The Price of Knowledge

Access and Student Finance in Canada

Fourth Edition

Edited by
Joseph Berger, Anne Motte
and Andrew Parkin

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Canada Millennium Scholarship Foundation

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Acknowledgements

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JB, AM, AP
Montreal, October 2009

Introduction

There is currently no shortage of debate about post-secondary education policy in Canada. This reflects widespread agreement regarding the importance of skills, knowledge and innovation in a modern economy and society. As the respective heads of two of the country's leading academic and business organizations have put it: "Ensuring our country's long-term economic growth and continued prosperity—and realizing this country's promise—will depend heavily on the education and skill levels of Canadians and their success in creating and applying ideas and knowledge" (Beatty and Morris, 2008).

Many of those involved in this debate have drawn attention to what they call the "innovation deficit" stemming from a lack of adequate investment in both business and higher education research and development (Munroe-Blum and MacKinnon, 2009). This has led Canada's universities to call for the federal government to "significantly increase investments in university research through key granting agencies' programs" (Association of Universities and Colleges of Canada, 2009), while Canada's colleges and institutes of technology have called for more investment in applied research in order to assist with the final stages of commercialization of new ideas, technologies and processes (Polytechnics Canada, 2009).

As everyone knows, however, research requires people to produce and make use of it—people with skills, education and aspirations. Innovation requires innovators. This means we need to consider whether we can become better at providing higher education opportunities that will allow Canadians to acquire the education and training they need to succeed in our modern economy and society.

The issue of access and student success is the central concern of this, the fourth edition of *The Price of Knowledge*. As we argued in the previous edition (Berger, Motte and Parkin, 2007), Canada is a society in which every year a growing share of the population—children and seniors—must be supported by a shrinking proportion of workers. This is occurring at a time when the requirements of both employees and citizens continue to evolve: work and civic life are becoming more complex, more driven by technology and more focused on the manipulation of information.

Under these circumstances, the way forward is clear: in order for Canada to maintain its prosperity and quality of life, more and more Canadians need to benefit from opportunities in higher education. Since many of those from relatively advantaged backgrounds already attend college and university, this means that we must raise the participation rates of those currently least likely to attend. Given the multiple and inter-connected obstacles to educational success that such students (or prospective students) typically face, this is no easy task. It requires a comprehensive and well thought out set of policy interventions delivered by actors and agencies working in all sectors of society.

With this as our starting point, we have structured the book as follows:

In Chapter 1, we review the data on the benefits of post-secondary education, particularly in terms of employment and earnings. While many economists are familiar with the data we present, too many public commentators choose to overlook them as they express skepticism about whether we really need more post-secondary graduates. We urge those who worry that bringing more students into our colleges and universities will diminish the quality of education these institutions provide to reconsider the notion that opportunity and excellence must lie at opposite ends of the spectrum. By reaching out to under-represented groups of students before and during their post-secondary studies, we can ensure that they are prepared and motivated to achieve success.

Having established the benefits of post-secondary education, in Chapter 2 we move on to explore trends in post-secondary participation. Many of the indicators are encouraging; for instance, four out of five young Canadians access some form of education or training after high school by the time they reach their

late 20s. Yet there are still areas of concern, the main one being the continued prevalence of gaps between the participation and attainment rates of different groups of students. Stubbornly persistent gaps remain between high- and low-income youth, urban and rural youth, Aboriginal and non-Aboriginal youth and youth whose parents obtained a post-secondary credential and those whose parents did not. These access gaps point to the complexity of the different obstacles to educational success faced by under-represented groups of students.

Chapter 3 presents the latest research on persistence in post-secondary education in Canada. We are now able to explore this topic in detail as a result of new longitudinal survey data and the focused efforts of researchers to exploit them. The picture that emerges is mixed: persistence rates are perhaps better than had been assumed, but at the same time, a significant minority of students discontinue their studies, while many of those who remain enrolled do not graduate on time. Fortunately, more evidence is becoming available about the types of strategies that might be effective in ensuring that students at risk of dropping out of college or university are in fact able to achieve success.

Students who participate in post-secondary education must of course find some way to pay for it. Chapter 4 reviews the changes that have occurred in the costs faced by students and the financial resources available to them. The evidence shows that on the whole, costs have been increasing at a faster rate than inflation and, at least in the case of those from lower-income families, at a rate that has outpaced changes in available resources. Students can choose to make up funding shortfalls by working more while in school, but there is evidence that this may negatively affect their academic performance. The fact that the evidence presented in this chapter predates the 2008–09 recession adds to our concern and underlines the importance of modernizing student financial assistance programs along the lines suggested in later chapters.

Financial obstacles represent only one of the challenges students face. The findings presented in Chapter 5 clearly show that no single factor explains why certain students are able to access post-secondary education while others are not. We explore the reasons why particular groups of interest, be they those from low-income families, those from rural areas of the country, those who are Aboriginal, those from francophone minority communities, etc., must all be taken into account in the formation and delivery of educational policies. Moreover, we outline why factors that are highly relevant for some groups of students are less relevant for others.

As always, one of the principal areas of interest in the context of this volume is student financial assistance policy. Chapter 6 first updates the data on trends in government spending on financial support for students, showing how in recent years both the total amount of need-based aid and the proportion of this aid that is non-repayable have been increasing. These are positive developments, but it is possible to go much further by modernizing the overall system of financial aid in Canada. In the second part of the chapter, we put forward several proposals for modernization, with the goal being to arrive at a system that: puts the interests of students first; sends an early message to students that there will be financial support available to help them meet their educational goals; targets those who need student aid the most with the right kinds and amounts of aid; acknowledges that financial aid alone is not enough to enable some students to reach their goals; and is flexible, accountable and transparent.

Finally, we revisit the issue of student debt in Chapter 7. We chart how federal and provincial initiatives in this decade have succeeded in moderating the increase of student debt; in fact, in the period following 2000, student debt levels declined. In the most recent period, however, student debt has edged upwards, a trend which needs to be monitored closely as the effects of the significant program changes that are now occurring—not to mention the recent economic downturn—begin to be felt.

This book ends with the inevitable plea for more research, but with an even stronger plea that the research conducted to date guide actions taken to improve student access and success. Our understanding of the factors affecting the pathways that students do or do not take has increased steadily over the last decade. This understanding underpins

our conclusion that the time has never been better for partners in all sectors—inside and outside governments, inside and outside schools, on and off campuses—to work together to implement a comprehensive strategy that will better prepare and motivate students before they reach post-secondary education, provide more effective student financial assistance programs for those who need them and make improved support programs available to students once they have enrolled in post-secondary education.

In 2000, the year in which the Canada Millennium Scholarship Foundation began distributing awards, policy-makers had relatively little Canadian research on access to guide their thinking. Now, almost ten years later, we believe that everyone associated with the Foundation, including its partners in both research projects and program delivery, can take some pride in the knowledge that, as well as providing students with $3.2 billion in financial support, we are leaving behind a wealth of knowledge that we hope will inform policy for years to come.

1

The Value of a Degree: Education, Employment and Earnings in Canada

Joseph Berger and Andrew Parkin

Chapter 1

I. Introduction

Access to post-secondary education matters.

This chapter presents data that underpin the importance of widening access to post-secondary education in Canada.

It demonstrates that the relationship between employment, earnings and higher education remains clear: post-secondary graduates are more likely to be employed, and they earn more than those who did not continue their studies past high school.

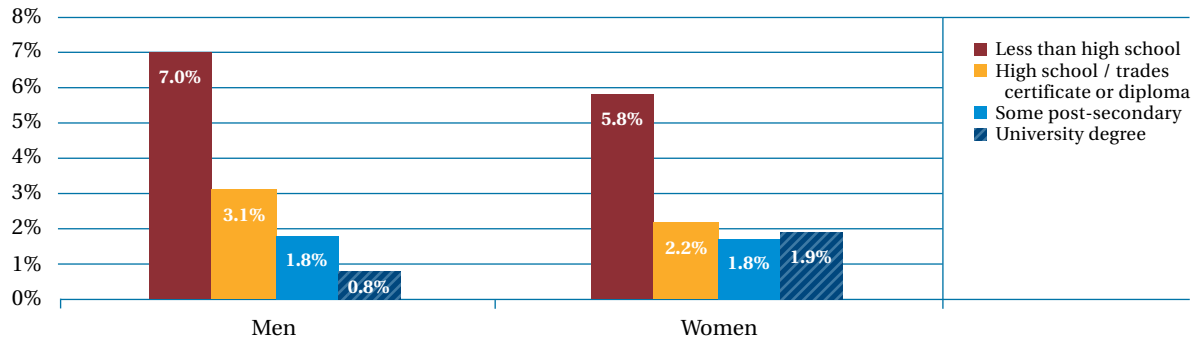
For this reason, they are the strongest contributors to the tax revenues that sustain the key programs and services provided by governments.

This information needs to be highlighted in order to challenge assertions that there is already too much pressure on young Canadians to pursue post-secondary education and that access should be restricted so as not to dilute the market value of a degree. These assertions notwithstanding, the data show that while the number of post-secondary graduates has grown in recent years, the benefits of a degree in terms of more stable employment and higher earnings have not diminished.

To take but one initial example, the gap between the unemployment rates of young Canadians with higher and lower levels of education has widened over the past 35 years. The unemployment rates of young men without a high school education grew by seven percentage points between 1971 and 2005, compared with an increase of less than one point for those with a university degree. The unemployment rate for young women without a high school diploma grew three times as much over the same period as that of young university-educated women (see Figure 1.I.1). As we will see below, a similar trend is evident in the case of earnings.

The benefits of a post-secondary education in terms of the labour market outcomes of individuals are only one reason why access matters. In the previous edition of *The Price of Knowledge* (Berger, Motte and Parkin, 2007) we featured another reason, arguing that Canada's changing demography means that the number of young adults within the population as a whole will soon begin to decline. Consequently, if participation in post-secondary education is not widened, the number of college and university graduates in Canada will decline too. Finishing the next decade with fewer post-secondary graduates is not an encouraging prospect for a country as dependent on human capital as Canada.

Figure 1.I.1 — Growth in Unemployment Rates of 25- to 34-Year-Olds, by Education, 1971–2005 (in Percentage Points)



Source: Morissette and Hou, 2006.

Not everyone welcomed our argument: some preferred to talk about the "myth" of declining enrolment (Charbonneau, 2007; cf. Berger, 2008a). Yet the most recent figures[1] confirm that full-time university enrolment is already declining in four provinces and is growing noticeably in only two. At the college level, enrolment growth levelled off in the early years of this decade before experiencing its first decline in over 10 years between 2004 and 2005. If anything, then, our demographic argument is more pertinent than ever.

In this chapter, however, we shift focus somewhat to examine how widening access to higher education pays dividends through greater opportunities for those joining the workforce.

As many before us have emphasized, few if any investments an individual makes will produce as much of a return as higher education. The evidence about the positive returns to post-secondary education is so well-known that it seems unnecessary to review it again.

Unfortunately, not all commentators with access to the media are inclined to base their arguments on evidence. There have been a series of recent suggestions that somehow we have too many students in Canada, not too few. Some wonder whether a higher education is really worth what people think it is, given that it has become so commonplace. Sociologists James Côté and Anton Allahar, for example, speak of an "oversupply of higher degrees" that has resulted in "lost market value" for credentials (Côté and Allahar, 2007, 177). Others lament the fact that many students, at least at the university level, are woefully underprepared or unmotivated and so really shouldn't be there at all. Taken together, these reflections lead some to wonder whether we are doing young people a disservice by suggesting that a post-secondary education is more important to their future than ever before. As *The Globe and Mail*'s Margaret Wente puts it, "Everybody knows that these days, you are doomed unless you go to university. Otherwise, you won't cut it in the knowledge economy… But maybe the real problem is something else entirely. Maybe it's not that too few kids go to university, but too many" (Wente, 2008, A23).

To counter this recurring myth—that post-secondary education is overvalued—we provide an update on the data on the benefits of a college diploma or university degree, showing that the earnings of post-secondary graduates increased above the rate of inflation between 2000 and 2007. We demonstrate that the earnings premium, which captures the relative difference between individuals with higher and lower levels of education, has continued to increase since 1980. This has occurred during a time of significant growth in the population of post-secondary graduates in Canada. The value of a post-secondary credential has increased at a faster pace than the share of the population completing some form of higher education; in other words, degrees have grown more valuable even as they have become less scarce. Finally, we demonstrate that the benefits of post-secondary education accrue both to the individual and to Canadian society at large.

None of this means any concern about falling standards within universities and colleges in the age of "mass" post-secondary education is misplaced. The remedy for what may ail the ivory tower, however, should not be to once again restrict access to the elite, as some have suggested (Malick, 2009; Dehaas, 2009). If we want to ensure that standards are maintained (or, better, raised), then we should be thinking about how access to higher education in Canada can be combined with excellence within the sector. This will require changes in how faculty and staff at post-secondary institutions relate to both current and prospective students.

In the end, our argument is this: it is not the widening of access itself that threatens the quality of post-secondary education, but rather the questionable thinking that leads some to believe that our society must choose between these two goals—that we can pursue either access or excellence but not both.

1. These figures are presented in Chapter 2.

II. The Earnings Premium

The latest census data illustrate the link between post-secondary education and more stable employment. Canadian workers without a high school diploma are two and a half times more likely to be unemployed than are those with a bachelor's degree (see Table 1.II.1). In the case of Aboriginal Peoples, the ratio rises to three and a half times. Moreover those with lower levels of education are more likely to be among the chronically unemployed (Brooks, 2005). The 2006 census also confirmed that "higher education is a gateway to higher earnings" (Statistics Canada, 2008a, 17).

In terms of earnings, the benefits of higher education are often expressed in two ways. The first calculates the earnings premium, or the difference in median earnings among groups of individuals with different levels of education. The university earnings premium, for example, is often expressed as the average difference in earnings between university and high school graduates. The second calculates a rate of return on an investment. This takes into account the costs of post-secondary education and is expressed as the earnings premium divided by the actual and opportunity costs of post-secondary education (including, for example, tuition, fees, books and forgone income while in school).

First, we will consider the earnings premium. According to the 2006 census, while the median annual earnings of a high school dropout are 15 percent lower than those of a high school graduate, those with a college diploma earn almost 15 percent more and those with a bachelor's degree earn almost 50 percent more. In 2005, a bachelor's degree holder earned $18,000 more per year than a high school graduate; a university graduate with a post-bachelor's degree earned $29,000 more than a high school graduate. As Figure 1.II.1 demonstrates, median earnings increase with education in all parts of the country.

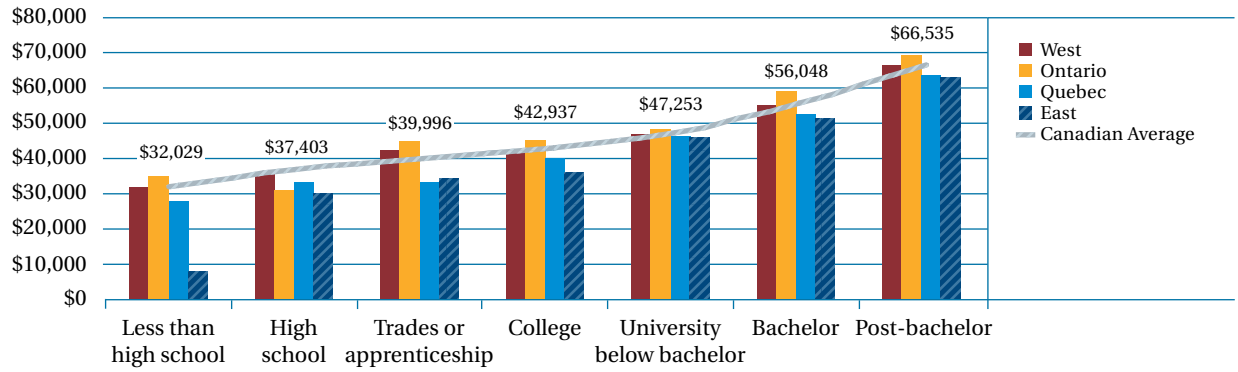
Even recent demand for low-skill jobs in Western Canada underlines the benefits of higher education. According to Chung (2006), young men with relatively low levels of education experienced an increase in earnings during the beginning of this decade, owing to the strong resource-based economy in Western Canada. That said, their earnings were lower than those of young men with low levels of education in 1980, and the earnings gap between them and more highly educated men remains. The premium associated with a post-secondary education thus reflects both its own value in the labour market and the declining value of a high school diploma (even once the effects of regional resource booms are taken into account).

Table 1.II.1 — Unemployment Rate (2006) by Educational Attainment

	Total	Male	Female	Aboriginal
No high school certificate	11.1	10.8	11.5	22.5
High school certificate of equivalent	7.3	7.2	7.3	12.8
Apprenticeship or trades certificate or diploma	6.2	6.1	6.3	13.9
College / CEGEP certificate or diploma	5.0	4.9	5.0	9.9
University certificate or diploma at bachelor's level or above	4.5	4.1	5.0	6.4

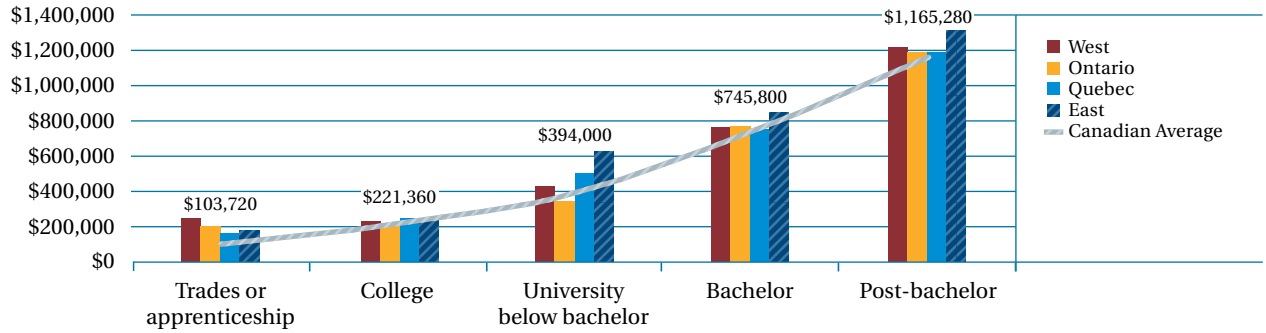
Source: Statistics Canada, 2006 census.

Figure 1.II.1 — Median 2005 Earnings for Full-Year, Full-Time Earners Age 25–64, by Education and by Region



Source: Statistics Canada, Income and Earnings Highlight Tables, 2006 census. Ottawa. Released May 1, 2008.

Figure 1.II.2 — Earnings Premium Relative to a High School Graduate over 40 Years, by Region



Source: Statistics Canada, Income and Earnings Highlight Tables, 2006 census. Author's calculations.[2]

While the difference in income by level of education is substantial for any one given year, the effect over the course of a lifetime is remarkable (see Figure 1.II.2 and Table 1.II.2) As Figure 1.II.2 demonstrates, over the course of 40 years, a college graduate will earn $394,000 more than a high school graduate. A bachelor's degree holder will earn a premium of $745,800 over the course of 40 years.

Statistics Canada points out that figures such as these underestimate the real earnings differences between workers with higher and lower levels of education because they compare only those employed on a full-time basis. As we have seen, those with less education are more likely to be unemployed and therefore to have no earnings at all, something which the earnings amounts reported here do not take into account (Statistics Canada, 2008a, 18).

