

The Price of Knowledge

Access and Student Finance in Canada

5

Getting to Post-Secondary Studies

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I. Introduction

In this chapter, we examine factors that promote participation in post-secondary studies or, conversely, that hinder it, with the objective of creating or improving programs or policies to increase participation. We work from the premise that it is desirable, from both the individual and societal standpoint, for a significant number of people to undertake post-secondary studies, regardless of their origin, economic situation or other factors. Thus, this chapter is motivated mainly by an interest in making the composition of the student and graduate populations more equitable. In other words, we believe that anyone who has the ability should be able to pursue studies at the post-secondary level.

As we saw in Chapter 2, significant gaps exist between certain groups regarding post-secondary participation, specifically at the university level. With an eye to ensuring that the student population is more representative of the overall population, we must ask ourselves two questions. First, what are the reasons for the discrepancies? Once those reasons are understood, we can move to the second question: What actions can we take?

Interest in these two questions is not new. Several studies have explored predictors of greater or lesser participation in post-secondary studies among specific

population groups. In addition, several programs and projects have been implemented in an effort to reduce educational gaps among certain groups.

In this chapter, we summarize the knowledge gained both by the research community and as a result of policies favouring access to post-secondary studies. Specifically:

- We draw out key messages from various recently published studies on the determinants of access, focusing on what factors are important and to whom they are important, and attempting to establish which factors can be influenced.
- Given the importance of student financial aid, at least from the standpoint of government budgets, we more specifically examine the role it plays in access to post-secondary studies.
- Lastly, once the state of knowledge has been defined, and because much work remains to be done, we propose five avenues for action in the years to come: adopt flexible education systems; use administrative and survey data in a sustained manner; implement pilot projects; systematically evaluate projects and programs; and promote engagement by the entire community.

II. Factors Explaining Participation in Post-Secondary Studies

What factors explain whether an individual chooses to pursue an education beyond high school? In recent years, due in large part to the availability of new and often complex data, we have seen a growing number of studies that focus on, first, measuring the gaps in post-secondary participation between certain groups and, second, explaining the reasons why certain groups—e.g., Aboriginal Peoples, boys, youth from low-income families—are under-represented in post-secondary institutions. The Youth in Transition Survey (YITS), among others, contains a wealth of data enabling a better understanding of young people's transitions and educational pathways.

We examine the issue of predictors of participation by distinguishing between five major groups of factors, which are inter-related to various degrees:¹

- 1) Individual characteristics such as gender and age;
- 2) Familial socio-economic factors, including parental level of education, family income, family structure, parental employment, mother tongue and ethnic or cultural origin;
- 3) Factors linked to academic performance: having a high school diploma, having taken the prerequisite courses for admission to a given program (e.g., advanced mathematics) or having a grade average enabling individuals to be admitted to the program of their choice;
- 4) Individual behavioural factors such as motivation, aspirations, preferences and types of activities engaged in;
- 5) Factors related to the environment in which youths live: friends, distance from home to a post-secondary institution, institutional accommodation capacities and requirements, economic conditions in their region, availability of information, availability of guidance counsellors, tuition fees and student aid policies.

Would addressing any one of these five major groups of factors allow the issue of access to studies to be resolved overnight? The answer, unfortunately, and as one would expect, is no. As Berger, Motte and Parkin (2007) point out, factors are often inter-related and cumulative. For example, a youth with a poor academic record may be less motivated to continue studies, especially if he or she lives in a region with low unemployment. In a similar vein, but using a lightly different combination of factors, Thiessen (2009) concludes that the participation gaps observed for Aboriginal, immigrant and visible minority groups cannot be attributed to a single set of factors.

In addition, depending on the group of individuals studied, a given factor can play a more or less important role. This is easy to comprehend intuitively: for example, the reasons why a boy might not be motivated to pursue post-secondary studies may well differ from the reasons a girl is not motivated to do so. Below, we examine more closely the actual participation gaps between boys and girls, youth from lower- and higher-income families, youth from different regions of Canada and Aboriginal and non-Aboriginal youth.

1. This classification differs somewhat from previous editions of *The Price of Knowledge*: Junor and Usher (2004) and Berger, Motte and Parkin (2007) group barriers into categories related to information, motivation, academic performance and finance. These groupings were mainly based on answers provided by survey respondents to explain why they might not participate in post-secondary studies. All of these barriers are present in one form or another in the groups of factors listed here.

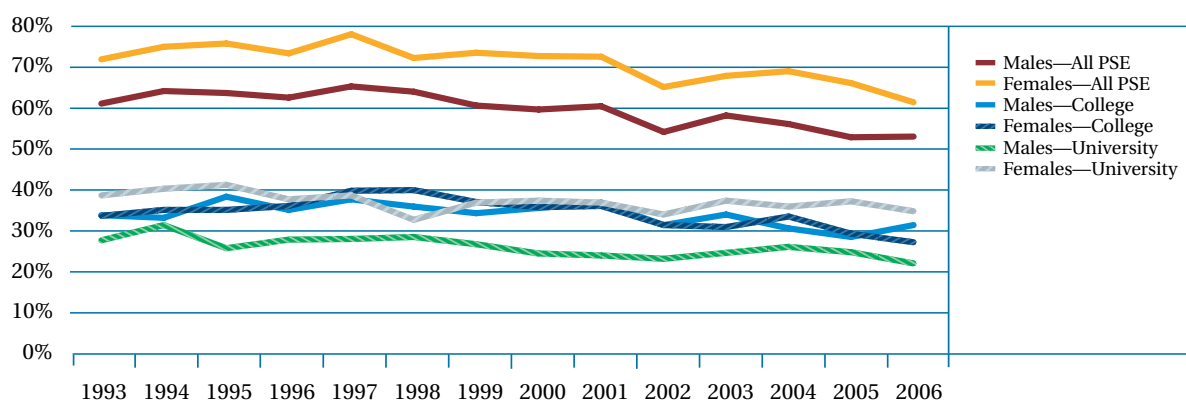
Gaps Between Boys and Girls

Unequal rates of participation by men and women in post-secondary studies have become a notable pre-occupation in Canada and in several other OECD countries as well—and they are a cause for concern. Rates of participation are higher for women than for men, and this gap results mainly from higher participation in university studies (see Figure 5.II.1). Given that the number of men pursuing studies has not decreased, it is essential to investigate the reasons for the surge in the number of women pursuing studies and the more modest increase for men.

Before they even reach the age at which they would enrol in college or university studies, boys are more likely to drop out of high school. This is an area of concern in many provinces, and Quebec, among others, has placed it high on the agenda. Given that obtaining a high school diploma is often a prerequisite for continuing studies, efforts to reduce dropout rates are highly relevant to the goal of improving access to post-secondary studies.

Table 5.II.1 presents the latest dropout rates among youth from different provinces in Canada. It is immediately apparent that the rates are not only higher for boys, but are higher in certain provinces, such as Quebec and Alberta.

Figure 5.II.1 — Post-Secondary Participation Rate among Those Aged 18 to 24 by Gender, 1993–2006



Source: Survey of Labour and Income Dynamics (SLID).

Table 5.II.1 — High School Dropout Rate among Youth Aged 20 to 24 in 2004–05 by Gender and Province of Residence

	Boys	Girls	Difference (Percentage Points)
NL	9.8%	7.7%	2.1
PE	10.5%	8.3%	2.2
NS	11.9%	5.0%	6.9
NB	12.7%	8.0%	4.7
QC	14.4%	8.5%	5.9
ON	10.8%	6.4%	4.4
MB	13.6%	12.6%	1.0
SK	12.2%	9.8%	2.4
AB	13.8%	10.5%	3.3
BC	7.6%	6.6%	1.0

Source: Statistics Canada, Labour Force Survey.

Longitudinal data (that is, data that track the same individuals over time) gives us a much clearer picture of the possible reasons for these gaps. Lefebvre and Merrigan (forthcoming) explore this issue using data from the National Longitudinal Survey of Children and Youth (NLSCY). In particular, the authors aim to shed light on the reasons why boys and girls drop out in Quebec and elsewhere in Canada.

