates employed full-time



⁶ This holds true even when comparing the results for the same 5 universities surveyed in the 2004 BC University Baccalaureate Graduate Survey.

⁷ Differences in results for Engineering, Health Professions, and Humanities are statistically significant at p < .05 level

⁸ Difference is not statistically significant.

Occupations of graduates working full-time were categorized according to the National Occupational Classification (NOC)⁹ system, which provides standardized groupings according to skill level. Sixty percent of university graduates and 54 percent of graduates from university colleges, colleges, and institutes found full-time employment in Professional Occupations.

There is evidence that salary inequities based on gender persist for baccalaureate graduates working full-time in occupations at all skill levels and most skill types. Overall, females earned an average of \$43,856 (median \$41,550) while males earned \$50,463 (median \$46,000)¹⁰. In the occupational skill level category of Professional Occupations,

⁹ <http://www23.hrdc-drhc.gc.ca/2001/e/generic/welcome.shtml>

¹⁰ Differences are statistically significant at p<.005 level

where the majority of baccalaureates found full-time employment, the differences are slightly less remarkable, although still statistically significant.

Respondents' occupations were also classified into nine areas based on skill type. Bearing in mind that the largest number of respondents had graduated from social science programs, it is not surprising that the largest number of occupations were in Social Science, Education, and Government Service, followed by Business, Finance, and Administration.

The highest average salaries for full-time workers were in Management type occupations (\$102,746), followed by Health Occupations (\$58,410), and Natural and Applied Sciences (\$52,722). Gender differences for full-time salaries are apparent in occupational groupings where numbers of respondents are sufficient to show statistical differences.

Table 8: Occupational skill level of baccalaureate graduates working full-time

	University		University College, College, Institute	
	n	%	n	%
Management	314	7%	70	10%
Professional Occupations	2822	60%	382	54%
Technical, Paraprofessional & Skilled Occupations	911	19%	155	22%
Intermediate Occupations	595	13%	93	13%
Labouring & Elemental Occupations	41	1%	13	2%