2. Note: This figure multiplies the average annual earnings premium among 25- to 64-year-olds in 2006 by 40, approximating an individual's life in the labour force. As a result, it does not take into account the expectation that individuals with lower levels of education will work more years (because a high school graduate will enter the labour force at an earlier age than a post-secondary graduate, perhaps 10 or more years earlier than a Ph.D holder, and also because individuals with higher annual earnings may be able to retire earlier and live off savings growing from the annual earnings premium).

Table 1.II.2 — Earnings Premium Relative to a High School Graduate over 40 Years, by Province

Location	Less Than High School	Trades or Apprenticeship	College	University Below Bachelor	Bachelor's Degree	University Post-Bachelor
Canada	-$214,960	$103,720	$221,360	$394,000	$745,800	$1,165,280
Newfoundland and Labrador	-$191,600	$243,520	$339,480	$866,520	$997,560	$1,527,640
Prince Edward Island	-$91,640	$171,320	$233,120	$580,000	$748,520	$1,157,440
Nova Scotia	-$147,600	$164,040	$197,360	$509,040	$765,600	$1,289,960
New Brunswick	-$128,080	$155,600	$196,160	$567,320	$884,480	$1,272,640
Quebec	-$215,080	$4,760	$247,760	$504,880	$753,400	$1,189,600
Ontario	-$181,800	$204,880	$220,640	$343,600	$769,720	$1,188,480
Manitoba	-$155,400	$127,680	$215,040	$454,200	$728,480	$1,210,080
Saskatchewan	-$175,680	$166,640	$244,240	$503,800	$898,840	$1,309,840
Alberta	-$150,160	$452,520	$274,720	$522,280	$891,960	$1,376,440
British Columbia	-$197,800	$230,760	$169,760	$226,080	$536,760	$956,760
Yukon Territory	-$145,480	$190,480	$197,360	$235,840	$791,000	$980,080
Northwest Territories	-$392,200	$395,120	$313,840	$342,400	$840,120	$1,372,360
Nunavut	-$891,040	-$4,000	$192,640	*	$998,520	$1,192,520

* Too unreliable to be published.

Source: Statistics Canada, Income and Earnings Highlight Tables, 2006 census. Authors' calculations.

Provincial Variations

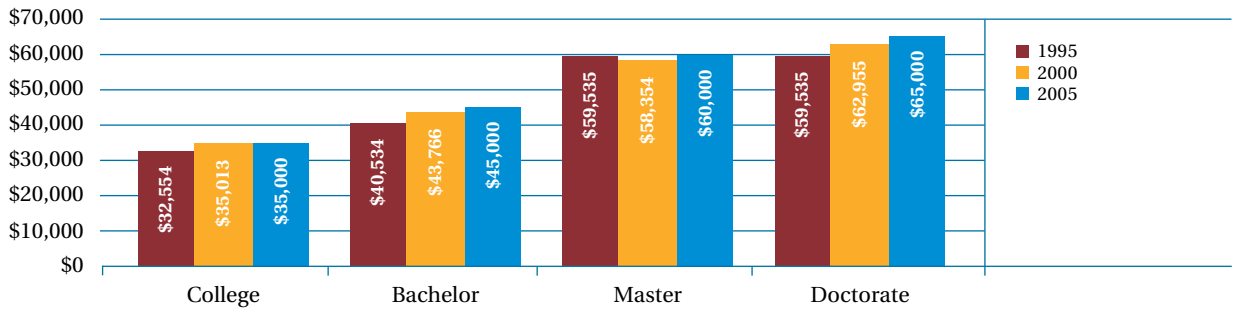
As Table 1.II.2 demonstrates, the earnings premium associated with post-secondary education varies considerably from province to province. The premium for a bachelor's degree is highest in Newfoundland and Labrador, where an individual who completes a first degree is likely to earn just under $1 million more than a high school graduate. At nearly $900,000, the college diploma premium is also highest in Newfoundland and Labrador. The lowest post-secondary premiums are reported in British Columbia, where a college graduate can expect to earn about $225,000 more than a high school graduate and a bachelor's degree holder might earn a premium of about half a million dollars over the course of a professional lifetime. These variations, however, may reveal more about the earnings of high school graduates than post-secondary graduates. Because a high school graduate's wages in Atlantic Canada are lower than in the rest of the country, the post-secondary premium (which simply measures the earnings of a college or university graduate compared to a high school graduate) may appear to be larger. Similarly, because high school graduates in Western Canada are relatively better paid, the post-secondary premium may appear somewhat more moderate. The fact that the average high school graduate in B.C. earns more than a typical college graduate in the Maritimes is more an indication of the different economies in these two parts of the country than it is of the value of higher education. More to the point: even in Canadian provinces where high school graduates do reasonably well in the labour market, post-secondary graduates do considerably better.

The most recent findings from the National Graduates Survey provide additional information about the earnings of Canadian graduates. As Figure 1.II.3 reveals, the earnings of post-secondary graduates have increased since the mid-1990s. After adjusting for inflation, college graduates from the class of 2005 reported the same earnings as those who had graduated five years earlier (both cohorts were surveyed two years after they had graduated). University graduates were earning about three percent more than their colleagues in the class of 2000. The class of 2005 was also doing better earlier in their working lives than were those who graduated in 1995. At the same point after graduation, college graduates from the class of 2005 were earning 7.5 percent more than those who graduated in 1995. Bachelor's degree and Ph.D. recipients were earning about 10 percent more than their peers from 10 years earlier. (Master's degree recipients were earning less than one percent more, as the earnings of master's degree holders atypically declined between 1995 and 2000.)

The Impact of the Economic Downturn

The growth of earnings noted in Figure 1.II.3 occurred during a period of economic growth. It remains to be seen how earnings of college and university graduates will be affected by current economic circumstances. There is good reason, however, to expect that even if earnings of graduates are adversely affected by the current downturn, they will fare better than those without a post-secondary degree. As noted above, for instance, a review of long-term trends in unemployment shows that while unemployment rates between 1971 and 2005 grew for all workers, they grew faster for those with lower levels of education (Morissette and Hou, 2006). More recently, while overall employment in Canada between October 2008 and April 2009 declined by 1.9 percent, the decline was especially sharp in industries that traditionally employ workers with lower levels of education, such as construction (decline of 8.5 percent), manufacturing (6.5 percent) and natural resources (5.9 percent) (Statistics Canada, 2009b).

Figure 1.II.3 — Median Earnings among Post-Secondary Graduates in Canada, by Level of Study and Year of Graduation, 1995–2005 in Real 2007 Dollars

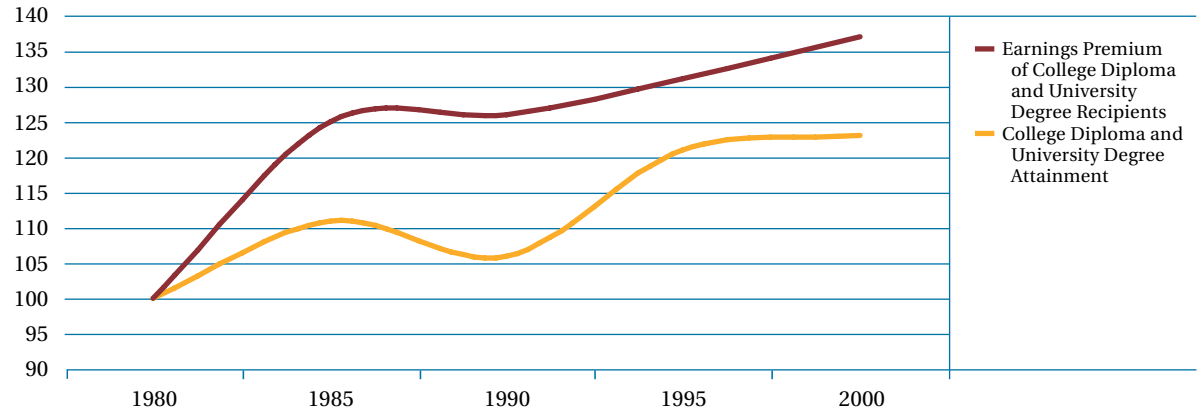


Note: Earnings were measured two years after graduation (1997, 2002, 2007).

Source: Statistics Canada, National Graduates Survey.

Boothby and Drewes (2006), who use census data to analyze nationwide trends in education outcomes since 1980, provide a much more careful examination of this issue. As Figure 1.II.4 demonstrates, the earnings premium associated with a post-secondary education has continued to increase since 1980, despite the simultaneous increase in the proportion of the population with a post-secondary credential. Generally speaking, since 1980, the post-secondary education premium—the gap between the earnings of a post-secondary graduate and a high school graduate—has grown even faster than the rate of educational attainment in Canada.[3] Between 1980 and 2000, college and university degree attainment increased by 23 percent while the post-secondary earnings premium increased by 37 percent. Although higher education is less scarce than it was 25 years ago, it appears to have more relative value.

Figure 1.II.4 — Relative Change in College and University Attainment and in the Earnings Premium of College and University Graduates in Canada, 1980–2000



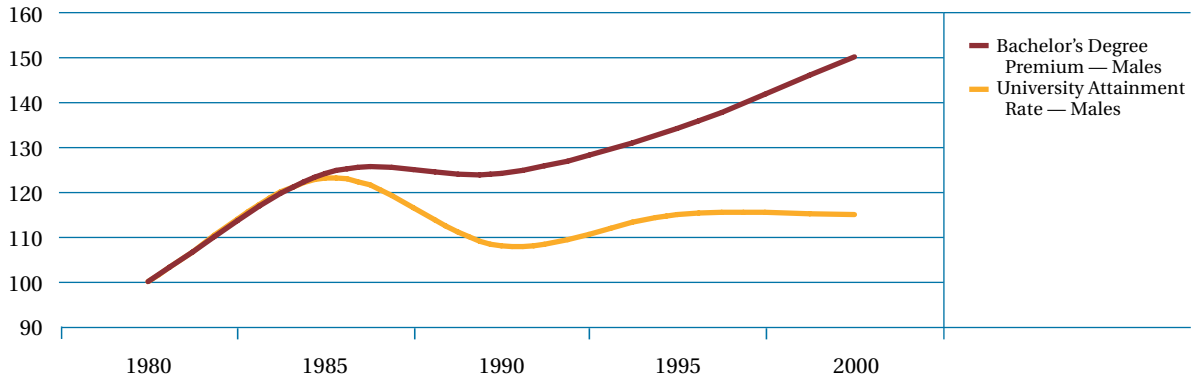
Note: Sample is restricted to high school graduates who have completed either a college program or a bachelor's degree-level programs, but not both.
Source: Census data from Boothby and Drewes, 2006; authors' calculations.

3. It should be noted that while these figures are taken from Boothby and Drewes's paper, those authors do not claim that increases in educational attainment must necessarily produce concomitant increases in the earnings premium. Our argument is simply that those who wonder if the increase in educational attainment has not eroded the relative value of a degree should look more closely at the type of evidence produced by Boothby and Drewes.

While the general trend is positive, certain kinds of post-secondary graduates do better than others. For instance, while the earnings premium associated with an undergraduate degree has increased at a faster rate than university attainment among men, the opposite has occurred among women, as Figures 1.II.5a and 1.II.5b demonstrate. At the college level, while the earnings premium among males nearly doubled between 1980 and 2000, that of women has experienced slower growth which tapered off in the late 1990s (see Figures 1.II.6a and 1.II.6b).

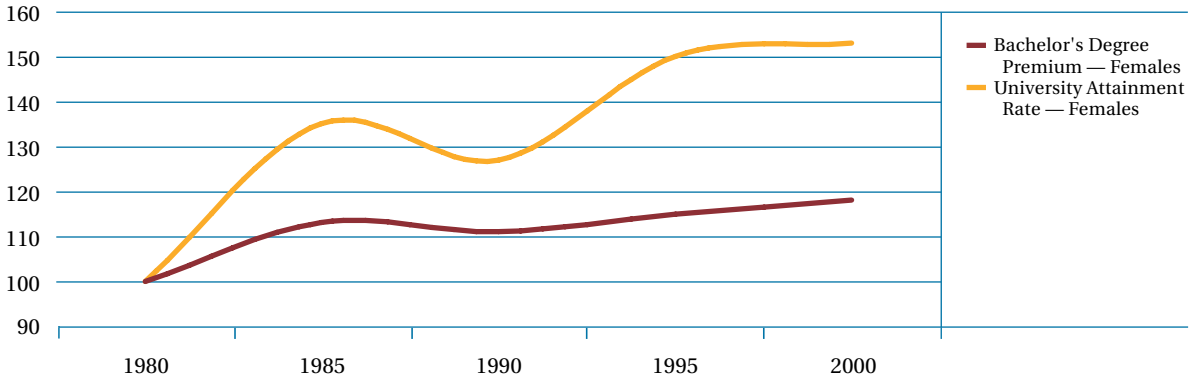
These data prompt three observations. First, the general trend holds across post-secondary level and gender. For instance, although female college graduates do not enjoy the same earnings premium as their male counterparts—perhaps because the kinds of fields men and women typically study are rewarded differently in the labour market—women still benefit from higher education. The second observation concerns what is not shown by these data, namely the socio-economic situation of graduates before they begin their studies. We do not know

Figure 1.II.5a — Relative Change in University Attainment among Males and in the Earnings Premium of Male University Graduates in Canada, 1980–2000



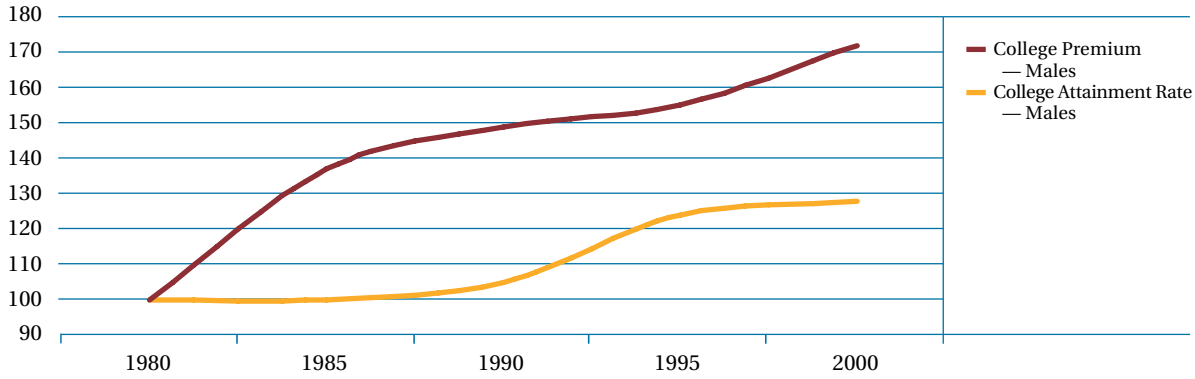
Source: Census data from Boothby and Drewes, 2006; authors' calculations.

Figure 1.II.5b — Relative Change in University Attainment among Females and in the Earnings Premium of Female University Graduates in Canada, 1980–2000



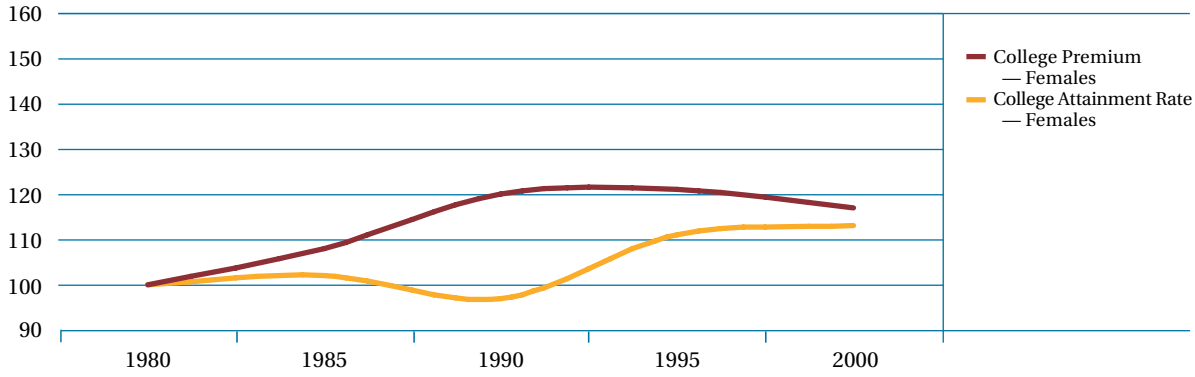
Source: Census data from Boothby and Drewes, 2006; authors' calculations.

Figure 1.II.6a — Relative Change in College Attainment among Males and in the Earnings Premium of Male College Graduates in Canada, 1980–2000



Source: Census data from Boothby and Drewes, 2006; authors' calculations.

Figure 1.II.6b — Relative Change in College Attainment among Females and in the Earnings Premium of Female College Graduates in Canada, 1980–2000



Source: Census data from Boothby and Drewes, 2006; authors' calculations.

how the earnings premium differs between those who come from lower- and higher-income family backgrounds. Third, it is worth keeping in mind that the earnings premium is a two-sided coin: a post-secondary graduate in 2000 is better off than one 20 years earlier, and a high school graduate is worse off. While graduating high school is better than dropping out, a high school diploma is worth less than ever before.

To sum up, the most recent evidence suggests two things:

- The earnings of post-secondary graduates continue to improve.
- The earnings premium associated with a higher education credential when compared with the earnings of a high school graduate also continues to grow.

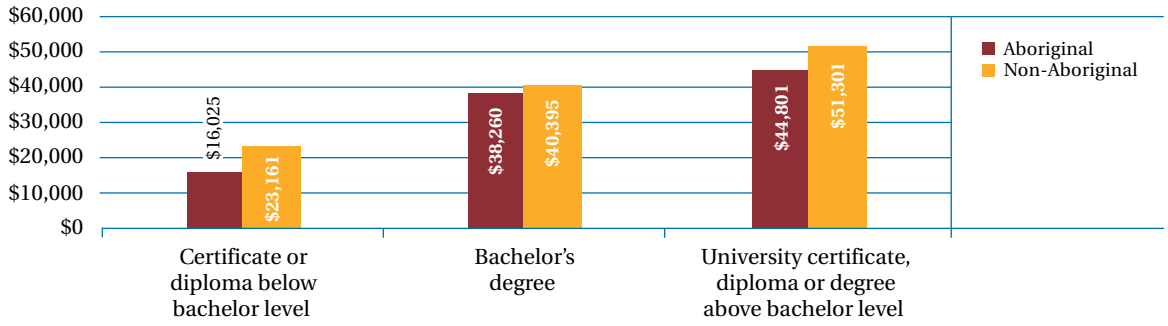
Of course, the picture is incomplete without taking into account the costs of post-secondary education. These are covered in the following section on rates of return.

Post-Secondary Education, Earnings and Aboriginal People in Canada

According to census data from Statistics Canada, Aboriginal post-secondary graduates report earnings that approach those of non-Aboriginal Canadians. As demonstrated in Figure 1.II.7 below, the earnings gap between Aboriginal and non-Aboriginal Canadians is smallest among those who have completed a bachelor's degree. (The pattern is similar to that shown for unemployment rates in Table 1.II.1, above.)

The largest gap exists among those who completed a certificate or diploma below the bachelor's level (Statistics Canada includes those with only a high school diploma or certificate in this group as well); the gap between those with a degree above the bachelor's level, including graduate studies, medicine, law, etc., is also significant. To put it bluntly, the median income of Aboriginal individuals with a certificate is 70 percent that of a non-Aboriginal with the same qualification. In the case of a bachelor's degree, it is 86 percent.