For the 18- to 23-year-old age group, the NLSCY data show a gap of 13 percentage points between girls and boys in the rate of high school completion in Quebec. Several factors come into play. The results of the analyses, however, reveal that the weight of these factors varies according to which groups are considered. Among girls in Quebec, those who perceive themselves to be in poor health, who come from low-income families, who have poor grades in mathematics or whose parents have low expectations are more likely to drop out. For boys in Quebec, factors related to low socio-economic status seem to play a major role. In the rest of Canada, it is above all parental expectations and family structure that make a difference for both girls and boys. However, among boys outside Quebec, those who perceive themselves to be in poor health, who have parents with a low level of education or who are not doing homework are more likely to drop out. To sum up, the situation is complicated: things are different for, say, a boy in Quebec compared to a girl in the same province or a boy elsewhere in the country.

While college participation rates are similar for men and women, the gap widens at the university level. According to Frenette and Zeman (2008), nearly 30 percent of the discrepancy between male and female university participation rates is explained by academic factors—more specifically, by grade point average (GPA) in high school.

While he also focuses on factors related to academic performance (i.e., the reasons why boys have lower averages in high school than do girls), Drewes (2009) examines the issue of the gender gap in university attainment from the perspective of the role played by admissions policies. Although admission to university does not take into account the gender of the applicant, the fact that it is based on one's academic record may result in a widening of the gap between males and females: if, as we have seen, boys tend to have lower averages than girls, they are less likely to be admitted from the start.

To illustrate this point, let us look at Drewes's argument using YITS data. Suppose that the minimum average for admission to university is 70 percent, that all young people want to enrol and that universities are able to admit all students who achieve that average. Table 5.II.2 reveals that 74 boys out of 100 and 86 girls out of 100 would be admitted, given that girls are more likely to have higher averages. If the grade threshold for admission is increased, the gap widens even more.

Table 5.II.2 — Distribution of High School Grades by Gender

High School Average	Boys	Boys (Cumulative Distribution)	Girls	Girls (Cumulative Distribution)
90%+	5.8%	5.8%	8.7%	8.7%
80%–89%	26.4%	32.2%	37.8%	46.5%
70%–79%	41.8%	74.0%	39.1%	85.6%
60%–69%	21.4%	95.4%	12.3%	97.9%
55%–59%	3.1%	97.5%	1.5%	99.4%
50%–54%	0.9%	99.4%	0.4%	99.8%
<50%	0.6%	100%	0.3%	100.1%

Sources: Drewes (2009), Youth in Transition Survey.

Rather than suggesting that affirmative action measures be applied to ensure more boys are admitted to university, Drewes concludes that if the participation gap between the genders is cause for concern, it is essential that measures be identified for improving boys' degree of motivation and ability to achieve higher secondary school grades.

This observation represents quite a challenge, as it involves other environmental factors. Among other things, the financial benefits of a post-secondary degree tend to be weaker for males than for females. Thus, while obtaining a university degree will certainly mean a higher income for both girls and boys, when one considers the income that can potentially be earned with a high school diploma and the costs of investing in a higher education, continuing studies is a somewhat less interesting proposition for boys (Frenette and Zeman, 2008).

Another aspect of the participation gap that is rarely mentioned, but which seems to us to be a contributing factor, relates to the social prestige of different types of employment. We must stress that this is merely a hypothesis, but if the jobs that boys can find without the benefit of a post-secondary degree are more valued by society (in addition to being more lucrative), it would not be surprising if boys were less motivated to pursue post-secondary studies as a result. This research avenue warrants further investigation.

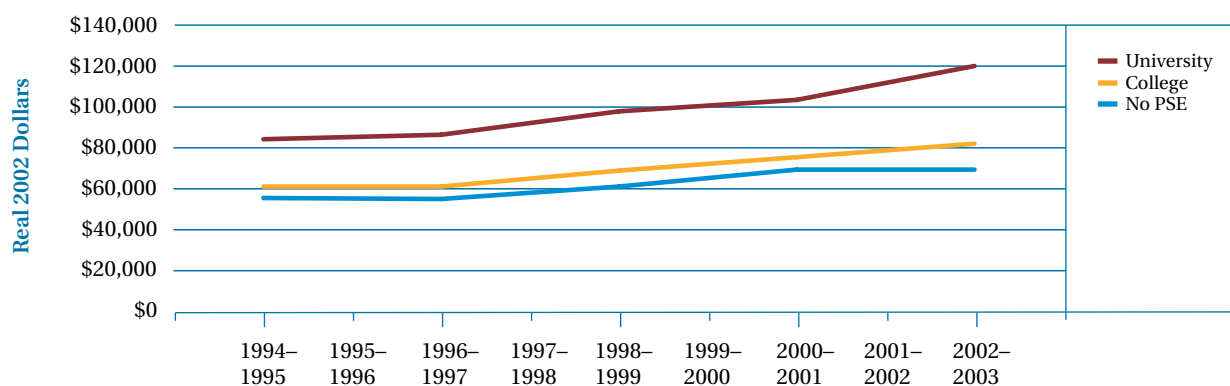
Gaps Between Youth from Low- and High-Income Families

Rates of participation in post-secondary studies are lower among young people from low-income families. As shown in several studies (see Chapter 2), this is particularly true among young people at the university level.

Much has been written over the past few decades about the participation gap in post-secondary studies between lower- and higher-income youth. The debate centres on attempts to determine whether financial constraints or family environment is at the root of lower participation among youth from low-income families. Answering this question would have significant implications in terms of public policy development: if financial constraints are predominant, then funding policies would be the core of the solution; if, on the other hand, family environment is the key, then policies aimed at supporting youth from a younger age would be needed.

Here, the existence of longitudinal data again enables us to refine our knowledge of the subject. In Canada, the YITS and the NLSCY are two sources of data that can be used to produce a snapshot of a youth's family situation before beginning studies. The NLSCY, among other things, provides measures

Figure 5.II.2 — Trend in Family Income According to the Child's Eventual Education Status in 2004–05 (at age 18–21)



Source: Groux, 2007.

of family income at different times, whereas in the YITS a single measure of family income is taken when the youth is 15 years old.

On a strictly descriptive level, the NLSCY shows that young people who reach university come from families that, over time, have experienced significant increases in income (see Figure 5.II.2).² Between 1994–95 and 2002–03, the families of young people who enrolled in university in 2004–05 (at age 18 to 21) saw their incomes rise by 42 percent; the rise in income for families with young people who enrolled in college was 34 percent; and it was 24 percent for the families of those who did not pursue post-secondary studies. Not only did family incomes show differing rates of growth, but the starting points were also widely divergent. Whatever the explanation may be, it is clear that the financial circumstances of families are very different.

Are the participation gaps entirely linked to family income? Or are there other factors involved? For example, it may be that the high school grades of young people from low-income families are lower and that this factor—rather than income level itself—explains the gaps.

Frenette (2008) conducted an in-depth exploration of possible reasons for the participation gaps between

different income quartiles. As Table 5.II.3 shows, young people who at age 15 were living in families in the lowest income quartile were more likely to :

- have a lower university participation rate;
- have parents who did not pursue post-secondary studies;
- be living in a single-parent family at age 15;
- have parents whose expectations with regard to higher education were lower;
- score lower on reading tests; and
- have friends who did not aspire to post-secondary studies.

That being said, compared with youth from higher-income families, those from families with lower incomes attributed similar levels of economic benefit to post-secondary studies. By and large, half of young people perceived the benefits of higher education as being high.

These descriptive data suggest that there are several factors that may explain the gaps in university participation across income quartiles. Frenette uses regression models to isolate the contribution of each of the factors to the 29 percentage point gap observed

Table 5.II.3 — Characteristics of Canadian Youth by Parental Income Quartile, at Age 15

	First Quartile (Lowest Income Level)	Second Quartile	Third Quartile	Fourth Quartile (Highest Income Level)
Enrolled in university at age 19	31.0%	33.5%	43.4%	50.2%
Parents did not attain PSE	46.9%	35.0%	24.6%	17.5%
Living in a single-parent family at age 15	30.3%	14.8%	8.2%	5.0%
Parents expect child to obtain a university degree	62.0%	65.2%	72.9%	79.4%
Reading Test Score				
Below 25th percentile	32.2%	25.9%	21.7%	18.8%
Between 25th and 50th percentile	26.6%	26.0%	24.4%	22.5%
Between 50th and 75th percentile	23.2%	25.0%	26.2%	25.8%
75th percentile or above	17.9%	23.0%	27.7%	32.8%
Few or no friends aspire to PSE	20.5%	19.4%	15.0%	14.0%
Perceive financial barriers to pursuit of university studies	13.4%	10.9%	7.9%	5.9%

Source: Frenette (2008).

