
In Pursuit of PSE

Summary Report

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Summary Report

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The Canada Millennium Scholarship Foundation

November 2008

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A special thank you is owed to Alex Mann of the BC Ministry of Education. He provided extremely helpful advice in the planning phase and did considerable work preparing the population data for this research.

Thanks also to Joseph Berger and Anne Motte, both of the Foundation, for their advice and feedback on the survey instrument.

The seeds of this research were sown in discussions between the author and Alex Usher a number of years ago when he was with the Foundation. He is owed thanks for getting this project going. Sean Junor helped to revive the project after Alex left the Foundation. Thanks are also due to the Foundation's Joseph Berger and Andrew Parkin for ensuring that this research idea became a reality.

Section I

Introduction

Purpose of this Study

A lot is already known about the pathways that youth take following high school. There is also considerable information about some of the factors that affect the decisions youth have made to pursue various pathways. However, there is still a lot that we do not understand. For instance, although lack of money is a common reason offered for not pursuing post-secondary education (PSE), this reason is offered both by those who pursue PSE as well as by those who do not. Lack of money is not truly a barrier to access for those who actually pursue PSE, so we need to understand more about the factors that influence their decisions. In addition, most of the research has tended to focus on a few factors in isolation from other factors. We know that grades, distance and money all matter, but we do not know how these factors interact.

Given the importance of a PSE in today's labour market, we wanted to better understand the complex factors that influence why some high school graduates do not pursue PSE. Hence, the primary focus of this research was on non-pursuers. To put their responses into context, pursuers were also included. The goal of the research was to identify the differences between high school graduates who pursue PSE and those who do not and to determine to what extent money, or any other factor, played a role in this decision.

This research was conducted in British Columbia (BC), since the province tracks which high school graduates pursue post-secondary studies at a public institution in BC. Because of this, it is possible to identify potential non-pursuers more efficiently than we could by just doing a random sample of high school graduates.

Methodology

Two groups of BC high school graduates from the 2004–05 school year were compared: one who had taken some PSE and one who had not. Between May and July 2007, approximately two years after graduation, 2,027 graduates (1,021 pursuers and 1,006 non-pursuers) were surveyed via telephone.

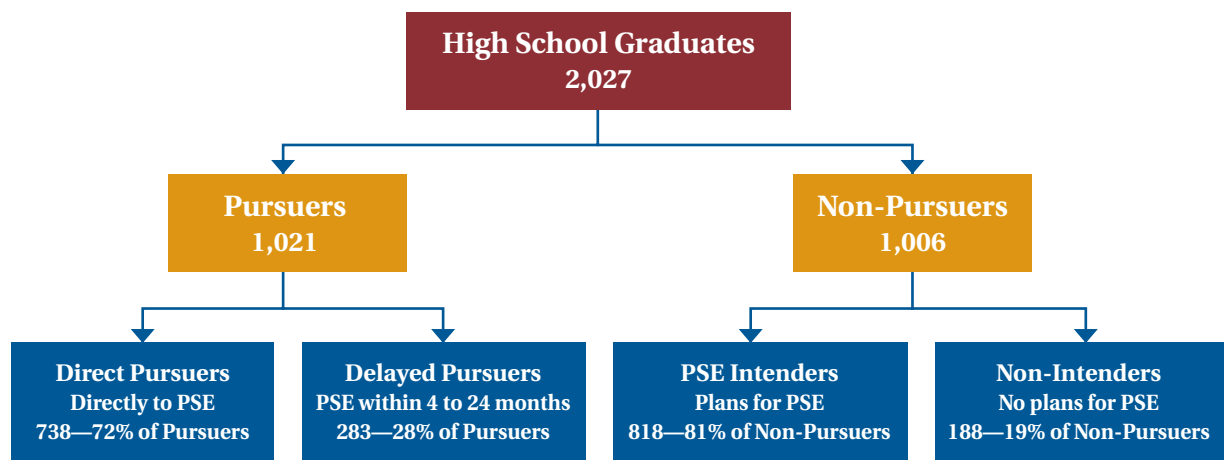
The study included three types of data:

- Administrative data provided by the BC Ministry of Education, such as high school graduating grade point average (GPA); grades in Grades 12 English and mathematics; gender; and Aboriginal ancestry.
- BC Statistics was hired to calculate the distance from the graduate's home postal code at the time of graduation to the closest of each of four types of public post-secondary institutions in the province: colleges, universities, university colleges and institutes.
- The main source of data was a telephone survey, which was designed in such a way that both groups could be asked the same questions so the factors that influenced non-pursuers could be compared with those that influence pursuers.

Four Types of Graduates

The study was designed to compare two groups of graduates: those who pursue post-secondary studies and those who do not. As it turns out, each group can be further subdivided. *Pursuers* can be classified by whether or not they delayed beginning their post-secondary studies, while *non-pursuers* can also be subdivided based on whether or not they have plans for a PSE.

Figure I-1: Four Types of High School Graduate



Percentages should not be interpreted as population estimates, since the sample was deliberately selected to have an equal number of pursuers and non-pursuers.

For this study, a *Delayed Pursuer* was someone who began post-secondary studies more than three months following high school graduation. In the 2004–05 cohort of pursuers, 28 percent delayed beginning their studies, as shown in Figure I-1.¹ Most *Direct Pursuers* began their studies in the fall after graduation. *Delayed Pursuers* started at various times, with the majority beginning a year after graduation.

Of particular interest in this study is the high proportion of non-pursuers who intend to pursue post-secondary studies at some time. Of the cohort of non-pursuers in this study who had not taken any PSE in the two years since graduation, 81 percent intend to pursue post-secondary studies.² About half of these intend to begin studies within one year.

In essence, we have two groups of delayers: those who started their post-secondary studies within two years following graduation and those who had yet to begin when surveyed. The *PSE Intenders*, as we are calling the latter group, is a group that has not received much attention in the research. For this reason, we have focused our analysis on this group to understand how they differ from pursuers and whether there are barriers preventing them from

achieving their aspirations for a PSE. In this report, the term *Non-Intender* is used exclusively for the graduates who have no intentions of pursuing post-secondary studies. This is to distinguish them from *PSE Intenders* who, although they have yet to begin their studies, do intend to pursue post-secondary studies in the future.

Reporting

This report summarizes the key findings and conclusions of the study. A complete presentation of the findings, including a review of the relevant literature, is provided in the main report, *In Pursuit of PSE: Whether and When to Go On*.

The main report also includes separate analysis of four specific groups that are underrepresented in the post-secondary system: *First-Generation* students—i.e., students whose parents had no PSE; males; graduates from rural communities; and graduates of Aboriginal ancestry.

Additional information, such as the survey instrument, is provided in a set of appendices to the main report.

1 Percentages should not be interpreted as population estimates, since the sample was deliberately selected to have an equal number of pursuers and non-pursuers.

2 All non-pursuers were asked: “Do you have any intentions of taking any PSE?” This was used to classify respondents as either *PSE Intenders* or *Non-Intenders*.

Section II

Post-Secondary Choices

Education Goals

All respondents were asked: “What is the highest level of education you would like to get?” As Figure II-1 shows, most *Direct Pursuers* want a degree, and about half want a graduate degree. *Delayed Pursuers* were not quite as ambitious, with about 60 percent wanting a degree of some kind. *PSE Intenders* look more like the *Pursuers* than *Non-Intenders* in terms of their PSE aspirations. About half of *PSE Intenders* aspire to a degree, including about ten percent who want a graduate degree. This is less ambitious than the two *Pursuer* groups, but very different from the *Non-Intender* group. Even some *Non-Intenders* would like some PSE, but most were either undecided or do not want anything more than their high school diploma.³

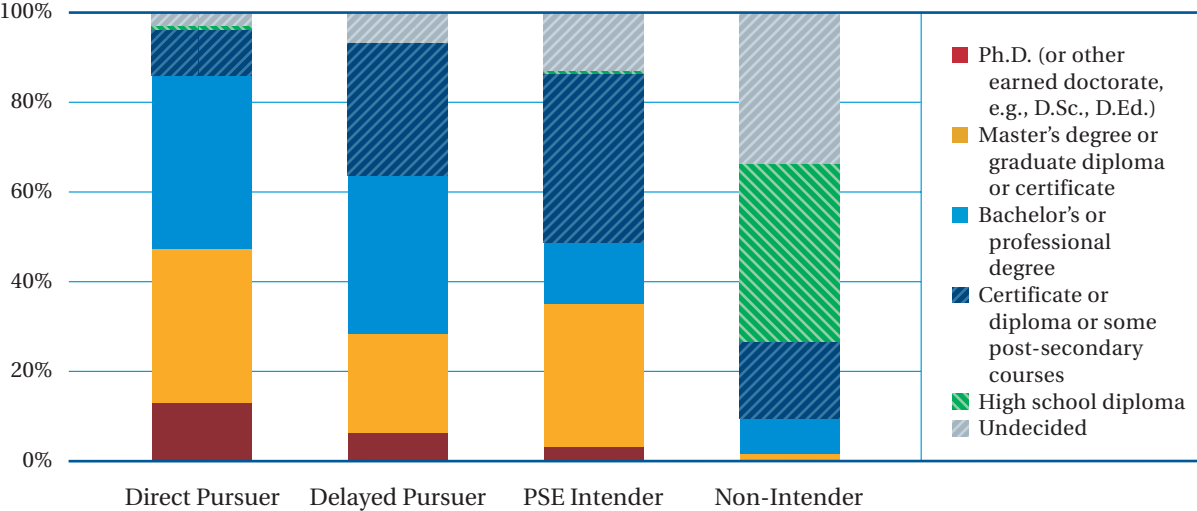
Influences on Decision About Pursuing Post-Secondary Studies

Courses and Grades in High School

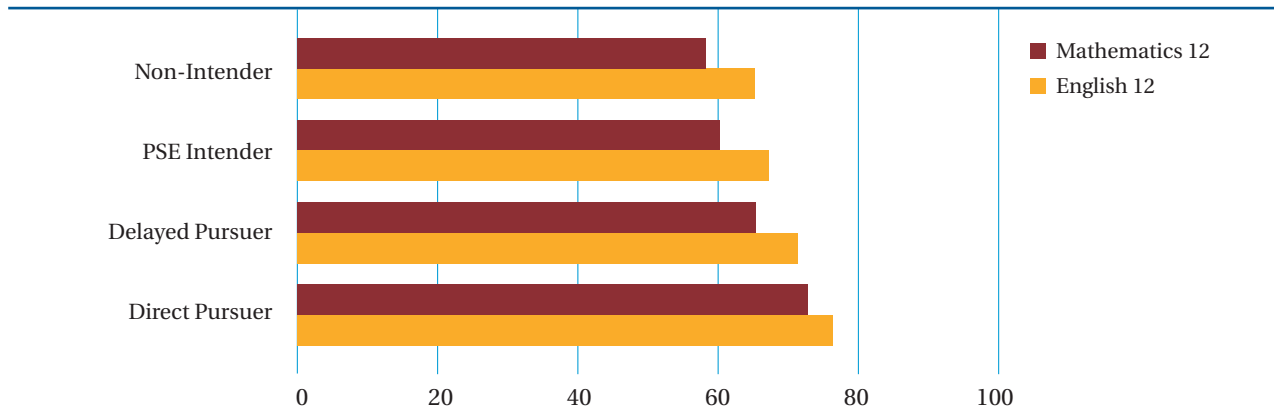
There are many factors that influence a high school graduate’s decision about whether or not to pursue post-secondary studies. Having the grades to get in and the ability to do the work would be expected to be a key factor in the decision.

There were some notable differences in the courses the four groups of graduates took. We only examined participation in English and mathematics courses, as English 12 is typically a requirement for university admission and mathematics 12 is a requirement for selected programs. *Non-Intenders*

Figure II-1: Highest Level of Education Wanted

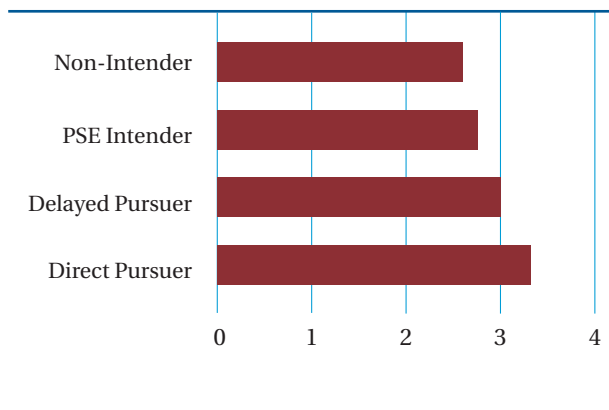


3 Although *Non-Intenders* had no intentions of pursuing PSE, clearly some would have liked to have more education than high school.

Figure II-4: Average Grades in English and Mathematics 12

N who took math 12: 26 *Non-Intenders*, 181 *PSE Intenders*, 126 *Delayed Pursuers*, 481 *Direct Pursuers*.

N who took English 12: 123 *Non-Intenders*, 669 *PSE Intenders*, 257 *Delayed Pursuers*, 707 *Direct Pursuers*.

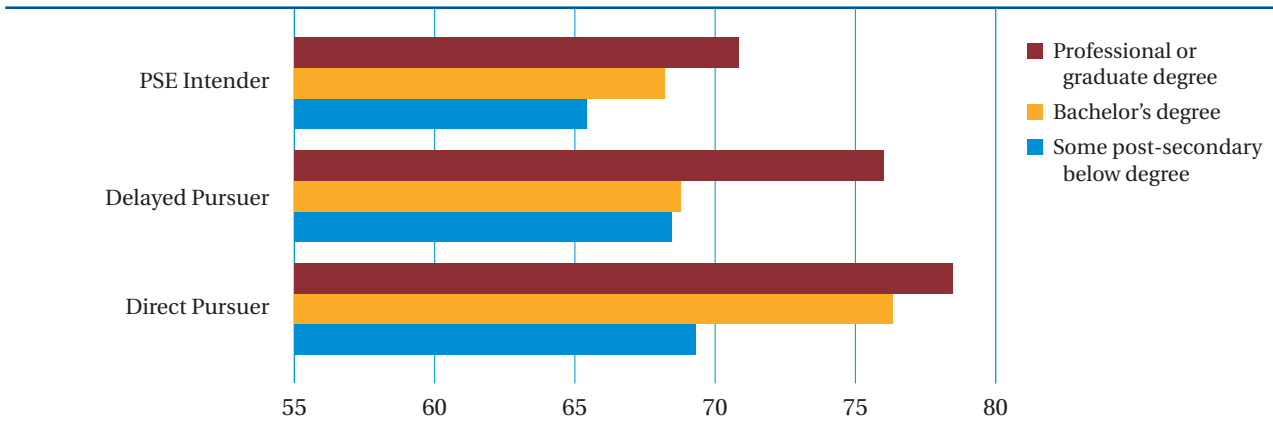
Figure II-5: Mean Grade Point Average

were less likely than any other group to have taken either mathematics or English 12, while *Direct Pursuers* were more likely to have done so. There is also a relationship between the courses taken and PSE goals. The higher the PSE goal, the more likely the graduates were to have taken English 12 and mathematics 12. It may be that students had these goals during high school and thus selected their courses accordingly.

English and math grades matter in terms of eligibility for some programs. Figure II-4 shows the English and math grades for the four groups of graduates who took these courses. *Non-Intenders* had the lowest average grades in each subject and *Direct Pursuers* had the highest grades. The average grades for *PSE Intenders* were only slightly higher than those for *Non-Intenders*. The same pattern is shown with GPA in Figure II-5. Grades do not appear to be a defining factor in the decision about whether or not to pursue post-secondary studies. It's interesting to note that the 11 graduates who were doing upgrading at the time of the survey were *PSE Intenders*. Perhaps *PSE Intenders* decided to pursue post-secondary studies after graduation and hence were not adequately prepared.

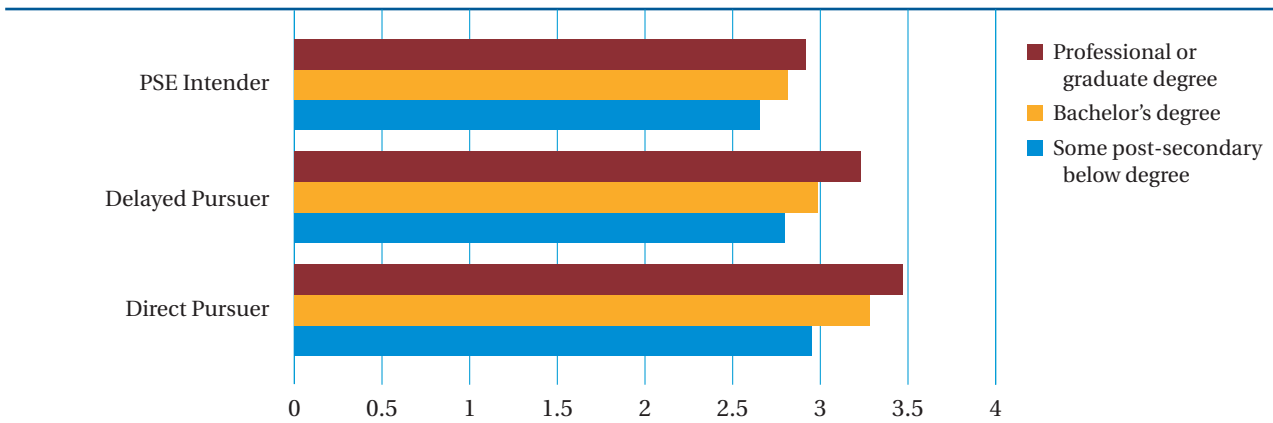
English grades show a clear relation to education goals; those who have the highest aspirations in their group also have the highest grades in English (see Figure II-6). There was no pattern for mathematics, but mathematics is only an entrance requirement for selected programs. GPA also shows a relation to education goal for each of the three groups (see Figure II-8).