Figure 15: Average full-time salary by skill level and gender

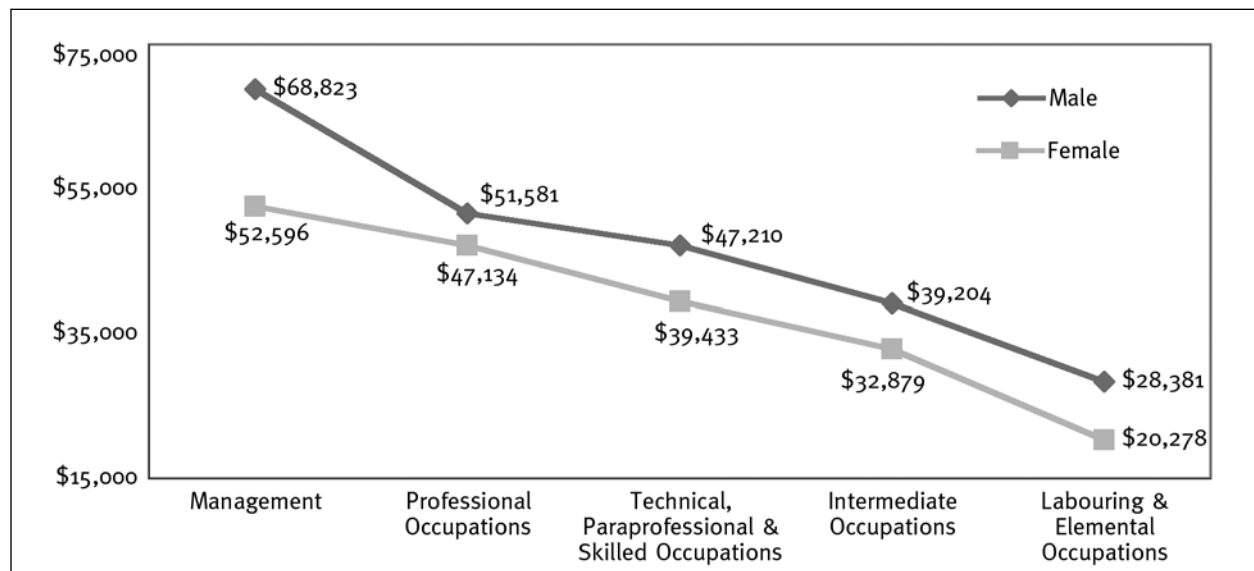
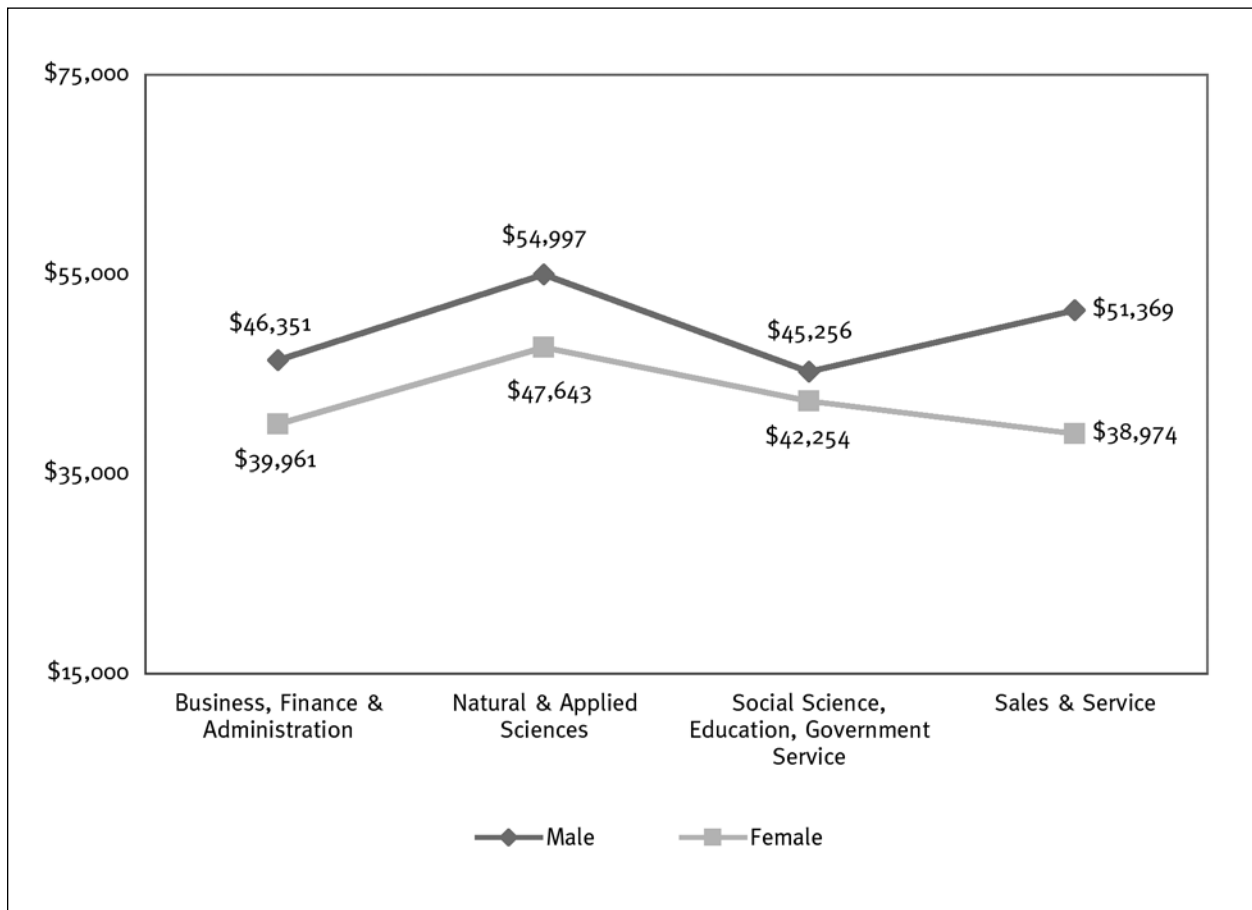