2. Participation in studies was measured among NLSCY respondents between the ages of 18 and 21 in 2004–05.

in the rate of university participation between youth in the first and fourth income quartiles. The three key factors emerging from the analysis are: parental education (responsible for 29.9 percent of the gap); reading scores (responsible for 19.7 percent); and GPA (responsible for 14.3 percent). Financial barriers ranked fourth (responsible for 12 percent of the

gap), followed by parents' expectations (responsible for 11.6 percent).

It would seem, therefore, that financial barriers proportionately play a lesser role than do youths' family background and academic performance.³ Financial constraints may thus be less important determinants than family context.

Does Money Matter More Than Ability?

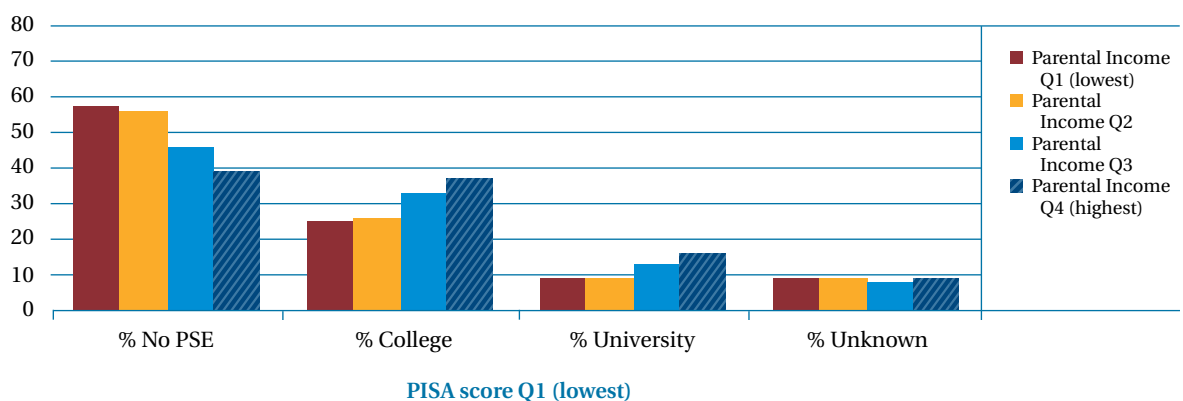
American data suggest that access to education is often easier for young people with poor grades who come from wealthy families than for bright young people who come from poor families. Among others, Heller (2007) shows that the post-secondary participation rate for students with high socio-economic status and poor grades is the same as that for students with low socio-economic status and high grades. The YITS data allow us to explore the possibility of this occurring in the Canadian context. They show that, even if participation rates for high-

income students are higher than for low-income students, academic performance is still a factor.

Figure 5.II.3 presents the participation rates of young people who, at age 15, scored in the lowest quartile on PISA tests. A majority of young people in the two lowest income quartiles did not participate in post-secondary studies, while this was true of a little more than a third of youth in the upper income quartile.

Among youth whose PISA scores ranked in the highest quartile, those who were in the lowest

Figure 5.II.3 — Participation Rate among Youth in the Lowest PISA Score Quartile by Family Income



3. It should be kept in mind that the results take for granted the existing financial aid system. In no case should they be construed as suggesting that less generous financial aid programs or more expensive tuition would have no impact on access to studies.

Does Money Matter More Than Ability? *(continued)*

income quartile were more likely than those in the highest income quartile to either forgo post-secondary studies or pursue college-level studies. Regarding participation in university studies, there was a gap of 20 percentage points between youth from the lowest and highest income quartiles, even among those with the same category of PISA scores (Figure 5.II.4).

This doesn't mean that family income matters more than ability. As seen in Figure 5.II.4, there is a significant gap between the university participation rate of youth with high PISA scores and low family income (54 percent) and those with low PISA scores and high family income (15 percent).

Figure 5.II.4 — Participation Rate among Youth in the Highest PISA Score Quartile by Family Income

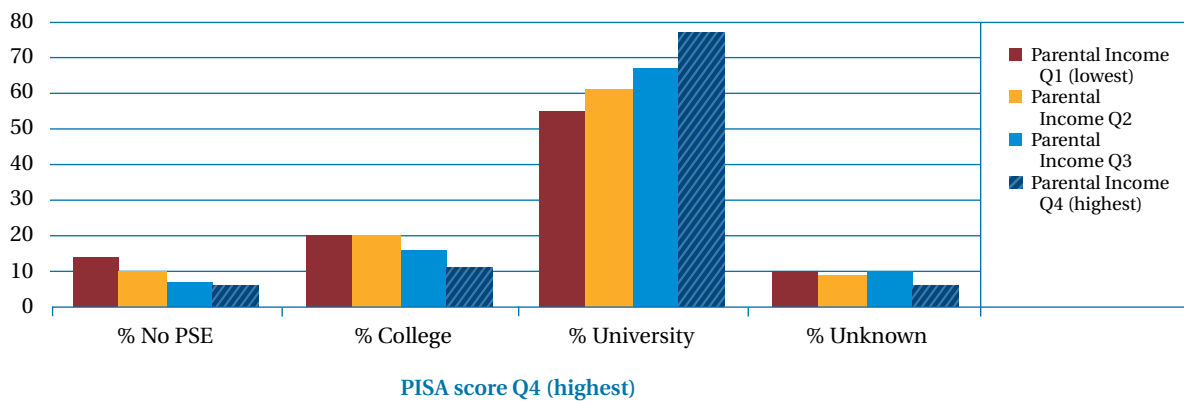
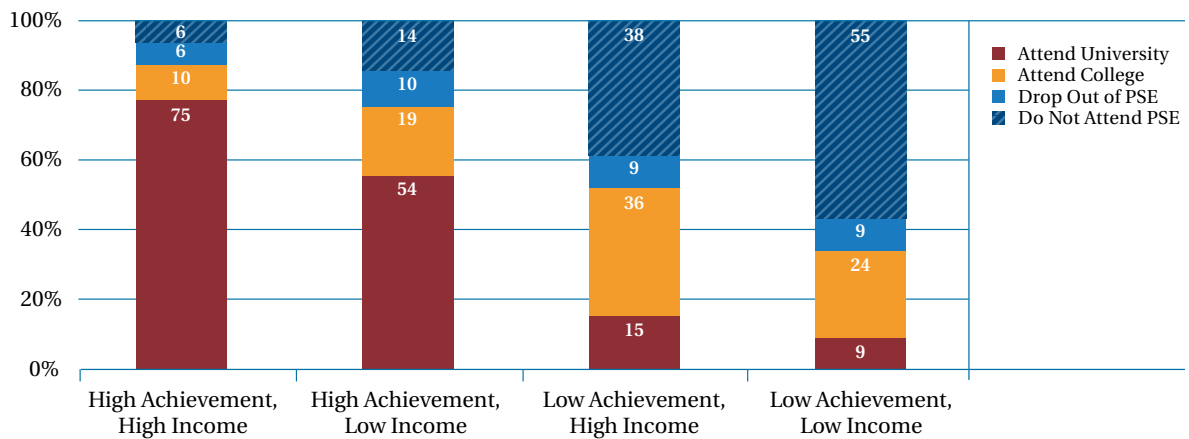


Figure 5.II.5 — Participation in Post-Secondary Education by PISA Score and Family Income



Gaps Between Youth from Different Regions of Canada

On the face of it, in terms of the likelihood of post-secondary attainment, the impact of having a good academic record or parents with high income should not differ according to one's province of residence. But the data show otherwise. Rates of participation in post-secondary studies do differ from one province to another. Differences in population makeup, the strength of local economies and provincial education systems are all factors that need to be considered as explanations for these geographic gaps in participation.

Finnie and Mueller (forthcoming) show that the determinants of participation in university studies do not all have the same weight in all provinces. Parental income can play a more or less important

role depending on the province, and the same is true for grades. For example, while it is true all across Canada that having good grades in high school increases the likelihood of continuing studies, the probability differs slightly by province.