Figure II-6: Average Grades in English 12 in Relation to PSE Goals



N for *PSE Intenders*: 111 Professional/grad degree, 244 Bachelor's, 229 Some PSE below degree.
 N for *Delayed Pursuers*: 90 Professional/grad degree, 83 Bachelor's, 65 Some PSE below degree.
 N for *Direct Pursuers*: 369 Professional/grad degree, 251 Bachelor's, 66 Some PSE below degree.

Figure II-8: Mean Grade Point Average in Relation to PSE Goals



Views and Experiences in High School

Some research has shown that those who pursue post-secondary studies may have different experiences in high school than those who do not. The *Youth in Transition Survey (YITS)* found that those who pursue post-secondary studies had higher levels of both academic and social engagement in their high school than did those who do not pursue PSE (Lambert, Zeman, Allen & Bussière, 2004). Similar questions to those used in the *YITS* study were included in this research.

Those who were either pursuing or wanting to pursue post-secondary studies had different experiences in high school than did those who have no intentions of pursuing post-secondary studies. Figure II-8 shows that *Direct* and *Delayed Pursuers* and *PSE Intenders* were more engaged both in school

activities and in activities in their community than were *Non-Intenders*. On the other hand, *Non-Intenders* were more likely to admit to doing as little work as possible. *Non-Intenders* were also less likely to pay attention to their teachers, do their homework or be interested in what they were learning (see Figure II-10) and much more likely to skip classes (Figure II-11).

PSE Intenders were very similar to the two groups of pursuers. The only notable differences were that they were less likely to do their homework than were the *Direct* and *Delayed Pursuers* and somewhat more likely to skip classes.

In summary, *Non-Intenders* were much less academically and socially engaged in high school than were the other graduates. *PSE Intenders* were not as academically engaged as were *Direct* and *Delayed Pursuers* but were much more so than were *Non-Intenders*.

Figure II-9: Views About High School Experience

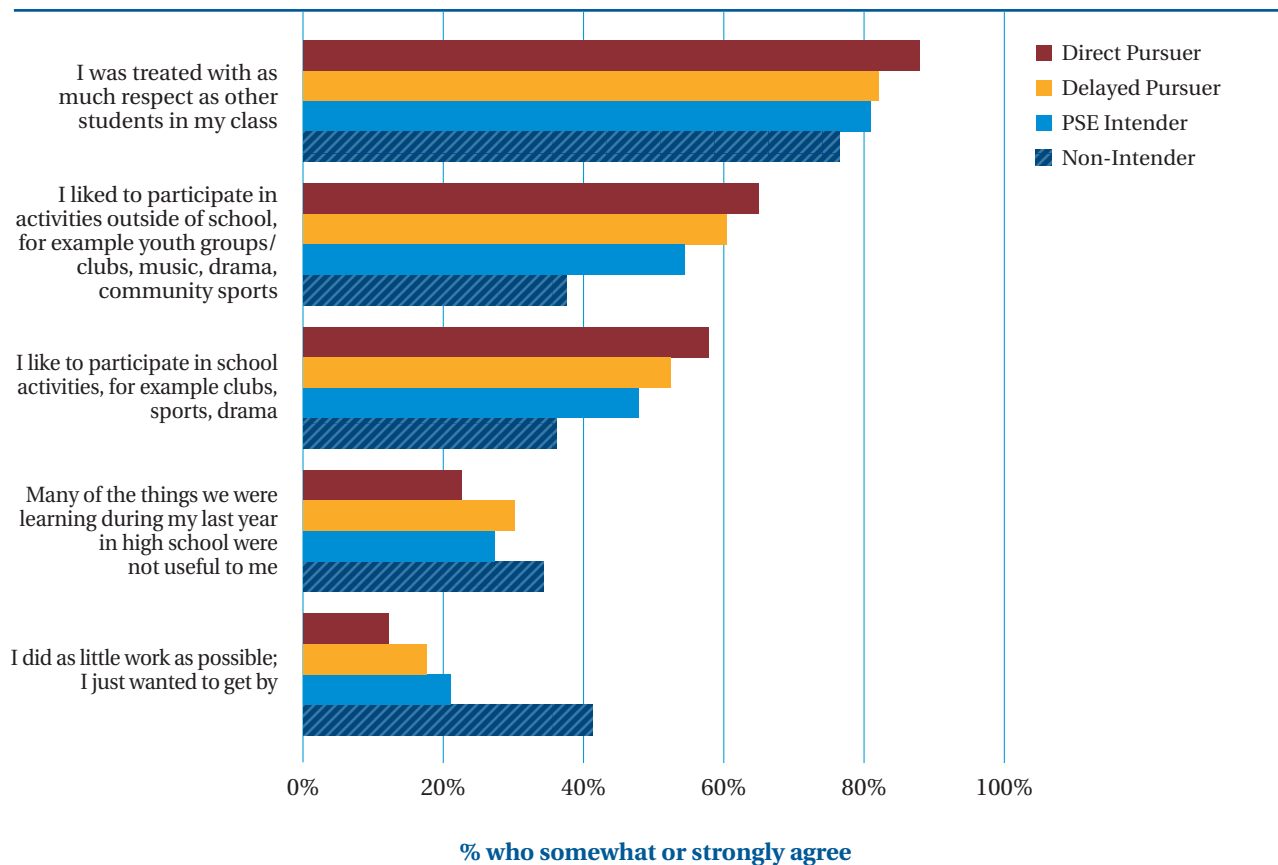


Figure II-10: Experience in Last Year of High School

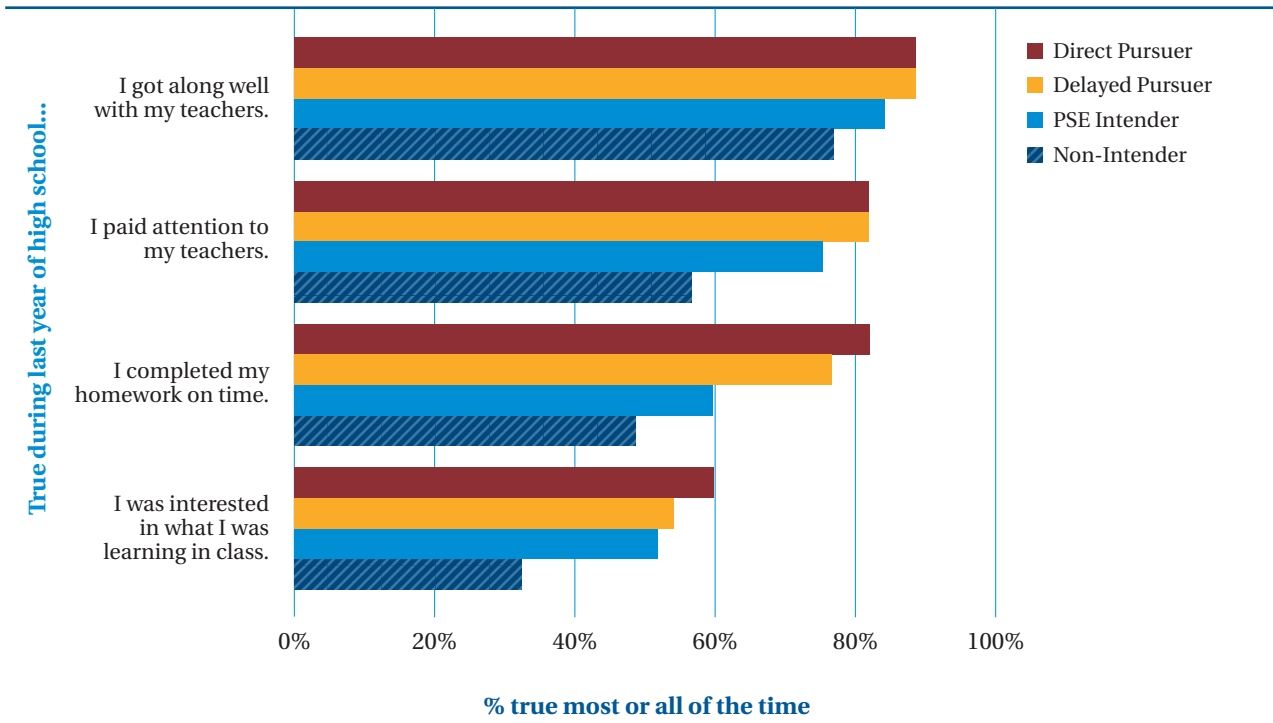


Figure II-11: How Often Graduates Skipped Class in High School

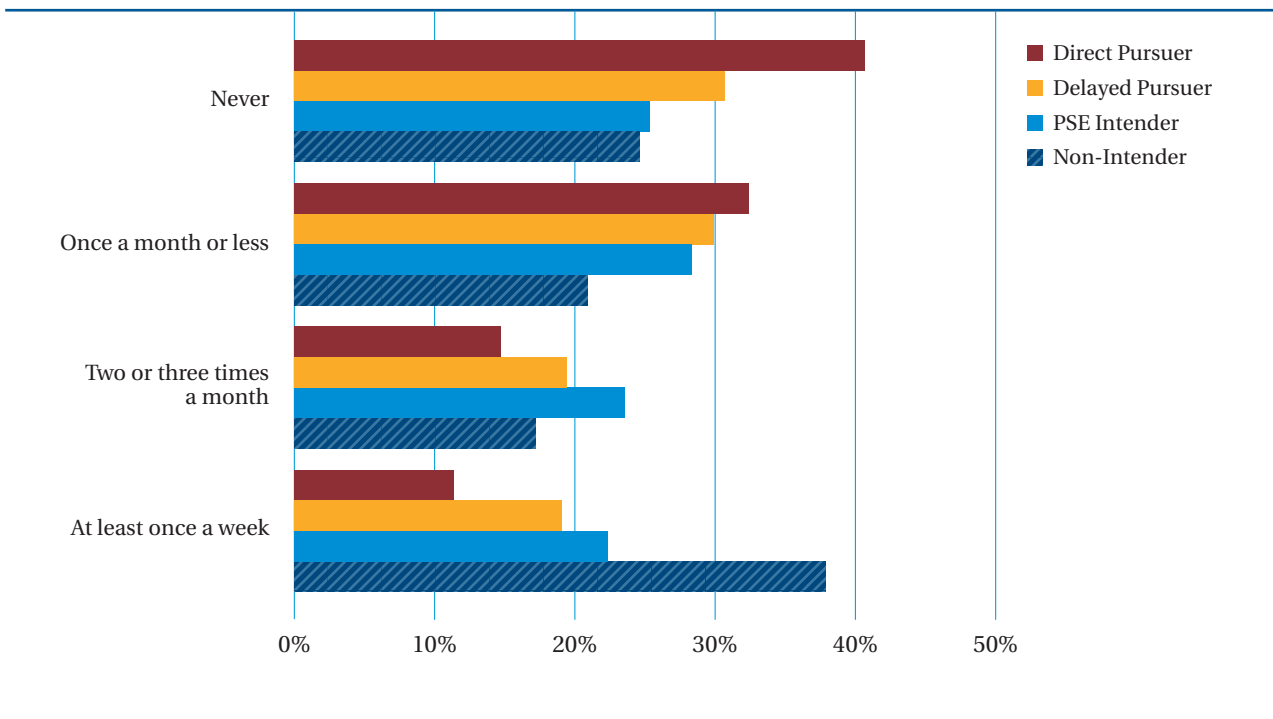
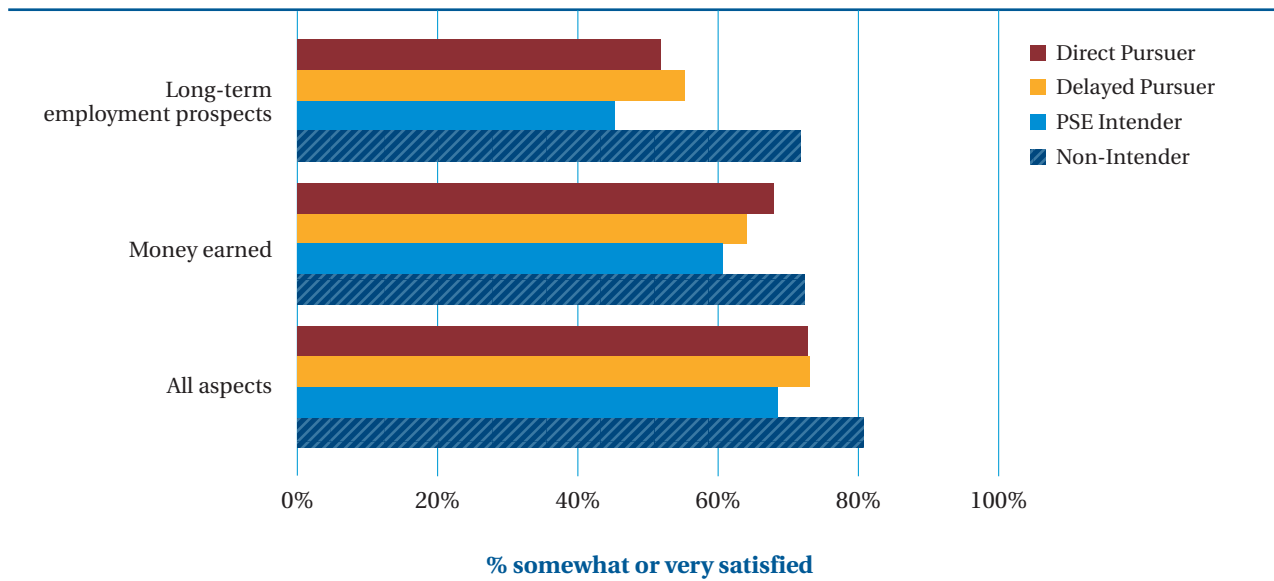


Figure II-15: Satisfaction with Current Employment

Academic and social engagement is related to grades. Those with GPAs of 3.0 or higher were more likely than those with lower GPAs to participate in both school and community activities during high school and were more likely to pay attention to their teachers and do their school work. Graduates with GPAs below 3.0 were more likely to skip classes than were graduates with high GPAs.

Satisfaction with Current Employment

Respondents who were working when surveyed, whether full- or part-time, were asked to rate their satisfaction with their job—their long-term employment prospects with their current job, the money they earn and all aspects of the job. It is clear in Figure II-15 that *Non-Pursuers* were more satisfied with their job than were other graduates, while *PSE Intenders* were the least satisfied. The differences are most pronounced when considering long-term employment prospects of their current employment situation. About three-quarters of *Non-Pursuers* were satisfied, compared to 45 percent of *PSE Intenders*. In fact, a third of *PSE Intenders* were actually dissatisfied

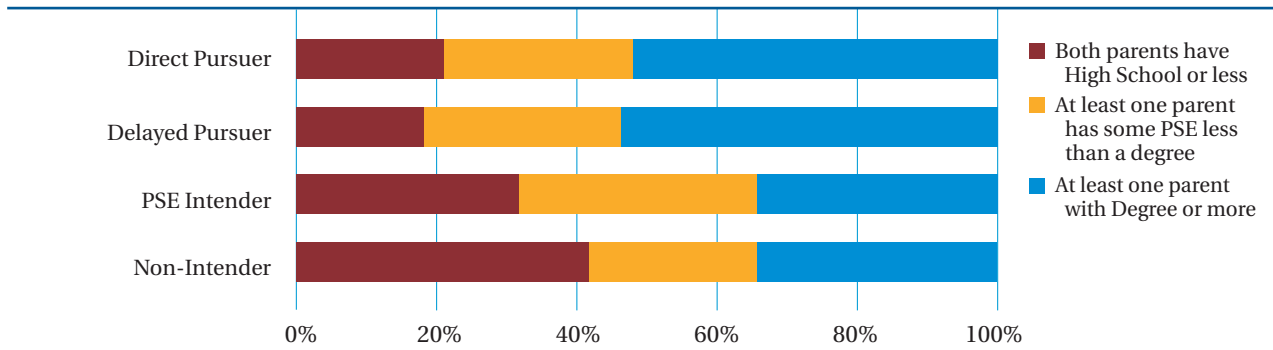
with the long-term employment prospects of the job they were in when surveyed. This may be a key to understanding *PSE Intenders*. Perhaps their decision to pursue PSE was motivated, at least in part, by a realization of what their employment prospects were without more education.

Family Education and Income

It is a well-known finding that there is a relation between the education levels of parents and the education goals of their children. This is certainly the case for the graduates in this study. Compared to *Direct* and *Delayed Pursuers*, *Non-Intenders* were more likely to have parents who did not have any PSE. *PSE Intenders* fell between *Pursuers* and *Non-Intenders*. About 45 percent of *PSE Intenders* had a mother or father with some PSE, compared to almost 60 percent for *Direct Pursuers* and only 35 percent for *Non-Intenders*.

Graduates were classified according to whether or not both parents had no PSE, at least one had some PSE or at least one had a degree. Figure II-18 shows that, whereas only about 20 percent of *Direct*

Figure II-18: PSE Status in Relation to Parents' Education



N who reported both parents' ed: 145 *Non-Intenders*, 668 *PSE Intenders*, 241 *Delayed Pursuers*, 654 *Direct Pursuers*.

and *Delayed Pursuers* had parents with no PSE, almost 35 percent of *PSE Intenders* and 45 percent of *Non-Intenders* did. About half of *Direct* and *Delayed Pursuers* had at least one parent with a degree.

Non-Intenders were more likely than any other group to have parents with no PSE, while *Direct* and *Delayed Pursuers* were the least likely to. If these graduates go on to pursue post-secondary studies, they would be considered *First-Generation* students, as they would be the First Generation in their immediate family to do so. The issue of *First-Generation* students is explored more fully in a separate report.