Table 9: Occupational type of baccalaureate graduates working full-time

	University		University College, College, Institute	
	n	%	n	%
Management	23	0%	5	1%
Business, Finance and Administration	1025	22%	139	19%
Natural and Applied Sciences and Related	799	17%	94	13%
Health	413	9%	117	16%
Social Science, Education, Government Service	1570	34%	182	26%
Art, Culture, Recreation and Sport	241	5%	45	6%
Sales and Service	504	11%	98	14%
Trades, Transport and Equipment Operators	82	2%	23	3%
Occupations Unique to Primary Industry	15	0%	4	1%
Processing, Manufacturing and Utilities	11	0%	6	1%

Figure 16: Average full-time salary by skill type and gender



Internationalization

The 2004 baccalaureate graduates were asked how important diverse aspects of internationalization were to the jobs they had held since graduation. The most important theme was the ability to understand the knowledge and traditions of other countries and cultures.

There has been a general increase in the perceived importance of internationalization since students were last surveyed in 2000. Comparisons with the same group of universities surveyed in 2000 show, for example, that the percentage of respondents who said local and global interconnections were somewhat or very important to their job rose from 67 percent to 69 percent. The impor-

tance of knowledge and traditions of other cultures rose from 70 percent of respondents in 2000 to 74 percent in 2006.

There was also an increase in the perceived helpfulness of institutions in preparing students to understand global perspectives over the same time period. In 2006, students were more likely to feel that their institutions helped them understand the knowledge and traditions of other countries and cultures, the interconnections between local and global issues, and global problems such as poverty, population growth, and global warming. They also felt that the institution helped them to speak another language to a greater extent than did respondents from the 2000 survey.