By way of illustration, let us take two high school students who each have an 80 percent average and are identical in all ways except for their province of residence. One lives in Ontario and the other in Nova Scotia. In both cases, having a better high school average improves the student's odds of enrolling in university. As Figure 5.II.6 shows, however, the student from Nova Scotia is more likely to participate in university studies. The result differs if we compare our hypothetical Ontario resident to an otherwise identical student living in Quebec: with equal grades, the latter is less likely to participate in university studies (see Figure 5.II.7).

Figure 5.II.6 — Predicted Probability of University Participation by Overall High School Grade in Nova Scotia and Ontario

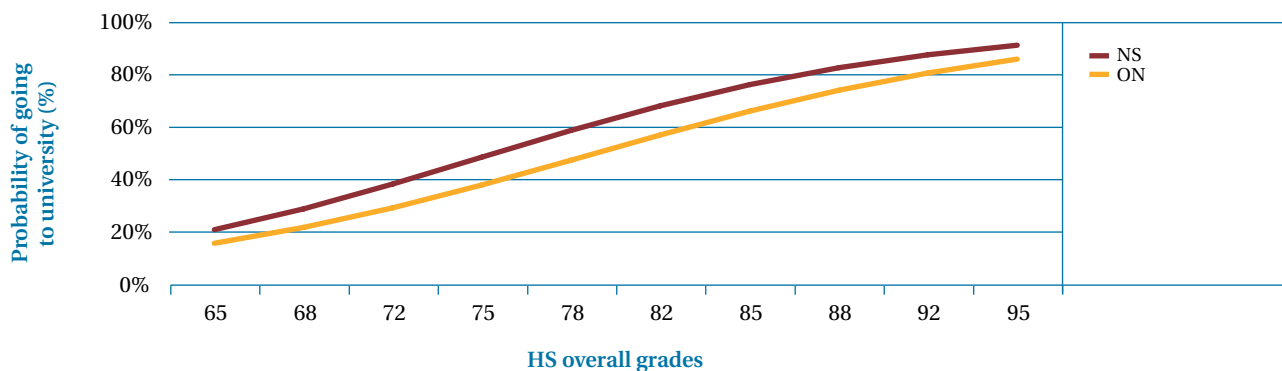
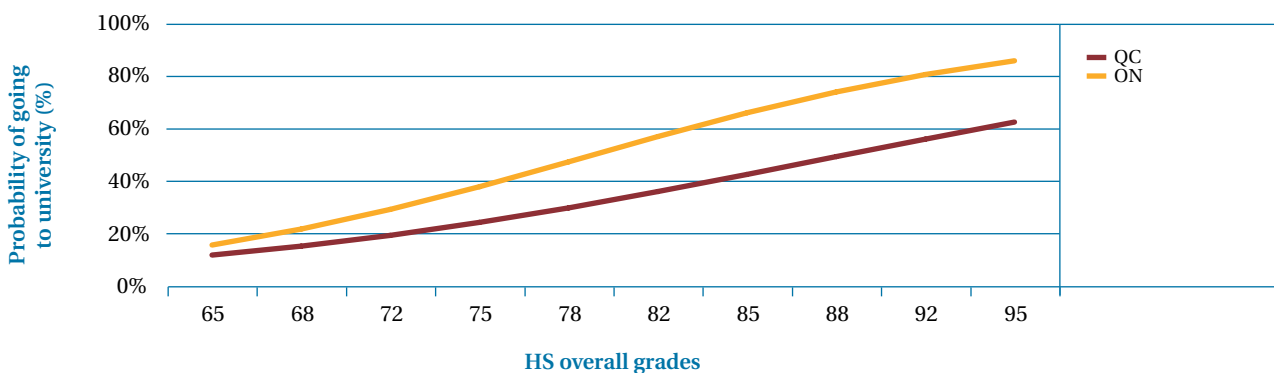


Figure 5.II.7 — Predicted Probability of University Participation by Overall High School Grade in Quebec and Ontario



With regard to family income and university participation, differences again emerge depending on the province of residence. While higher income is a predictor of greater participation in university studies in both Ontario and Nova Scotia, the participation gaps according to income level are more moderate in Ontario (see Figure 5.II.8). Figure 5.II.9 compares Quebec and Ontario. In Quebec, as in Ontario, the relationship between family income and participation is moderate, but at the same income level, the likelihood of participation is lower in Quebec.

In addition to the gaps from province to province, there are gaps between urban and rural regions within

Table 5.II.4 — Rates of Participation in Post-Secondary Studies by Urban/Rural Status

	Post-Secondary Participation	University Participation
Urban	76%	58%
Rural	67%	46%
Total	74%	56%

Source: Looker (2009), Youth in Transition Survey.

provinces. As Table 5.II.4 shows, rates of participation in post-secondary studies for youth in rural communities are typically lower.

Figure 5.II.8 — Predicted Probability of University Participation by Family Income in Nova Scotia and Ontario

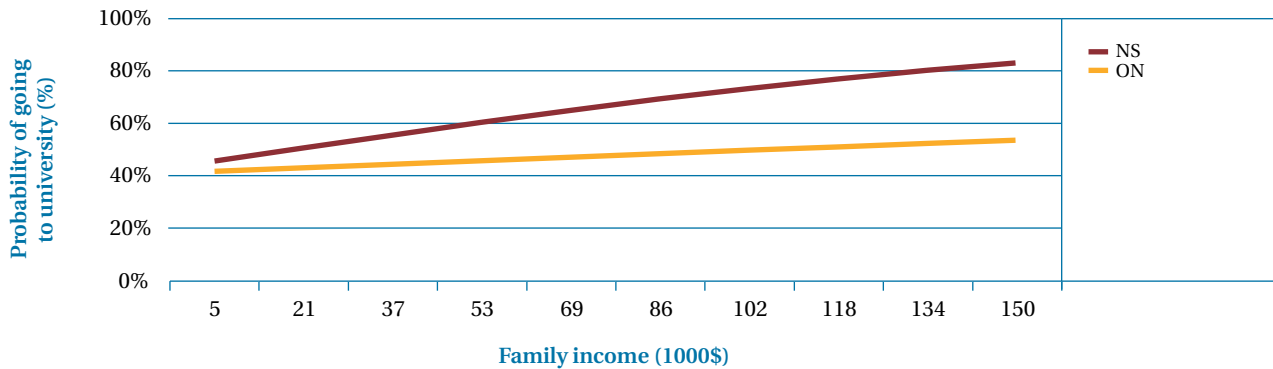
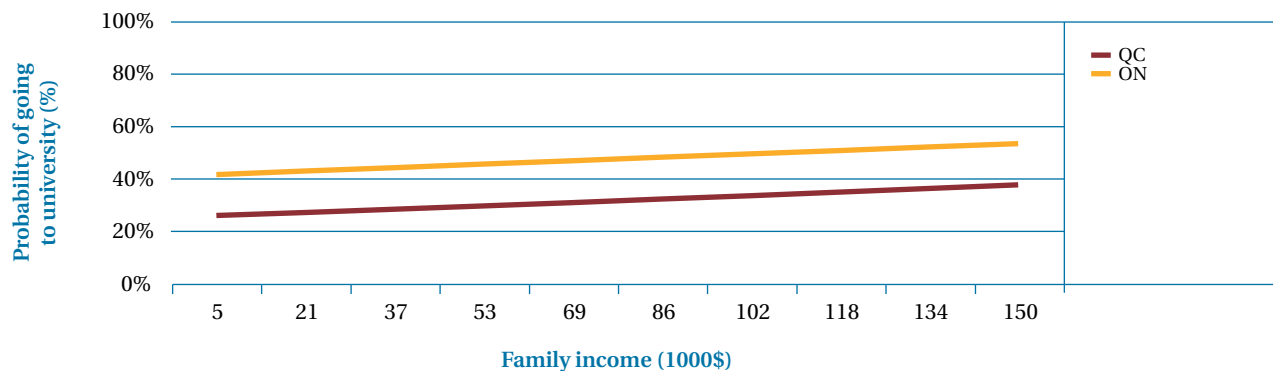


Figure 5.II.9 — Predicted Probability of University Participation by Family Income in Quebec and Ontario