Figure 1.II.7 — Median Income among Aboriginal and Non-Aboriginal Individuals in 2005, by Level of Education



Source: Statistics Canada, 2006 census.

Chapter 1

III. Rates of Return

Higher education has not only become increasingly central to individual and societal wealth and quality of life, it has also become more expensive. Since the 1990s, there has been a significant increase in tuition and the additional costs almost all students face, including ancillary fees, accommodation, books and equipment, food and transit.[4] An understanding of the benefits of a post-secondary degree must take both these trends into account. The rate of return allows for the assessment of the value of education as if it were an investment. It represents the net worth of education once costs are considered, including upfront costs like tuition and books as well as costs such as forgone income. The rate of return acts as a de facto interest rate that is equivalent to the proportion of the total cost returned to the individual as a benefit, in the form of earnings. Expressed as a percentage, the rate of return allows for the comparison of investments in education to financial products.

Canadian researchers have confirmed that the returns to post-secondary education have risen over the past decades:

- According to Emery's survey of the literature in Canada (2005), rates of return increased steadily from the 1960s to the early 1990s, where they peaked at 16 percent (women) and 12 percent (men) before dropping off only slightly.
- Belzil and Hansen (2006) examined rates of return using census data, finding an increase during the 1990s, from 9 percent in 1991 to 11 percent in 2001, although they tend to vary by discipline, gender and region. Notably, the authors demonstrated that the rate of return to post-secondary education increased significantly despite the large tuition increases of the 1990s.
- Similarly, Jorgen Hansen (2007), using census data from 1991, 1996 and 2001, finds that the rate of return increased during the 1990s for most fields of study. Hansen reports increases in the rates of return for females in the humanities, social sciences, business and commerce, agricultural/biological/nutritional/food sciences, health and mathematics/computer/physical sciences. He found no change in educational/recreational/counselling services and engineering and a small decline in the fine and applied arts. Rates of return for males increased in every field except educational/recreational/counselling services (which did not change) and fine and applied arts (which declined).
- Demers (2008) uses 2006 census data to examine the returns to education in Quebec. He finds that the amount of taxes paid increases with educational attainment in the province. Additionally, he identifies a rate of return to individuals who receive a bachelor's degree of 10.6 percent, as well as a public rate of return of 8.5 percent. Demers also describes how unemployment levels decrease with educational attainment.

While much of the literature is focused on the benefits of a university education, there is some evidence that similar trends occur at the college level. As mentioned above, Boothby and Drewes (2006) report that the college earnings premium increased between 1980 and 2000. Ferrer and Riddell (2002) also identify a small earnings premium to non-university post-secondary education (compared to those with a high school education). While college graduates enjoy a more modest earnings premium than university graduates, they still benefit from a substantial rate of return for two reasons. First, college is typically cheaper than university in Canada. Also, college programs tend to be shorter,

4. These figures will be presented in Chapter 4.

reducing the opportunity cost (the forgone income the individual would otherwise earn).

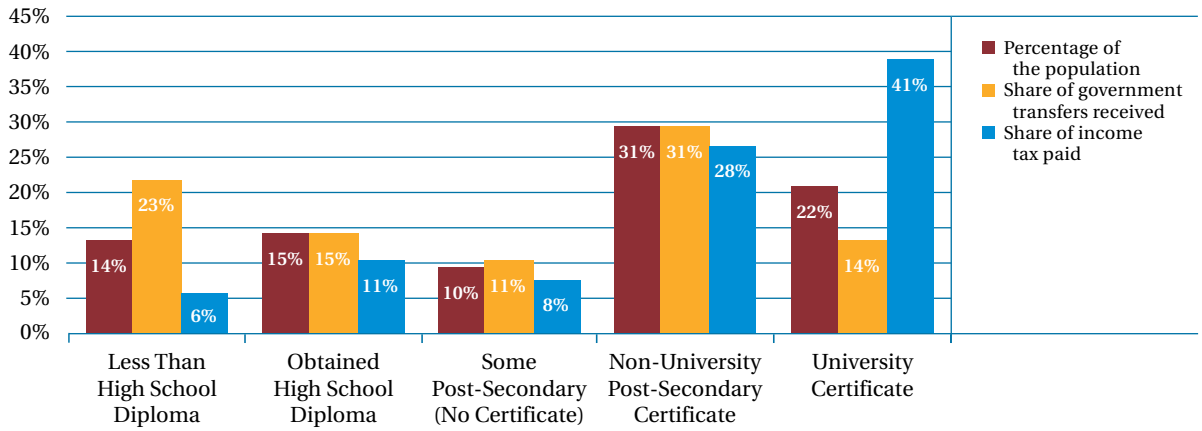
This analysis of the benefits of post-secondary education focusing on the returns to individuals is inevitably incomplete. There are significant societal benefits that underpin the argument for increased educational attainment. As Figure 1.III.1 demonstrates, post-secondary graduates pay the lion's share of taxes in Canada and receive a relatively small portion of government transfers.

Beyond government revenues and expenditure, educational attainment is associated with a number of positive characteristics. Riddell (2006) offers a summary of the four areas that are discussed in the literature on returns to schooling. The first concerns intergenerational effects. Higher levels of parental education are associated with lower levels of teenage pregnancy, child abuse and neglect and reduced crime in children. The second area is health. Riddell points to a pair of studies that find a causal relationship—not mere correlation—between education and health. In particular, there is evidence to suggest that even when controlling for levels of health knowledge, individuals with higher levels of education use that knowledge more efficiently. Studies by Lleras-Muney (2005) and Lleras-Muney and Lichtenberg (2002) reveal strong correlations between levels of education and mortality, as well as the use of more recently approved prescription drugs. Third, evidence from the United States suggests that increasing educational attainment can reduce arrests, incarcerations and self-reported crime. Fourth, higher levels of educational attainment are associated with greater civic participation, particularly voting. As the U.S.-based Institute for Higher Education Policy (1998) has noted, greater levels of post-secondary education within the population lead to increased productivity, consumption and charitable giving.

Of course, by definition, examining earnings premiums and rates of return focuses on the average experience of post-secondary graduates. A recent Statistics Canada project commissioned by the Canada Millennium Scholarship Foundation and the Higher Education Quality Council of Ontario examines the situation of highly educated young Canadian workers with below-average earnings. Specifically, the study examines the characteristics of these graduates and then explores their shifting experience within the labour market.

Compared to other OECD countries, Canada has the highest proportion of post-secondary graduates earning less than half the median income. Among those aged 25 to 64, almost 18 percent of university graduates and 23 percent of college graduates earned less than half the median income ($16,917) in 2006. On the surface, this suggests that the earnings benefits of post-secondary

Figure 1.III.1 — Percentage of the Population and Share of Income Tax Paid and of Government Transfers Received by Level of Education among Canadians Aged 25 to 64 in 2006



Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

education are not as robust as the literature claims. In fact, as the Statistics Canada report explains, few Canadians with a post-secondary education who fully participate in the labour market find themselves with relatively low wages. Among university graduates with very low earnings, 43 percent reported doing something other than working as their main activity for the year in question; 24 per cent reported being self-employed (and therefore had an incentive to report low earnings in the tax files that form the basis for the SLID data) and five percent reported both. On the college side, one-third reported something other than working as their main activity; 27 percent were self-employed; and five percent reported both. Leaving aside those who were self-employed or were not working as their major activity in 2006, only five percent of Canada's university-educated population and eight percent of its college-educated population earned less than half the median. The Statistics Canada report explains how this phenomenon is more common among women and among those who studied arts and communications technologies or parks, recreation and fitness. Furthermore, post-secondary-educated individuals in Newfoundland and Labrador, Prince Edward Island and New Brunswick were more likely than those in other provinces to earn less than half the national median.

In short, though a small minority of Canadians who have completed university or college studies earn relatively low wages, their situation is more easily explained by the nature of their participation in the labour market and by the regional variations in the Canadian economy than by the outcomes of their post-secondary studies. For the vast majority of Canadians, higher education pays.

Myth: More Access Erodes Quality

Not everyone agrees that both the number and the value of post-secondary degrees can grow at the same time. Most famously in recent years, James Côté and Anton Allahar (2007) have argued that we have pushed too many unmotivated and unprepared young people to continue their studies and that, in response, universities have had to adapt by lowering their standards. The result is not simply more degrees but more degrees than necessary and so ultimately degrees whose real value is questionable. As they explain, "over-educated taxi drivers are commonplace... [T]he production of university degrees has outstripped the need for them in the workplace...[W]e have produced more than the demand required, and these credentials are now worth less" (Côté and Allahar, 2007, 152–53).

There are a number of problems with this argument, not least of which is the fact that the decline in standards that they lament has taken place at a time when the proportion and the socio-economic mix of the youth population enrolling in university have both remained essentially unchanged (these data will be presented in Chapter 2). While Côté and Allahar worry about the "bulk of the population" being pushed toward university, the university degree attainment rate among 25- to 34-year-olds in Canada is 23 percent. Quality may be eroding at some Canadian universities, but it is not because they have suddenly become open-access institutions.

The real problem with Côté and Allahar's approach, however, is their policy prescription: having concluded that too many unqualified students are attending university, their solution is to lower young people's aspirations (Côté and Allahar, 2007, 181). If more students could be streamed away from the country's universities and directly into the labour market or trades training, then universities could expect more from the remaining students and the real value of the resulting degrees could rise again. In other words, their solution is to ration the opportunity to benefit from higher education to those who finish high school at or near the top of their class.

This is based on both a limited appreciation of human potential and a restricted appreciation of

Myth: More Access Erodes Quality *(continued)*

what post-secondary educators should be striving to accomplish. To illustrate, consider first the contrasting vision of how we should approach the question put forward by Ben Levin in his recent report to the Government of Manitoba. Levin argues:

> "One of the real barriers to improvement is the perceived limits to people's ability. There remains a widely stated view that too many students may already be taking part in post-secondary education. We hear frequent statements from various places, including in the mass media, that too many students are not capable, that they do not have the necessary skills, and that standards are therefore falling. Many people believe that postsecondary education should remain a somewhat elite activity.
>
> The Commission unconditionally rejects that proposition because there is such compelling evidence that it is a wrong view, contradicted by everything we know. The stance in this report is that research and experience both tell us that people are capable of more than we think; that whenever we stretch our sense of what people can do, many will rise to the new level...
>
> In short, history tells us that we have underestimated how many people can reach high levels of education" (Levin, 2009, 4).

The second weakness is that the authors assume that the only response that post-secondary institutions and teaching faculty can have in the face of the challenge posed by students who, perhaps for reasons relating to their family background, are initially less prepared for the rigours of the university curriculum is to throw up their hands in despair and lower their standards. This, of course, is far from the case. Many post-secondary institutions in Canada, the United States, Europe and beyond are developing programs designed to help students of different types—including students who are initially academically weaker—succeed in their studies. Two such programs in Canada—the Foundations for Success pilot project at three Ontario colleges and the LE,NONET pilot project for Aboriginal students at the University of Victoria—are currently the subject of research evaluations (University of Victoria, 2008; Malatest, 2009a, b and c). These are but two examples, but they are sufficient to show that waxing nostalgic for an era when students were more engaged is not the only response available to post-secondary educators.

Perhaps the idea that widening access necessarily erodes quality within post-secondary institutions is not so much a myth as a self-fulfilling prophecy. If educators assume that no other outcome is possible, they will not take the steps necessary to ensure that students from all backgrounds have the opportunity to succeed in their studies. There is no reason why access and excellence cannot be managed as two sides of the same coin so that our efforts to promote excellence lead us to open up higher education to students from a wider range of backgrounds, and our policies to promote access include measures designed to promote academic achievement. This is a theme we will return to in subsequent chapters.

An International Perspective

International comparisons demonstrate that the rates of return to higher education are positive across a variety of countries. Boarini and Strauss (2007) report that the returns to an additional year of average post-secondary education in 21 countries range from four percent to 15 percent.

According to the OECD's latest report (2008), the rate of return to post-secondary education in Canada is slightly below the OECD average. The private rate of return (i.e., the return to the individual) in 2004 was 9.4 percent for males and 9.1 percent for females, below the OECD averages of 12.2 percent and 11.4 percent, respectively. The OECD also examined public rates of return (i.e., returns to society), finding that Canada had below-average results, at 7.9 percent for males and 7.3 percent for females (the respective OECD averages were 11.1 percent and 9.1 percent).

The fact that the rates of return in Canada are lower than average do not, however, take away from the conclusion that post-secondary education remains a worthwhile investment both for individual Canadians and for the country.

Other Economic Indicators

Not surprisingly, the advantages that post-secondary graduates have in terms of employment and income translate into advantages in other areas. For instance:

- While the median wealth of families in Canada rose between 1984 and 2005, the wealth of families headed by a university graduate rose twice as much as that of families headed by someone without a university degree (Morissette and Zhang, 2006, 9).
- The poverty rate—or percentage of families with low income—is twice as high for families headed by someone without a university degree as it is for those headed by a university graduate (Morissette and Zhang, 2006, 11).
- The proportion of families in 2005 with no private savings for retirement is more than twice as high for families headed by someone who did not finish high school as it is for those headed by a university graduate (35 percent compared with 15 percent) (Statistics Canada, 2006a, 23).

IV. Conclusion

Higher education is a positive-sum game. The benefits of post-secondary studies that accrue to individuals who undertake them have been growing in recent decades. Although a post-secondary credential is currently less scarce in Canada than at any time in its history, individual degree- and diploma-holders are financially better off now relative to non-graduates than they were 25 years ago. As we mentioned at the outset, this is just one more reason why access to post-secondary education matters. Access is one of the most important ways in which individuals can improve their circumstances and ensure a high quality of life for themselves, their families and their communities.

The question that remains to be examined, then, is how well Canada has been doing in widening participation in higher education. It is to this question that we will turn next.

2 Participation in Post-Secondary Education: Recent Trends

Joseph Berger

Chapter 2

I. Introduction

Canada has the highest level of educational attainment among OECD countries. A majority of Canadian youth report attending some form of higher education by age 24, whether it be a university, college or apprenticeship program. This fact should be celebrated, but it should not deflect us from examining the question of participation in post-secondary education more closely.

Post-secondary participation rates have been falling, not rising, in recent years. At the same time, the gap in the participation rates between wealthier and poorer Canadians has not narrowed. The task of ensuring that Canada is well positioned, in terms of the development of its human capital, to meet the economic and social challenges of the 21st century is far from complete.

Nationally, post-secondary participation peaked in 1997 when 71 percent of the 18- to 24-year-old population either was enrolled or had graduated. The rate has declined fairly steadily ever since, reaching a low of 57 percent in 2006. This drop in participation has been masked, however, by an increase in enrolment driven by demographics: as the size of the youth population has grown, enrolment numbers have increased even though the proportion of youth opting for post-secondary studies has declined. The size of the youth population, however, will also soon begin to fall.

Equally concerning is the fact that the country has made little progress on narrowing the access gaps that affect young people from different backgrounds. Wealthier Canadians are twice as likely to go to university as poorer ones—this was true 15 years ago, and it is no less true today. Other gaps, such as those separating the educational outcomes of Aboriginal and non-Aboriginal Canadians, have remained stubbornly persistent. As a result, youth from low-income families, children of parents with little or no post-secondary education and Aboriginal peoples remain considerably underrepresented in higher education.

Developing appropriate policy responses to these trends compels us to get the facts straight. Accordingly, in this chapter we will present the most recent figures available regarding participation in post-secondary education in Canada. Along the way, we will also challenge a number of myths that often arise in discussions of this subject. These myths (some of which we have already mentioned) include the following:

- Recent increases in the number of students enrolled in college or university is evidence that post-secondary participation is rising every year. According to the evidence presented here, participation rates have been falling.
- Participation in post-secondary education—particularly university—is gradually becoming more equitable with the passage of time. In fact, access gaps have not been narrowing.
- Canada leads the OECD in educational attainment. This is true, but it is primarily due to Canada's relatively large college sector. Canada's college attainment rate is highest, but its university attainment rate is closer to the middle of the pack. Meanwhile, the educational attainment of many of Canada's OECD peers is growing at a quicker pace.
- The typical student moves directly from high school into college or university and on to the labour market armed with a diploma or degree. In fact, this "typical" educational pathway is only a reality for about one-third of Canadian youth.
- The correlation (or the lack of correlation) between tuition fee levels and enrolment rates in Canada is easy to observe. As we will demonstrate, assertions about the link between tuition and enrolment are often based on an inaccurate or incomplete reading of the data.

Our purpose in challenging these myths is not to call Canada's good performance in education into question. Rather, it is first to insist that good policy stems from good information and second to demonstrate that progress in important areas, such as making participation more equitable, still needs to be made. Furthermore, past performance is no guarantee of future success. As we will discuss in more detail below, data from recent years suggest that the post-secondary enrolment boom that we have experienced since the beginning of this decade may be tapering off. Future enrolment increases, therefore, will depend more and more on the success of policy initiatives designed to improve the access and success of traditionally underrepresented students, including low-income youth, first-generation learners and Aboriginal people.

Chapter 2

II. Measuring Post-Secondary Participation in Canada

Proper assessments of post-secondary public policy are predicated upon an accurate portrait of the student population: How many individuals actually attend a post-secondary institution? What proportion of the population is enrolled in higher education? What is the composition of the post-secondary population? Policy discussions would be much easier if there were simple answers to all these questions. Unfortunately, there are several ways to measure post-secondary participation.

Enrolment offers the simplest measure: enrolment represents a count of the number of individuals attending a university, community college, private career college or institute. That enrolment is a fairly straightforward measure does not necessarily make it an easy one to obtain, particularly in a timely fashion. The most reliable data on post-secondary enrolment come from Statistics Canada's Postsecondary Student Information System (PSIS), a survey of post-secondary institutions. Unfortunately, published enrolment figures are often a couple of years out of date. The latest university data come from the 2006–07 academic year, and the two most recent years exclude data from the University of Regina. Until spring 2009, college data were only available until 1999–2000. The latest release includes data up to the 2005–06 academic year.

Attainment measures the proportion of the population that has obtained a post-secondary credential. Attainment rates can be provided for the population as a whole or for different age groups—the latter gives a sense of increases in participation over time. Unfortunately, there is a lack of longitudinal socio-economic data in Canada that can be tapped to determine the extent to which educational attainment varies by parental income. Attainment figures are often used to measure how Canada performs within a global context.

Lastly, the *participation* rate represents the proportion of the population that is currently enrolled in or has already completed post-secondary education. Typically, it is expressed as the proportion of the youth population (often those aged 18 to 24) that reported being a student at the moment they were surveyed (or had already completed a post-secondary education). Given that enrolment in post-secondary education changes in part on the basis of the size of the typical post-secondary age population, participation rates provide a valuable measure, controlling for population growth (or decline). Participation rates are also often measured among those with certain socio-economic characteristics. Below, we compare the rate of participation in different forms of post-secondary education among individuals from families with different income levels and among those whose parents have different levels of education themselves. Participation rates, therefore, are a key measure of both overall access and equitable access to post-secondary studies.

Using the PSIS enrolment figures and census population estimates, it is possible to determine the proportion of the total Canadian population enrolled in post-secondary education, although enrolment data on specific subgroups (those in a particular age category) are not as easily available. Other data sources, including the Youth in Transition Survey (YITS) and the Survey of Labour and Income Dynamics (SLID), provide a reliable portrait of the youth population that is enrolled in post-secondary education. That said, participation rates are rarely calculated the same way twice. Some surveys will cover the proportion of the population enrolled in higher education at the moment the survey is being conducted (or at a specific reference point identified by the interviewer). Others will consider anyone who has ever participated in post-secondary education (even if they were not doing so at the time of the interview).