Figure 17: Importance of internationalization in job

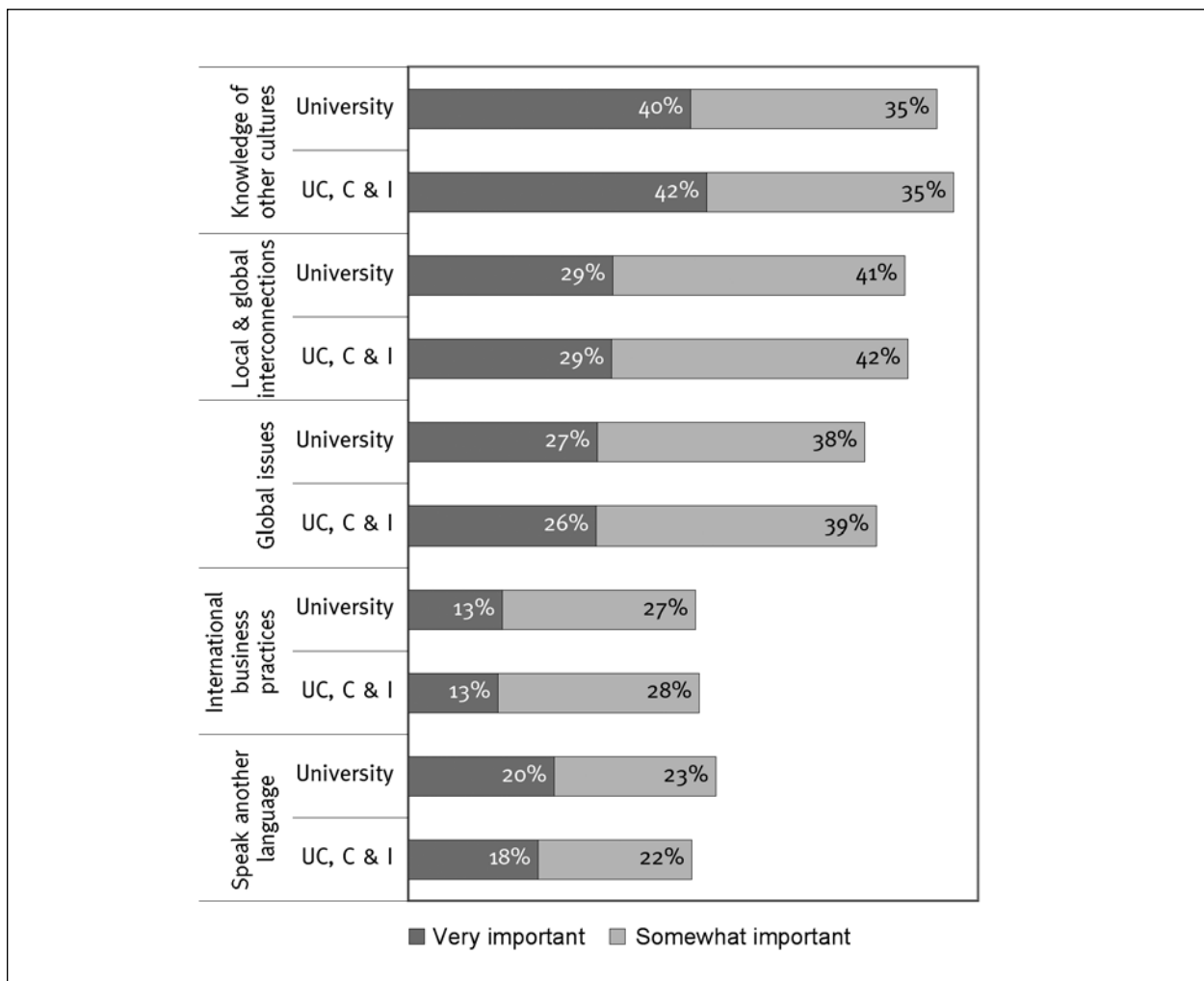
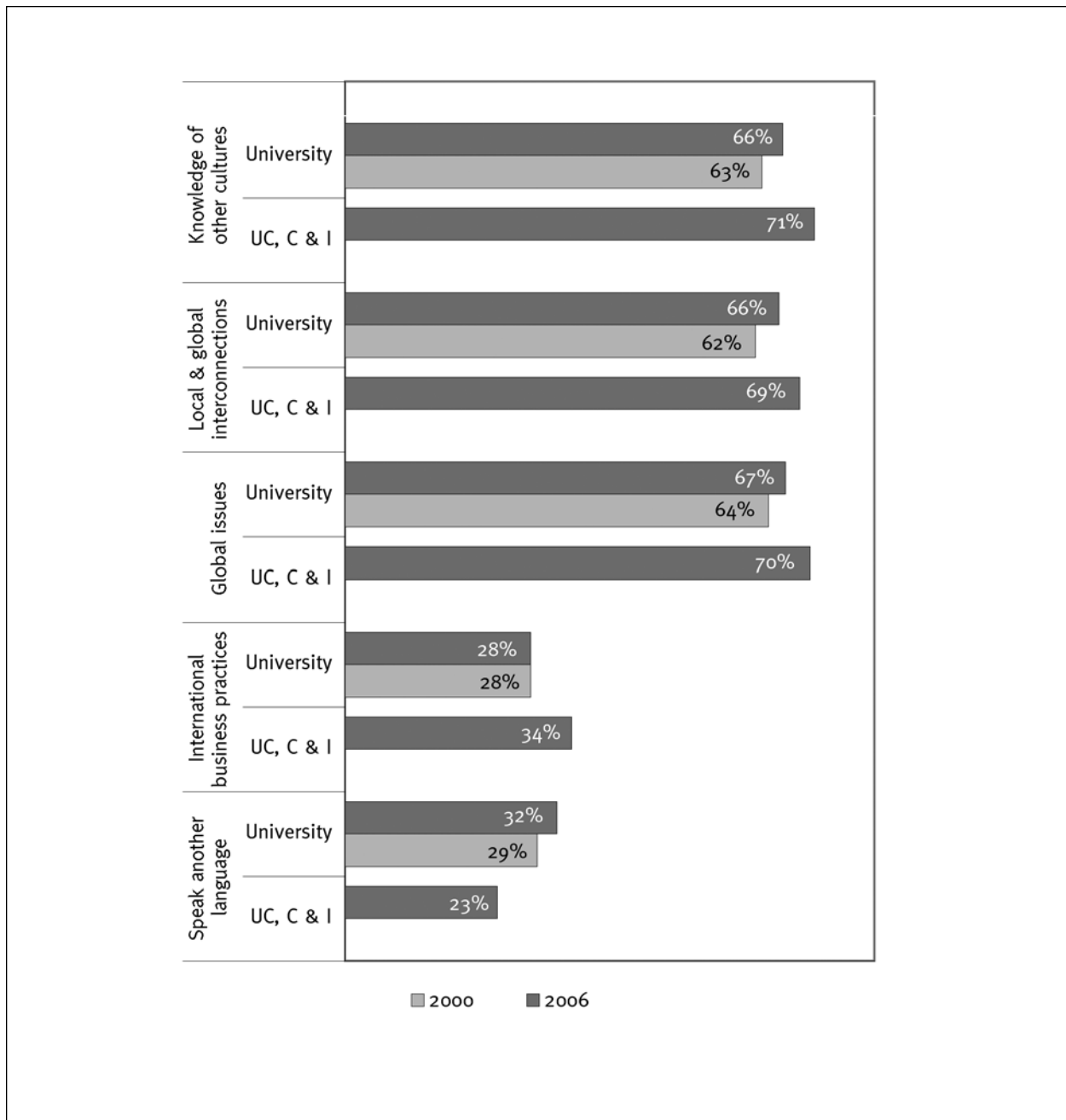