Graduates' education goals were related to their parents' education. When we consider the education of both parents together, we find that graduates whose parents had no PSE were less likely to want a degree than were graduates whose parents had some

PSE (see Figure II-20). Those who had at least one parent with a degree were more likely than the others to want a degree themselves.

Parental education is often used as a proxy for family income, since people with more education tend to have higher incomes. Figure II-23 shows that there is a weak association between parental education and the median family income of the school district. Graduates with at least one parent with a degree were more likely to be from districts with higher family incomes. This suggests that the real impact of parental education may be financial; higher income families are overrepresented among *Pursuers* and underrepresented among *Non-Intenders*.

It is possible that high school graduates whose parents had a degree were more likely to aspire to one themselves because their family was in a better

Figure II-20: Relation Between Parents' Education and Education Goal of Graduates

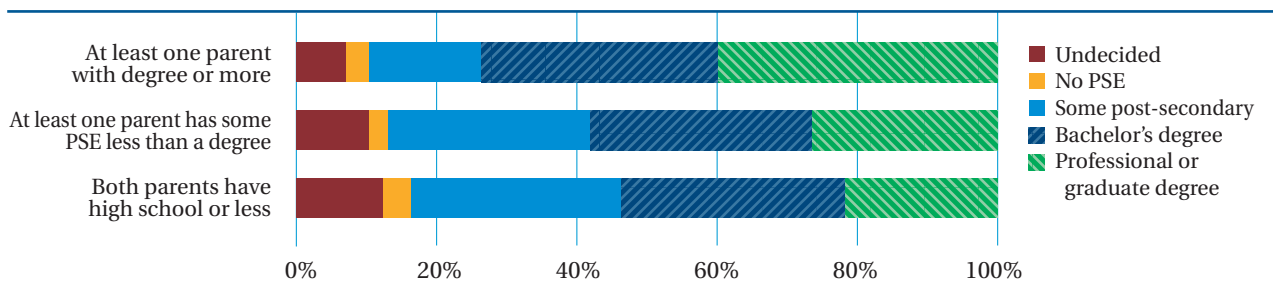


Figure II-23: School District Median Family Income and Parental Education

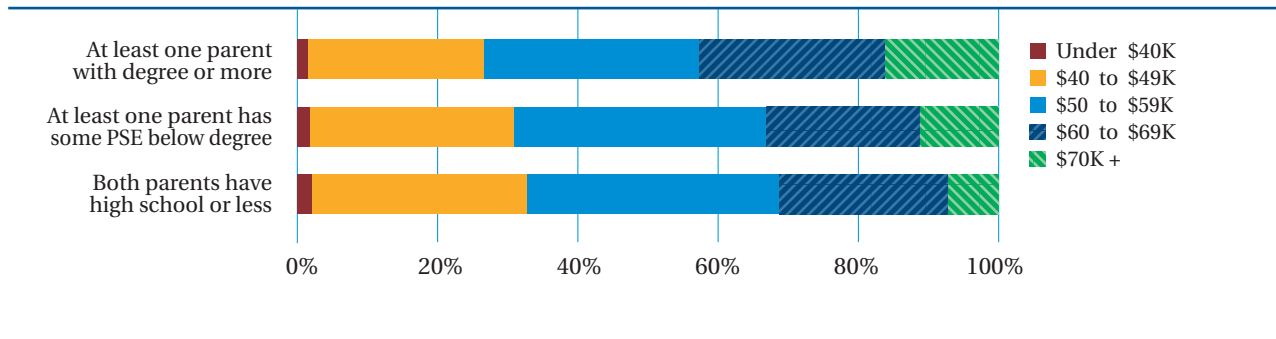
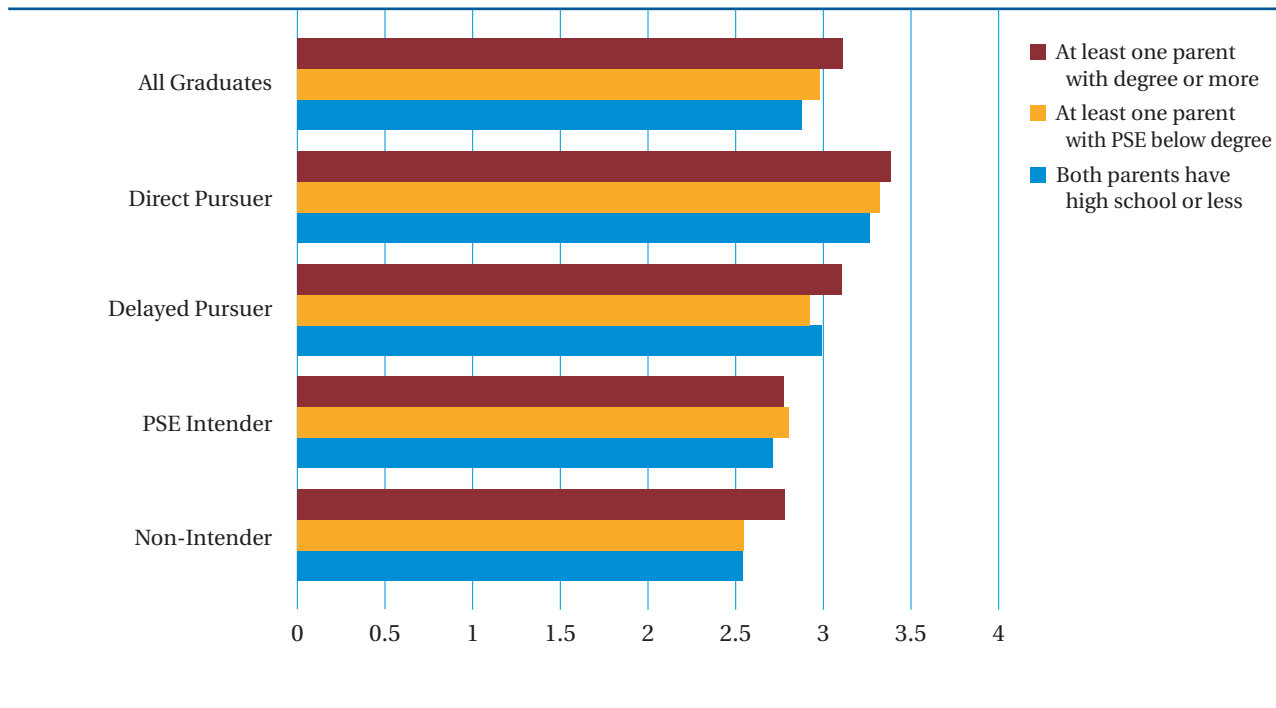


Figure II-24: Average Grade Point Average by PSE Status and Parents' Education



position to help them financially. However, the effect of family income may be less direct. Figure II-24 portrays the mean GPA by parents' education and PSE status. Overall, GPA is related to parents' education. The higher their parents' education, the higher the high school GPA of the graduates is. This relationship

generally holds regardless of the PSE status of the graduates. Although *Direct Pursuers* have higher GPAs, on average, than do other graduates, *Direct Pursuers* whose parents had a degree had the highest GPAs of all. *Non-Intenders* whose parents did not have a degree had the lowest GPAs of all graduates.

Factors That Respondents Identified

Respondents were given a list of 15 possible factors that may have influenced their decision about whether or not to pursue PSE. They were asked to rate the importance of each in their decision. The top

three factors were the same for the three groups who have PSE goals. Graduates felt that they needed a PSE to prepare for a specific job or to get a well-paying job and felt that they could not get the kind of job they wanted with a high school education. Figure II-28

Figure II-28: Top Three Factors that Influenced Decision about Pursuing or Not Pursuing PSE

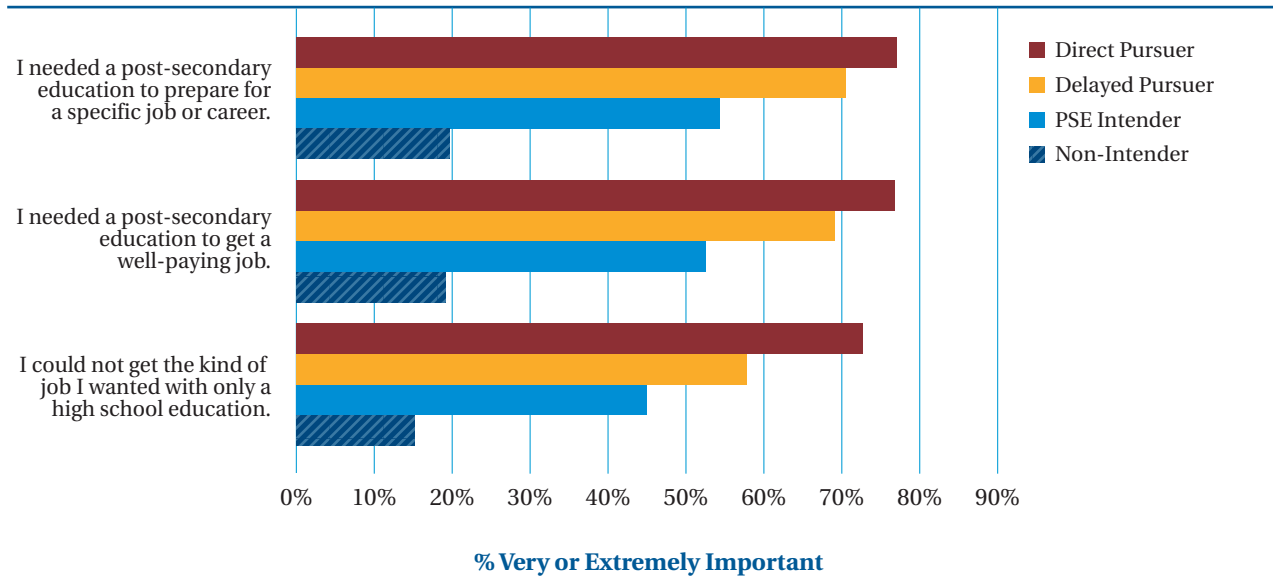
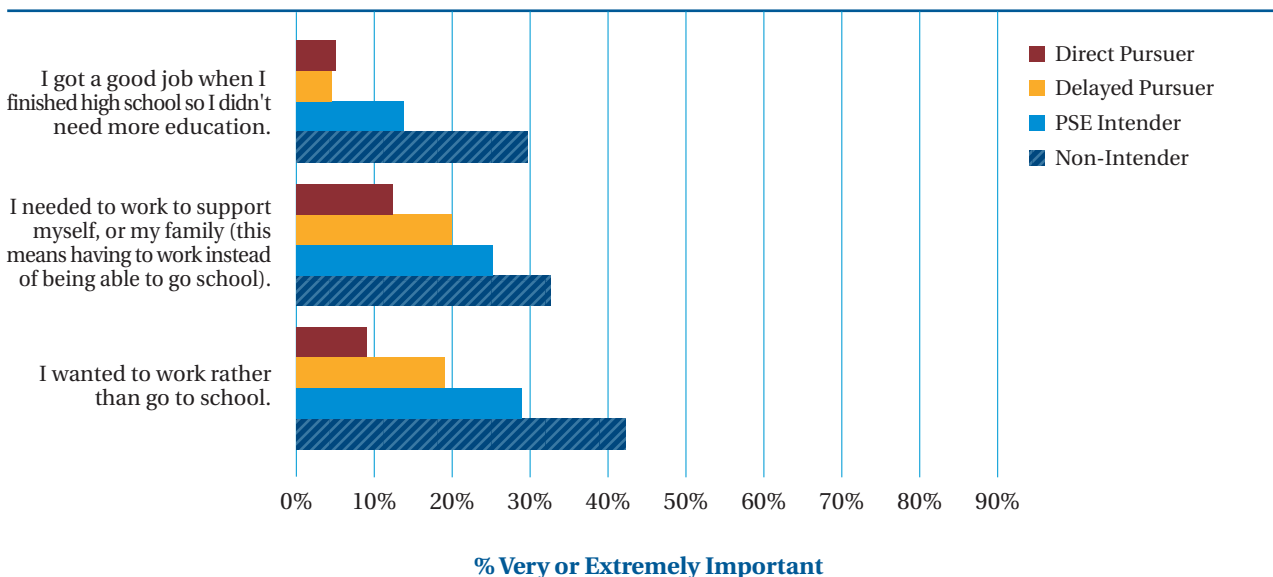


Figure II-29: Top Three Factors of Non-Intenders



compares the four groups on these three factors. Although technically a non-pursuer, *PSE Intenders* responded much more like *Direct* and *Delayed Pursuers* than like *Non-Intenders*.

Non-Intenders were more heavily influenced by factors other than the ones that influenced those with PSE intentions, as shown in Figure II-29. *Non-Intenders* wanted to work rather than go to school, needed to work to support themselves or got a well-paying job after high school.

There is one aspect for which *PSE Intenders* were more like *Non-Intenders*. A quarter of *PSE Intenders* reported that they needed to work to support themselves, while a third of *Non-Intenders* likewise reported this. Only about 12 percent of *Direct Pursuers* and 20 percent of *Delayed Pursuers* reported this.

We also examined the views by PSE status and parents' education as a proxy for socio-economic status (SES). Views were similar for those with the same PSE status regardless of their parents' education. For instance, *Direct Pursuers* had similar views regardless of whether their parents had no PSE or had a degree. There was only one exception to this: *Non-Intenders* were much more likely to report needing to work to support themselves if they had parents with no PSE (41 percent) than they were if they had parents with some PSE below a degree (28 percent) or at least one parent with a degree (24 percent).

Views About Post-Secondary Education

Respondents were asked to rate their agreement with a number of statements about PSE. Figure II-33 shows the percentage in each group who agreed with each statement. Those who plan to pursue, or have pursued, post-secondary studies have similar views. They tend to agree with positive statements about PSE but not to agree with negative statements. The *Non-Intenders* stand out. They were more likely than those who want to pursue PSE to agree with negative statements about PSE and were less likely to agree with positive ones.

Views about PSE were also examined by PSE status and parents' education. Graduates with the same PSE status (e.g., *Direct Pursuers*) had similar views regardless of their parents' education.

When asked to guess the cost for one year of undergraduate university tuition in BC for 2005–06, not counting books, incidental fees or living expenses, there was a tendency to overestimate among all groups. The average tuition for 2005–06 was actually \$4,221. Those with no post-secondary experience tended to inflate the figures more than those who had pursued some PSE, with *Non-Intenders* giving the highest estimates (\$8,138). Note, though, that 40 percent of *Non-Intenders* did not give an estimate at all. *PSE Intenders* also reported very high estimates (\$7,269), with 24 percent not giving an estimate.

Graduates with some PSE were more accurate in their estimates but still tended to be high (\$6,127 for *Direct Pursuers* and \$6,553 for *Delayed Pursuers*; only ten percent of *Direct Pursuers* and 12 percent of *Delayed Pursuers* did not respond). However, their estimates more accurately reflect the costs of incidental fees and books in addition to tuition. It may be that these students could not separate tuition from the other costs they had incurred. Given that incidental fees and books are part of the cost of education we could argue that a guess of around \$6,000 is an accurate reflection of the cost of one year of university education.

Because of the large range of responses within each group, the estimates were classified as being within range (between \$3,700 and \$4,700), an underestimate (under \$3,700), a small overestimate (between \$4,701 and \$7,500) or a large overestimate (over \$7,500). The distribution of the type of guesses that graduates made is portrayed in Figure II-34. Only a minority of graduates in any group made guesses that were within range of actual tuition. The type of guesses graduates made was related to PSE status. Compared to other graduates, *Direct Pursuers* were less likely to make large overestimates and were more likely to make a guess within range.