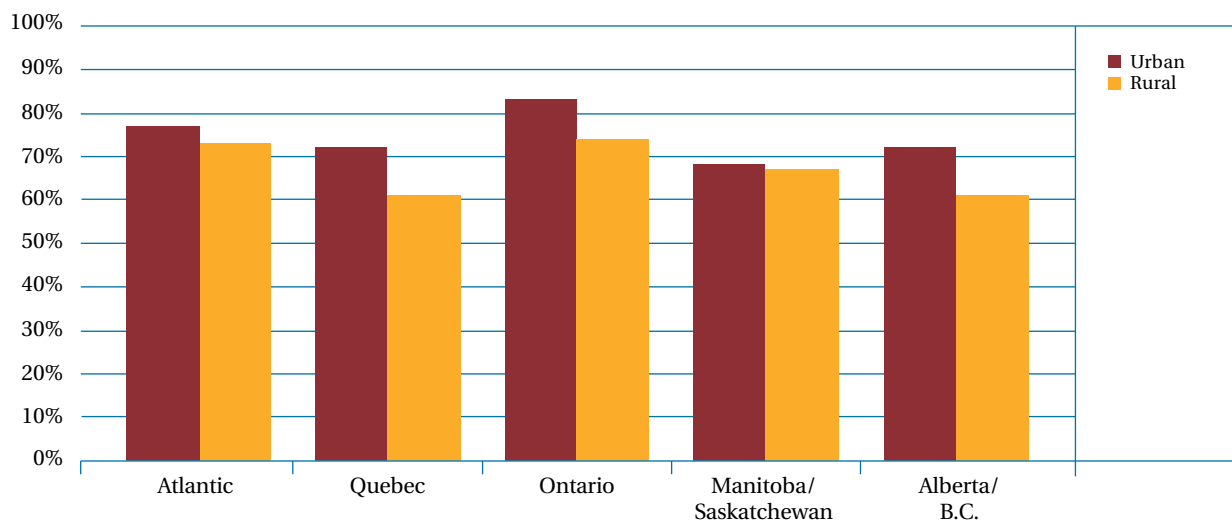


The situation appears slightly more complicated if we focus on differences in participation by region. Figure 5.II.10 reveals that, except in the Prairies (Manitoba and Saskatchewan), where the difference is minimal, the rate of participation in post-secondary studies among rural and urban youth varies by four to 11 percentage points within each region. The most significant gaps are in Quebec and the West (Alberta and B.C.).

If we focus on university participation only, the picture is slightly different, as seen in Figure 5.II.11: there are much wider gaps between regions when it comes to participation by youth from rural communities. In Ontario, there is a gap of 22 percentage points in university participation rates for urban and rural youth, but the gap is only seven percentage points in Quebec.

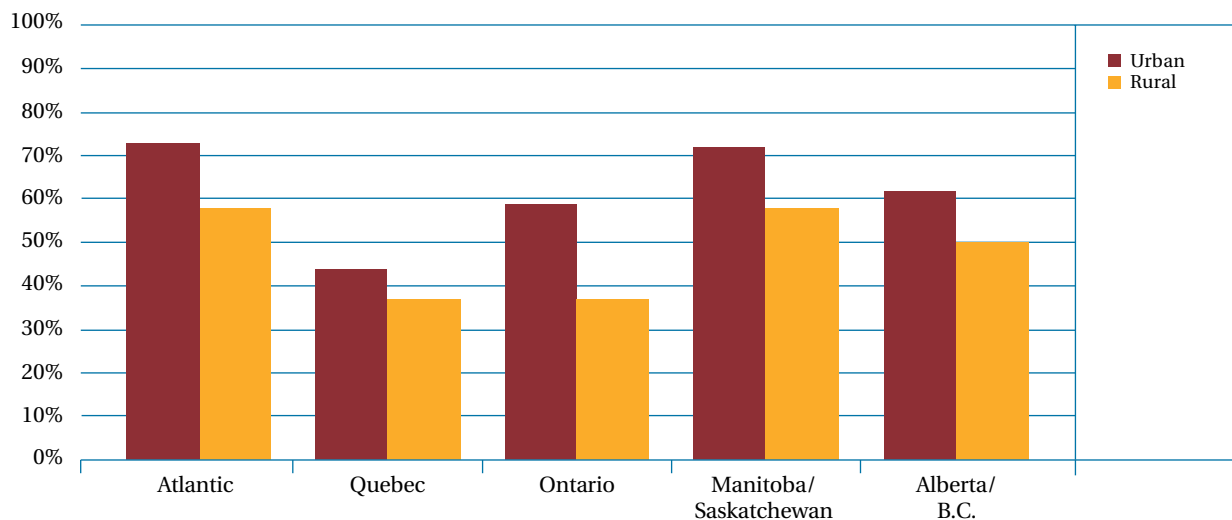
To understand these differences, it is worth examining whether it is the fact of living in a rural

Figure 5.II.10 — Rates of Post-Secondary Participation by Region and Urban/Rural Status



Source: Looker (2009).

Figure 5.II.11 — University Participation by Region and Urban/Rural Status



Source: Looker (2009).

Post-Secondary “Intenders”: What Keeps Them Out of Higher Education?

A 2008 Canada Millennium Scholarship Foundation study provides insight into the situation of individuals who reported a desire to pursue post-secondary education but had not done so within two years of completing high school. *In Pursuit of PSE: Whether and When to Go On*, prepared by Dr. Lori McElroy (2008b), offers the results of a survey of these youth in addition to administrative data concerning their high school graduating GPA, their performance in Grade 12 English and math courses, their Aboriginal status and their location within the province. The survey sample was designed to yield equal size groups of post-secondary pursuers and non-pursuers, in order to better enable comparisons between the two.

The report reveals that post-secondary “intenders,” who have not yet pursued higher education but wish to do so, are more likely than post-secondary pursuers to encounter financial barriers to post-secondary education. Thirty-five percent of them reported being averse to borrowing to pay for their education; 35 percent also reported a need to work to support themselves or their families. While they may be deterred by the growing cost of higher education, the intenders were also likely to overestimate tuition costs by a factor of nearly two to one.

Post-secondary intenders were more likely than those who enrolled in post-secondary education to report motivational barriers to higher studies. These include indecision about educational or career plans—often a sign of a lack of engagement in their own future planning—or the desire to take a break from schooling altogether. Many intenders were also likely to be poorly informed about the financial aspects and academic requirements of post-secondary education. Whether their lack of

information causes a lack of motivation or vice versa is impossible to tell, but it is clear that the two have a compounding effect.

Intenders were less likely than post-secondary pursuers to have parents who had themselves attained education beyond the high school level. They also had lower grades than those who pursued post-secondary education. Nearly half of the intender group reported skipping class in Grade 12 two or three times a month; only 26 percent of students who went directly from high school to post-secondary (referred to in the report as “direct pursuers”) skipped class that often.

Additionally, intenders appear to have been less engaged in high school life. Whereas about two-thirds of direct pursuers participated in activities outside of school, such as music programs, sports, clubs and drama, only half the intenders did so. One-third of intenders reported that many of the things they learned during their last year of high school were not useful, compared to 23 percent of direct pursuers. Forty-one percent of intenders reported doing as little work as possible, compared to 13 percent of direct pursuers.

It may come as little surprise that many high school students drift through the educational system with little in the way of motivation, earning relatively weak grades and avoiding the concrete steps that need to be taken to pursue post-secondary education. Yet even at the age of 20, many of these individuals want to attain some form of higher education. While they may be more likely to be undecided about the kind of post-secondary education they want, virtually none are satisfied with ending their educational careers after high school.

community that has an impact on participation in post-secondary studies or whether the gaps are explained by other characteristics of youth. The study reported in Looker (2009) reveals that after controlling for various factors, the fact of living in a rural community does not have a significant impact in terms of post-secondary (college or university) participation. In other words, factors such as the education or income of parents are more important than residence in a rural area. The impact of living in a rural area, however, is somewhat significant, when studying the gap between rates of university attainment.