Chapter 2

III. Enrolment

In 2005, the most recent year for which complete figures are available, there were about 1.66 million students in public post-secondary institutions in Canada. This figure includes approximately 613,000 college students and 1.04 million university students. Of these, roughly 1.25 million were full time students. Seventy-five percent of all university and college students were enrolled full time in 2005.

Undergraduates have consistently made up approximately 80 percent of all university students since 1992; in 2006–2007, there were 803,000 undergraduate university students. Undergraduates are more likely than graduates to study full time (77 percent vs. 70 percent in 2005), although the proportion studying full time has increased steadily among both groups since the early 1990s.

In addition to these 1.66 million students, there are also an estimated 156,000 students enrolled in private career colleges (excluding those enrolled in language training programs and distance education). This represents about nine percent of the total post-secondary population.

Canada's Private Career College Students

Until recently, little was known about students who enrol in private career colleges. As a result of the *Survey of Canadian Career College Students*, however, new information is now available (Malatest, 2008).

Career college students are overwhelmingly female (72 percent) and are typically older and more likely to have children than public college students. One-quarter are immigrants to Canada. Students at career colleges report low levels of household income, with four in ten reporting less than $20,000 annually.

Sixty percent of career college students took a break between high school and post-secondary education. Among them, 62 percent reported career indecision or a lack of interest as a reason for the delay; 27 percent cited financial barriers, while 20 percent cited personal or family issues.

One-third of career college students are interested in post-secondary education as a means to a career or job, while one-quarter cite general interest or personal development. Career college students generally fit into one of a number of categories: older workers seeking retraining; younger students seeking programs not available elsewhere; individuals seeking very short-term, skills-oriented education; individuals considering career college as a springboard to public college or university studies; and immigrants seeking new skills acquisition since their education or credentials are not recognized in Canada.

The vast majority of students reported that the college where they were studying was their first choice (72 percent). Another eight percent identified a different career college, while 12 percent reported preferring to study at a public college. Only eight percent reported a preference for a university program.

In short, career colleges tend to serve students with a different profile and personal history than those enrolled in public colleges or universities. Students opt for career colleges not as a second choice after having failed to gain access to a public institution, but because these colleges provide

Canada's Private Career College Students *(continued)*

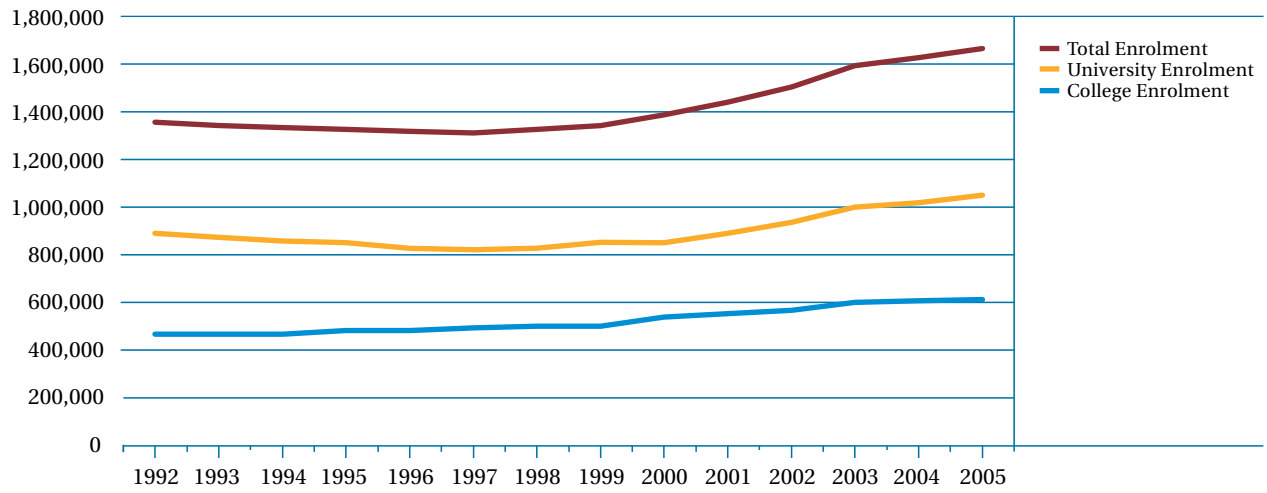
an opportunity for them to acquire job-related training through comparatively short courses which, while costly (average annual tuition is $14,364), can be completed without having to leave work for two or more years.

Data regarding the outcomes of career college students are available from the report on the follow-up *Survey of Canadian Career College Students, Phase III: Graduate Survey* (Malatest, 2009d).

Total enrolment in the country's universities and public colleges declined slightly in the mid-1990s but has grown in this decade, driven by significant increases in university enrolment.

- As Figure 2.III.1 demonstrates, university enrolment declined during the 1990s, returned to 1992 levels around 2001 and has increased by 18 percent since then, to more than one million students in 2005.
- On the college side, enrolment has increased slowly but steadily since the early 1990s. In 2005 there were more than 600,000 Canadian college students, 30 percent more than in 1992.
- In total, post-secondary enrolment has grown by 24 percent since 1999, to nearly 1.7 million students.

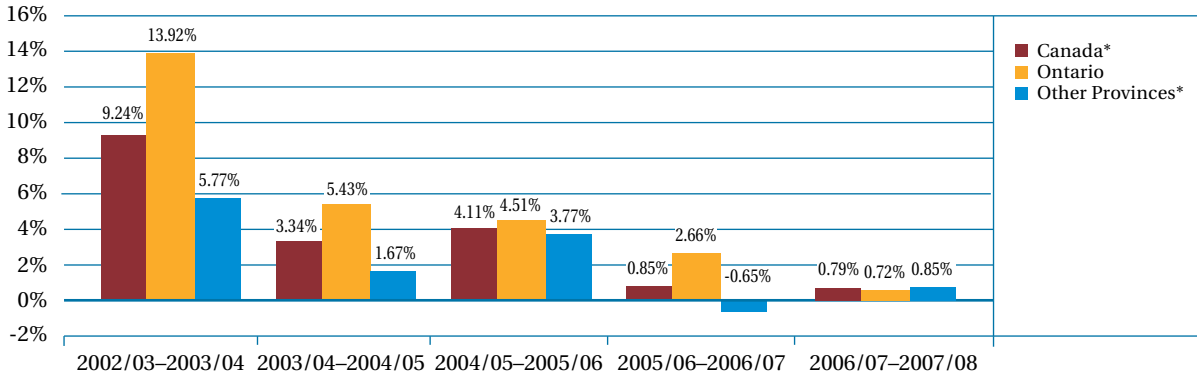
Figure 2.III.1 — University and College Enrolment in Canada, 1992 to 2005



Source: Statistics Canada, PSIS.

In the most recent period, however, enrolment growth has slowed. Since 2005–06, university enrolment has risen by less than one percent per year. Enrolment declined in the Atlantic provinces and increased by less than half a percentage point in Quebec. In fact, only Ontario has seen steady and significant growth in university enrolment over the last several years: in all provinces other than Ontario[1] taken together, enrolment actually fell between 2005–06 and 2006–07 (see Figure 2.III.2). Even in Ontario, undergraduate enrolment declined by 0.2 percent between 2006–07 and 2007–08, although graduate enrolment increased by 11.5 percent (similarly, at the national level, undergraduate enrolment fell by 0.1 percent between 2006-07 and 2007-08 while graduate enrolment grew by five percent). College enrolment figures from these same years have not yet been made available. College enrolment, however, did experience its first decline in 12 years between 2004–05 and 2005–06, the most recent years for which figures are available.

Figure 2.III.2 — Percentage Change in Full-Time University Enrolment



* Excluding Saskatchewan.

Source: Statistics Canada; author's calculations.

Regional Trends in Enrolment

Changes in enrolment in Canada's post-secondary institutions are rarely distributed evenly across the country. For instance, while university enrolment in Canada increased by 20 percent (full-time enrolment increased by 25 percent) between 2001–02 and 2007–08, this was driven largely by above average increases in B.C. and Ontario, where enrolment increased by 34 percent. Similarly, while enrolment in Canada increased by 0.6 percent between 2006–07 and 2007–08, enrolment actually decreased in a number of provinces. Enrolment has also declined considerably in the Atlantic region, with the exception of P.E.I. In New Brunswick, Nova Scotia and Newfoundland and Labrador, enrolment has declined by six percent since peaking in 2003–04. Only Ontario and B.C. posted above-average enrolment increases between 2006–07 and 2007–08, each growing by 1.1 percent.

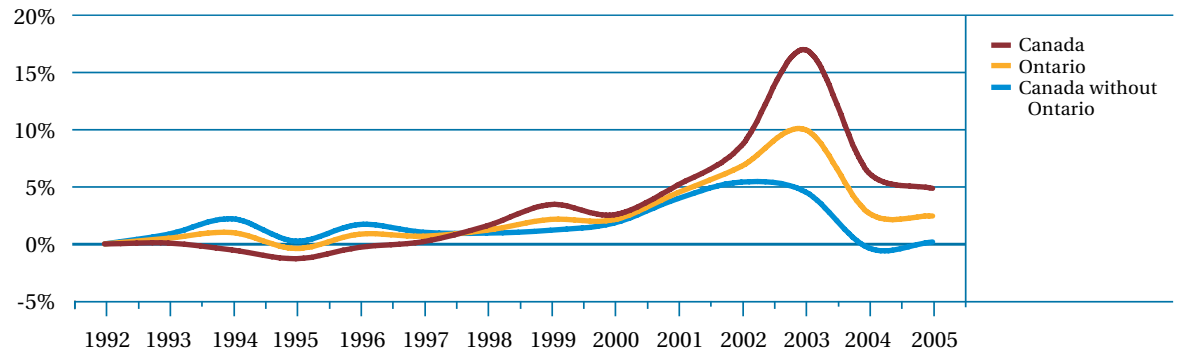
At the college level, enrolment has increased since 1992 in some regions, while remaining fairly constant in others. In the Atlantic, the expansion of the college systems in New Brunswick and Nova Scotia coincided with a tripling of enrolment between 1992–93 and 2005–06. That said, the

1. Excluding Saskatchewan, for which complete figures are not available.

Regional Trends in Enrolment *(continued)*

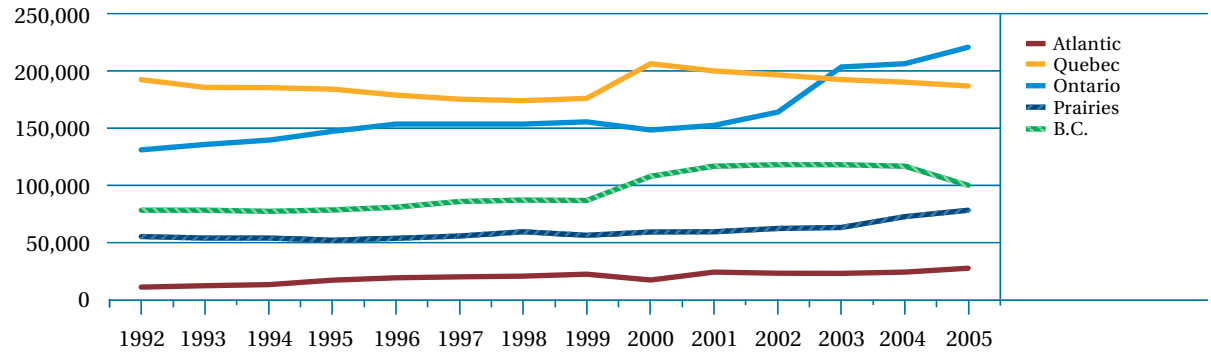
college sector remains relatively small in the region. The 28,293 Atlantic college students represented slightly more than one-fifth of the region's total student population in 2005–06. In the Prairie provinces of Manitoba, Saskatchewan and Alberta, college enrolment has increased by 23,000 students since 1992–93, or 42 percent. In Ontario, it has increased by 68 percent, growing from 130,000 students in the early 1990s to 219,000 in 2005–06. While college enrolment grew by 28 percent in B.C. since the early 1990s, it did not change much in Quebec.

Figure 2.III.3 — Annual Change in Undergraduate University Enrolment among 18- to 24-Year-Olds in Canada, Ontario and Canada Outside Ontario, 1992–2005



Source: Statistics Canada, PSIS, Population Projections, CANSIM Table 051-0001.

Figure 2.III.4 — College Enrolment in Canada, by Region, 1992–93 to 2005–06



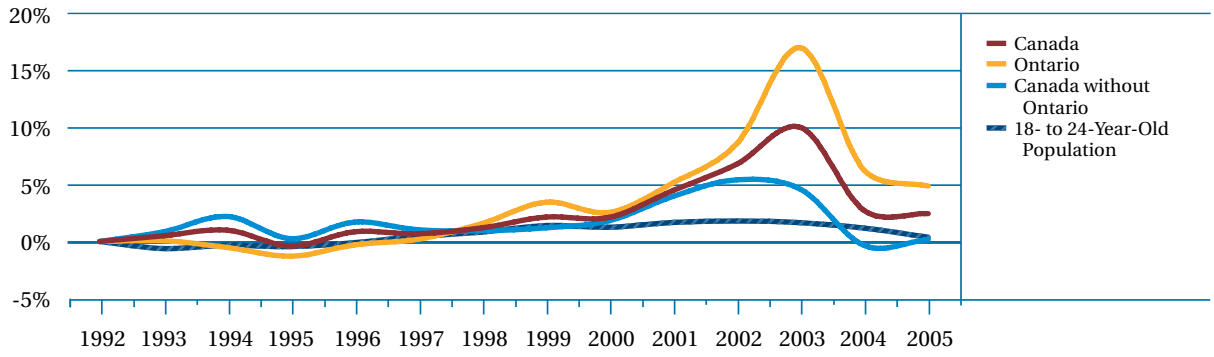
Source: Statistics Canada, PSIS, CANSIM Table 051-0001.

As we discussed in the previous edition of *The Price of Knowledge*, the ups and downs in enrolment tend to follow similar trends in the size of Canada's young adult population. The increase in post-secondary enrolment since 2000 is due in part to the effect of the "echo boom," the children of the baby boomers. The pool of traditional-age post-secondary students has increased significantly in recent years, leading to increased enrolment. As Figure 2.III.5 demonstrates, the size of the 18- to 24-year-old population has increased every year since 1996, although the rate of growth has tapered off in recent years.

This is not to say that all enrolment changes are due to demographic changes—far from it. For instance, the spike in Ontario around 2003 coincided with the "double cohort"; the province eliminated Grade 13, meaning students in both Grade 12 and 13 graduated at the same time. Between 2002 and 2003, full-time university enrolment in Ontario grew by 11 percent (Figure 2.III.5). As we will discuss below, underlying economic conditions also play an important role in determining whether and how people choose to pursue studies rather than enter the labour market. Also important is the growth in the number of students studying at the graduate level.

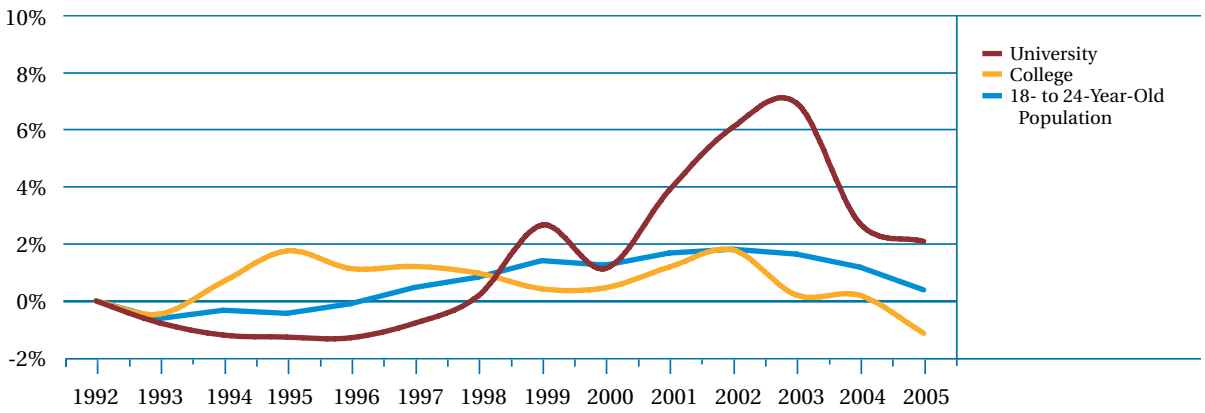
The link between enrolment and population growth is nonetheless important to acknowledge for two related reasons. First, it serves to underline the point that increases in enrolment do not necessarily reflect proportionate increases in the rate at which young people opt for post-secondary education. Second, it serves to focus our attention on the potential implications of the decline in the size of the youth cohort that will occur in Canada in the coming years. As we noted in the previous edition of *The Price of Knowledge*, by 2021 there will be 285,000 fewer Canadians between the ages of 18 and 24. If enrolment growth since 1999 is in part the result of a baby-boom echo, then it stands to reason that the pending post-echo bust will dampen enrolment figures in the years to come unless the rate of post-secondary participation increases. We will discuss the question of participation rates later in this chapter.

Figure 2.III.5 — Annual Change in Undergraduate University Enrolment among 18- to 24-Year-Olds in Canada, Ontario and Canada Outside Ontario, and Annual Change in the Population of 18- to 24-Year-Olds in Canada, 1992–2005



Source: Statistics Canada, PSIS, Population Projections, CANSIM Table 051-0001.

Figure 2.III.6 — Annual Change in University and College Enrolment and the 18- to 24-Year-Old Population, 1992–2005



Source: Statistics Canada, PSIS; Population Data.

Chapter 2

IV. Attainment

The next measure we consider is *attainment*, by which we mean the proportion of the population that has completed a course of post-secondary study.

In Canada in 2006, 61 percent of the working-age population (individuals aged 25 to 64) had completed some form of post-secondary education. A little less than half of them (28 percent) had completed a university program, while about one-third (20 percent) had studied at a college and one-fifth (12 percent) had completed a trade certificate.[2]

Due to a change in the wording of the census questions on education,[3] comparisons to previous census years cannot be reliably made. However, it is possible to measure the attainment rate of individuals of different ages. The fact that attainment is higher for younger age cohorts reflects the tendency of a greater proportion of young people to enrol in college or university today than ten, 20 or 30 years ago. Individuals aged 25 to 34 thus have the highest post-secondary attainment rate, 67 percent, while those aged 35 to 44 followed at 65 percent. The cohort gap between those aged 35 to 44 and those aged 45 to 54 is considerably larger than the gap between the two youngest cohorts, however. This suggests that the greatest jump in post-secondary participation took place in the late 1970s and early 1980s. Those between the ages of 45 and 54 had an attainment rate of 57 percent, while those aged 55 to 64 had the lowest rate, 53 percent.

While college and university attainment rates were highest among the youngest cohort, the proportion of 25- to 34-year-olds with a trade certificate was lowest, at ten percent (13 percent of all other age groups reported a trade certificate).

As Table 2.IV.1 demonstrates, educational attainment varies considerably from province to province, both in terms of the proportion of individuals with a post-secondary education and the type of education. Atlantic Canadians are more likely than the average Canadian to have high school or less or college-level studies. Quebecers are more likely to have pursued college studies, while Ontarians have above-average university attainment. The Prairie provinces of Manitoba and Saskatchewan report below-average levels of post-secondary education, while educational attainment in Alberta and B.C. is close to the national average. While college attainment is above average in the three territories, university attainment is 25 percent lower, and the proportion with a high school degree or lower is well above average.