Figure II-33: Views on PSE

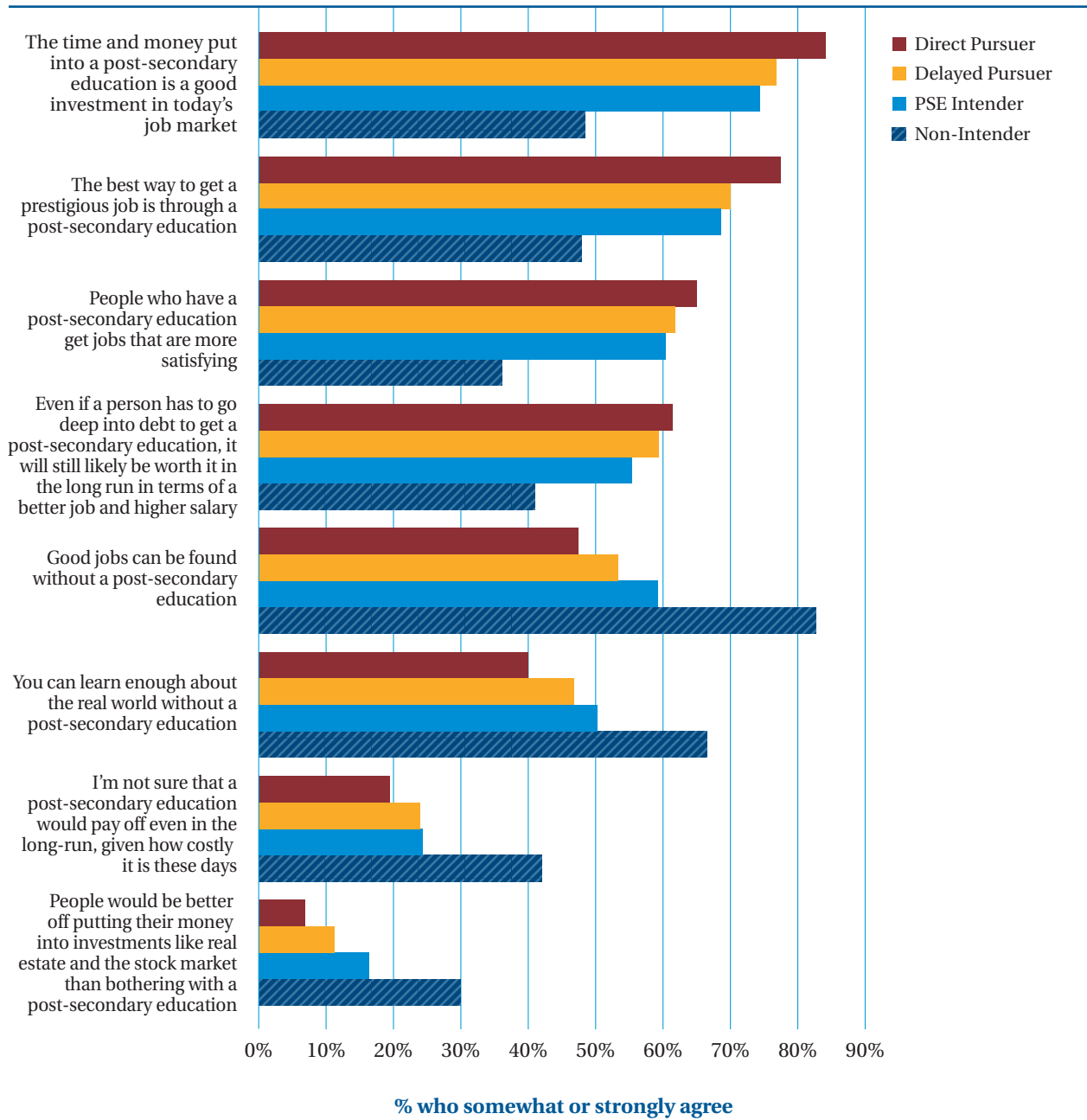


Figure II-34: Distribution of Type of Tuition Estimate (Under, Over or Within Range)

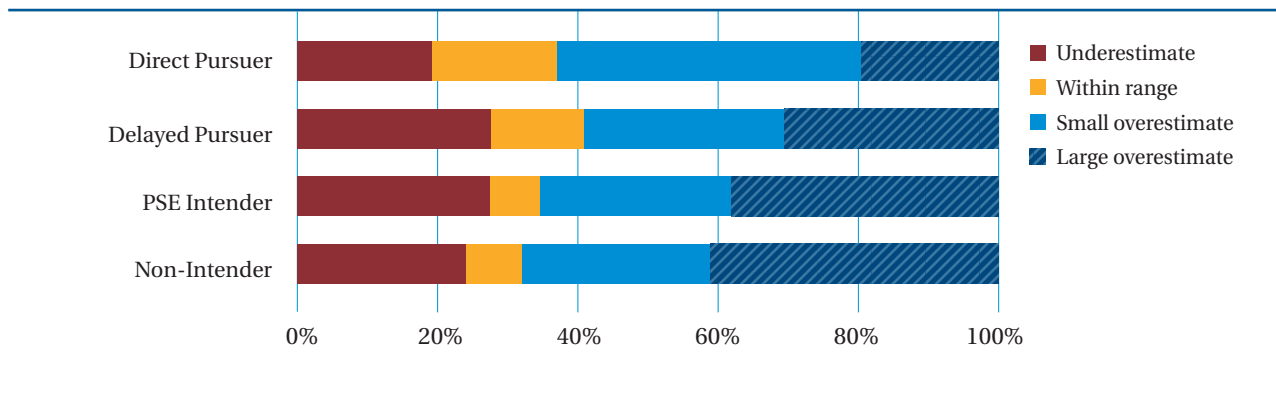
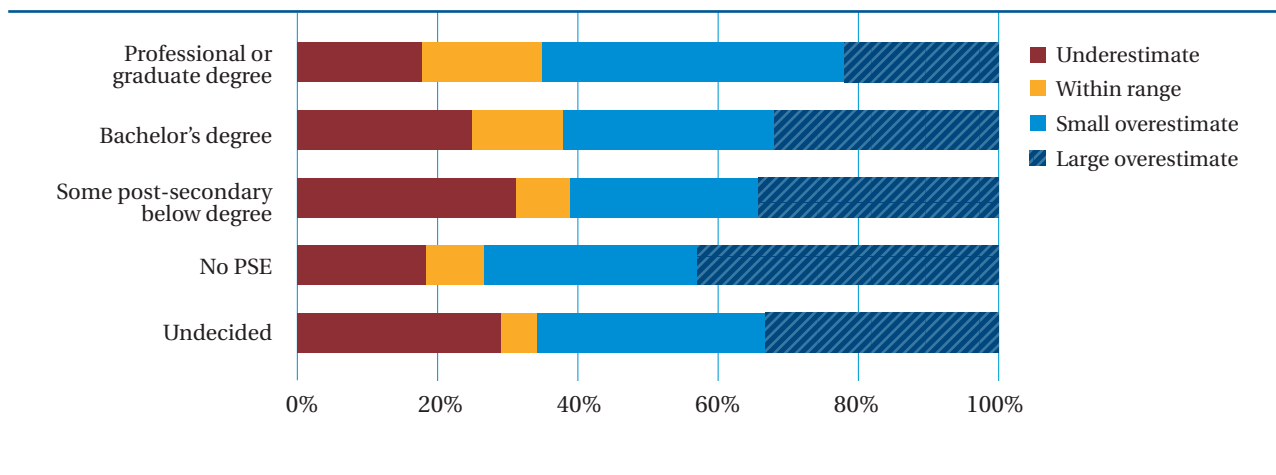


Figure II-35 shows a clear relation between the type of tuition estimate made and the graduates' PSE goals. Graduates with the highest aspirations—i.e., a professional or graduate degree—gave more accurate estimates than did other graduates. At the other extreme, those with no PSE goals were more likely than any others to make large overestimates of the cost of an undergraduate education.

The views about PSE and the tuition estimates together suggest that *Non-Intenders* greatly inflate

the cost of obtaining a university education and undervalue its benefits. Although *PSE Intenders* value a PSE, they also inflate the cost of obtaining one. This may be one reason they have delayed beginning their studies and why they aspire to lower levels of education than do those who have already begun their studies. These findings suggest that lack of accurate information about the costs and benefits of PSE plays a role in the decisions youth make about whether or not to go on.

Figure II-35: Type of Tuition Guess by PSE Goal

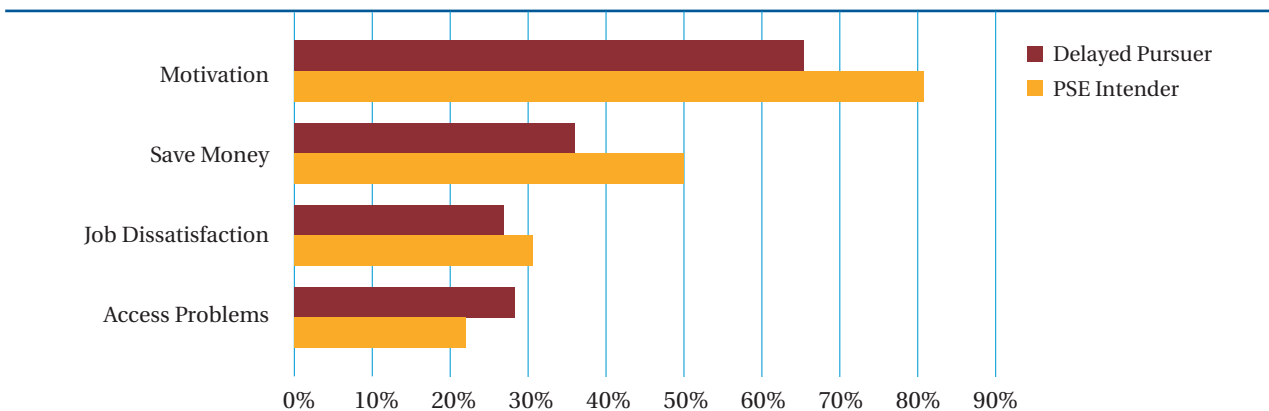


Why Some Graduates Delay Post-Secondary Studies

Both *PSE Intenders* and *Delayed Pursuers* were asked to rate a number of factors that may have influenced their decision to delay their studies. Responses to this question were collapsed into related categories: job dissatisfaction, problems accessing the desired program, motivation issues (such as wanting a break, needing time to decide what to do or changing their minds) and money (needing time to save for school).

(See Appendix F for a description of this analysis.) Figure II-37 shows the percentage who rated at least one factor in the category as very or extremely important in the decision to delay their studies. Motivation was the primary factor for both groups, although important for more *PSE Intenders* than *Delayed Pursuers* (81 vs. 65 percent). Money also stood out as an important factor for both groups, although again it was important for more *PSE Intenders* than *Delayed Pursuers* (50 vs. 36 percent). Job dissatisfaction and access problems were important for a minority of graduates in each group.

Figure II-37: Types of Reasons for Delaying Post-Secondary Studies for *Delayed Pursuers* and *PSE Intenders*

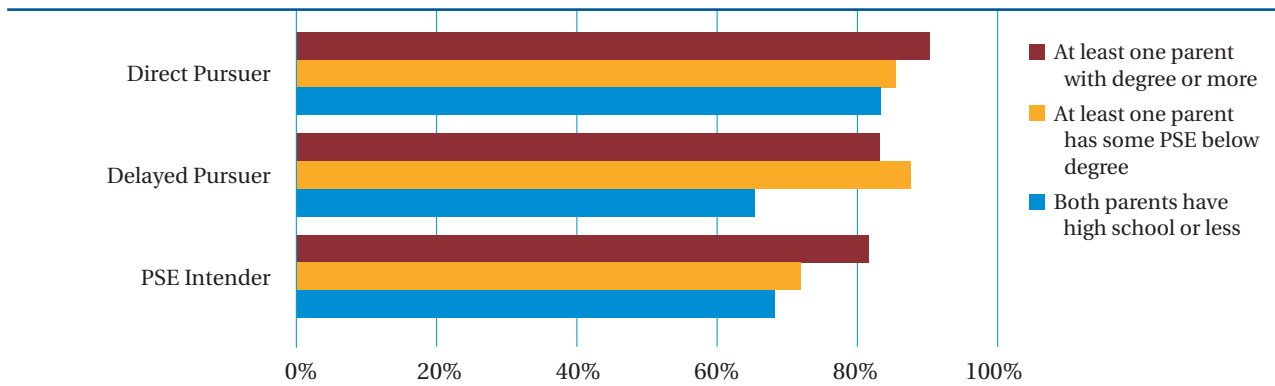


Financing Their Education

The vast majority of respondents had saved for their education, or their families had saved for them. *PSE Intenders* were less likely than others to have savings, with 72 percent reporting savings, compared to 86 percent of *Direct Pursuers*. There was little difference between the groups in their willingness to borrow for their education. About half the graduates

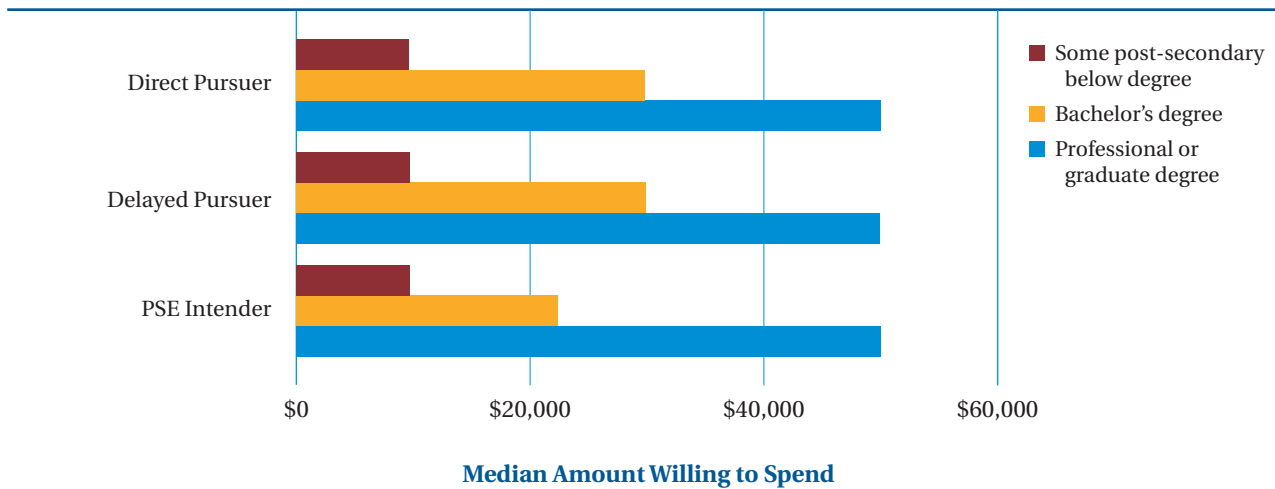
in each group were willing to borrow. Figure II-40 shows the percentage of graduates who had savings for PSE by PSE status and parental education. There was an effect of parental education: those whose parents did not have any PSE were less likely to have savings. The effect of parental education was minimal for *Direct Pursuers* but much greater for *Delayed Pursuers* and *PSE Intenders*. There was no systematic effect of parental education on willingness to borrow.

Figure II-40: Percentage Who Saved by PSE Status and Parents' Education



N for *Direct Pursuer*: 350 with degree; 180 with some PSE; 140 with high school or less.
 N for *Delayed Pursuer*: 134 with degree; 71 with some PSE; 46 with high school or less.
 N for *PSE Intender*: 237 with degree; 236 with some PSE; 223 with high school or less.

Figure II-41: Amount Graduates were Willing to Spend in Relation to Education Goal



Median Amount Willing to Spend

PSE Intenders were willing to spend less money on their education than were *Pursuers* (\$29,908 vs. \$49,222—*Direct* and \$42,713—*Delayed*). (Note that a third of each group did not give an amount.) Figure II-41 clearly shows that the difference in the amount the groups were willing to spend is almost completely due to the differences in their PSE goals. Those with the same goal, regardless of whether they were a *PSE Intender*, a *Delayed Pursuer* or a *Direct Pursuer*, were willing to spend similar amounts to achieve

that goal. *PSE Intenders* who want a degree were the one exception: they were willing to spend less than were *Direct* and *Delayed Pursuers* who want a degree.

Figure II-42 shows that the amount graduates were willing to spend was related to PSE status and parental education. Those with parents with no PSE were willing to spend less than were other graduates in their group. This may also be a reflection of different goals, though, as goals were also related to parental education. Since the higher the education goal is, the

Figure II-42: Amount Graduates were Willing to Spend in Relation to Parental Education

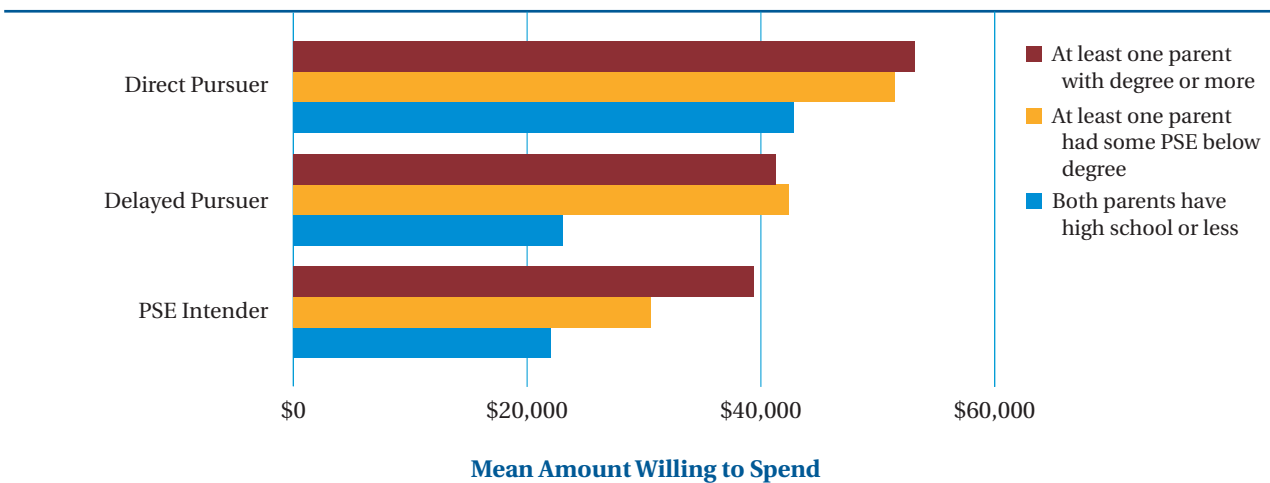
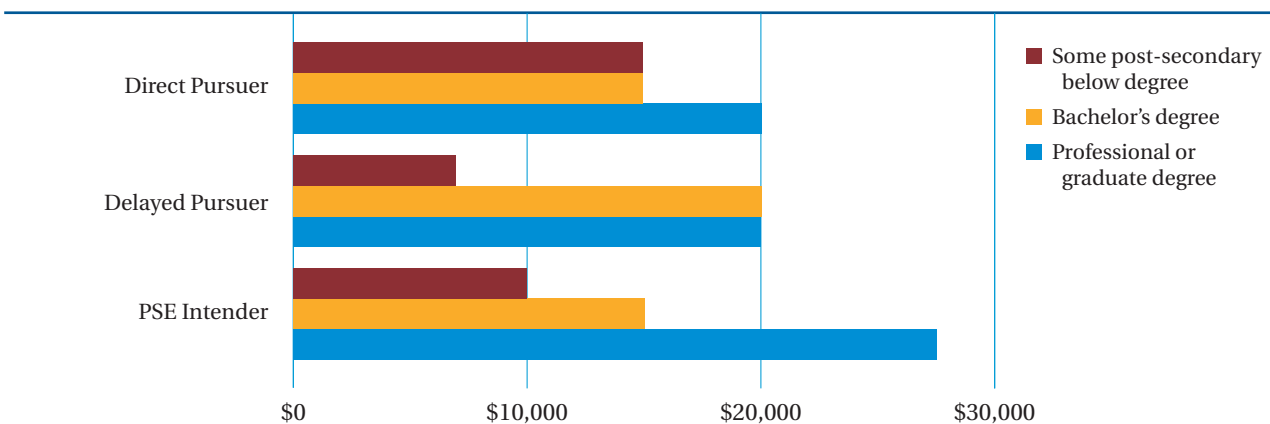


Figure II-43: Amount of Debt Those Willing to Borrow were Willing to Accumulate in Relation to Education Goals



more it will tend to cost to achieve, it may be that SES is underlying both the goals graduates have and the amount they are willing to spend. Those who have parents with more education will likely be from higher SES backgrounds and thus can expect more financial support from their parents than can those whose parents have lower levels of education.