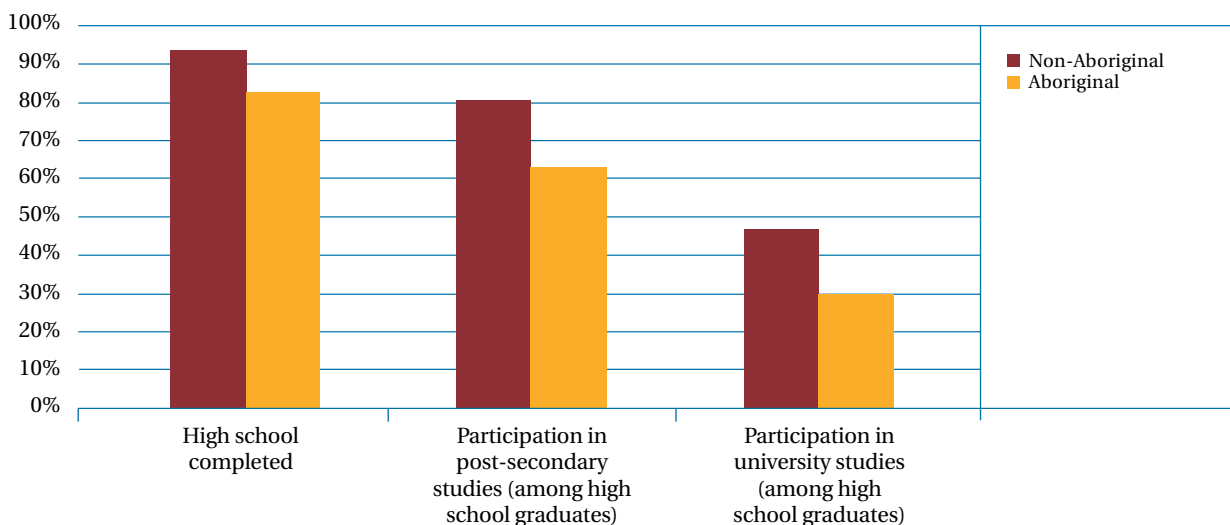
Gaps Between Aboriginal and Non-Aboriginal Youth

Ensuring full participation in post-secondary studies by Aboriginal peoples is a challenge incumbent upon all of Canadian society. The gains, both economic and social, are too important for us to stand by and do nothing. Sharpe *et al.* (2007, 2009) have clearly demonstrated that in the specific case of Aboriginal populations, there is no equity versus effectiveness debate: increasing Aboriginal peoples' level of education would result in net gains for all of Canada.

To increase participation in post-secondary studies by Aboriginal peoples we must, once again, begin by understanding the factors in play.⁴ There is consensus on the initial step that needs to be achieved: ensuring that Aboriginal youth complete high school (see Mendelson, 2006; Berger, Motte and Parkin, 2007; and Kroes, 2008). A qualitative study conducted by Malatest and Stonechild (2008) reveals that subsequent attainment of post-secondary studies is not simply a matter of money. Aboriginal youth who were interviewed emphasized that they lacked information about the means available for funding their studies. In addition, their relations with guidance counsellors were tenuous, and they had few friends or family members who had pursued post-secondary studies.

Frenette (forthcoming) uses YITS data to shed light on the participation gap between Aboriginal youth living off reserve and non-Aboriginal youth. Figure 5.II.12 demonstrates the systematic gap favouring non-Aboriginal youth with respect to attainment of a given level: while 93.7 percent of non-Aboriginal youth aged 21 had completed high school, the same was true of only 82.7 percent of Aboriginal youth. With regard to university attainment, a gap of 17 percentage points was noted.

Figure 5.II.12 — Educational Status at Age 21 by Aboriginal Status



Source: Youth in Transition Survey Cohort A (YITS-A).

4. We are mindful of the fact that situations vary for individuals from First Nations, Metis, Inuit and off-reserve Aboriginal populations in Canada, from east to west and north to south. However, the available data do not always allow us to conduct analyses at this level of detail.

As we have mentioned, two questions are of particular interest in the case of Aboriginal youth: what are the main factors explaining the gap in high school completion rates, and what factors explain participation in post-secondary studies? A study by Frenette (forthcoming) is able to explain 53 percent of the gap in high school completion rates and

90 percent of the gap in university attainment rates (see Table 5.II.5). In both cases, academic results are a strong determinant, explaining 25.4 percent and 44.7 percent of the respective gaps. Family environment and income also play a role, although they are less significant.

Table 5.II.5 — Proportion of High School Completion and University Attainment Gaps Explained by Select Factors

	Gap in High School Completion Rate Between Non-Aboriginal and Aboriginal Youth	Gap in University Attainment Rate Between Non-Aboriginal and Aboriginal Youth
Gross variance	11 percentage points	17 percentage points
Proportion of gap explained by observable factors	53%	90%
Academic results	25.4%	44.7%
Family environment (mother's schooling, family structure, mother's age when youth born)	10.4%	19.9%
Parental income	3.6%	3.7%

Source: Frenette, forthcoming.

Minority Francophone Communities

In Canada, youth in official language minority communities (i.e., anglophones living in majority francophone communities and francophones living in majority anglophone communities) have access to education in their mother tongue when numbers warrant. This applies only at the elementary and high school levels, however. Many observers maintain that the policy should be extended to post-secondary education.

A number of recent studies have specifically examined the situation of minority francophone communities. Besides having to deal with the barriers described in this chapter, francophones in these communities often have to choose between pursuing studies in French far from home or in English

while remaining in their province of residence or closer to home. Access to higher education in French and, more specifically, to a broad range of programs taught in French is far from being a reality for many of these young people.

Working from a survey of nearly 5,000 Grade 12 students enrolled in French-language schools in minority settings, Allard, Landry and Deveau (2009) present a unique portrait of their educational aspirations. The vast majority of these young people (87.9 percent), strongly intend to pursue a post-secondary education, including three-quarters who intend to pursue college or university studies in the months after completing high school.

Minority Francophone Communities *(continued)*

These strong intentions are certainly good news. Moreover, in these terms, the behaviour of young francophones in minority settings does not seem to differ from their anglophone peers. One issue cannot be ignored, however: there is not necessarily a link between strong intention to continue studies and intention to pursue such studies in French. Yet as the authors point out, access to a French-language education helps ensure linguistic vitality through the passing on of language and culture from generation to generation.

Table 5.II.6 shows that in the eyes of students themselves, the likelihood of pursuing post-secondary education in French varies greatly. While in New Brunswick 71.4 percent of students believed there was a strong likelihood that they would pursue studies in French, this was the case for well below half of young francophones living outside Ontario and New Brunswick.

Student perceptions of the significance of barriers to pursuing a post-secondary education in French also vary by region. Among other things, since French-language post-secondary teaching institutions are unequally distributed across Canada (corresponding to the distribution of francophones across the country), it is not surprising to note that perceptions with regard to distance from a francophone institution differed enormously among

groups of young people: 7.9 percent of those in New Brunswick viewed distance as a major barrier, while this was the case for more than 17 percent of youth in the rest of Atlantic Canada and in the West/North. It should also be noted that close to one in five young people in New Brunswick and elsewhere in the Atlantic provinces saw poor grades in French as a major barrier. Meanwhile, preference for English was viewed by the vast majority of students as a minor or moderate barrier, suggesting an overall willingness to pursue studies in French.

In the same vein, but focusing more specifically on the situation of Ontario francophones, Labrie, Lamoureux and Wilson (2009) also demonstrate that distance from post-secondary institutions plays a crucial role in young francophones' education choices. Franco-Ontarian youth who go directly from secondary to post-secondary education and pursue studies in French tend to enrol at the college level and at an institution located within a 75-kilometre radius of their high school. For those who choose to go to university, distance seems to be less of a factor, as they will move more than 150 kilometres to pursue their studies. It would be interesting to know to what extent students who enrolled in college would have instead enrolled in university if such an institution existed close by.

Table 5.II.6 — Likelihood of Pursuing Post-Secondary Education in French

	New Brunswick	Rest of Atlantic	Ontario	West/North
Weak	13.4%	46.5%	23.4%	33.6%
Moderate	15.3%	18.1%	19.4%	23.8%
Strong	71.4%	35.6%	57.2%	42.7%

Source: Allard, Landry and Deveau (2009).