The latest data from the Youth in Transition Survey (Shaienks and Gluszynski, 2009) provide a snapshot of educational attainment among individuals aged 26 to 28 in 2008. The data reveal that 64 percent of youth had completed some form of post-secondary education: 24 percent had earned a Bachelor's level degree, 24 percent had earned a college diploma, 10 percent had earned another post-secondary credential and six percent had completed a university graduate degree. Twenty-eight percent of youth had completed no more than a high school diploma, while eight percent had not finished high school.[4]

The numbers derived from the YITS data are similar to census figures, as demonstrated in Table 2.IV.2.

2. Statistics Canada classifies individuals according to the "highest level of education," such that university is higher than college, which is higher than trade/certificate, which is higher than high school.

3. In particular, these changes include different ways of capturing non-university post-secondary certification than in previous censuses. For more information, see www12.statcan.gc.ca/english/census06/analysis/education/changes.cfm.

4. Four percent of the total sample were enrolled in post-secondary education but had not yet completed a course of study. They are considered in this attainment portrait to be high school graduates. Similarly, 11 percent of youth had pursued and then abandoned post-secondary education and are considered here as high school graduates. Another 11 percent had completed one post-secondary credential but were enrolled in another post-secondary program, and are considered to have attained post-secondary education.

Table 2.IV.1 — Educational Attainment in 2006, Age 25–64, by Province

	No PSE			Non-University PSE			University		
	No certificate, diploma or degree	High school certificate or equivalent	Total	Apprenticeship/ trades certificate or diploma	College/ CEGEP	Total	University below the bachelor's level	University—Bachelor's level or above	Total
Canada	15%	24%	**39%**	12%	20%	**32%**	5%	23%	**28%**
NL	26%	20%	46%	15%	22%	37%	4%	14%	18%
PE	19%	24%	43%	12%	24%	36%	4%	18%	22%
NS	19%	21%	40%	14%	22%	36%	4%	20%	24%
NB	21%	26%	47%	12%	21%	33%	4%	16%	20%
Atlantic	21%	23%	**44%**	13%	22%	**36%**	4%	17%	**21%**
QC	17%	21%	38%	18%	18%	36%	5%	21%	26%
ON	14%	25%	39%	9%	22%	31%	5%	26%	31%
Central	16%	23%	**39%**	14%	20%	**34%**	5%	24%	**29%**
MB	20%	25%	45%	11%	19%	30%	5%	19%	24%
SK	19%	27%	46%	14%	18%	32%	5%	17%	22%
AB	15%	24%	39%	12%	22%	34%	5%	22%	27%
Prairies	18%	25%	**43%**	12%	20%	**32%**	5%	19%	**24%**
BC	12%	26%	**38%**	12%	20%	**32%**	6%	24%	**30%**
YT	15%	21%	36%	13%	24%	37%	4%	22%	26%
NT	23%	19%	42%	12%	24%	36%	3%	20%	23%
NU	46%	10%	56%	9%	19%	28%	2%	13%	15%
North	28%	17%	**45%**	11%	22%	**34%**	3%	18%	**21%**

Source: Statistics Canada, 2006 Census of Population.

Table 2.IV.2 — Highest Level of Education Attained among 25- to 34-Year-Olds in 2006 and 26- to 28-Year-Olds in 2008

	25- to 34-Year-Olds in 2006 (Census)	26- to 28-Year-Olds in 2008 (YITS)
Less than high school	11%	8%
High school diploma	23%	28%
Post-secondary Qualification	67%	64%
Other post-secondary/University certificate or diploma below bachelor level	15%	10%
College diploma	23%	24%
University degree or higher	29%	30%

Source: Statistics Canada, 2008b; Shaienks and Gluszynski, 2009.

Myth?: Canada's High Educational Attainment

Canada has the highest level of educational attainment among OECD countries (see Table 2.IV.3). In 2006, 47 percent of Canadians between the ages of 25 and 64 had completed some form of post-secondary education.[5] Younger Canadians have higher attainment rates than older Canadians. The attainment rate of Canadian youth between the ages of 25 and 34, at 55 percent, is 18 percentage points higher than that of Canadians aged 55 to 64.

Among Canadians who have completed post-secondary education, half completed studies at the college or trade vocational level (referred to by the OECD as "tertiary-type-B education") and half studied at the university level ("tertiary-type-A" or "advanced research programs"). On the college side, Canada has the highest level of attainment, at 23 percent, followed by Belgium and Japan (18 percent), Finland (16 percent) and New Zealand (15 percent). On the university side, Canada is closer to the middle of the pack. The U.S., with 39 percent of its population having completed university education, leads the OECD, followed by Norway (31 percent), the Netherlands (28 percent), Denmark (27 percent), Iceland (26 percent) and, tied for sixth place, Australia and Canada (24 percent) (OECD, 2008).

Some observers have suggested that Canada's level of educational attainment relative to its OECD peers may be overstated, primarily because of the difficulty of comparing tertiary-type-B educational systems (programs that offer practical, technical and occupational skills) across countries. Some countries, like Germany, concentrate vocational education at the upper secondary level, meaning that graduates may have acquired the same rough level of skills as Canadian college graduates without earning a post-secondary credential.

For these reasons, comparing Canada with other countries is not as straightforward as we might wish. What is clear, however, is that Canada is unique in that it has a network of CEGEPs and community colleges that offer skilled trades and vocational education and that this network is responsible for the country's top ranking within the OECD. This does not mean that Canada is not doing as well as we think we are in educational attainment, or that its top ranking is a "myth." Rather, Canada's level of educational attainment represents the unique nature of its post-secondary education system, one that offers a wide range of options from work-based apprenticeship to university-housed advanced research.

As discussed in a previous section, just as the nature of Canadian higher education is diverse, so are the outcomes. The returns to study at the post-secondary level vary considerably. And while individuals who complete a university education report the highest earnings premium relative to high school graduates, community college graduates still earn significantly more money than those who do not pursue education beyond the high school level. Some argue, however, that international comparisons do not stand up to close scrutiny and that, as a result, Canada may be too complacent about its level of educational attainment. As the Association of Universities and Colleges of Canada put it, "According to the OECD, Canada has about three times more post-secondary non-university graduates than is typical for other OECD countries. The OECD also reports that Canada has four times more trade and vocational graduates—12 percent in Canada versus an average of three percent for the small number of countries that report on this dimension. The scale of these differences raises serious concerns regarding the comparability of post-secondary attainment rates" (AUCC, 2007, 22).

5. As reported earlier, data from the 2006 census reveal that a higher proportion of Canadians have completed some form of post-secondary education. The difference between the census figure (61 percent) and the OECD figure (47 percent) represents the proportion of Canadians whose highest reported level of education in 2006 was an apprenticeship/trades certificate or diploma, which is excluded from the OECD type-A and type-B tertiary education classification.

Table 2.IV.3 — Educational Attainment in Select OECD Countries in 2006, by Age Group

	Tertiary-Type-B Education					Tertiary-Type-A and Advanced Research Programs					Total Tertiary Education				
Age Group	25 to 64	25 to 34	35 to 44	45 to 54	55 to 64	25 to 64	25 to 34	35 to 44	45 to 54	55 to 64	25 to 64	25 to 34	35 to 44	45 to 54	55 to 64
Canada	23%	26%	25%	22%	18%	24%	29%	26%	21%	19%	47%	55%	51%	43%	37%
United States	10%	9%	10%	10%	9%	30%	30%	31%	29%	29%	39%	39%	41%	40%	38%
OECD Average	9%	10%	9%	8%	6%	19%	25%	20%	17%	14%	27%	33%	28%	24%	19%

Source: OECD, *Education at a Glance 2008*.

Chapter 2

V. Participation

The Survey of Labour and Income Dynamics (SLID) can be used to offer a snapshot of post-secondary participation in Canada. According to custom tabulations conducted for this report using the SLID, 57 percent of Canadians aged 18 to 24 were enrolled in or had completed some form of post-secondary education in 2006:

- 28 percent were enrolled in or had completed university studies (including some who had also studied at the college level)
- 28 percent were enrolled in or had completed community college/CEGEP/trade studies.

The Youth in Transition Survey (YITS) offers a somewhat different look at participation in post-secondary education, by tracking two cohorts of young people over the course of six years. Analysis of the YITS by Shaienks and Gluszynski (2009) reveals that, by the age of 26 to 28, 81 percent of respondents had attended post-secondary education:

- 42 percent had attended a university (including some who had also studied at the college level)
- 43 percent had studied at a community college/CEGEP
- 29 percent had enrolled in another form of post-secondary education.[6]

Among the 81 percent of youth who had enrolled in some form of post-secondary education, not all had graduated by age 26 to 28:

- 68 percent had graduated
- 13 percent had graduated and were enrolled in a different post-secondary program
- 5 percent had not graduated but were still enrolled in post-secondary studies
- 14 percent had dropped out.

The post-secondary attainment rate—the proportion of the YITS-B sample that had completed at least one course of post-secondary study—was 64 percent.[7] If the five percent of youth still enrolled in higher education at age 26 to 28 eventually graduates, the attainment rate would reach 69 percent. By comparison, 67 percent of the 25- to 34-year-old cohort measured using census data had completed some post-secondary education. Of course, one-third of the YITS-B sample either never enrolled in post-secondary education or dropped out before completing, meaning that there remains a substantial pool of young Canadians who might yet attain a post-secondary credential.

Fact Check: Why Don't the Numbers Agree?

According to the census, 61 percent of working-age Canadians have completed post-secondary education. According to the OECD, only 47 percent have done so. The Survey of Labour and Income Dynamics reveals that 57 percent of young Canadians were enrolled or had already completed some higher education in 2006. More than 80 percent of participants in the Youth in Transition Survey report having pursued some form of post-secondary education by the time they had reached 26 to 28 years of age.

With numbers all over the place, it is no surprise that discussion of post-secondary participation can generate some confusion. It is important, however, to remember that the surveys do not all measure the same thing: each one

6. Many respondents pursued more than one kind of post-secondary education.
7. The YITS-B sample consists of individuals aged 18 to 20 in December 1999. These individuals were surveyed in 2000, 2002, 2004, 2006 and 2008.

Fact Check: Why Don't the Numbers Agree? *(continued)*

asks different populations different questions about different activities. The census, for example, offers a good snapshot of current levels of post-secondary educational attainment within the entire adult population. The SLID allows us to focus on the activities of a particular cohort—those aged 18 to 24—on an annual basis, to better understand trends in post-secondary participation. Other sources of Statistics Canada data, such as the Labour Force Survey and the Post-secondary Student Information System, may provide different trends and different definitions of participation. The YITS, a longitudinal survey, allows for a more in-depth analysis of post-secondary pathways of a single cohort over a longer period of time.

Thanks to census data on educational attainment, SLID data on annual trends in participation and YITS data on different kinds of post-secondary pathways, Canadian researchers are able to explore the issue of participation in post-secondary education more deeply than ever before. While at first blush the statistics do not appear to agree, they do not in fact contradict one another. The lessons learned from each source of information contribute to our understanding of higher education in the 21st century.

Myth: Participation in Post-Secondary Education in Canada is Continually Rising

It is sometimes assumed that the rate of participation in post-secondary education in Canada is continually increasing—that each year, a greater proportion of Canadians, realizing the importance of a diploma or degree, decide to enrol in college or university. Certain enrolment projections prepared both by Statistics Canada and by the AUCC (Hango and de Broucker, 2007a; AUCC, 2007) have, for instance, been based in part on the assumption of a growing rate of participation. Unfortunately, this assumption cannot safely be made.

According to the custom SLID tabulations presented here, the rate of post-secondary participation is declining in Canada, although not uniformly across the country. Nationally, post-secondary participation peaked at 71 percent of the 18- to 24-year-old population in 1997 and has been declining fairly steadily ever since, reaching a low of 57 percent in 2006. This decline is being driven by the Western provinces. Participation in the three Prairie provinces declined by ten percentage points between 2004 and 2006; in B.C., participation rates declined by 14 percentage points between 2001 and 2006. We can assume that this trend is linked to the national economic cycle and regional economic booms: as Canada moved out of recession in the mid-1990s, the labour market became a more attractive option for young adults, leading more to opt for work over post-secondary studies. Nowhere has the labour market more appeal than in the West (see also Berger, Motte and Parkin, 2007, 36–37).

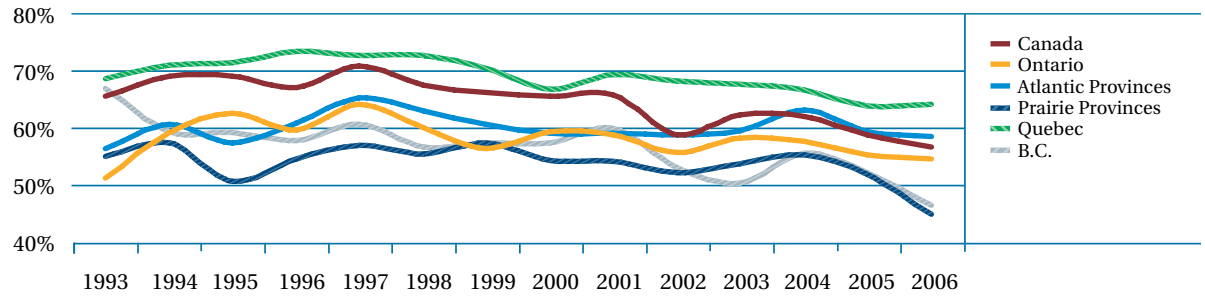
- In B.C., post-secondary participation has declined from a peak of 67 percent of the 18- to 24-year-old population in 1993 to 60 percent in 2001 to a low of 46 percent in 2006.
- In the Prairie region, comprising Alberta, Saskatchewan and Manitoba, participation has declined from a peak of 57 percent in 1999 to a low of 45 percent in 2006.
- Ontario's participation rate peaked in 1997, at 64 percent, and subsequently declined to 55 percent in 2006, although it increased in 2003 following the elimination of Grade 12 and the "double cohort" of high school graduates. It should be noted that, despite a decline in the participation rate, Ontario has experienced a significant increase in enrolment in post-secondary education, due largely to considerable growth in the size of the 18- to 24-year-old population, which has grown by 144,000 (13 percent) between 1999 and 2007.

Myth: Participation in Post-Secondary Education in Canada is Continually Rising *(continued)*

- Participation in Quebec has been declining fairly steadily since the late 1990s, when it peaked at 73 percent; it stood at 64 percent in 2006.
- In the Atlantic region, participation peaked at 65 percent in 1997, declined to 59 percent in the early years of the current decade, rose to 63 percent in 2003 and settled at 59 percent in 2005 and 2006.

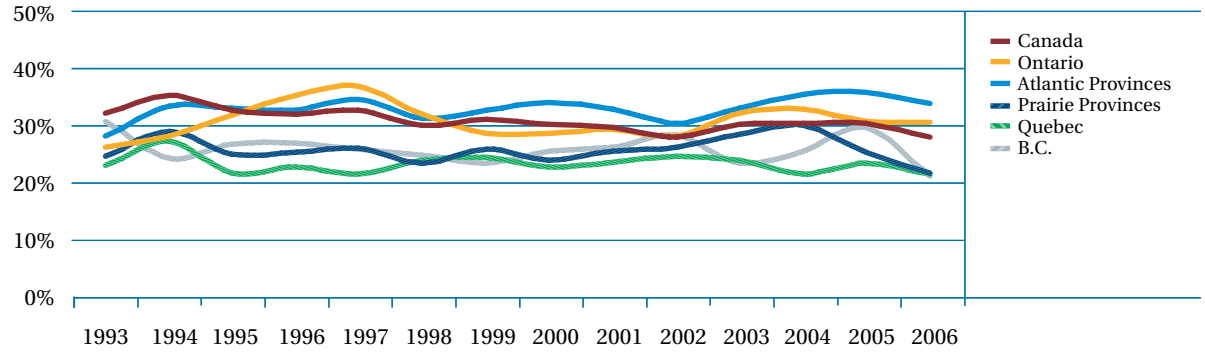
Looking specifically at the rate of participation in university, different regional patterns are clearly apparent. Nationally, university participation rates are somewhat lower today than in the mid-1990s, when they were close to 33 percent. In 2002 the rate dropped to 28 percent, before jumping to 30 percent in 2003, where it stayed until 2006, when it returned to 28 percent. Regionally, however, we see that in the Prairies, university participation rates declined from 30 percent to 22 percent between 2004 and 2006, while in B.C. the university rate went from 25 percent in 2004 to 30 percent in 2005 and then down to 21 percent in 2006. In Ontario and the Atlantic provinces, university participation rates are generally higher now than at the start of the decade, although they have tapered off in the most recent years. After a decade of university participation rates of around 24 percent, Quebec's rates have returned to the 1997 low of 21 percent.

Figure 2.V.1 — Post-Secondary Participation Rate among 18- to 24-Year-Olds in Canada by Province, 1993–2006



Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

Figure 2.V.2 — University Participation Rate among 18- to 24-Year-Olds in Canada by Province, 1993–2006



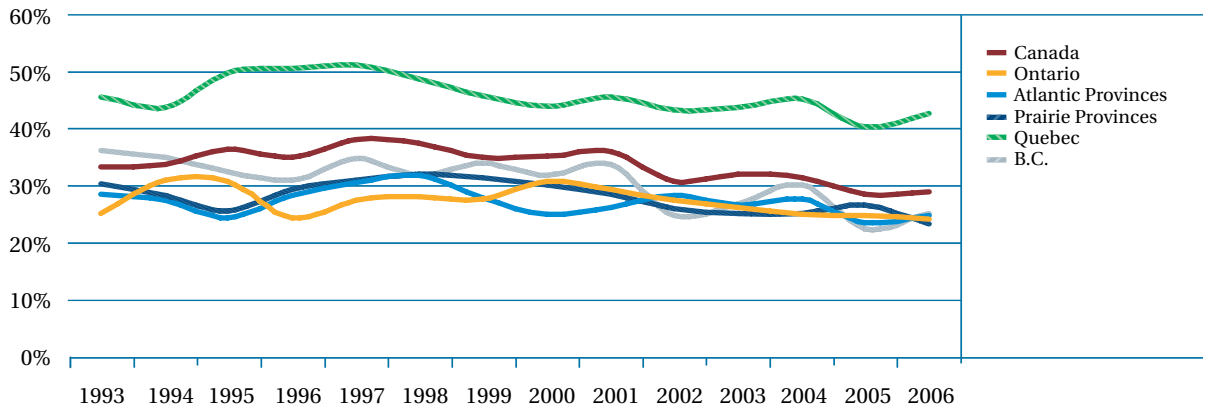
Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation .

Myth: Participation in Post-Secondary Education in Canada is Continually Rising *(continued)*

At the college level, overall participation rates are down from their mid-1990s peak. In 1997, 38 percent of all Canadian 18- to 24-year-olds participated in college studies. That rate declined to 31 percent in 2001 and again to 29 percent in 2006. Quebec's unique CEGEP system (which is a mandatory precursor to university for provincial residents) means that its participation rate is substantially higher than in the rest of the country. That said, college participation rates in Quebec have declined steadily from a peak of 51 percent in 1997, reaching a low of 41 percent in 2005 before increasing to 43 percent in 2006. Since 2000, when its college participation rate peaked at 31 percent, Ontario has seen a steady decline, to 24 percent in 2006. While B.C.'s rate reveals an up and down pattern, year-over-year, the general trend is downward. It has declined from 35 percent in 1997 to 25 percent in 2006. Despite a small increase in 2005, the college participation rate in the prairies has declined steadily from its peak of 32 percent in 1998 and 1999 to a low of 23 percent in 2006. In the Atlantic, college participation peaked at 32 percent in 1998 and has wavered since then, dropping to 25 percent in 2006.