The three groups also differ in the amount of debt they were willing to accumulate to achieve their education goals. *Direct Pursuers*, who tend to have more expensive goals, were also willing to borrow more to achieve them. But the relationship between education goal and the amount graduates were willing to borrow is not the same for all groups (see Figure II-43). In this regard, *PSE Intenders* stand out. *PSE Intenders* who want a professional or graduate degree were willing to borrow more money than *Pursuers* with the same aspirations. The graduates with other goals were more similar in the amount they were willing to borrow to achieve them. There was no effect of parental education on the amount graduates were willing to borrow.

Summary of Findings on Post-Secondary Choices

Although the sample of high school graduates was evenly divided between post-secondary pursuers and non-pursuers, most of those surveyed wanted some PSE. Only one in five non-pursuers had no plans for any PSE. This is reassuring given that the majority of job openings in the future will require some PSE.

PSE Intenders versus Pursuers

Despite a desire for a PSE, a sizable number of high school graduates had not begun their studies two years after graduation. This group, the *PSE Intenders*, is of particular interest in this study. Understanding their reasons for delaying their studies and the factors that influence their decisions about PSE may help us

better understand the barriers to achieving their PSE goals that some high school graduates face.

In many respects, *PSE Intenders* are remarkably similar to both *Direct* and *Delayed Pursuers*. However, they differ from *Pursuers* in some key ways. In addition to delaying their education by more than two years, they also have lower educational goals. Only about half want at least one degree, compared to about two-thirds of *Delayed Pursuers* and almost 90 percent of *Direct Pursuers*.

Grades are another way in which *PSE Intenders* stand out from *Pursuers*. *PSE Intenders* had lower high school grades and were less academically engaged in high school. In fact, their grades were only slightly better than those of *Non-Intenders*. Yet even with GPAs below 3.0—the minimum generally necessary for university entrance—half aspire to earn a degree. Grades could be a barrier to pursuing post-secondary studies for this group, but the majority did not identify academic preparation as a barrier. Their aspirations may be somewhat lower than those of *Pursuers* because of their grades, but many *PSE Intenders* aspire to a university education even though they may lack the grades for it.

When they graduated from high school, *PSE Intenders* were less prepared for a PSE than were *Pursuers*. *PSE Intenders* may have lacked the information needed to make an informed decision in high school. In addition to having lower grades, they are less likely to have taken English or mathematics 12, and they didn't have accurate information about the cost of university tuition. Some did not initially see a need for more education, but dissatisfaction with their jobs led them to change their minds. Others wanted more education but needed to work to save for it.

Clearly, *PSE Intenders'* path to PSE is different from that of *Pursuers*. There were some ways in which *PSE Intenders* were similar to *Non-Intenders*. Between a quarter and a third of *PSE Intenders* were influenced in their choices by needing to work to support

themselves or wanting to work rather than go to school, which is consistent with their reasons for delaying their studies. Nonetheless, the majority of *PSE Intenders* were influenced to pursue PSE by the same factors that influenced *Pursuers*: they felt they needed a PSE to get the job or career they wanted. By two years after graduation, *PSE Intenders* value PSE almost as much as do *Direct Pursuers*, although they inflate its cost almost as much as do *Non-Intenders*. We do not know how PSE was viewed when they finished high school. It is possible that there was a shift in attitudes about the value of PSE, at least for those who initially wanted to work and later changed their mind about PSE.

Parents' education may also have influenced their goals. *PSE Intenders* were much more likely than *Pursuers* to have parents with no PSE and were less likely to have parents with at least one degree. This could also explain the lower educational aspirations of this group. They were also somewhat less likely to be encouraged to pursue a PSE by their parents than were *Pursuers*.

Their parents' education could also reflect the socio-economic background of *PSE Intenders*. Since their parents are less likely to have a PSE, they can be expected to have lower earnings, on average, and be less likely to be able to help finance their children's education. A weak link between parental education and median family income of the school district was found, supporting the possibility that students whose parents do not have any PSE are from lower income families. This may be why *PSE Intenders* were somewhat less likely to have education savings. Their socio-economic background could be another possible reason why their educational aspirations were lower than those of *Pursuers*. They may be more realistic about what they can afford.

Motivation is a key factor in the decision to delay PSE for *PSE Intenders*. They have not yet begun post-

secondary studies because they haven't decided on a career direction. Some of them initially wanted a break from school. Although they appreciate the value of a PSE, they are not yet ready to begin one for themselves. Others in this group were not initially interested in a PSE but later changed their mind, perhaps because of dissatisfaction with their employment prospects without one. *PSE Intenders* were less prepared for PSE perhaps because of lack of motivation or perhaps because of lack of information on their career options, the cost of PSE and the academic preparation needed for PSE. It's not clear whether lack of motivation resulted in lack of information or whether lack of accurate information produced the lower motivation. The value of accurate information for all graduates is clearly illustrated in the relationship between PSE goals and tuition estimates. The lower their education aspirations were, the more inaccurate their tuition estimates tended to be.

Money is also a factor for *PSE Intenders*. About half delayed their education because they needed to save for a PSE. However, two years after high school they are still working. *Delayed Pursuers* also needed time to decide what to do and time to save for their education but, in contrast with *PSE Intenders*, *Delayed Pursuers* had already begun their studies. Why hadn't *PSE Intenders* begun their PSE two years after finishing high school? Perhaps it's because they were not as well prepared for PSE, being less likely to have savings and less likely to have the grades and courses needed for entrance. They also had less accurate information about the costs of PSE and they were more likely to have parents who had no PSE or no degree. In other words, *PSE Intenders* were probably more likely from families of lower SES. Their parents were less able to act as role models and provide advice about PSE and would be less able to provide financial support for their education.

Non-Intenders versus Those with Post-Secondary Education Goals

Non-Intenders differed from the three groups with PSE aspirations in many ways. They were less prepared for PSE than any other group, being the least likely to have taken math 12 or English 12 and having the lowest average grades of all four groups. In fact, only a quarter had a GPA of 3.0 or above. The high school experience of *Non-Intenders* was much different from that of the other graduates. They were much less engaged in high school, both academically and socially. *Non-Intenders* were also less likely than other graduates to have parents or siblings with any PSE.

In some ways, *Non-Intenders* are similar to *PSE Intenders*. Their grades were only slightly lower than the grades of *PSE Intenders*, and *Non-Intenders* were somewhat less likely than *PSE Intenders* to have parents with any PSE. Yet *PSE Intenders* want a PSE and *Non-Intenders* do not. Given the similarities with *PSE Intenders*, it appears that lack of academic preparation and family background are not primary factors in the decision. Although they had similar high school grades, *PSE Intenders* were much more engaged in high school than were *Non-Intenders*. This suggests that having a positive high school experience doesn't depend on grades. However, having a positive high school experience may be one of the key factors that influence their desire for a PSE.

One significant way in which *Non-Intenders* differed from other graduates was in the factors that influenced their decision about pursuing or not pursuing PSE. While the majority of those who wanted a PSE did so to get the kind of job they wanted, there was no one factor that was shared by the majority of *Non-Intenders*. However, the factors that were more important for *Non-Intenders* than for the other graduates were about either wanting or needing to work.

The vast majority of *Non-Intenders* were working full-time when surveyed. Unlike those working in the other groups, *Non-Intenders* were much more satisfied with the long-term employment prospect of their current job. This could explain why the majority of *Non-Intenders* felt that good jobs could be found without a PSE.

Pursuers and *PSE Intenders* feel that a PSE is necessary to get a good job. *Non-Intenders* also want a good job, but feel that PSE is not necessary for one. Indeed, many feel that they have good jobs now and feel that PSE may not be worth the cost. In general, *Non-Intenders* were much more likely than graduates with PSE goals to undervalue a PSE and to greatly inflate its cost. *Non-Intenders'* views may be influenced by misinformation about the cost of PSE. Their estimates of the cost of university tuition were almost double the actual costs. However, their experience in the labour market is likely also influencing their choices. They were able to get a good job without a PSE, so they saw no need for one.

Section III

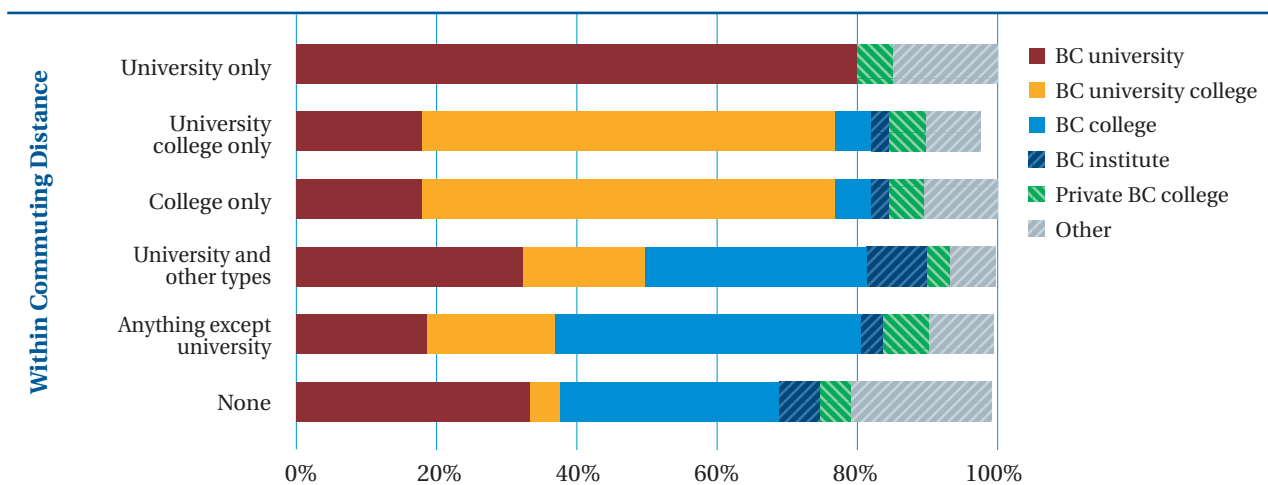
The Effect of Distance to Post-Secondary Institutions

Frenette (2002, 2003) has shown that distance to a post-secondary institution can be related to the type of institution attended. Frenette found that overall, 13 percent of Canadians live beyond commuting distance to a university, while only 2.7 percent live beyond commuting distance to a college. BC, where this research was conducted, is similar to the national average. We examined the effect of distance in more depth in this study.

Distance and Post-Secondary Attendance

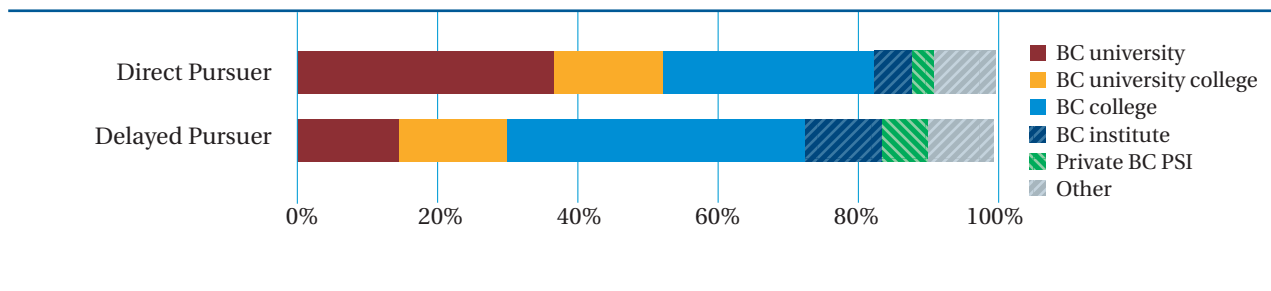
Distance was calculated by BC Stats, following the methodology developed by Frenette (2002). They determined the distance from the student's home postal code at the time of graduation to the main campus of each type of public post-secondary institution in BC: colleges, university colleges, universities and specialized institutes.⁴

Figure III-2: Type of Institution Pursuers Attended for Those Within Commuting Distance to Universities, University Colleges, Colleges or All Three Types



Note: Only *Direct* and *Delayed Pursuers* were included in this analysis. Responses do not all sum to 100 percent because the type of institution could not be identified.

⁴ This measure of distance does not capture the locations of the many satellite campuses in the province, which offer more limited programming and services than the main campus but which also provide students with an alternative to moving to the main campus.

Figure III-4: Type of Institution Attended by *Direct* and *Delayed Pursuers*

We coded students as being within commuting distance if they lived within 80 kilometres of that type of institution at the time of graduation, to be consistent with Frenette's research. Students were classified as living within commuting distance of a university only, a college only, a university college only, a university and one or more other types of institutions, or any type of institution other than a university. In addition, students who lived beyond commuting distance of any post-secondary institution were also included.

Figure III-2 shows that being within commuting distance of an institution clearly influenced the type of institution that *Pursuers* attended, as Frenette found. Of the *Pursuers* who were only within commuting distance of a university, 80 percent had attended a university. For those only within commuting distance of a university college, almost 60 percent attended a university college, and for those within commuting distance of a college, about 55 percent attended a college. Those who had choices of a university or one or more other types of institutions were about equally likely to attend a university or a college. The majority of those who were within commuting distance of anything other than a university attended colleges more than any other type of institution, but almost 20 percent attended a university. Those outside commuting distance of any type of institution tended to attend a university or a college, with about a third attending each. Another 20 percent were studying at some other type of institution, usually an institution outside of BC. These findings parallel those of Frenette: university attendance was highest for those living closest to a university, while college attendance was highest for those living closest to a college.

The pattern of institutions attended by *Direct* and *Delayed Pursuers* was very different, as portrayed in Figure III-4. *Direct Pursuers* were two and a half times more likely to attend a university than were *Delayed Pursuers*, while *Delayed Pursuers* were more likely to attend a college or an institute than were *Direct Pursuers*.

Distance and Post-Secondary Status

Figure III-7 shows the number of different types of post-secondary institutions within commuting distance for each group of graduates. Compared to other graduates, *Direct Pursuers* had more types of institutions to choose from within commuting distance, while *Non-Intenders* had the fewest choices. It's important to note, though, that almost two-thirds of all graduates had at least two types of post-secondary institution to choose from, and only 15 percent were beyond commuting distance of any post-secondary institution.

For another analysis, we determined the distance each graduate was from any type of post-secondary institution. Figure III-8 shows the distance to the closest post-secondary institution, regardless of type, and Figure III-9 shows the distribution of distance. Being within commuting distance of any post-secondary institution was related to the PSE status of graduates. *Non-Intenders* were more likely than other graduates to live beyond commuting distance of a public post-secondary institution in BC. *Direct Pursuers* were more likely than others to live within 40 kilometres.