Figure 18: Institution was helpful or very helpful in preparing students for internationalization



One important way of learning about other cultures is to study or work abroad, and about 10 percent of respondents (currently residing in North America) had taken advantage of that opportunity, a slight increase from the 2000 survey results (8 percent in 2000). Of those who said that they did not take advantage of any opportunities to

either study or work abroad, 10 percent were not aware that the opportunity existed (a decrease from 17 percent in 2002). Other reasons cited were financial or other personal reasons (36 percent), no interest (25 percent), or academic concerns such as extending their degree completion time (13 percent).

How graduates paid for their education

Paying for post-secondary education is a major consideration for students and their families. Almost one-third of survey participants (30 percent) said that student loans were the most important source of funding they relied on to pay for their educational program. Comparisons with previous years show that the importance of student loan funding has increased slightly, from 28 to 30 percent.¹¹

In comparison with earlier years, there is evidence that reliance on family or friends for financing education is steadily increasing (25.5%

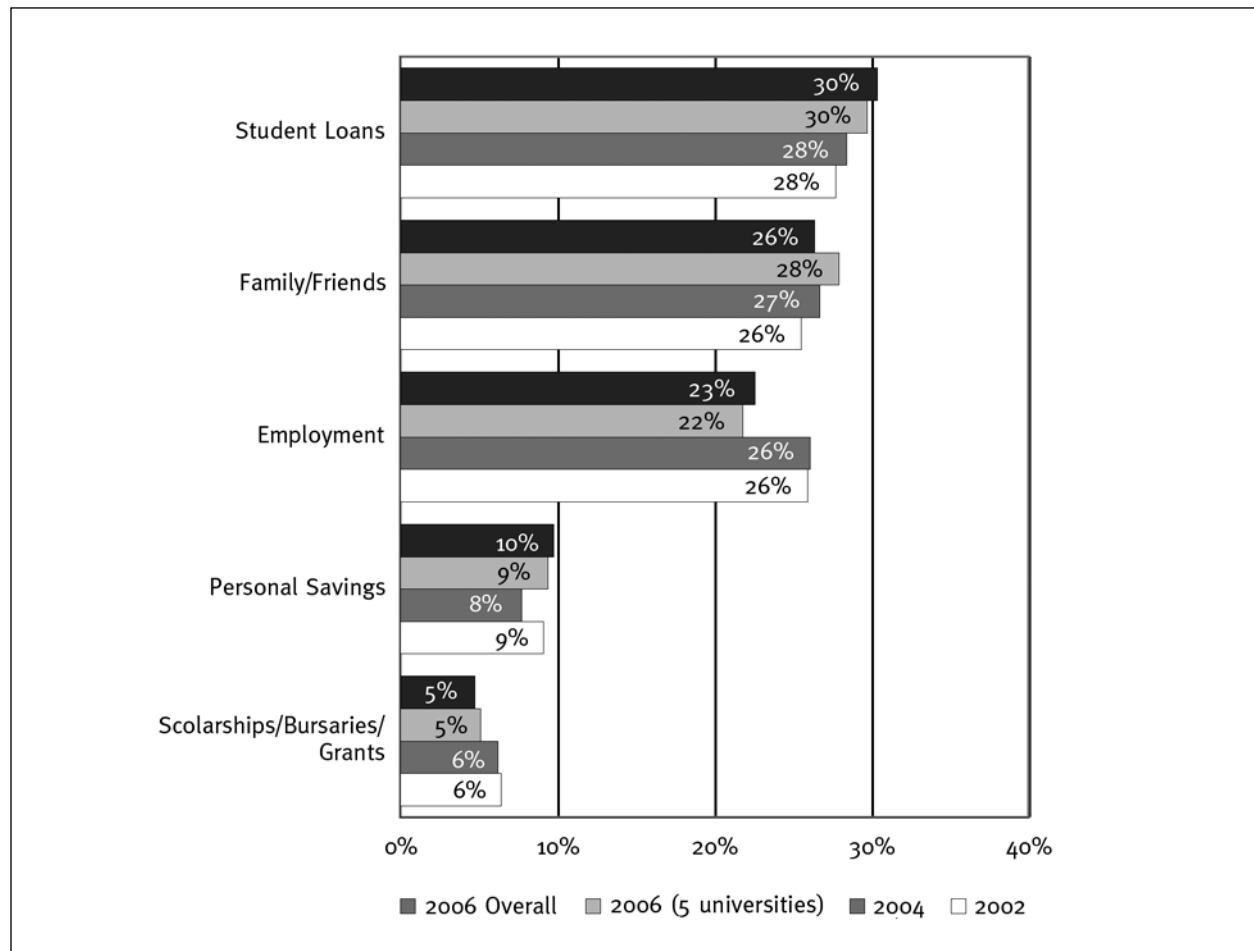
¹¹ The results for the 5 universities surveyed in previous years are the same as the system level result (30 percent).