This review of post-secondary participation rates shows that participation does not increase in a clear, steady fashion. The decision to enrol in higher education, as we discussed in previous editions of *The Price of Knowledge*, is based on a number of important factors, including individual and family aspirations, academic ability, career planning, financial preparation, the nature of provincial post-secondary systems, the capacity of post-secondary institutions to accept new students and the effect of strong or weak labour markets. The data, however, reveal that since the end of the last recession, the proportion of 18- to 24-year-olds enrolled in or having graduated from college or university has been decreasing. It is reasonable to assume, of course, that this trend will soon reverse: that given the worsening economic conditions, participation rates will once again go up. It is important, however, that we do not simply sit back and let the economic cycle do the work of encouraging more young people to seek a post-secondary degree. In the long run, Canada's strategy to maintain post-secondary participation levels should be based on something more than economic pessimism.

Figure 2.V.3 — College Participation Rate among 18- to 24-Year-Olds in Canada by Province, 1993–2006



Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

Chapter 2

VI. Access Gaps

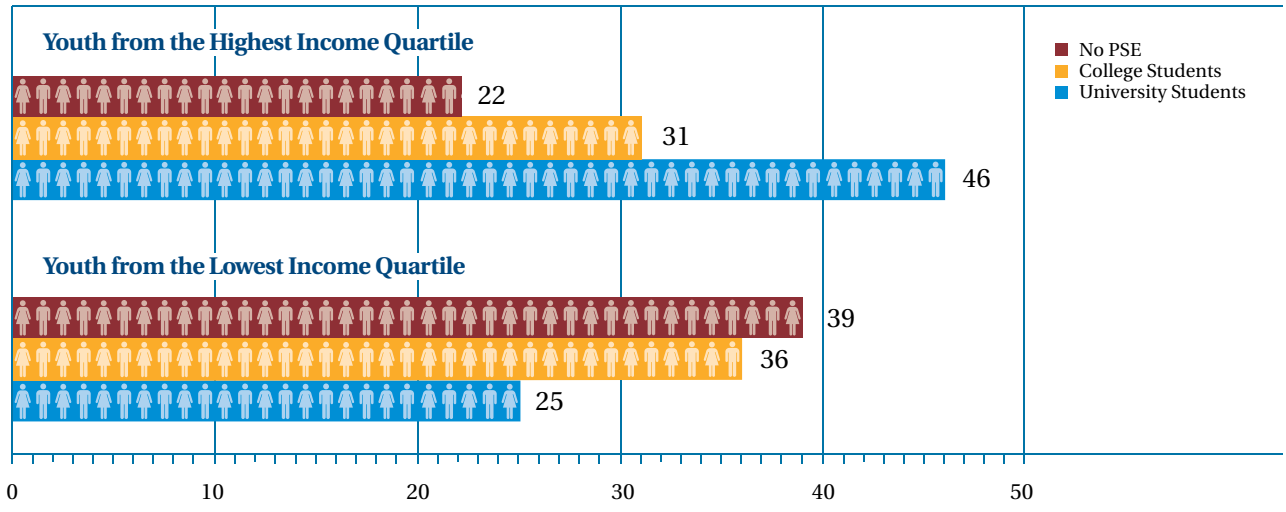
The question of whether youth from different backgrounds are equally likely to participate in post-secondary education in Canada is of central concern to policy-makers. Given the important role that education plays in opening doors to full participation in our economy and society, the restriction of educational opportunities for certain groups has serious consequences both for their own well-being and for the country as a whole. Unfortunately, many of the gaps that separate the post-secondary participation rates of key segments of Canadian society—gaps that have been familiar to us for many years—have proven to be stubbornly persistent.

Parental Income and Education

The inequality in access among Canadians from different socio-economic backgrounds is well known. Consider the following figures, produced by Zeman (2008), which relate to the YITS-A cohort of youth who were 15 years old in 1999 and who were surveyed again at age 19.[8]

- For every 100 low-income Canadian 19-year-olds, 25 attend university. For every 100 high-income Canadians of the same age, 46 are enrolled in university studies.
- Low-income youth are 40 percent more likely to enrol in college studies as in university studies by age 19.
- As Figure 2.VI.1 demonstrates, for low-income Canadians, the odds of graduating from high school and pursuing post-secondary studies without taking a long break are equivalent to a coin toss. For the children of wealthy families, the element of chance is vastly diminished. Fully 77 percent of youth from high-income families have enrolled in post-secondary education.

Figure 2.VI.1 — Post-Secondary Status of Canadian 19-Year-Olds in 2003, by Family Income Quartile Measured at Age 15



Source: Zeman, 2008.

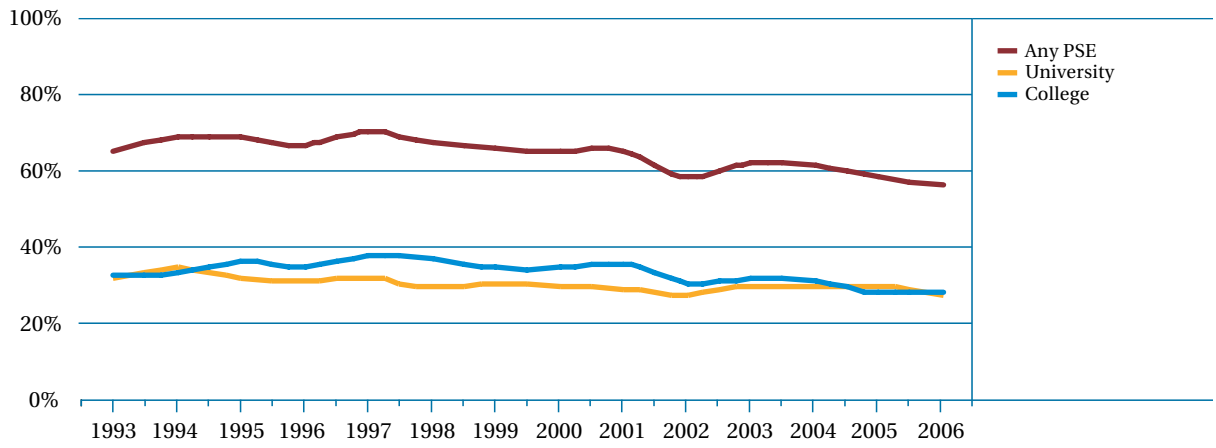
8. These figures are restricted to the YITS-A sample of individuals enrolled in high school at age 15 in 1999. Since low-income youth are more likely to drop out of high school than high-income students, the figures here somewhat overestimate the participation of low-income youth in post-secondary education.

While the YITS-A survey offers a longitudinal portrait of the educational pathways of a single cohort of Canadian youth, data from the Survey of Labour and Income Dynamics (SLID) allow for a longer-term view. The SLID data also allow researchers to focus on the influence of parental income and education on the post-secondary decisions of Canadian youth.

The Canada Millennium Scholarship Foundation commissioned a series of SLID tables from Statistics Canada to update the data discussed by Drolet (2005), which examined the post-secondary participation of Canadian 18- to 24-year-olds throughout the 1990s.[9] Drolet had concluded that "the correlation between university participation and family income changed very little between 1993 and 2001" (Drolet, 2005, 26). While the data did not lead her to a similar conclusion about college enrolment (college participation rates remained close to 35 percent of youth from all income groups during the 1990s), they clearly demonstrated that post-secondary participation was no more equitable at the start of the 2000s than a decade earlier.

Looking at the updated data, we see first that, as discussed above, the overall proportion of the Canadian 18- to 24-year-old population pursuing post-secondary education declined between 1993 and 2006. Figure 2.VI.2 demonstrates this again, showing the trends for college and university participation separately and combined. The next step is to examine trends for students from different socio-economic backgrounds. Participation in post-secondary education in Canada is no more or less equitable in 2006 than it was in 2001. Whether measuring participation rates by family income (adjusted for inflation) or level of parental education, Canadian youth from high socio-economic situations remain significantly more likely than those from low socio-economic situations to pursue post-secondary studies.

Figure 2.VI.2 — University, College and Post-Secondary Participation Rate among 18- to 24-Year-Olds in Canada, 1993 to 2006



Note: In the figures in this section, "participation" represents respondents who have either completed or were pursuing studies at the stated level in the year in question.

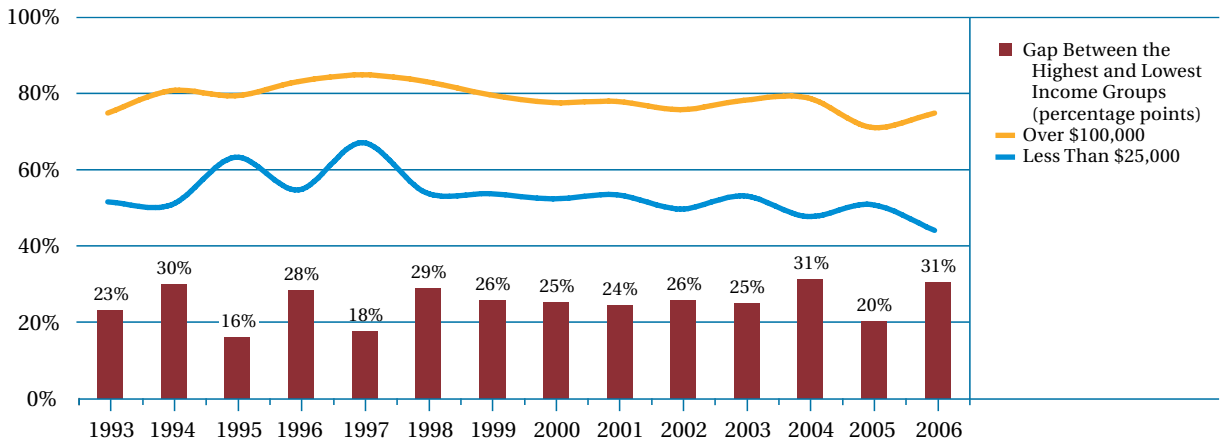
Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

9. All dollar figures in this section have been adjusted for inflation.

As Figure 2.VI.3 demonstrates, the proportion of individuals from families reporting more than $100,000 per year in income participating in post-secondary studies has remained close to three-quarters, while the proportion of individuals from families earning less than $25,000 has hovered around one-half. The gap between the two groups has remained around 25 percentage points since the late 1990s.

Nor has participation by level of parental education changed dramatically since the early 1990s, as Figure 2.VI.4 demonstrates. Among 18- to 24-year-olds whose parents completed a university education, about 80 percent consistently enrol in post-secondary studies. Among those whose parents completed a post-secondary certificate or diploma, about two-thirds pursue higher education. Only about

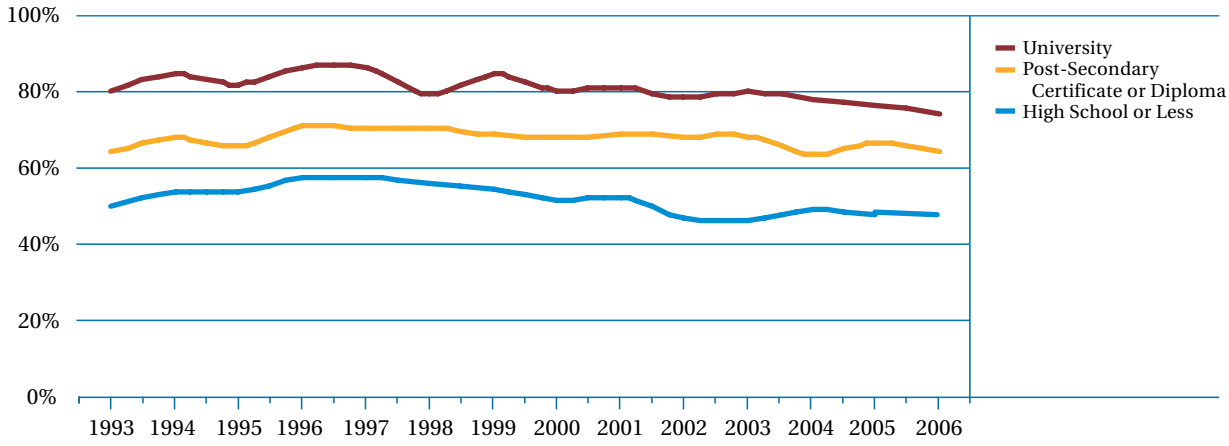
Figure 2.VI.3 — Post-Secondary Participation Rate by Select Family Income Levels among 18- to 24-Year-Olds, 1993–2006



Note: Sample is restricted to individuals residing with at least one parent when surveyed; Statistics Canada used an augmented sample, exploiting the longitudinal nature of the dataset, to verify the reliability of the data. The method used replicates Drolet's approach, described in Drolet (2005, 14–15).

Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

Figure 2.VI.4 — Post-Secondary Participation Rate by Parental Education among 18- to 24-Year-Olds, 1993–2006

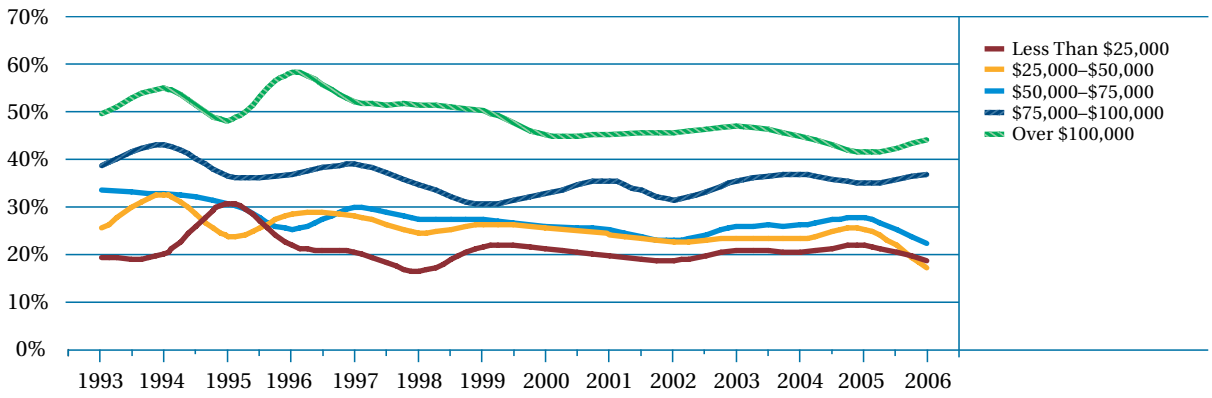


Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

half of individuals whose parents did not study beyond high school enrolled in post-secondary education.

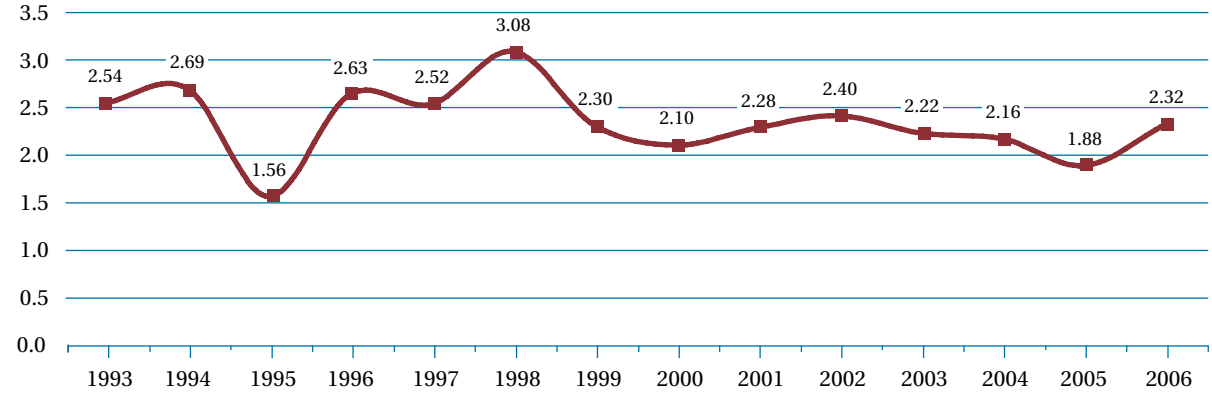
The gap between participation in post-secondary education for individuals of high and low socio-economic status is most strongly evident on the university side. As Figures 2.VI.5 and 2.VI.6 make clear, individuals from families earning more than $100,000 per year are more than twice as likely as those from families earning less than $25,000 per year to go to university. Youth from families earning less than $75,000 have relatively low university participation rates, as approximately one-quarter pursue university studies. Comparatively, more than one-third of youth from families in the second-highest category ($75,000 to $100,000) and one-half of those in the highest category enrolled in university studies. The challenge of improving equitable access to university study, therefore, involves increasing opportunities to study at university for lower- and middle-income families.

Figure 2.VI.5 — University Participation Rate by Family Income among 18- to 24-Year-Olds, 1993–2006



Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

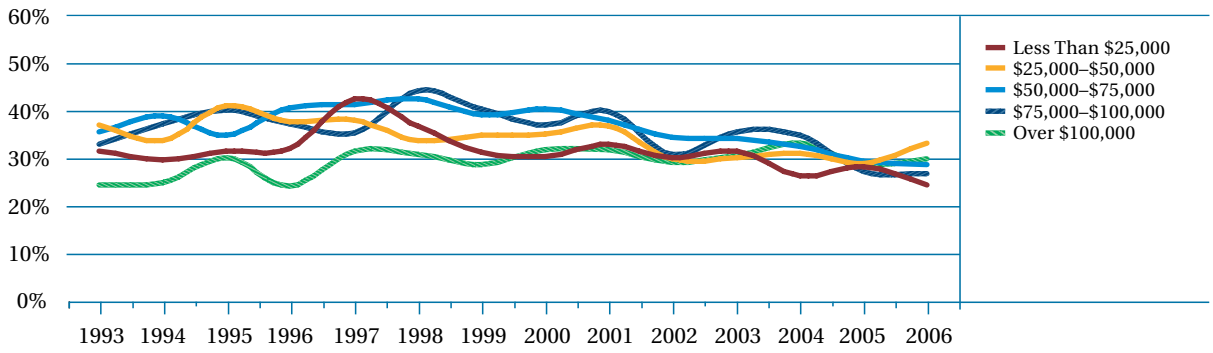
Figure 2.VI.6 — Ratio of University Participation among 18- to 24-Year-Olds from Families Earning More than $100,000 per Year to University Participation among Those from Families Earning Less Than $25,000 per Year, 1993–2006



Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

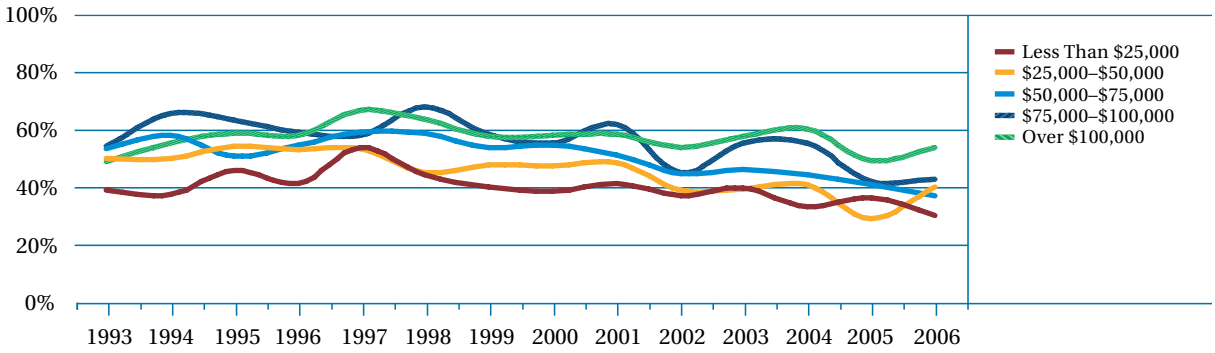
Participation in college studies, by comparison, is more evenly distributed. As Figure 2.VI.7 demonstrates, the likelihood of participation in college studies among Canadian youth is not greatly related to family income, and has been even less so in recent years than in the mid-1990s. It should be noted, however, that the considerable family income-based gap in university enrolment has an impact on college participation rates. The conditional college participation rate measures the share of youth not enrolled in university who are enrolled in college. As Figure 2.VI.8 demonstrates, among all youth not enrolled in university studies, college participation increases with family income. (Using parental education instead of family income as a measure of socio-economic status reveals a similar trend.)