Figure III-7: Number of Types of Post-Secondary Institutions within Commuting Distance

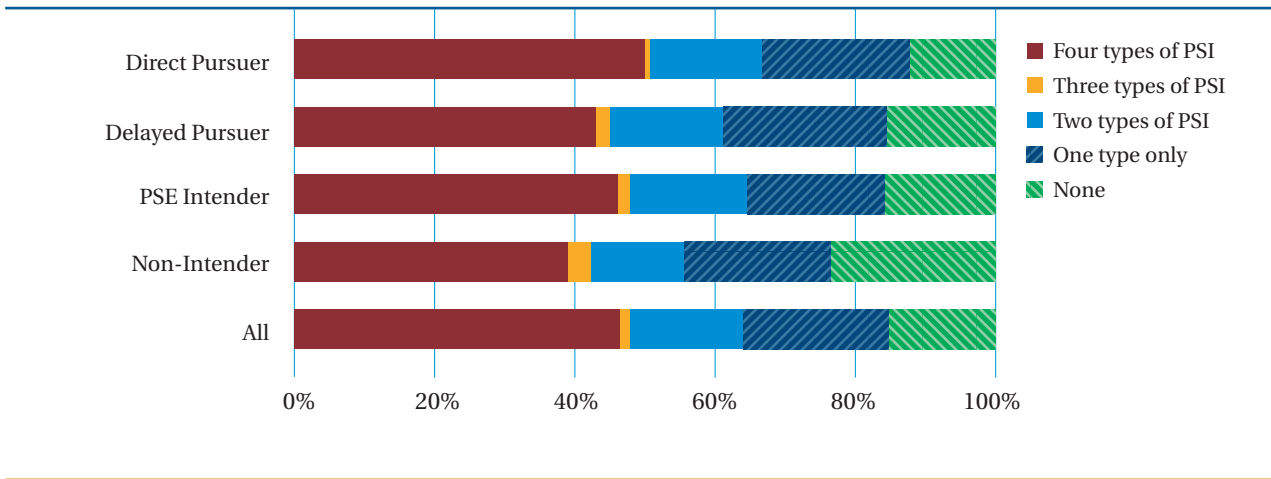
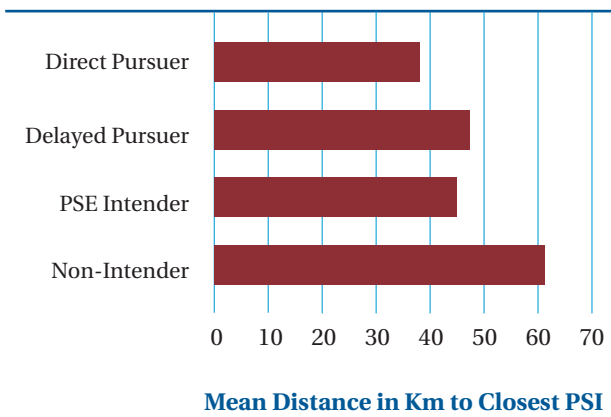


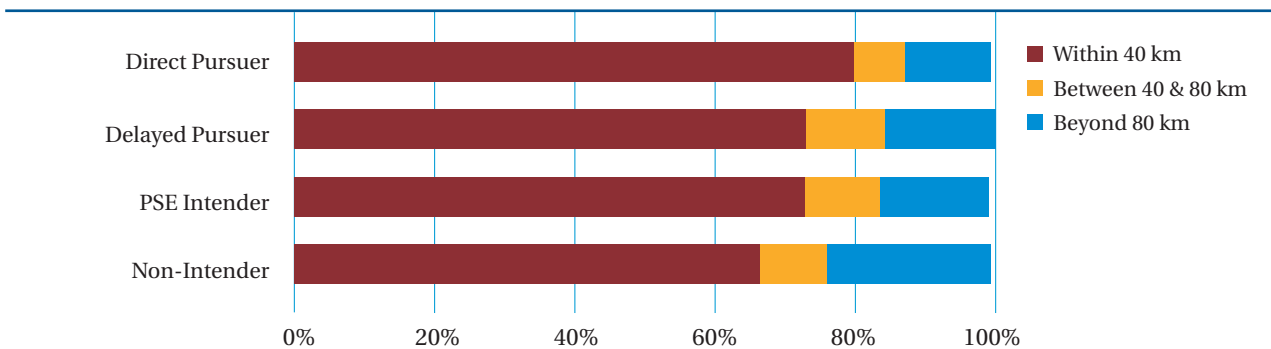
Figure III-8: Distance to Closest Post-Secondary Institution



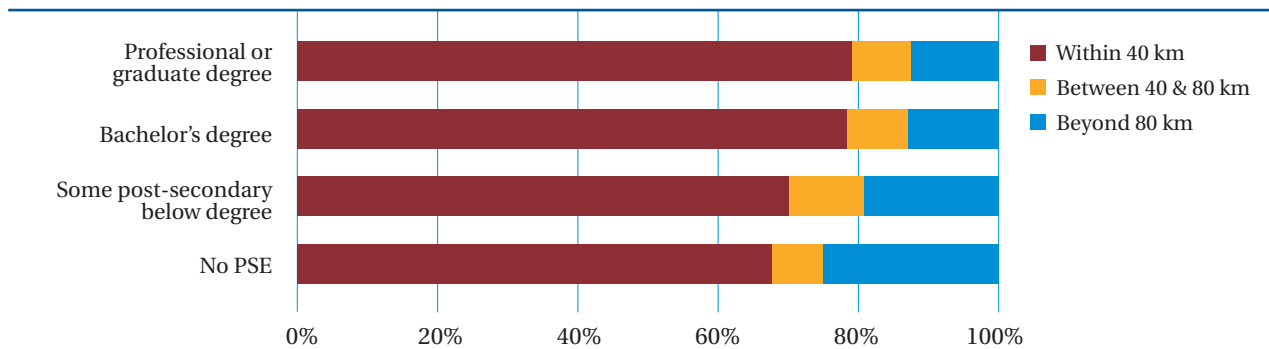
For *Direct* and *Delayed Pursuers* and *PSE Intenders*, there was no effect of parental education on any of the distance measures. However, parental education had a big effect for *Non-Intenders*. *Non-Intenders* whose parents have no PSE were more likely to live beyond commuting distance of any post-secondary institution than were those whose parents have some PSE (32 vs. 18 percent). On average, *Non-Intenders* with parents who had no PSE lived 75 kilometres away from the nearest post-secondary institution, compared to 53 kilometres for *Non-Intenders* whose parents had some PSE.

Mean Distance in Km to Closest PSI

Figure III-9: Distribution of Distance to Closest Post-Secondary Institution



Note: All respondents were included in this analysis.

Figure III-10: PSE Goal in Relation to Distance to Closest Post-Secondary Institution

Note: All respondents were included in this analysis.

Distance and Post-Secondary Education Goals

Figure III-10 shows the relation between distance to the closest post-secondary institution and graduates' post-secondary goals. The closer to a post-secondary institution that the graduates were living when they finished high school, the higher their post-secondary aspirations tended to be. Almost 80 percent of those aspiring to a degree lived within 40 kilometres of a post-secondary institution. Of those wanting some post-secondary below a degree, about 70 percent were within 40 kilometres of some post-secondary institution. About a quarter of those with no PSE goal lived more than 80 kilometres from any post-secondary institution.

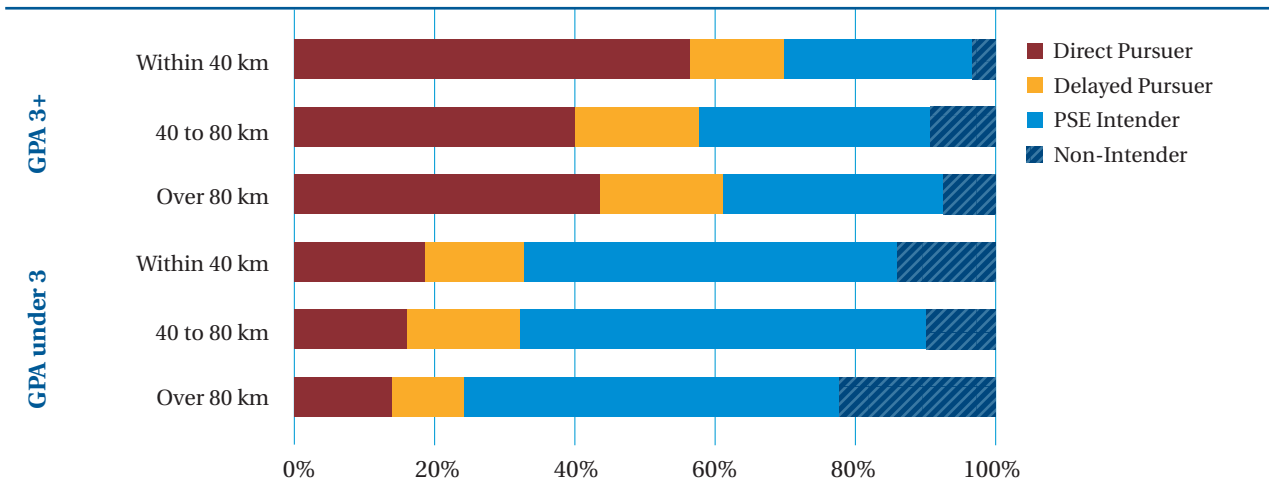
Perhaps there was no relation between PSE goal and distance to institutes because institutes offer specialized programs. Graduates likely select an institute because of its unique programming, not because of its location. There was also no relation to distance to the nearest university college, which may be because there are only three in the province, and 89 percent of those living within commuting distance of a university college were also within commuting distance of both a college and a university. With nearby colleges and universities to choose from, the location of the nearest university college may not have mattered.

The Effect of Distance and Grade Point Average

Obviously, distance is only one of many factors that can affect the decision to pursue post-secondary studies and the type of institution in which to enrol. Grades are an important consideration as well. Figure III-12 illustrates how both GPA and distance matter when it comes to post-secondary attendance. Post-secondary participation was highest for graduates who lived within 40 kilometres of a post-secondary institution at the time of graduation and had a GPA of 3.0 or better; about 70 percent had done some PSE. Of those with a GPA of 3.0 or better who lived beyond 40 kilometres, about 60 percent had taken some PSE. Of those with a GPA under 3.0 who lived within 80 kilometres, about a third had taken some PSE. Post-secondary participation was lowest for graduates who lived over 80 kilometres from the closest post-secondary institution and had GPAs below 3.0; only about a quarter had taken any PSE.

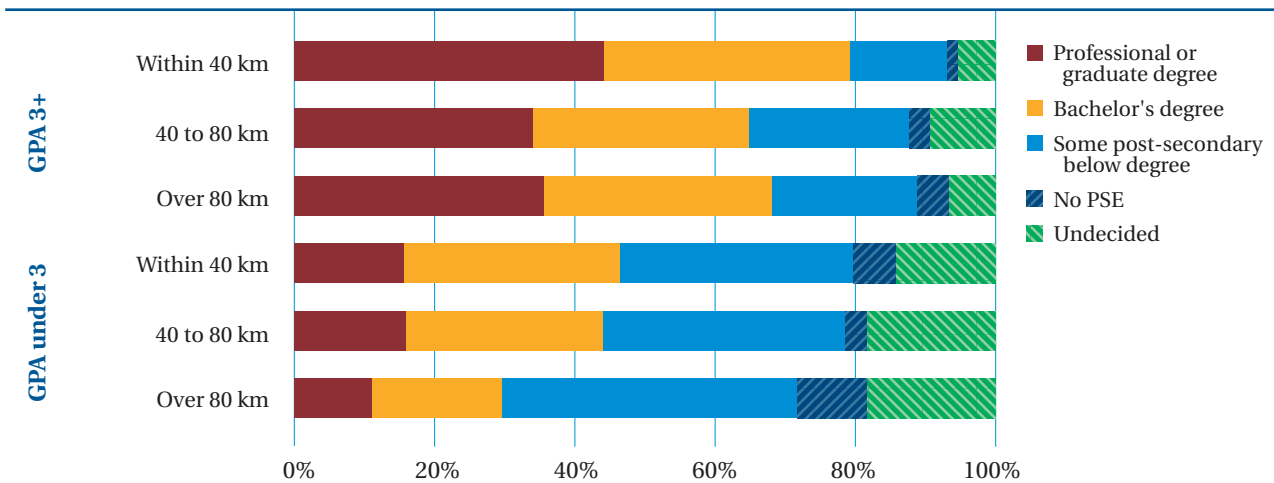
PSE goals were also related to both GPA and distance, as shown in Figure III-13. Graduates with GPAs of 3.0 and above were more likely to aspire to a degree than were those with lower GPAs. However, distance mattered as well: about 80 percent of

Figure III-12: Post-Secondary Status in Relation to Grade Point Average and Distance to the Closest Post-Secondary Institution



Note: All respondents were included in this analysis.

Figure III-13: PSE Goal in Relation to Grade Point Average and Distance to the Closest Post-Secondary Institution



Note: All respondents were included in this analysis.

graduates with good GPAs who also lived the closest to institutions aspired to a degree, compared to about 65 percent of those with similar GPAs who lived further away. Distance also affected the aspirations of

those with lower GPAs. Of the graduates with GPAs under 3.0, almost half who lived within 40 kilometres wanted a degree of some kind, compared to 30 percent of those who lived more than 80 kilometres away.

Summary of Findings on the Effects of Distance

As was shown in Frenette's research, distance is a factor in the PSE choices of high school graduates. Just as Frenette found, those living closest to a university were more likely to attend a university than any other type of institution, while those living closest to a college were more likely to attend a college. This study also found that those living closest to a university college were more likely to attend a university college. However, the findings suggest a preference for universities; students were more likely to move if there was no university in their hometown than if there was.

This research goes beyond Frenette's, though, because we also have information on timing of PSE studies and PSE goals. Both PSE goals and PSE timing were related to distance. *Direct Pursuers* were more likely than others to live within commuting distance of a post-secondary institution and had the greatest number of types of institutions to choose from within commuting distance. They were more likely than *Delayed Pursuers* to attend a university and to attend an institution in their hometown. Compared to *Direct Pursuers*, *Delayed Pursuers* and *PSE Intenders* lived further away and had fewer institutions to choose from. *Non-Intenders* were more likely than others to live beyond commuting distance of any post-secondary institution and had fewer choices within commuting distance.

Those who delayed their education (*Delayed Pursuers* and *PSE Intenders*) had similar distance profiles. They were less likely than *Direct Pursuers* but more likely than *Non-Intenders* to live within commuting distance of a university, college or university college. They also lived further away, on

average, from any type of post-secondary institution than did *Direct Pursuers*, but they were much closer than *Non-Intenders*. *Delayed Pursuers* and *PSE Intenders* also had a similar number of institutions to choose from within commuting distance, slightly less than had *Direct Pursuers*, but many more than had *Non-Intenders*. In addition, *Delayed Pursuers* and *PSE Intenders* were somewhat less likely to be willing to move beyond commuting distance from their community than were *Direct Pursuers* and somewhat more willing to move than were *Non-Intenders*. However, *Delayed Pursuers* were less willing to move than were *PSE Intenders*.

In terms of distance from post-secondary institutions, *PSE Intenders* were no different from *Delayed Pursuers*, so distance cannot be a factor on its own in influencing their choice. However, needing to move for an education increases its costs. That may be why *PSE Intenders* were less willing than *Pursuers* to move from their community for their education. Given that *PSE Intenders* were more likely to have delayed to save for their education, it may be finance rather than distance alone that accounts for why, two years after high school, *Delayed Pursuers* have begun their post-secondary studies, while *PSE Intenders* haven't yet started.

We know grades are related to PSE goals; distance is as well. Those who aspired to a degree were more likely to live within commuting distance of a post-secondary institution than were those wanting lower levels of education. GPA mattered more than distance, but both had an influence. Although those with good GPAs were more likely than those with poorer GPAs to aspire to a degree, those with good GPAs living within commuting distance were more likely than those living further away to have degree aspirations.

Both grades and distance were also related to PSE status. *Direct Pursuers* were concentrated among those with good GPAs who lived the closest to a post-secondary institution. The highest concentration of *Non-Intenders* was among graduates who had poor GPAs and lived beyond commuting distance.

Parental education (and therefore family income) was not a factor in the relationship between distance and PSE participation status except for *Non-Intenders*. *Non-Intenders* whose parents had no PSE were more likely to live beyond commuting distance of any type of post-secondary institution than were *Non-Intenders* whose parents had some PSE. *Non-Intenders* from lower income families who live beyond commuting distance face two potential barriers to pursuing PSE. Their families are less able to provide financial support for PSE, yet they have the added costs of needing to move. However, this group comprises only 14 percent of all *Non-Intenders*, suggesting that parental income and education are not significant factors underlying the effect of distance.

Presumably the association between distance and PSE goals and participation is not a coincidence. Graduates did not choose where they were living when they were completing high school; however, their PSE choices were influenced by the type of institution closest to them at that time. Both lifestyle choices, such as wanting to remain in their hometown, and cost may be factors underlying these choices. We know from Statistics Canada's *General Social Survey* that more young adults are living with their parents than ever before.⁵ Living with their parents is one way students can reduce the cost of their PSE. Cost may not be the only factor, though—some young people may prefer to remain in their home community to be closer to family and friends.

5 In 2001, 41 percent of the 3.8 million young adults aged 20 to 29 lived with their parents, compared to 27 percent in 1981.

Section IV

Barriers to Achieving Education Goals

Figure IV-1 shows that the majority of graduates were optimistic that they would complete all the education they wanted. Even those who had yet to begin—the *PSE Intenders*—were optimistic, with about 70 percent believing it was *very likely* or *certain* that they would achieve their education goals.

The three groups with PSE goals were asked to rate a number of factors on the likelihood that each would affect their ability to complete all the education they want. The four most likely factors are shown in Figure IV-2. These are the factors that were rated as

very or extremely likely a factor by more respondents than any other factors. Three of these are financial in nature. Debt was the main factor for all three groups, with a third identifying it as either a very or extremely likely factor affecting their ability to complete all the education they wanted. Almost as important for *PSE Intenders* and *Delayed Pursuers* was the possible need to support themselves. The possibility of changing their mind or not being able to afford all the education they want were considered likely factors for about a quarter.

Figure IV-1: Likelihood of Getting All Education Wanted

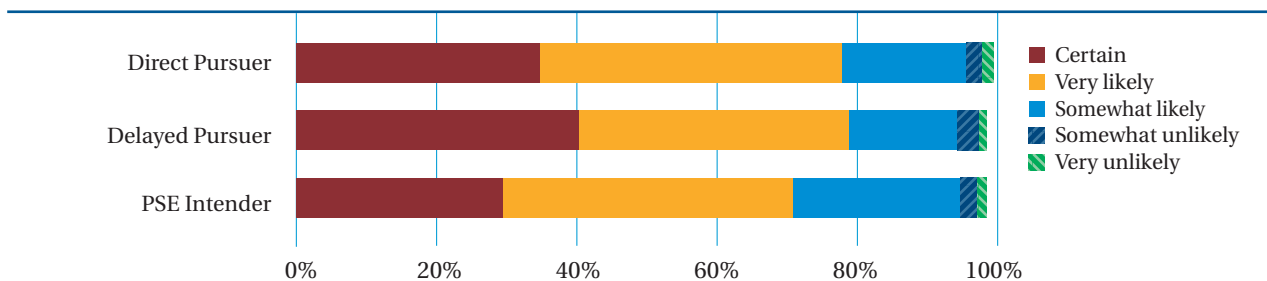
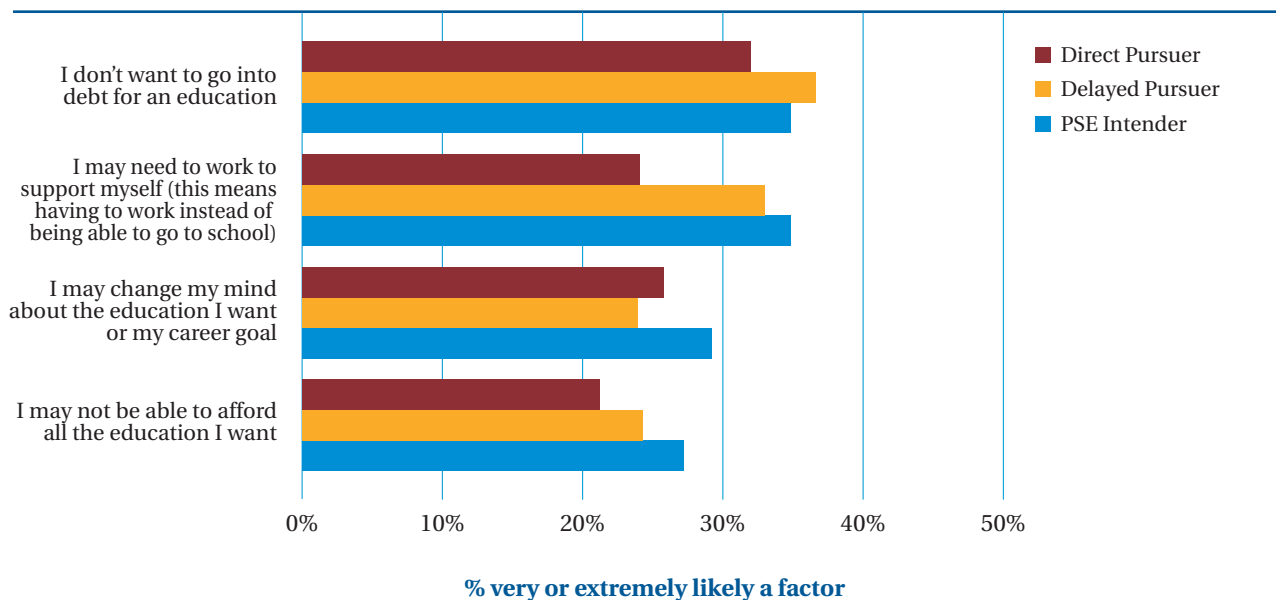


Figure IV-2: Top Four Barriers to Getting All Education Wanted



Types of Barriers

Since a number of the factors are related, the 14 factors were grouped into one of four categories: financial, motivational, social and academic. Respondents were considered to have a financial barrier if they had rated at least one financial factor as either *very* or *extremely likely* to affect their ability to complete all the education they wanted. The same logic was used to identify respondents with motivational, social and academic barriers.