in 2002 to 27.9% in 2006 looking at the five universities that have been surveyed previously). In contrast, respondents from university colleges, colleges, and institutes were less likely to say that family and friends were the most important source of funding—somewhat understandable considering that the average age of those students is somewhat higher than students attending universities.

The use of income from employment as the primary source of funding dropped in 2006, from 26 percent in the 2002 and 2004 surveys, to 23 percent overall, and 22 percent for the same five universities included in previous surveys.

Only a small proportion of respondents said that the most important source of funding was bank loans, First Nations funding, co-op programs, or other sources (1 or 2 percent).

Figure 19: Primary source of funding



For those who incurred debt to pay for their education (50.3 percent), the average amount borrowed from all sources was \$21,102 overall. Most of the debt acquired was from government student loans—survey respondents had received an average of \$20,261 in government student loans. Graduates from university colleges, colleges, and institutes had borrowed significantly more than those from universities (\$23,069 compared to \$19,854), possibly because on average they were older and less reliant on financial help from family.

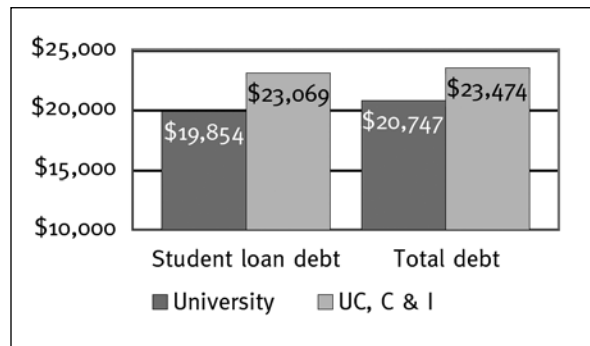
Two years after graduation, the average amount of government student loans that baccalaureate graduates had left to pay back was \$14,458. A total of 21 percent of borrowers had no student loans left to repay. There were differences depending on the type of institution that students had attended—university graduates had an average of \$13,975 left to repay compared to \$17,835 for graduates from the other types of institutions. Only 16 percent of university college, college, or institute graduates had completely repaid their government student loans compared to 22 percent of university graduates.