Minority Francophone Communities (continued)

Table 5.II.7 — Perception of the Significance of Barriers to Pursuing Post-Secondary Education in French

	New Brunswick	Rest of Atlantic	Ontario	West/North
Preference for English				
Minor barrier	60.6%	40.9%	51.1%	41.7%
Moderate barrier	31.2%	44.2%	37.7%	47.0%
Major barrier	8.1%	14.9%	11.2%	11.3%
Distance from francophone institution				
Minor barrier	64.7%	47.5%	53.0%	42.2%
Moderate barrier	27.4%	35.4%	35.1%	39.9%
Major barrier	7.9%	17.1%	11.9%	17.9%
Number and funding of bursaries				
Minor barrier	60.6%	58.6%	58.4%	44.4%
Moderate barrier	33.9%	28.2%	34.3%	45.6%
Major barrier	5.5%	13.3%	7.3%	10.0%
Poor grades in French / Weak interest				
Minor barrier	50.0%	43.4%	53.2%	54.7%
Moderate barrier	31.4%	35.2%	31.7%	35.2%
Major barrier	18.6%	21.4%	15.1%	10.2%

Source: Allard, Landry and Deveau (2009).

Summary

From the studies reviewed above examining access gaps, two principal conclusions may be drawn:

- There is no one factor, nor single group of factors, that entirely determines participation in post-secondary studies.
- The same factor can play a vastly different role from one population group to the next.

These observations clearly make achieving our objective of increasing access to post-secondary studies more complicated: for a specific problem—that is, reducing the gap in rates of participation in post-secondary studies—it becomes necessary to adopt an approach involving several different aspects.

The challenge for policy-makers is a daunting one, because an environment that will promote more equal representation of the under-represented groups must be created.⁵

From the point of view of those tasked with making policy or developing programs promoting better access to post-secondary education, identifying those factors that can be acted upon is essential. The advantages and costs of program implementation must also be weighed.

If we return to the five groups of factors listed at the beginning of this section, it is immediately obvious that there are some variables that can be acted upon and others that cannot. It is difficult, for instance, to imagine making changes to inherent individual characteristics. Similarly, simply changing parental levels of education or family income cannot really

5. To achieve equity, one might be tempted to lower enrolment rates for the over-represented groups. We remind readers, however, that our objective is to increase levels of education.

be envisioned as a solution. It should be possible, however, to effect changes indirectly: for example, by finding a way to equip parents who have lower levels of education with the tools they need to help their children make informed choices about their future.

Measures for effecting changes may vary widely in terms of both costs and benefits. Choices must

therefore be made in the context of these constraints. Moreover, it is important to always keep in mind the interactions between the various factors: for instance, a method of intervention that attempts to improve youths' academic performances may lead to changes in behaviour.

The Importance of Employing Varied Methodologies

"Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted."

— Albert Einstein

Quantitative studies are often popular because they enable us to put a figure on a trend or a problem. They can show to what extent two variables correlate or calculate the marginal effect of one variable on another. For instance, we might be interested in the link between family income and the fact of pursuing a post-secondary education. While these studies contain information that is important for policy-making, it must be noted that other approaches are needed to deepen our knowledge. Among these other approaches, qualitative studies—in the form of semi-structured one-on-one or group interviews—provide us with individuals' explanations of why they find themselves in a particular situation. Unlike survey questionnaires, which often require the respondent to make a choice from a set of possible answers, interviews allow participants to express themselves freely and make connections between different events. Used as a complement to quantitative studies, they provide a more complete picture of the phenomenon being studied and often lay the groundwork for investigators to proceed with data collection by means of surveys.

To take one example, EKOS (2009) summarizes the findings of a series of semi-structured group interviews with Grade 11 and 12 students who, at the time, had not yet decided whether to pursue post-secondary education. Parents of children in the same situation were also invited to the focus

groups. A series of questions prompted students to discuss their school experience, their future and the reasons why they had deferred their decision with regard to pursuing studies. The discussions revealed a fairly high level of indecisiveness with respect to career choice, manifested in a strong fear of making the wrong decision about a program of study and of "wasting money" on tuition fees. In addition, young people said they worried about ending up stuck in a job that wouldn't correspond to their expectations.

In a research project by Malatest and Stonechild (2008) on First Nations youth, it emerged from many interviews that student loans represent a risk that was not accounted for by quantitative data. Some interview participants displayed a reluctance to borrow for their studies. Among other things, several of them said that they weren't confident in their ability to succeed in their studies and therefore felt that going into debt would be too risky; for others, hesitation about taking on debt was due to a fear that they would be less able to provide for their children. In addition, the interviews highlighted the degree to which many First Nations people view their education as a way to improve their community. This vision contrasts sharply with that expressed by non-Aboriginal youth, who tend to focus on the individual benefits of studies.

III. The Role of Financial Assistance Policies in Access to Post-Secondary Studies

Every year, both federal and provincial governments earmark considerable sums of money for student aid (see Chapter 6). Educational institutions also grant scholarships to their students. What is the impact of such aid programs on access to post-secondary studies? At the conceptual level, the existence of student financial aid programs addresses the issue of fairness: an individual should not have to forgo pursuit of an education due to a lack of funds. Accordingly, financial aid reduces the costs that a youth from a low-income family is required to bear.

It is extremely difficult, if not impossible, to determine the overall impact of financial aid programs on post-secondary access. As is often the case with social policies, we can't know what the picture would look like if the structure of financial aid were different. Nor can we observe the behaviour of one individual in an environment in which an aid program exists and compare it to his or her behaviour in one where it does not. Since it is not our intention to question the principle of financial aid in itself, we are taking it on faith here that such programs are essential.⁶ We can, however, ask ourselves whether modifications could be made to them—for example, in terms of the composition of assistance provided to students or the eligibility criteria. We might ask the following questions, among others:

- Is the amount of aid sufficient to encourage access?
- Does awarding more grants make access to post-secondary education easier?
- Is information on the various financial aid programs easily accessible?
- To what extent should we be designing programs for specific population groups?

Ten or so years ago, attempting to provide answers to these questions would have been a challenge for the simple reason that very few Canadian studies on the subject existed. Specialists tended to look at U.S. studies and try to map the results onto Canadian realities. But it is difficult to make such extrapolations—not least because financial aid programs in the two countries are quite different.

In 2009, more substantial information on the subject is available. We are still a long way, however, from definitive answers to all of these questions. While a growing number of studies explore issues surrounding modifications to financial aid programs, very few can provide a clear and precise answer, because the data often do not allow us to argue beyond mere correlations. Although her article deals mainly with the impact of financial aid on persistence, Day (2008) gives a good explanation of why it is so hard to posit a cause-and-effect relationship in this situation:

6. We wish to emphasize that we support this principle regardless of tuition fee levels: pursuing studies requires, at a minimum, the ability to have shelter and food without having to forgo income.

“It is difficult, if not impossible, to disentangle the effects of financial aid from ... other determinants of persistence using existing data, in large part because many of those other determinants also influence the amount of financial aid received. These interrelationships no doubt explain why there are so many conflicting results about the effects of financial aid in the literature” (p. 328).

All the same, we have a certain body of acquired knowledge that can help guide our actions. Among other things, studies tend to show that to promote access, financial aid should consist of both loans and grants. Both theoretical and empirical studies suggest that such a combination helps increase enrolment rates, in particular those of young people from low-income families. Carmichael and Finnie (2008), for instance, explain that grants play a crucial role by ameliorating the difficulties faced by students from low-income families:

“[...] lower-income students will need to borrow more money and therefore have to pay back more money in the future. There is as well always the chance that students will not succeed and not gain access to the higher income stream of a university graduate. In this event students from poorer families will again experience a higher level of hardship than will richer students, since the required loan repayments are higher” (p. 354).

As part of a project commissioned by the Foundation, researchers from the Social Research and Demonstration Corporation and CIRANO developed economic experiments (also referred to as laboratory experiments) in an attempt to gauge the importance of debt aversion among youth. The ability to validate the existence of debt aversion is important for financial aid policy-making. If such a fear does exist and, more importantly, if it exists among youth from groups that are under-represented in higher education, then a program geared mainly toward loans will doubtless have limited impact on post-secondary enrolment.