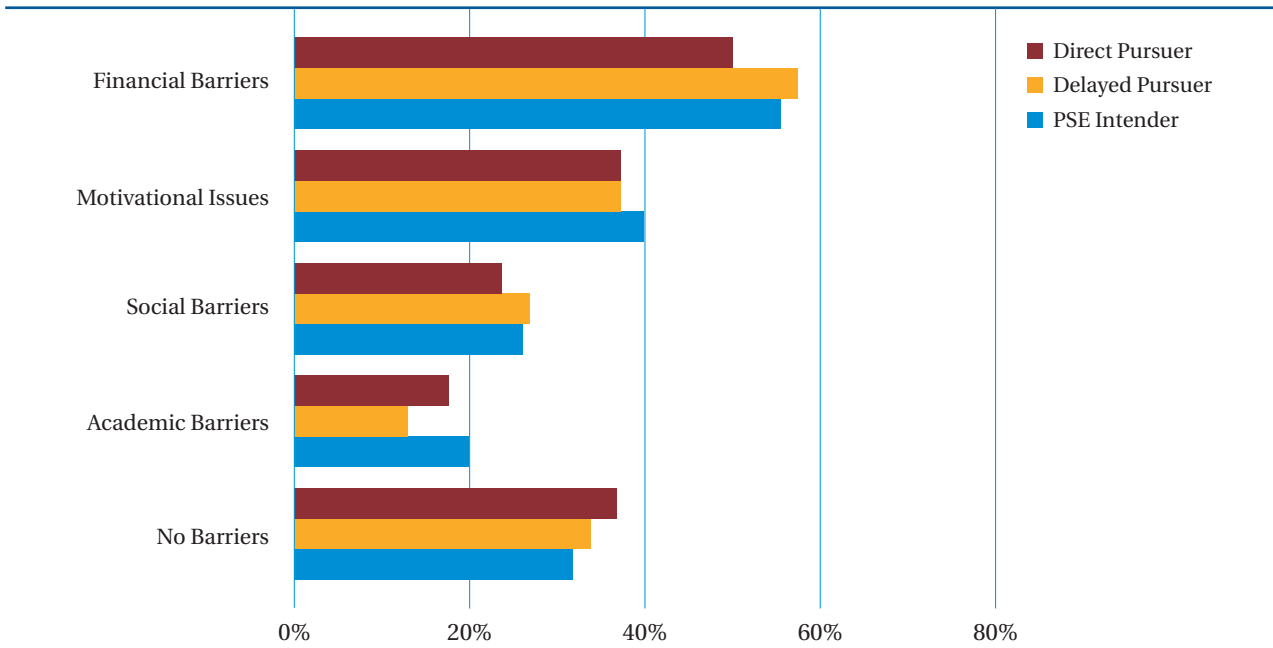
As shown in Figure IV-3, financial barriers were the most common type reported: at least half the respondents in each group reported one or more financial factors that could prevent them from achieving their education goals. Motivational issues, such as changing their mind or losing interest, were the second most important type of barrier, considered likely by about 40 percent of respondents. Academic barriers were the least likely concern, even for *PSE Intenders*, who tended to have lower GPAs than *Direct Pursuers*. About a third of each group did not identify any barriers that they felt would be *very* or *extremely likely* to be a factor in not getting all the education

they wanted. Slightly more *Direct Pursuers* than any other group reported no barriers.

Although academic barriers weren't related to education goals, both financial and motivational ones were, as shown in Figure IV-4. Those with degree aspirations were more likely to be concerned about financial and motivational issues than were those who aspired to lower levels of education. The more education one wants, the more time it will take and the more money it will cost. Hence, it makes sense that those who want more education are more likely to report financial and motivational concerns. Academic barriers may not be related to education goals because those with poorer academic qualifications tended to want lower levels of education. Those who aspired to some PSE below a degree were more likely than others to report no barriers to achieving their goals.

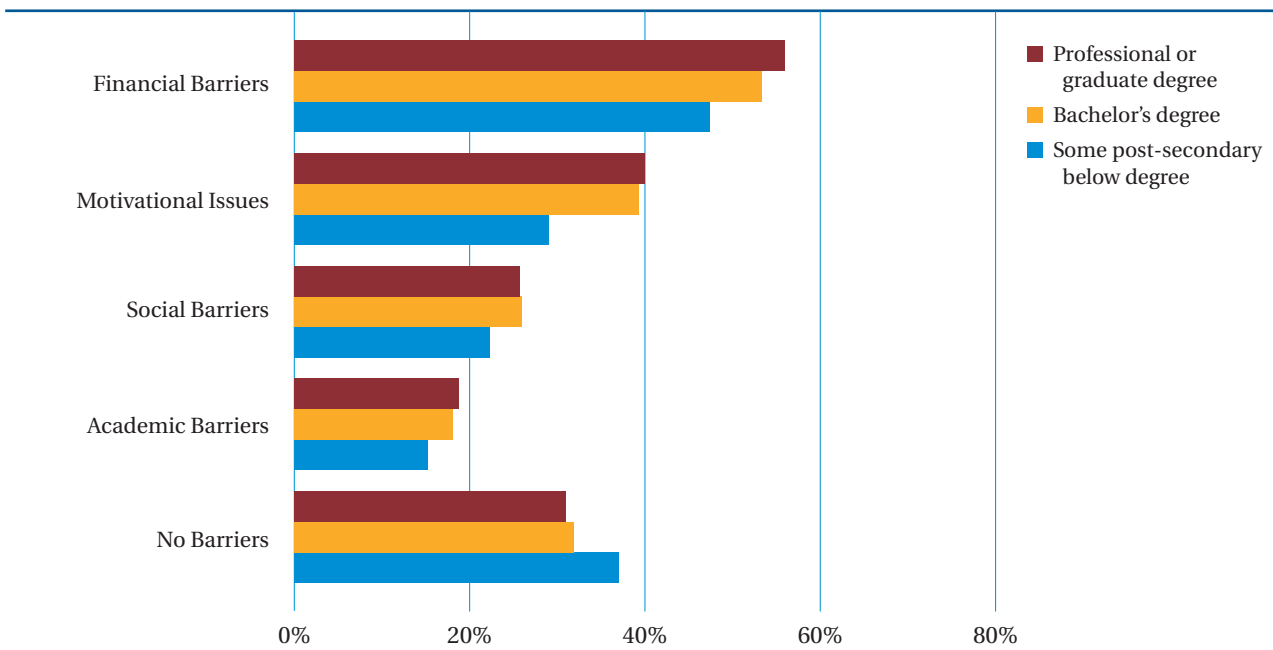
The potential barriers parallel the reasons for delaying their education for *PSE Intenders*. About 80 percent of *PSE Intenders* delayed their education because of some motivational reason, such as needing time to decide what to do or initially not wanting a PSE but later changing their mind. About

Figure IV-3: Types of Barriers to Getting All Education Wanted



Note: The graph shows the percentage who rated at least one factor in the category as *very* or *extremely likely a factor*.

Figure IV-4: Types of Barriers in Relation to Education Goals



40 percent felt that motivational factors may yet prevent them from getting all the education they want. Motivation was clearly an important factor for this group, but so were finances. Half delayed their education because they needed to work to save money for school. About 55 percent were concerned that financial factors may prevent them from completing their education.

A Closer Look at Financial Barriers

To further understand the role of financial factors in the decision to pursue post-secondary studies, a profile was created comparing graduates who reported some type of financial factor as a possible barrier to achieving their PSE goals with those who did not report any type of financial factor as a barrier. Of the graduates with post-secondary goals, those who reported financial barriers to achieving their goals stand out from those who did not report such barriers in a number of ways. Graduates who reported financial barriers:

- were more likely to have delayed their studies and were twice as likely to have delayed so they could save money for PSE;
- had higher PSE goals;
- were less likely to expect to achieve their goals;
- felt that a PSE is needed to get a well-paying job and to get the kind of job they want;
- were much more likely to need to work to support themselves;
- were less likely to feel that PSE is worth the cost or worth going into debt for;
- were more likely to have parents who had no PSE; and
- were less likely to have savings for their PSE but were more willing to borrow.

Table IV-1: Spending and Debt to Achieve Education Goals

	No Financial Barrier	Financial Barrier
Median amount willing to spend	\$30,000	\$25,000
Median amount of debt willing to accumulate	\$15,000	\$10,000

It is important to note, however, that most of these differences are small. Those who report financial barriers are actually fairly similar to those who do not report financial barriers. Overall, both groups value a PSE and have similar goals. However, graduates who were concerned about financial barriers were more likely to have delayed their studies to save for their education and to have needed to work to support themselves. They are also less likely to have savings for their education.

Table IV-1 shows the median amounts graduates were willing to spend to achieve their education goals and the amount of debt they were willing to accumulate. Those who reported financial barriers were willing to spend less money than were those who didn't report financial barriers. In addition, those who reported financial barriers were less willing to go into debt and were willing to accumulate less debt than were graduates without financial barriers.

Graduates who reported financial barriers and those who did not do so made similar estimates about the cost of university tuition. This suggests that information about tuition was not a factor differentiating those who reported financial barriers from those who didn't.

Summary of the Role of Financial Issues and Barriers

This section reviews the role that various financial issues play in the PSE choices high school graduates make and in the likelihood of realizing those choices. It is clear from the findings reported in Chapter II that views about the cost of PSE do influence PSE choices. Graduates who felt that the benefits were worth the cost were more likely to either have already taken some PSE (as *Direct* or *Delayed Pursuers*) or had intentions of doing so (*PSE Intenders*). *Non-Intenders* were more likely to feel that PSE was not worth the cost. They were also more likely to highly overinflate the cost of university tuition, suggesting that lack of accurate information about the cost of PSE is playing a role in the decisions that high school graduates make.

Other financial factors can influence the PSE choices graduates make. *Non-Intenders* were much more likely to report that their PSE choices were influenced by either wanting to work, needing to work to support themselves or getting a good job after high school. About half the *PSE Intenders* and a third of *Delayed Pursuers* delayed their studies because they needed to work to save money for their education. Needing or wanting to work play a role in the PSE choices that graduates make.

In addition, financial factors can be a barrier to achieving PSE goals. Using the taxonomy developed by Junor and Usher (2004), Figure IV-2 portrays three types of financial limitations: debt aversion, cash constraints (needing to work) and price constraints (being able to afford the education). Debt aversion is the biggest factor for *Direct Pursuers*;

however, both debt aversion and cash constraints were equally important for *Delayed Pursuers* and *PSE Intenders*. Cash constraints were the one factor that differentiated *Direct Pursuers* from *Delayed Pursuers* and *PSE Intenders*: whereas only about a quarter of *Direct Pursuers* reported cash constraints, about a third of *Delayed Pursuers* and *PSE Intenders* did so.

When we consider all these financial issues together we see that price constraints are a factor in the decision of *Non-Intenders* to not pursue PSE. In addition to overestimating the cost of PSE, they undervalue its benefits, with the result that about 40 percent prefer to work rather than go to school. Cash constraints also affect this group, with about a third reporting that they needed to work to support themselves.

Price constraints are a possible barrier for about a quarter of those with PSE goals. However, debt aversion and cash constraints were more frequently reported. *PSE Intenders* were more affected than were *Direct* and *Delayed Pursuers* by cash constraints, as evidenced by being less likely to have saved for their education and being willing to spend less to achieve their education goals, in addition to reporting the need to work as a barrier. Cash constraints are causing many high school graduates to delay their studies. Indeed, given that two years after high school graduation *PSE Intenders* have yet to begin their studies, cash constraints may prevent them from even starting.

Overall, the main differences between graduates who reported financial barriers and those who didn't are cash constraints and debt aversion. Graduates who reported financial barriers were more likely to have delayed their studies to save for their education and needed to work to support themselves. These cash constraints were also reflected in the fact

that they were less likely to have savings for their education. Differences in the amount graduates were willing to spend in order to achieve their education goals is also a reflection of a cash constraint for those with financial barriers.

Graduates with financial barriers were also less willing to borrow, and of those willing to do so, they were willing to borrow less than those without financial barriers, showing some difference in debt aversion between the two groups. The lack of difference in tuition estimates suggests that price constraints were not a factor that differentiates those who reported financial barriers from those who didn't.

In summary, price constraints, based on inaccurate information, are a factor for those who decide to not pursue PSE. Cash constraints are causing many high school graduates to delay their studies and may even prevent them from pursuing PSE at all. Debt aversion may limit the amount of education that graduates with PSE goals actually achieve. To fully understand the impact of cash constraints and debt aversion, a follow-up study of these graduates is needed to determine who achieves their goals and what prevents those who don't from doing so. It would also be interesting to see if the perceived costs and benefits of PSE change over time.

Section V

Conclusions

As stated in the introduction, this research was conducted to better understand how high school graduates are influenced to pursue, or not pursue, post-secondary studies. The ultimate goal was to identify the differences between pursuers and non-pursuers and to determine the extent to which money, or any other factor, plays a role in the PSE choices high school graduates make.

One key finding of this research is that the distinction between pursuer and non-pursuer is too simplistic. Instead, it would be better to think of PSE participation along a continuum, ranging from immediate pursuers to those who delay their studies for months or even years and ultimately to those with no desire for a PSE at all. This is consistent with recent findings from the *YITS* research, showing that while only 60 percent of high school graduates had begun PSE by the age of 18 to 20, 80 percent had taken some PSE by the age of 24 to 26 (Shaienks & Gluszynski, 2007).

The PSE goals of high school graduates parallel the participation continuum. Those who began their PSE studies directly after high school had the highest goals, on average; most of this group wanted at least one degree and almost half wanted more than one. Those who delayed their studies by less than two years were not as ambitious; less than two-thirds wanted at least one degree and just over a quarter wanted more than one. *PSE Intenders* were the least ambitious of all three groups; just under half wanted at least one degree.

Those with no intentions of pursuing post-secondary studies, the *Non-Intenders*, comprised only one-fifth of all the high school graduates who had not pursued any PSE two years after high school. The fact that the majority of non-pursuers want some PSE indicates that the distinction between pursuers and non-pursuers is simplistic. Hence, rather than understanding the differences between pursuers and

non-pursuers, we need to understand the differences between *PSE Intenders* and *Non-Intenders* on the one hand and between *PSE Intenders* and *Pursuers* on the other hand.

Grades and High School Experience

As has also been shown in other research (e.g., Malatest & Associates, 2007; Shaienks & Gluszynski, 2007), this study found that grades are related to the PSE choices of high school graduates. What is interesting about grades is that they parallel the PSE participation continuum. *Direct Pursuers* (those who began their studies right after high school) had the highest grades. *Delayed Pursuers* had the second highest grades, and *PSE Intenders* were in third place and *Non-Intenders* had the lowest grades of all.

The findings on academic and social engagement during high school align with the findings on grades. *Direct Pursuers* were the most engaged, while *Non-Intenders* were the least engaged. Not surprisingly, those with good grades were more socially and academically engaged than were those with poorer grades. These findings are consistent with the findings from the *YITS* that the more engaged youth were in high school, the higher the level of PSE they achieve (Lambert, Zeman, Allen & Bussière, 2004; Shaienks & Gluszynski, 2007).

Another finding of this study is that the post-secondary goals of high school graduates are related to their high school grades. Those with the highest aspirations, a professional or graduate degree, had the highest high school GPAs, on average, while those who aspired to some post-secondary below a degree had the lowest GPAs. Those who aspired to a bachelor's degree had GPAs that fell between the other two groups.

Family Background

Are grades an influencing factor in the PSE choices of high school graduates, or are they a symptom of something else? There is good reason to believe that grades are influenced by family background. Graduates from families where at least one parent has a degree had higher grades, on average, than did other graduates, while graduates from families where neither parent had any PSE had lower grades than others. We know that education is related to income (Statistics Canada 2005 census). And although we don't have a direct measure of family income in this study, we do know that parental education was related to the median family income of the school district. Graduates with parents who had higher levels of education tended to be from school districts with higher median family incomes. Other research has shown that grades tend to be positively related to family income (Frenette, 2007).