Figure 2.VI.7 — College Participation Rate by Family Income among 18- to 24-Year-Olds, 1993–2006



Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

Figure 2.VI.8 — Conditional College Participation Rate by Family Income among 18- to 24-Year-Olds, 1993–2006



Note: The conditional college participation rate calculates the proportion of the population of individuals who were not attending or had not completed university studies that enrolled in college studies in the year in question.

Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

Myth: The Continuous Post-Secondary Pathway

Statistics Canada's Youth in Transition Survey offers robust longitudinal data on the pathways of youth beginning as early as age 15. It has allowed Canadians to gain their best ever insight into the dynamics of educational pathways. Analysts such as Hango and de Broucker (2007b) have examined the educational and labour market pathways of youth beginning at ages 18 to 20 and ending at ages 22 to 24, only to find that much of what might have been considered typical is far from it. As they note, only one in three young Canadians went directly from high school to post-secondary education and were either enrolled or had graduated once they reached age 22 to 24.[10]

- Nine percent of all youth went directly from high school to college and graduated by age 22 to 24.
- Eight percent of all youth went directly from high school to university and graduated by age 22 to 24.
- Two percent of all youth went directly from high school to college and were still enrolled by age 22 to 24.
- Twelve percent of all youth went directly from high school to university and were still enrolled at the undergraduate level by age 22 to 24.
- Three percent of all youth went directly from high school to university and were enrolled at the graduate level by age 22 to 24 (Hango and de Broucker, 2007b, 21–24).

The "typical" pathway, then, only applies to about one-third of youth, almost half of whom have not completed post-secondary education by the time they reach age 22 to 24, approximately four to six years after high school. Thus, if few students begin post-secondary education "on time," even fewer complete it on schedule.

While the YITS dataset used to construct this pathway analysis does not contain information about family income, it does offer information about respondents' parental education, as well as their Aboriginal status.[11,12] Unsurprisingly, the likelihood that an individual will enrol directly in post-secondary education from high school increases with parental education. Similarly, Aboriginal youth were much less likely than non-Aboriginal youth to pursue the "traditional" pathway. Table 2.VI.1 describes the proportion of youth who were not in school at age 22 to 24 who pursued the "traditional" pathway to post-secondary completion by parental education and Aboriginal status (Hango and de Broucker, 2007b, 31–33).[13]

10. The YITS Cohort B consists of a sample of Canadians who were between the ages of 18 and 20 at the beginning of 2000. At the time of the third cycle of interviews, the respondents were aged 22 to 24. The sample of youth who pursued trade studies or other non-college/non-university post-secondary education was too small to distinguish between those who went directly to post-secondary education and those who took a gap between levels of study (a gap is defined as any period greater than four months). Students in the "trade/other" category represent three percent of the sample.
11. Once data become available in the coming years, similar analysis using the YITS-A cohort, which was recruited among 15-year-olds at the beginning of 2000, will include more information about socio-economic status, since parental income will be included in the data.
12. It is worth remembering that the YITS sample was not recruited on First Nations reserves. Therefore, it is only representative of Aboriginal youth who were living off reserve in 1999.
13. It is not clear that it is objectively better for individuals to complete their post-secondary education on time. Ferrer and Menendez (2009) find that "graduates that delayed their education receive a premium relative to graduates that did not, even after considering other factors such as experience or labour market connections" (3). That said, there are other costs associated with a delayed course of study to the individual, the institution and the public purse that cannot be ignored. Hango and de Broucker (2007b) find that "youth who delayed their postsecondary attendance following high school graduation did not earn more than youth who did not delay, suggesting that taking time off between high school and a postsecondary program does not translate into greater earnings between ages 22 and 24" (12).

Myth: The Continuous Post-Secondary Pathway *(continued)*

Table 2.VI.1 — Proportion of Non-Students Aged 22 to 24 Who Pursued Post-Secondary Education Immediately after High School, by Parental Education and Aboriginal Status, in 2004

	Direct transition: high school to college; graduation by age 22–24	Direct transition: high school to university; graduation by age 22–24	Total
Parental education: less than high school	9.6%	5.3%	14.9%
Parental education: high school	12.1%	5.7%	17.8%
Parental education: some post-secondary education	13.5%	9.6%	23.1%
Parental education: post-secondary graduate	14.5%	17.9%	32.4%
Aboriginal	6.5%*	**	6.5%*
Non-Aboriginal	12.9%	11.4%	34.3%
All youth	12.7%	11.1%	23.8%

* Should be used with caution.

** Too unreliable to be published.

Source: Hango and de Broucker, 2007b.

Aboriginal Peoples

It is well known that the educational attainment of Aboriginal peoples in Canada is lower than that of their non-Aboriginal counterparts. Compared with other Canadians, Aboriginal peoples are twice as likely to have stopped their education before completing high school; they are three times less likely to have a university degree (see Table 2.VI.2). Some Aboriginal groups fare better than others: 50 percent of the Métis population have a post-secondary degree, compared with 36 percent of the Inuit population. One in two Inuit and First Nations persons living on reserve have not finished high school.

Aboriginal women have higher educational attainment than Aboriginal men. Looking at Aboriginal persons aged 25 to 44, the 2006 census reports 35 percent of men do not have a high school diploma, compared with 29 percent of women. Only six percent of men have a university degree, compared with 10 percent of women.

The key question, however, is whether the gap between the educational attainment of Aboriginal and non-Aboriginal Canadians is narrowing over time. Unfortunately, because the questions about non-university education asked in the 2006 census were different from those asked in previous years, comparisons over time are difficult to make. Comparisons are possible in the case of university graduates, however. The proportion of the Aboriginal population with a university degree has been growing: the eight percent figure for 2006 is up from six percent in 2001. In the case of the non-Aboriginal population, however, the figure rose from 20 percent to 23 percent (Statistics Canada, 2008b, 19). Thus, the gap, in terms of percentage points, has grown from 14 to 15.

A more detailed analysis of the evolution of this education gap over time—focusing in part on the differences in education attainment by age group—has been conducted by John Richards. Richards notes that the difference in the educational attainment between younger and older age groups within the Aboriginal population is less pronounced than it is among non-Aboriginals. More specifically, Aboriginal peoples between the ages of 25 and 34 are faring little better in terms of post-secondary education than their counterparts aged 35 to 44. This may indicate a

Table 2.VI.2 — Educational Attainment of Aboriginal and Non-Aboriginal Peoples Aged 25–64 (2006)

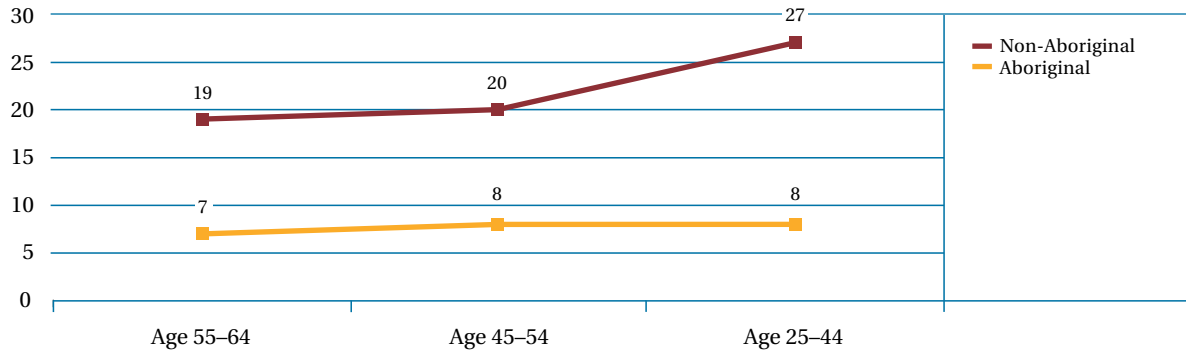
	Non-Aboriginal	Aboriginal (All Groups)	First Nations (All Groups)	First Nations, On-Reserve	First Nations, Off-Reserve	Métis	Inuit
Less than high school	15	34	38	50	30	26	51
High school diploma	24	21	20	15	24	24	13
Post-secondary qualification — all types	61	44	42	35	46	50	36
Trades certificate	12	14	13	13	14	16	13
College diploma	20	19	17	14	20	21	17
University below bachelor	5	3	5	4	3	4	2
University degree (bachelor or higher)	23	8	7	4	9	9	4

Source: 2006 census.

"disturbing…stagnation in intentions to undertake post-secondary training among young Aboriginals" (Richards, 2008, 6).

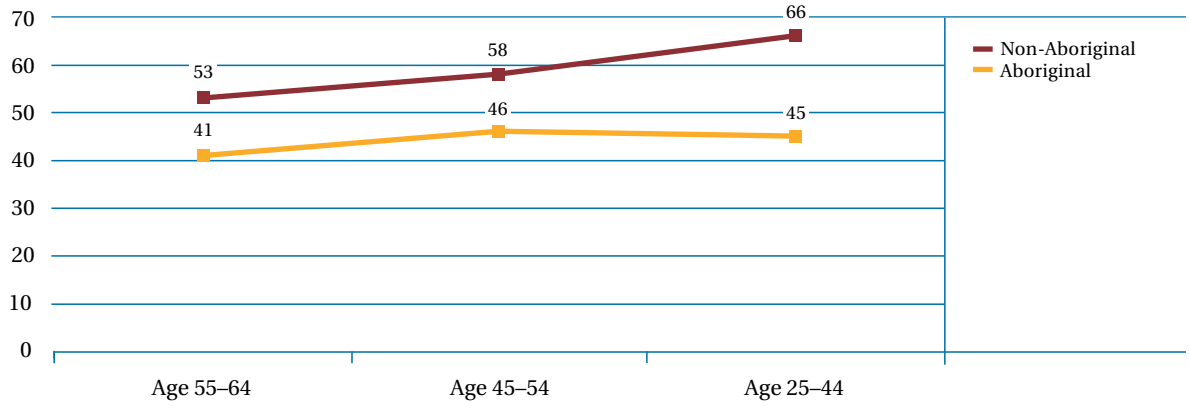
To be clear, the fact that educational attainment is rising at a faster rate among young non-Aboriginal Canadians does not mean that there has been no improvement in the proportion of Aboriginal peoples finishing high school and undertaking post-secondary studies. It does mean, however, that the education gap is widening rather than narrowing. Richards concludes that "convergence across age groups at all education levels is not taking place," and in fact, there is "a widening in Aboriginal/non-Aboriginal gaps at all education levels" (Richards, 2008, 6; 9). This is made evident in Figures 2.VI.9 to 2.VI.11.

Figure 2.VI.9 — Proportion of Population with a University Degree, by Age Group



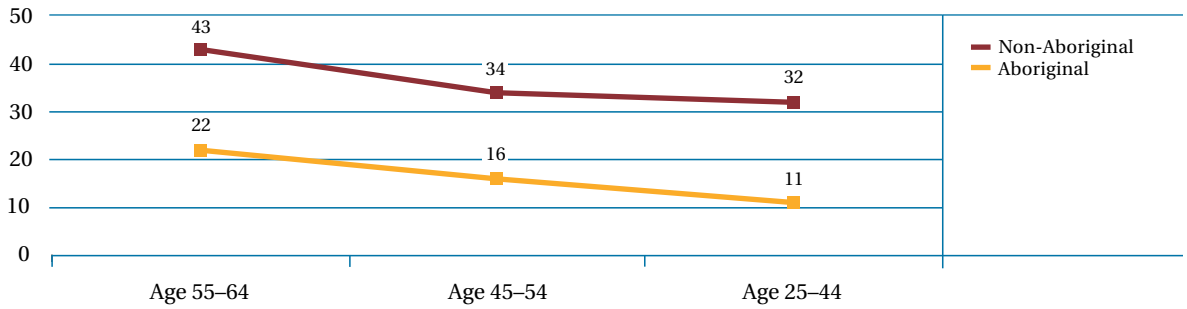
Source: 2006 census.

Figure 2.VI.10 — Proportion of Population with a Post-Secondary Credential, by Age Group



Source: 2006 census.

Figure 2.VI.11 — Proportion of Population without a High School Degree, by Age Group



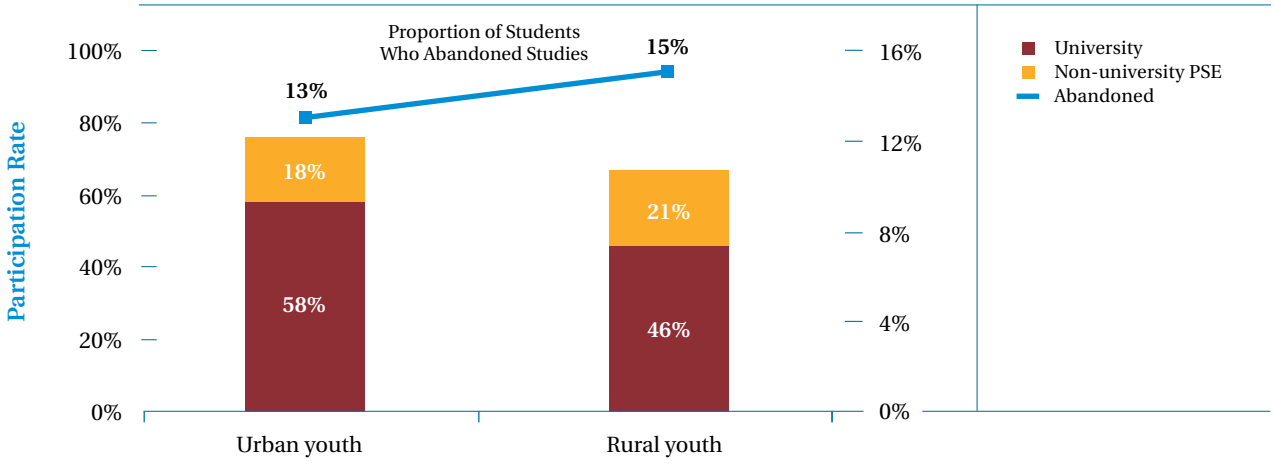
Source: 2006 census.

The Urban/Rural Divide

According to Shaienks and Gluszynski (2007), rural youth are much less likely than urban youth to attempt post-secondary studies (65 percent vs. 82 percent) and, among those who do so, more likely to study at a college or other non-university institution (60 percent vs. 48 percent).

As part of the MESA project,[14] Looker (2009) examines access to and persistence in post-secondary education among rural and urban youth. Using the younger YITS-A dataset, she offers an assessment of participation and persistence rates in post-secondary education at age 21, examining whether rural/urban location plays a determining role in the post-secondary decision-making process. Consistent with Shaienks and Gluszynski, Looker finds that urban youth are more likely to pursue post-secondary education, noting that the gap exists principally at the university level. As Figure 2.VI.12 demonstrates, while 76 percent of urban youth had pursued higher education at age 21 (58 percent went to university), only 67 percent of rural youth had enrolled in post-secondary education (46 percent in university) by the

Figure 2.VI.12 — Post-Secondary Participation by Urban/Rural Status at Age 21



Source: YITS-A from Looker, 2009.

14. Measuring the Effectiveness of Student Aid, or the MESA project, is a four-year research effort being conducted by the Educational Policy Institute and the School for Policy Studies at Queen's University on behalf of the Canada Millennium Scholarship Foundation. Participating researchers were asked to write about issues of access and persistence in post-secondary education in Canada. Each of the papers commissioned during this project is available for downloading from the MESA project website at www.mesa-project.org.

same age. That said, the proportion of post-secondary students who were still enrolled or had graduated was virtually the same for the two groups (87 percent for urban students; 85 percent for rural students).

Looker examines regional variation and suggests that the nature of the post-secondary system (the "articulated" systems in B.C. and Alberta allow students to complete university credits at community colleges; admission to a Quebec university for provincial residents is contingent on completion of a CEGEP program) and the geographical distribution of post-secondary institutions may play a role in explaining why rural participation is higher in some regions than others. However, her analysis concludes that factors related to sex, minority status, immigration, high school performance and parental education and income account for much of the rural/urban gap in post-secondary participation. This suggests that the rural/urban difference can be explained by differences in individual characteristics not related to geography. However, when looking exclusively at university participation, Looker finds that rural/urban location remains a significant factor even after controlling for the other characteristics.

This last finding echoes those of Frenette (2002, 2003; cf. Statistics Canada, 2004), who examined how distance to a post-secondary institution affects participation in college and university. He reports that students who live more than 80 kilometres from a university are less likely than those living close to one to enrol in university studies. The effect of distance is compounded for youth from low-income families. Beyond 80 kilometres, high-income youth were almost six times as likely as low-income youth to go to university; within 40 kilometres, they were only 1.9 times as likely as low-income youth to enrol in university studies. Frenette argues that the added cost of moving to study, the emotional cost of leaving one's community and the lack of exposure to universities and university-educated adults might explain the university distance gap.

On the community college side, Frenette points out that Canada's colleges are spread out much more than its universities, such that 97 percent of high school students live within 80 kilometres of a community college. Students who live more than 40 kilometres away from a university are much more likely than those living close by to study at a college. The combined post-secondary participation rate (university and college) for youth living more than 80 kilometres from a university is almost as high as the rate for youth living close to a university. Frenette concludes that the overall demand for higher education is consistent regardless of distance, but the choice of institution type is limited by geography.

Immigrants

Until recently, it has been very difficult to document the different educational outcomes of second-generation Canadians in any detail. The census tells us that, as a group, immigrant Canadians have a higher educational attainment than Canadians born in Canada. Among the more than four million individuals born outside of Canada who were between the ages of 25 and 64 in 2005, 32 percent had a university degree. Fifty-one percent of immigrants who arrived between 2001 and 2006 had a university degree, compared to just 20 percent of the Canadian-born population. Furthermore, this most recent wave of immigrants has a higher level of educational attainment than the population of immigrants that preceded it. Among those who came to Canada before 2001, 28 percent had a university degree. While new immigrants are more likely to have completed a course of university study, they are less likely than individuals born in Canada to have studied at a college (11 percent vs. 22 percent) or to have completed a trades certificate (five percent vs. 14 percent). Immigrants account for roughly one-quarter of the working-age population (25 to 64), yet they hold 49 percent of Canada's PhDs and 40 percent of its master's degrees.