Two principal conclusions emerge from the results of this project:

- 1) A financial aid program that offered only grants would not suffice to render post-secondary education attractive to all young people, regardless of their characteristics. For some youth, reluctance to pursue a post-secondary education is both independent of and as strong a determinant as debt aversion.
- 2) Young people are not opposed to the idea of taking on debt to pay for their studies. By and large, however, they will not borrow at any price. Thus, one way to reduce the cost of borrowing is to introduce a non-repayable program component (i.e., grants).

These results substantiate the importance of properly choosing program parameters. In addition, they indicate that to a certain extent, the structure of existing aid programs, that consist of both loans and grants, is close to optimal, which is a very positive sign.

Modifications to financial aid programs represent unique opportunities for determining the impact of the changes. Chemin (2009) and Frenette (forthcoming) capitalize on changes to financial aid policies to explore their effects. Chemin (2009) isolates the impact of increases to amounts granted under the Quebec student aid program in 2001–02. Through comparisons with other provinces, he concludes that the improvements led to a six percentage point increase in access. Meanwhile, Frenette (forthcoming) focused on the introduction of the Canada Student Grant for Persons from Low-Income Families (which reduced student debt). Comparing students who received the grant to those who did not, he concludes that the grant had no impact on access to studies overall.⁷

As the somewhat contradictory findings of these two studies show, we are a long way from having a simple, clear idea of the impact of aid programs on post-secondary enrolment rates. It is important, however, that we continue efforts to document and study changes to programs. Assessing many studies cumulatively is the only way to develop aid programs that are both equitable and efficient.

7. At the time of writing, Frenette was conducting further analyses on subgroups of students. It is possible that for some subgroups the grant could have had an effect.

IV. Conclusion

The transition to post-secondary studies is often concurrent with other transitions in an individual's life, in particular those undergone by young people. For youth leaving high school, this transition corresponds to the entry into adulthood, as Doray *et al.* (2009) remind us. Such transitions, because they involve changes both great and small, are often periods of fragility for the individual. For some, the transition to post-secondary education will be a smooth one; for others, it will be more arduous or else be rejected as a viable option.

Numerous studies have shed light on the complexity of young people's educational pathways and the difficulty experienced by some in attaining post-secondary studies. To the dismay of many, the inescapable conclusion is that there is no magic formula for improving rates of participation in post-secondary studies.

As we have seen, surmounting or eliminating the barriers to access is no simple matter. Some barriers or factors impeding participation are deeply rooted, and simple, one-dimensional action will not suffice to overcome them. In addition, there are multiple factors that combine and overlap when it comes to explaining lower rates of participation among certain groups. Focusing on one aspect can be useful, but, given the complexity of the phenomenon, it is highly likely that such a strategy will have to be used in combination with others if it is to bear fruit.

In our opinion, an approach that casts a wide net will help improve rates of post-secondary participation. We suggest five avenues for action:

- 1) Adopt a more flexible education system;
- 2) Make sustained use of data;
- 3) Implement pilot projects;
- 4) Conduct systematic evaluations of projects and programs; and
- 5) Promote engagement from the entire community.

Adopt a More Flexible Education System

A series of recent studies (Doray *et al.*, 2009, Raymond, 2008; Dubois, 2008; Hango and de Broucker, 2007b; Looker and Thiessen, 2008; Finnie and Johnson, forthcoming) have highlighted the diverse nature of young people's educational pathways. The one often described as the classic pathway (i.e., graduate from high school, enrol in post-secondary studies, then enter the job market) does not correspond to reality for a majority of students (see also Chapter 2). Since situations are far from permanent and transitions take place at precise ages increasingly less often, it is essential that education systems be flexible enough to allow individuals to return to studies without undue consequences.

Make Sustained Use of Data

Canada's track record is far from faultless when it comes to providing data to certain international organizations for the production of reports. According to the Canadian Council on Learning (2007), the country was unable to provide statistics for 60 percent of the tables in a recent OECD report.⁸ This performance is nothing to be proud of, and measures should be taken to ensure that international-level comparisons are possible.⁹

Is lack of data the problem? Perhaps, insofar as it is difficult to get a picture of the situation all across the country. There are, however, some sources of data that are not exploited. In fact, under-use of data is just as problematic as a lack of data.

Some Canadian provinces have introduced unique information systems, which others may well wish to adopt. Studying the data stored in them provides a great deal of insight into youths' educational

8. Canadian Council on Learning. "Canada's PSE performance: file under 'm' for missing." (September 20, 2007). Accessed on August 21, 2009.

9. Considerable effort is being made to remedy the situation. The Council of Ministers of Education, Canada, in collaboration with Statistics Canada, has implemented a nationwide strategy on educational indicators.

pathways. Quebec publishes yearly Education Indicators, a collection of statistics based on administrative data provided by the Ministry of Education. Every Quebecer who attends an educational institution (elementary or high school, CEGEP or university) is assigned a unique numerical identifier (“permanent code”) enabling their educational pathway to be tracked for as long as they reside in Quebec. Ontario and British Columbia have similar databases. Use of these data by researchers and dissemination of the research results will enrich our knowledge.

Universities and colleges also possess administrative data that, when used judiciously, can tell us a great deal about students’ educational pathways, where they come from and what services they use.

The coupling of administrative data with investigative data is under-exploited in education research—yet the economies of scale that can be achieved by successfully combining these two sources of data are obvious. Among other things, the number of questions asked as part of a survey can be reduced, and better quality information can be obtained.¹⁰ Of course, ensuring that personal data are protected is of paramount importance.

Implement Pilot Projects

The time eventually comes when action is required. To develop new projects, it is crucial to have knowledge of what has been done before and the findings of research work. There are no guaranteed results, however. We must accept that there will be some risks involved: it is possible that the chosen action will not work (which leads us to the next point).

Conduct Systematic Evaluations of Projects and Programs

There should be a requirement to evaluate all new pilot projects or programs. Evaluation is not limited to measuring the outcomes of a program; it enables documentation of its implementation and highlighting of the challenges that had to be met. These aspects are essential, not only for replicating a model but for making adjustments to it.

The Foundation has certainly advocated this approach in the case of the pilot projects it has funded,

The Transitions and MESA Projects

Although they have differing disciplinary approaches and objectives, the Transitions and Measuring the Effectiveness of Student Aid (MESA) projects have contributed to sustained exploitation of the data collected by the Youth in Transition Survey. In both cases, the researchers pooled their knowledge by sharing their interpretations of the data, methodologies, and so on. This approach allowed them to achieve significant economies of scale.

With the addition of studies published by Human Resources and Skills Development Canada, the Canadian Labour Market and Skills Researcher Network (CLSRN) and Statistics Canada, among others, our pool of knowledge on young people’s educational pathways has been both extended and deepened.

10. The MESA project revealed that between 20 and 40 percent of respondents did not recall receiving a Canada Millennium Scholarship Foundation bursary, even though all of them had in fact received one. This provides a good indication of the risk involved in relying solely on data gathered through surveys to develop a clear picture of the types and amounts of financial aid received by students.

as evidenced in an article by Charron (forthcoming). Establishing from the start that a project or program will be evaluated enables the gathering of invaluable information that is sometimes impossible to track down after implementation.

Promote Engagement from the Entire Community

To use a somewhat hackneyed expression, “education is everyone’s business.” Governments, the community sector and private enterprise all have everything to gain from easier and more equitable access to post-secondary studies. The short-term gains to be had may not always be obvious: increasing post-secondary participation rates requires investments by both individuals and governments, and investments, of course, mean costs. The benefits, however, will be felt over the medium term, in terms of increased productivity and greater social cohesion.

The creation of partnerships across various sectors (e.g., private enterprise, non-governmental organizations) sends a clear message: education matters. This, in a sense, is what we are seeing with Pathways to Education in Ontario, the Conseil régional de prévention de l’abandon scolaire (CREPAS) in Quebec and the Canadian Post-Secondary Access Partnership. All are promising initiatives.

There are many options for bridging the skills gap in the workforce. We can decide to do nothing, based on the premise that things will adjust over time. We might envision greater reliance on immigration to fill workforce needs (not forgetting, however, that other countries have decided to adopt the same strategy). We may also decide to invest in a segment of the population that traditionally has not had access to post-secondary education. Although the research described in this chapter underscores the fact that there is no magic formula, it does allow us to identify certain avenues to follow.