Conclusion

Over 8,000 respondents to the BC Baccalaureate Graduate Survey were overwhelmingly positive about their educational experiences at BC’s universities, university colleges, colleges, and institutes. They comprised 51 percent of the class of 2004, surveyed two years after graduation. Most (6,988) were from a university, but 1,021 had graduated from a university college, college, or institute. The findings for the two sectors are somewhat different in some respects and quite similar in others. The wide range of baccalaureate programs and demographic diversity possibly contribute to these differences.

Respondents from universities are typically younger than those from university colleges, colleges, or institutes, in all program groupings. The proportion of female respondents from universities is less than at other types of post-secondary institutions (63 percent compared to 67 percent at

Figure 20: Amount of debt incurred



university colleges, colleges, or institutes). The highest percentage of respondents who self-identified themselves as being members of a visible minority graduated from institutions located in the lower Mainland—UBC had a total of 40 percent, BCIT had 37 percent, SFU had 35 percent and Kwantlen had 33 percent.

The overall quality of education was highly rated by respondents from both sectors—96 percent were satisfied or very satisfied with their experiences. Positive responses were also received from 95 percent of graduates when asked to rate the quality of course instruction, and most (90 percent) said that their core program provided a comprehensive understanding of the field of study. Another measure of the overall quality of education was whether graduates would select the same program again, given their experiences in the program. A large majority overall said “yes” (79 percent) and looking at just the results for university colleges, colleges and institutes, there was an even higher positive response (84 percent).

Graduates evaluated whether their institution had helped them to develop academic, analytical, communication, and social skills. The skills to analyze and think critically and learn on one’s own were rated the highest, followed by communication skills (writing clearly and concisely, verbally expressing ideas, reading and comprehending material).

Participation in experiential learning is an important part of students’ educational experience. A full one-third of respondents said that they had

participated in paid or unpaid work experience as part of their program, although there were some differences by program category and type of institution.

A large proportion of graduates went on to further studies. University graduates were more likely to have taken additional education than baccalaureate graduates from university colleges, colleges, or institutes (53 percent compared with 44 percent). Overall, most of those who continued on to master's or doctoral programs felt that their degree program had prepared them well or very well for the academic challenges of their further education (89 percent).

One of the goals of post-secondary education is to contribute to a competent and qualified workforce. A full 85 percent of graduates were working at the time of the survey—73 percent of those were in jobs related to their training and 84 percent were working full-time. The majority said that the knowledge, skills, and abilities they acquired during their baccalaureate education were useful in their work (88 percent of working respondents).

Occupations of graduates were categorized according to the National Occupational Classification (NOC) system, which provides standardized groupings according to skill level and skill type. Most of the full-time jobs that graduates held were in “Professional” level occupations (59 percent), followed by “Technical, Paraprofessional and Skilled” occupations” (20 percent). The type of occupations that most graduates working full-time had were in “Social Science, Education and Government Service” (32 percent), followed by “Business, Finance, and Administrative Occupations” (22 percent). Full-time salaries for male and female graduates continue to show significant differences when comparisons are made within the same skill level and the same type of

occupation. Overall, the average annual salary for females was \$43,856 and \$50,463 for males.

Internationalization has become a theme that most post-secondary institutions embrace. Speaking another language, being sensitive to cultural diversity, and understanding global issues are important facets of education in the 21st century. Graduates were asked how important a variety of aspects of internationalization were to any of the jobs they had held since graduation, and whether their institution had been helpful in preparing students for internationalization. There appears to be a slight increase in both measures since the questions were last asked in 2000 (the 1998 graduates). Most important to graduates surveyed in 2006 was the ability to understand the knowledge and traditions of other countries and cultures—and 67 percent of them thought their institutions were helpful or very helpful in preparing them for understanding this diversity.

Finally, it is crucial that students have the ability to access and pay for post-secondary education. The average debt incurred by graduates who had to borrow funds was \$21,102, and most of that was from government student loans (average of \$20,261). Access to government student loans was a valuable support for those who needed to borrow money, as almost one-third of survey respondents said that student loans were the most important source of funding they relied on to pay for their educational program.

In conclusion, the public post-secondary institutions in BC continue to provide high quality education and produce satisfied baccalaureate graduates who contribute to the province's economic and social well-being. These graduates have entered the workforce and gone on to engage in additional learning, and they report high levels of satisfaction with their educational experiences.