Students from higher income families may benefit from more resources to support their education, including books, computers and tutors. Their parents may be better able to help them in their school work because they have the time or because they have the education. And the parents can act as role models of what is possible, both in terms of education and the kinds of jobs that are possible with a PSE, thereby motivating their children to want a PSE. These things don't guarantee good grades, but they do help. Obviously, family income is not the only factor influencing grades. Students from higher income families can have poor grades, just as students from lower income families can have good grades. Inherent intelligence, motivation and personality traits likely affect grades as well. These factors weren't studied here; indeed, it would be difficult to know what policy interventions could affect these kinds of intrinsic factors.

Parental education was weakly related to PSE participation: *Non-Intenders* were the most likely to have parents with no PSE, while *Direct* and *Delayed Pursuers* were the least likely to. *PSE Intenders* fell in between. There was no difference in education level of the parents of *Direct* and *Delayed Pursuers*. Both *Direct* and *Delayed Pursuers* were more likely than *PSE Intenders* and *Non-Intenders* to have parents

with a degree. And there was no difference between *PSE Intenders* and *Non-Intenders* in this respect. Hence, parental education does not completely explain the difference in PSE participation status.

The relationship between parents' education and PSE goals is also weak. Graduates with at least one parent with a degree were more likely to aspire to a degree themselves than were graduates with parents with no PSE, which is consistent with other research (Bowlby & McMullen, 2002; Knighton & Mirza, 2002; Shaienks & Gluszynski, 2007). However, over half the graduates whose parents had no PSE also aspired to a degree.

Even when parents' education is taken into account, though, grades matter. For instance, *Non-Intenders* with at least one parent with a degree had lower grades than did *Direct Pursuers* with at least one parent with a degree. In fact, grades were more strongly related to PSE participation status than was parents' education.

The Factors that Graduates Identify

When we consider the views of graduates themselves, though, grades seem to play a minor role in their decision making. Although not having sufficient grades was one of the possible influencing factors that graduates were asked about, very few identified grades as a factor in their PSE choices. Most high school graduates were influenced in their decision to pursue post-secondary studies by a desire for a well-paying job or a specific career, regardless of their grades.

Both motivation and money were factors for those who delayed their studies and for those who chose not to pursue PSE at all. Needing time to decide what to do was the most common reason for delaying PSE for both *Delayed Pursuers* and *PSE Intenders*. About 40 percent of *Non-Intenders* wanted to work rather than go to school. About a third of *Delayed Pursuers* and half of *PSE Intenders* delayed their studies because they needed to work to save money. About a third of *Non-Intenders* indicated that needing to work to support themselves was a factor in their decision to not pursue PSE.

Parental education was not a factor in the views graduates have about the value of post-secondary

studies or their perception of its cost. Most high school graduates value PSE, yet they overestimate its cost. Parental education was also not a factor when considering the factors that the graduates report influenced their PSE choices. When we consider both PSE participation status and parental education together, high school graduates with the same PSE status had similar views about the factors that influenced their choices, regardless of their parents' education. That is, *First-Generation* graduates (whose parents had no PSE) had similar views to their *N-Generation* counterparts (whose parents had some PSE).

We know from other research that most parents, regardless of their own education, want their children to get some form of PSE (Shiely, Ouellette & Cartwright, 2003) and that youth are influenced by their parents' expectations (Junor & Usher, 2004). We know from this research that parents were the main source of encouragement about PSE and that most high school graduates do want some PSE. Thus, students may be less influenced in their decisions by their parents' education than they are by their parents' expectations.

The primary effect of parental education may be financial, as a proxy for family income. Graduates with parents who have more education were more likely to have savings and were willing to spend more for their education than were those whose parents had lower levels of education. Delaying their studies to save money for their education was related to parental education: *Delayed Pursuers* and *PSE Intenders* with parents who had more education were less likely to have delayed their studies in order to save money for their education. Needing to work rather than going to school was also related to parental education: *Non-Intenders* with parents who had no PSE were much more likely to report needing to work to support themselves than were *Non-Intenders* whose parents had some PSE.

Finances were also the most frequently reported barrier to achieving graduates' education goals. Although graduates with parents who did not have any PSE were more likely to report financial barriers than were other graduates, financial barriers were the most common type of barrier reported by all graduates.

Distance to Post-Secondary Institutions

Consistent with Frenette's research (2002; 2003), we also found that distance was a factor; pursuers were more likely to attend the institution closest to them at the time of graduation, whether that be a university, university college or college. The majority of pursuers wanted a degree. Given the highly articulated nature of the post-secondary system in BC, those with degree aspirations can begin their studies at almost any institution in the province, unless they want a specialized program, although they may need to transfer to a university to complete their degree. Hence, it makes sense that most pursuers would attend the closest institution.

Going beyond Frenette's research, this study was able to look at other variables, including delaying the timing of studies and PSE goals, both of which were related to distance. Those who delayed their studies, *Delayed Pursuers* and *PSE Intenders*, lived further away and had fewer types of institutions within commuting distance to choose from. Those with no PSE plans, the *Non-Intenders*, lived the furthest away and had the fewest types of institutions to choose from. High school graduates who aspired to a degree were more likely to live within commuting distance of a post-secondary institution than were those wanting lower levels of education, but GPA mattered as well. Degree aspirations were higher for graduates with good GPAs who were within commuting distance than they were for those with good GPAs beyond commuting distance. Distance may influence the PSE choices of graduates as a way of keeping their costs down or because of a preference for remaining in their home community for lifestyle reasons.

Underrepresented Groups

Although the majority of *Rural* graduates were beyond commuting distance of a post-secondary institution when they completed high school, they are similar to *Urban* graduates with respect to their PSE goals and their expectations about the likelihood of achieving their goals. Even when controlling for distance, *Rural* graduates were slightly less likely to be *Direct Pursuers* and more likely to be *Non-Intenders* compared to *Urban* graduates, showing that the lower participation

rates of *Rural* graduates are not just due to distance. Academic preparation is not a factor, as the grades of *Rural* graduates were somewhat higher than those of *Urban* graduates. Family background does appear to be a factor, as *Rural* graduates were more likely to have parents with no PSE than were *Urban* graduates. *Rural* graduates were also more likely to be from lower income school districts. Taken together, this suggests that family income may be the key to understanding the lower participation rates of *Rural* graduates. *Rural* graduates are probably more likely to be from lower income families and to have to move for a PSE. This means that they would have higher costs to achieve their education goals but probably can expect less financial support from their family.

Distance is also a factor for *Aboriginal* students. Compared to *Non-Aboriginal* graduates, at the time of graduation *Aboriginal* graduates were living, on average, twice as far away from the closest post-secondary institution. Hence, more *Aboriginal* graduates than *Non-Aboriginal* graduates need to move to achieve their education goals. This increases their costs and also means leaving their social network behind. This may be why *Aboriginal* graduates were more likely to be *PSE Intenders* and to be undecided about their PSE goals than were *Non-Aboriginal* graduates. Although they have similar education aspirations to *Non-Aboriginal* graduates, *Aboriginal* graduates are not as well prepared academically. In fact, over a third of *Aboriginal* graduates who delayed their studies did so because they did not originally intend to go on, compared to less than a quarter of *Non-Aboriginal* graduates.

There were some differences in the barriers that *Aboriginal* and *Non-Aboriginal* graduates reported. *Aboriginal* graduates were slightly more likely to report financial barriers and more likely to report social barriers, due to a desire to remain close to home. On the other hand, *Non-Aboriginal* graduates were slightly more likely to report motivational barriers, in particular because of concern that it may take too long to achieve their education goals.

There are well-known gender differences in PSE participation: females are more likely than males to pursue PSE, less likely to delay their studies and more

likely to aspire to a degree than are males who pursue PSE (Bowlby & McMullen, 2002; Hango & Broucker, 2007; Hango, 2008; Krahn & Hudson, 2006). Because this study was focused on comparing non-pursuers with pursuers, an equal number of males and females were included in each group. Nonetheless, there were gender differences in this study that are consistent with the published research: females had better grades, on average; males were more likely than females to be *Non-Intenders*; and females were more likely than males to have degree aspirations. However, there were more similarities than differences between females and males. The vast majority of both males and females wanted some form of PSE and most of these wanted a degree. There were some small differences in the factors that influenced males and females, but the differences are more of magnitude than kind. Males and females of the same PSE status were influenced by the same factors; there were greater differences among the PSE status groups than between genders within a group.

Barriers to Achieving PSE Goals

Junor and Usher (2004) suggested there were three reasons for not pursuing post-secondary studies: academic, financial and informational/motivational. They conclude that informational/motivational reasons are the most common ones for not pursuing post-secondary studies. This study bears that out. *Non-Intenders* were not motivated to pursue PSE. They greatly inflated the cost of a university degree and tended to feel that a PSE was not needed for a good job. Financial factors also played a role for this group, as about a third needed to work to support themselves. However, that may reflect a lack of information about student financial assistance. This group was also not academically prepared for post-secondary studies and was not academically or socially engaged during high school. The underlying causes of this may be motivational as well, as this group was clearly not interested in doing well in high school.

PSE Intenders, though, do not fit the profile of *Non-Intenders*. In many respects they are more similar to *Pursuers*. They were more academically

and socially engaged in high school than were *Non-Intenders*, although their grades were not as good as those of *Pursuers*. Like *Pursuers*, *PSE Intenders* see the value of a PSE for getting a good job, although they overestimate its cost more than do *Pursuers*.

There are two types of factors that are influencing *PSE Intenders*. One is motivational and the other is financial. Although motivation was a bigger factor in influencing their decisions about pursuing PSE, finances appear to be more important than motivation as a possible barrier to achieving those goals. About 80 percent of *PSE Intenders* report some type of motivation issue as a reason for not pursuing PSE after high school. The majority needed time to decide what to do, while some wanted a break after high school and others did not originally plan on pursuing PSE but later changed their mind, perhaps due to discouragement with their employment prospects without more education. However, only 40 percent of *PSE Intenders* identified motivational barriers to achieving their education goals, citing concerns that they may change their mind about their education or career goals. Finances were identified as a factor in delaying their studies for half of the *PSE Intenders*, who needed time to save for their education. Finances were also identified as a possible barrier to achieving their goals by just over half. This included debt aversion and needing to work to support themselves and not being able to afford all the education they want.

The reasons *PSE Intenders* are not yet in school are largely motivational. They are still deciding what to do. But money is almost as important, as half this group was working to save for their education two years after finishing high school. This may be a choice—i.e., preferring to not go into debt for an education—but it may also reflect a lack of information about other options, such as student financial assistance. Debt aversion could also reflect a lack of information about credit and debt repayment options.

Delayed Pursuers are similar to *PSE Intenders* in terms of the reasons they have for delaying their studies. Motivation is the most common reason for both groups, followed by finances. With respect to

barriers to achieving their goals, *Direct* and *Delayed Pursuers* were similar to *PSE Intenders*. Financial barriers were the most common type for all three groups, although less common for *Direct Pursuers*. Motivational issues were the second most frequently identified type of barrier for all three groups.

Although not the only type of factor, financial factors play a significant role in the decisions that high school graduates make about their future. Price constraints are influencing *Non-Intenders* to not pursue PSE; about half felt that PSE is not worth the cost. In this case, the constraint is based on inaccurate information about the true cost of PSE. Cash constraints are also a factor for this group, as many need to work to support themselves. Based on their parents' education, it is likely that more of this group are from lower income families than any other group. This could explain their need to work to support themselves.

Debt aversion is the most predominant financial barrier identified by those wanting some PSE, i.e., *Pursuers* and *PSE Intenders*. Cash constraints are just as big a concern as debt aversion for those who delay their studies. *Delayed Pursuers* and *PSE Intenders* are concerned with not being able to afford all the education they want or needing to work to support themselves.

Being debt averse for those who can't afford to pay for their education may mean they forego a PSE altogether or limit their aspirations to what they can afford. This may be the path that some *PSE Intenders* are on. It's been two years since their high school graduation, yet most *PSE Intenders* expect to wait at least another year before they begin their studies. Although they value PSE and expect to achieve their educational goals, they are facing motivational and financial hurdles before they even begin their studies. How many of these graduates will actually achieve their post-secondary goals? It would be interesting to return to this group in two years' time to learn which ones actually overcome these obstacles and begin their post-secondary studies.

Debt aversion poses a real dilemma for policy-makers. Financial assistance programs that rely primarily on student loans will not overcome this obstacle. The issue to be decided is whether debt

aversion is a real barrier. Are these graduates making prudent financial decisions by avoiding debt that they may not be able to repay? Or is their debt aversion based on lack of information about how student loan programs work, or a lack of financial sophistication in general? In recent years, the media have often focused on the problems of high student debt and student loan default rates. This may be the only information youth have about financial assistance and may explain the high levels of debt aversion in high school graduates who want a PSE.

Until students actually apply for financial assistance, it is difficult for them to know how much assistance they will receive. They also won't know about the grants and loan remission programs that they may be eligible for or the repayment terms. In the absence of concrete information it is not surprising that debt aversion is the number one financial concern, especially since the majority of high school graduates have an inflated view of the cost of university education. Perhaps if high school students had accurate information about the cost of PSE and the benefits—in terms of higher earnings and lower unemployment rates and the actual amount and type of assistance they would receive—they would make different choices. Ideally, with better information while in high school, there would be fewer youth who are still not ready to begin their post-secondary studies two years after graduating high school.

When it comes to identifying the barriers to achieving education goals, this study reinforces a point made by Berger and Motte (2007): barriers interact to the point that they could be conceived as a web of barriers. Only about a third of graduates with PSE goals report no barriers to achieving those goals. And of those who report barriers, most report more than one type of barrier. For instance, almost 80 percent of those reporting motivational barriers also report financial barriers and 40 percent report social barriers.

Of those who report social barriers, over 80 percent report financial barriers and over 60 percent report motivational barriers. Almost all of those who report financial barriers report at least one other type of barrier, whereas only about a quarter of those who do not report financial barriers report any barriers at all. There may be some underlying factors, such as lack of information about post-secondary options and finances, that underlie some of these relationships. Given this web, it is difficult to disentangle one type of barrier from another and hence impossible to determine which factors are causal. However, if barriers do not occur in isolation, they likely do not have independent causes. It would be better, therefore, to look for policy alternatives that can address the multiplicity of challenges that some youth face rather than to hunt for a key factor underlying the lower PSE participation of some groups.

There are two limitations to this study. The focus was on high school graduates. The factors that influence those who do not complete high school may not be the same. The other limitation is that this study was only of high school graduates from BC. There are differences in both the secondary and post-secondary education systems across the country. Some of the findings may be specific to BC. The effect of distance is one area that may be affected by jurisdictional differences. BC has a highly articulated post-secondary system with a focus on providing post-secondary options in local communities throughout the province. Although there is a concentration of post-secondary institutions in urban centres, students living elsewhere do have some options closer to home. The effects of distance may be different in jurisdictions where post-secondary institutions are not as dispersed throughout the province. Nonetheless, the distance findings of this study are consistent with those reported by Frenette (2002, 2003), which are based on the entire country.

Selected Bibliography

- Berger, J., and Motte, A. 2007. "Mind the Access Gap: Breaking down Barriers to PSE." *Policy Options* 28 (10). Montreal: Institute for Research on Public Policy.
- Bowlby, J., and McMullen, K. 2002. *At a Crossroads: First Results for the 18- to 20-Year-Old Cohort of the Youth in Transition Survey*. Ottawa: Statistics Canada.
- Frenette, M. 2002. *Too Far to Go On?: Distance to School and University Participation*. Ottawa: Statistics Canada.
- . 2003. *Access to College and University: Does Distance Matter?* Ottawa: Statistics Canada.
- . 2007. *Why are Youth from Lower-Income Families Less Likely to Attend University?: Evidence from Academic Abilities, Parental Influences, and Financial Constraints*. Ottawa: Statistics Canada.
- Hango, D. 2008. "Taking Time Off between High School and Post-Secondary Education: Determinants and Early Labour Market Outcomes." *Education Matters: Insights on Education, Learning and Training in Canada* 4 (5).
- Hango, D., and Broucker, P. 2007. *Education-to-Labour Market Pathways of Canadian Youth: Findings from the Youth in Transition Survey*. Ottawa: Statistics Canada.
- Junor, S., and Usher, A. 2004. *The Price of Knowledge: Access and Student Finances in Canada*. Montreal: Canada Millennium Scholarship Foundation.
- Knighton, T., and Mirza, S. 2002. "Post-Secondary Participation: The Effects of Parents' Education and Household Income." *Education Quarterly Review* 8 (3).
- Krahn, H., and Hudson, J. 2006. *Pathways of Alberta Youth through the Post-Secondary System into the Labour Market, 1996–2003*. Ottawa: Canadian Policy Research Networks.
- Lambert, M., Zeman, K., Allen, M., and Bussière, P. 2004. *Who Pursues Post-Secondary Education, Who Leaves and Why: Results from the Youth in Transition Survey*. Ottawa: Statistics Canada.
- R.A. Malatest & Associates, Ltd. 2007. *The Class of 2003: High School Follow-Up Survey*. Montreal: Canada Millennium Scholarship Foundation.
- Shaienks, D., and Gluszynski, T. 2007. *Participation in Post-Secondary Education: Graduates, Continuers and Drop Outs—Results from YITS Cycle 4*. Ottawa: Statistics Canada.
- Shipley, L., Ouellette, S., and Cartwright, F. 2003. *Planning and Preparation: First Results from the Survey of Approaches to Educational Planning (SAEP) 2002*. Ottawa: Statistics Canada.