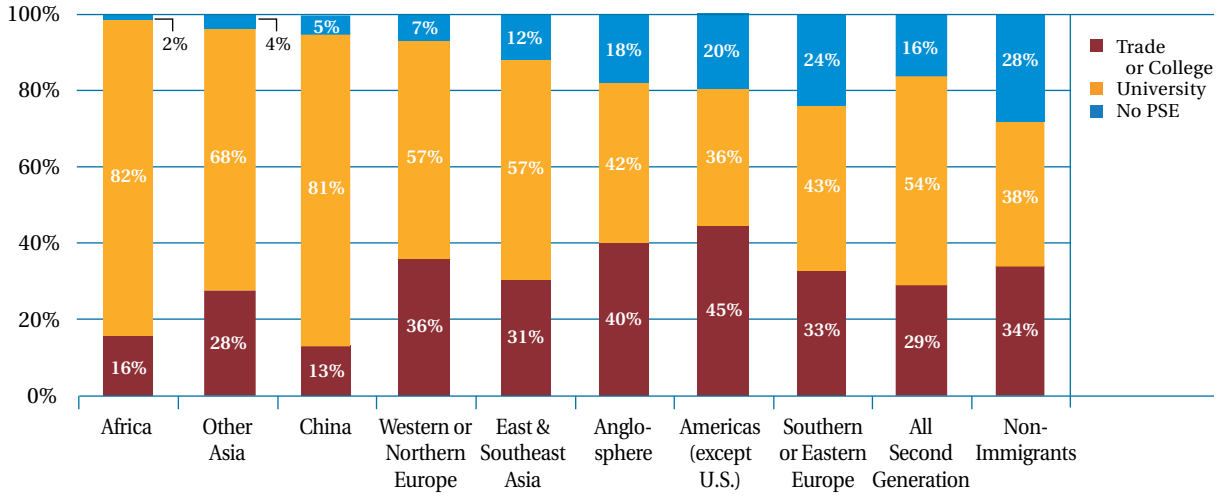
The problem with these data is that they group all immigrants together. Immigrants, however, are by no means a homogeneous group, and while some types may do exceptionally well in terms of accessing higher education, others may not.

Fortunately, in the context of the MESA project, Finnie and Mueller (2009) have used the YITS dataset to get beyond this problem and examine the educational pathways of different groups of immigrants

to Canada. They note that first- and second-generation immigrants are more likely than non-immigrant Canadian youth to pursue post-secondary education, particularly at the university level. Careful not to lump all immigrants to one group, they distinguish among various regions of origin, including Africa, the Americas (U.S. excluded), China, East and Southeast Asia, "other" Asia, Western and Northern Europe, Southern and Eastern Europe, the "Anglosphere" (English-speaking Western countries) and others. As Figure 2.VI.13 demonstrates, children of immigrants from China, Asia and Africa, in particular, are more likely than non-immigrant Canadians to pursue post-secondary education, while those from the Americas are less likely to enrol. Interestingly, Finnie and Mueller are able to control for a number of important factors that typically influence post-secondary participation, including geography (province of residence, urban/rural location), parental education levels, high school grades, literacy scores and high school engagement. While these factors explain a portion of the post-secondary participation gap between immigrants and non-immigrants, they do not explain all of it, leading Finnie and Mueller to conclude that many immigrant youth are more likely to enrol because of "cultural factors, including a strong pro-PSE ethos."

While it is tempting for policy-makers to target policies to all immigrants as if they were a homogeneous group, the evidence reveals considerable variation in the educational outcomes of first- and second-generation immigrants, depending in large part on their country of origin. While headlines about immigrants and education may generally be positive, many immigrants to Canada slip through the cracks. Rather than focus on immigrants as a whole, policy-makers can benefit from turning their attention to those groups who are at risk of falling behind.

Figure 2.VI.13 — Post-Secondary Participation among Non-Immigrants and Second-Generation Immigrants to Canada by Age 21, by Region of Origin



Note: The second-generation sample is restricted to children of parents who are both from the same region of origin.

Source: Finnie and Mueller, 2009.

Myth: Participation Rates Are Always What They Seem

One of the focal points of any discussion about access to higher education in Canada concerns the link between tuition and university enrolment. It is often pointed out that Quebec, which has the country's lowest tuition, has the lowest university participation rates, while Nova Scotia, which features Canada's highest tuition fees, leads the country in participation rates. A 2005 editorial in *The Globe and Mail* offers an example: "If low university tuition fees were the enticement people seem to think they are, Quebec would have the highest per-capita enrolment in the country, and Nova Scotia the lowest. But it's the other way around. Nova Scotia has the country's highest undergraduate tuition fees: nearly $6,000 a year. It also has the highest participation rate: roughly 33 percent of young Nova Scotians" (*Globe and Mail*, 2005).

A recent study by the Maritime Provinces Higher Education Commission (2009) provides a useful perspective. Table 2.VI.3 explores the origin of Nova Scotia's high participation rate, which calculates the share of a given population (in this case, 18- to 24-year-olds in the province) enrolled at a university during the year in question. Nova Scotia's high participation rate, which hovers around 40 percent, is consistently the highest in Canada. Yet it does not accurately reflect the share of the province's own youth population pursuing university education. Only 23 percent of those aged 18 to 24 were enrolled at one of Nova Scotia's ten public universities. Another two percent studied at a university in the other Maritime provinces, while a further two percent enrolled outside the Maritimes.

Meanwhile, discussions of Quebec's university participation rates tend to obscure or overlook the province's unique post-secondary system, which requires Quebec residents to complete a two-year program at one of the province's free CEGEPs (general and technical instruction colleges) prior

Table 2.VI.3 — Post-Secondary Participation in Nova Scotia

	Number of students enrolled full-time in Nova Scotia, divided by the provincial population aged 18–24	Number of students from Nova Scotia enrolled full-time in Nova Scotia, divided by the provincial population aged 18–24	Number of students from outside Nova Scotia enrolled full-time in Nova Scotia, divided by the provincial population aged 18–24
2002–03	38%	25%	13%
2003–04	40%	25%	15%
2004–05	40%	24%	16%
2005–06	40%	23%	17%
2006–07	39%	23%	16%

Source: Maritime Provinces Higher Education Commission, 2009.

Myth: Participation Rates Are Always What They Seem *(continued)*

to enrolling in one of Quebec's university programs (typically three years in length). This affects the participation rates in the following way: A large proportion of Quebec CEGEP students are in a pre-university program, one designed specifically to cover Grades 12 and 13. Unlike in other parts of the country, what would be Grade 12 in Quebec is not offered at the high school level and what would be Grade 13 is not offered at universities. As a result, the proportion of university-oriented post-secondary students in Quebec is not reflected in the participation rate, which omits those still in CEGEP.

Another way to think about this is as follows: because university programs are typically shorter in Quebec, there are fewer opportunities for Quebecers to be enrolled. Essentially, there are 25 percent fewer university spaces, in the sense that Quebec students typically enrol only three times for one year each—as opposed to students in the rest of the country who enrol four times.[15] As a result, participation rates will skew lower in Quebec, since students need to enrol for fewer periods of study to complete their program. Needless to say, individual educational pathways are more complicated than this thought experiment suggests. However, it is clear that the unique post-secondary system in Quebec has the unintended effect of producing relatively low university participation rates.

Futhermore, if we acknowledge that a significant proportion of Quebec university-stream students are enrolled at the CEGEP level, it follows that many of those who would abandon their studies before completing a university program may do so while still enrolled in CEGEP (or once they have completed their CEGEP program). Although it may seem absurd, it is reasonable to conclude that a substantial number of university-stream students in Quebec actually drop out before taking a single university course (since, as we describe in Chapter 3, most students who drop out do so after their first year). Shaienks *et al.* (2008) suggest that this explains Quebec's having the lowest university dropout rate in Canada (14, 25).

A true reflection of the province's university pathway would capture the population of a given age group that is enrolled in either a pre-university CEGEP program or a university program, in addition to those who have attained a university degree. Such a rate would provide a sense of the proportion of the province's youth who are seeking or have acquired a university degree.[16] Similar calculations would be useful in other provinces, such as B.C. and Alberta, where colleges offer university-transfer programs, allowing students to apply credits earned at the college level to a university course of study. Table 2.VI.4 demonstrates Quebec's university-stream participation rate, using data from 2004 and 2005. Counting only university students, Quebec's participation rate is 18 percent (19 percent if graduate students are counted). However, once pre-university CEGEP students are included, the university-stream participation rate reaches 25 percent (27 percent

15. Of course, it may be that Quebec students are more or less likely to complete their studies within the prescribed timeframe (three years), although these data are not currently available.

16 Even after attempting to account for the pre-university CEGEP stream, it remains difficult to compare the situation in Quebec to that in other provinces, for two reasons. First, a CEGEP program is not necessarily a means to a university end; it is an end in itself. Students who complete a pre-university CEGEP program graduate with a college diploma, regardless of their particular course of study. Second, including university-bound CEGEP students in the university participation rate expands the number of years in which a student can be enrolled from four to five (two at CEGEP, three at university). Outside Quebec, most undergraduate university programs are four years in length.

Myth: Participation Rates Are Always What They Seem *(continued)*

if graduate students are included). This is much closer to the actual rate for Nova Scotian students, as noted above.

Comparing participation rates across provinces, which offer post-secondary systems that are if not unique then certainly idiosyncratic, can be something of a fool's errand. We have nevertheless made an effort to craft a rate that better reflects the true composition of the student population. Drawing quick conclusions from a glance at the headline figures, especially when the links between tuition and participation are not as clear or as evident as we may think,[17] may serve to detract from—and not contribute to—the discussion of access to post-secondary education in Canada.

Table 2.VI.4 — Quebec University Stream Participation among 18- to 24-Year-Olds in 2004 (2005 for CEGEP Students)

	Students	Participation Rate
Undergraduate level	124,871	18%
Master's level	10,027	1%
Ph.D. level	749	0%
Pre-university CEGEP	48,969	7%
Total	**184,616**	**27%**
18–24 Population 2004	697,823	
18–24 Population 2005	685,005	
Average	691,414	

Note: Since university data are only available for 2004 and CEGEP data are only available for 2005, the combined participation rate uses the average population size of the two years as the denominator.

Source: MELS, 2008.

17. See Chapter 2 of the third edition of *The Price of Knowledge* for a longer discussion.

Chapter 2

VII. Conclusion

This chapter has reviewed Canada's achievements both in terms of educational attainment and the policy challenges that remain.

Despite our success at ensuring the majority of youth access post-secondary education, according to the data that we have presented post-secondary participation rates have actually been declining in recent years. This decline has been masked by the growth in the size of the youth population—the so-called "baby boom echo"—which meant that enrolment kept growing even as participation rates declined. What will happen next is difficult to predict with certainty. On the one hand, the size of the youth population will soon begin to decline, making growth in enrolment much more difficult to sustain. Indeed, the most recent data already show signs of enrolment decline. On the other hand, the recent downturn in the economy may make the labour market a much less attractive option to young Canadians than it has been in recent years. A greater proportion of high school graduates may opt for post-secondary studies, resulting in an increase in participation rates. While this may counteract the effect of the demographic shift in the short term, in the medium term it seems unwise to base education policy on the hopes of a delayed economic recovery. We need to find other ways of encouraging post-secondary participation, especially among those currently underrepresented on college and university campuses.

The economic cycle notwithstanding, therefore, we need to remain focused on the question of how to increase post-secondary participation, which means paying particular attention to the situation of those groups that are least likely to enrol in college or university. Unfortunately, this chapter also confirms that little progress has been made in recent years in making access to post-secondary education more equitable. Youth from higher-income families are still twice as likely to go to university as are those from lower-income families. The gap that separates the educational outcomes of Aboriginal youth from those of their non-Aboriginal counterparts is not closing. New data also confirm what many in Canada's urban areas already know first-hand: that not all immigrant groups have above-average educational outcomes.

Simply put, the job of ensuring that Canada is prepared for the challenges that lie ahead is far from complete. One key to doing so will be ensuring that each member of each new generation, regardless of family background, benefits from an equal opportunity to participate in higher education.

One question that remains, however, is whether it is reasonable to have expected that the access gaps that are evident in Canada would have narrowed since the early 1990s. Some might argue that given the increase in the cost of post-secondary education during that time (and especially during the 1990s), access should have become less equitable. Others might point to the reinvestments in student assistance by both federal and provincial governments, beginning in the late 1990s and continuing throughout most of the current decade, as a reason to think that the opposite should have occurred. Then there is the pull of the labour market to consider. Those in comfortable economic circumstances can afford to delay their entry into the labour market to allow time to obtain a post-secondary credential. When times are good and employees in demand, however, it is more difficult for people from low-income families to turn

down the opportunity to earn income as soon as they can, even if this means forgoing further education. Other things being equal, then, it may be more difficult to improve the equity of access during periods of economic growth, such as the one that Canada has experienced until just recently. Finally, there is the question of whether significant improvements in access for underrepresented groups of students simply depend on the existence of a range of policies that go beyond those that are currently in place, such as student financial assistance programs.

These are the types of difficult policy questions that we will return to in the later chapters of this volume.

3

Persistence in Post-Secondary Education

Andrew Parkin and Noel Baldwin

Chapter 3

I. Introduction

The most important immediate outcome of entry into post-secondary education is graduation. Colleges and universities traditionally put considerable effort into the recruitment of new students, while governments have made facilitating access to higher education a priority. If these efforts are to bring maximum benefits in the long run, however, the students brought into post-secondary education must be successful in their studies. This success cannot be taken for granted. Indeed, the question of how students fare after initial entry into post-secondary studies has become increasingly important as participation in higher education has grown. As a recent OECD report puts it, "the growing portion of disadvantaged students enrolled in tertiary education makes the ongoing issue of their retention and programme completion an increasing[ly] important concern in tertiary education" (Santiago *et al.*, 2008, p. 50).

This chapter concerns itself with the issue of persistence, defined here as the ability of students to continue their post-secondary studies from one year to the next and ultimately to proceed to the completion of their program. It should be recognized at the outset that poor persistence is not always a bad outcome. For a host of reasons, discontinuing studies may be the most appropriate course of action for certain individuals (Grayson & Grayson, 2003, p. 9). Generally speaking, however, "although 'dropping out' is not necessarily an indicator of failure from the perspective of the individual student, high drop-out rates may indicate that the education system is not meeting students' needs" (OECD, 2008, p. 92).

More specifically, low levels of persistence pose a problem for students, institutions and societies. For students, the failure to complete their program of study leaves them without a credential that would lead to greater earnings and opportunities. For institutions, low levels of persistence may signal the poor use of resources (e.g., resources spent on recruitment and admission are not matched by continuing income in the form of tuition and per-student government funding) or poor performance in terms of teaching or administration. For societies, poor persistence results in lower educational attainment at a time when higher levels of education are important to both prosperity and quality of life. To the extent that specific groups have lower rates of success in post-secondary education than others, poor persistence can also exacerbate social inequities that are costly to society.

For these reasons, persistence is an issue of concern to policy-makers. Fortunately, as will be discussed below, policy-makers in Canada can now benefit from a significant amount of new research on the persistence of Canadian post-secondary students. Both the availability of new data (most notably from Statistics Canada) and the considerable investment in recent years in research on access and student success by the Canada Millennium Scholarship Foundation has allowed the issue to be explored in more depth than ever before. The goal of this chapter is to review the latest Canadian research on persistence rates and determinants of student success and to offer some reflections on the performance of Canada's post-secondary system.

The data presented here will show that between one in five and one in ten students in Canada who access post-secondary education leave without completing their program of study. Many more take longer than expected to graduate. Of course, for certain groups of students—that is to say, more marginal students whose success must be ensured if we are to improve educational outcomes in Canada—persistence rates are lower. This is the challenge to which educators must respond: to act to ensure that all those who enter post-secondary education have the opportunity to succeed. As we will demonstrate, the efforts of post-secondary institutions to respond to this challenge—by putting in place support services for students at-risk of discontinuing their studies—can be bolstered by the lessons learned through demonstration projects already underway.

Chapter 3

II. Persistence Rates in Canada

Background

Until recently, there was relatively little research on the issue of student persistence in post-secondary education in Canada (Grayson & Grayson, 2003, p. 3). "We know very little about how many students drop out of programs, or why," concluded a major review of post-secondary education in Ontario as recently as 2005 (Rae, 2005, p. 15). In recent years, however, new research tools have become available that are enabling Canadian researchers to examine the issue much more seriously than before.

The most important of these tools is the longitudinal Youth in Transition Survey (YITS) of Canadian youth conducted since 1999 by Statistics Canada. One of the ways it can be used is to study persistence, since entering and leaving education after high school is one of the main activities the survey tracks. Another tool is the Post-Secondary Student Information System (PSIS), which contains a vast array of student information collected by colleges and universities and passed on to Statistics Canada, including a number of personal characteristics as well as enrolment and program information. While both the YITS and PSIS data are collected by Statistics Canada, in-depth analysis of these data in order to investigate the issue of student persistence was made possible by the Millennium Research Program through its commissioned research on access and student success, including research conducted through the MESA project.[1]

New Research

Until recently, data on persistence in Canada were obtained from institution-specific studies and reports. A review of the literature published in 2003 by Grayson and Grayson found evidence that both first-year attrition and long-term degree completion rates in Canada were similar to those in the United States, where research on the subject has been more extensive. In both countries, first-year attrition averages about 20 to 25 percent, while over the long term about 60 percent of students beginning their studies could be expected to graduate (2003, pp. 7–8).

There are, however, several significant limitations of institution-specific data. The first is that institution-specific findings may not be generalizable and so reveal little about the performance of the post-secondary sector as a whole. The second is the inability of institution-specific studies to differentiate between students who discontinue their studies and students who simply switch to another institution. The third is that few institution-specific studies are sufficiently longitudinal, and they therefore cannot distinguish between those who drop out permanently and those who "stop out" temporarily, only to re-enter post-secondary education at a later date. As a result of the latter two issues, institution-specific studies tend to underestimate rates of persistence.

1. "Measuring the Effectiveness of Student Aid" (MESA) is a research project designed to evaluate the impact of the millennium access bursaries. It is funded by the Canada Millennium Scholarship Foundation and conducted by the Educational Policy Institute in partnership with the School of Policy Studies at Queen's University. See http://www.mesa-project.org.

Table 3.II.1 — Change in Post-Secondary Education Status over Time

Age of Youth	% of All Youth*				Discontinued Post-Secondary Studies (% of Youth Having Participated in Post-Secondary Studies)
	Graduated from Post-Secondary Studies	Continuing Post-Secondary Studies	Never Enrolled in Post-Secondary Studies	Discontinued Post-Secondary Studies (% of all Youth)	
18–20	7%	43%	45%	5%	**9%**
20–22	23%	38%	28%	11%	**15%**
22–24	45%	19%	23%	12%	**16%**
24–26	60%	7%	21%	12%	**15%**
26–28	66%	4%	19%	11%	**14%**

*NB: Rows may not total 100% due to rounding.

Source: Shaienks and Gluszynski, 2009; authors' calculations.

Information on persistence in Canada has greatly improved as a result of the availability of the aforementioned YITS data, which has tracked the behaviour of a cohort of youth over time at two-year intervals since 1999. Data obtained from a longitudinal study of a national sample of youth overcome all three limitations of institution-specific data mentioned above (see Finnie & Qiu, 2008, p. 181 ff.).

The data from the so-called "YITS-B" cohort of youth aged 18 to 20 in 1999 provide five separate "snapshots" of their status at successive two-year intervals. The results show increases over time in the proportion participating in post-secondary education, as well as the proportion discontinuing their studies (see Table 3.II.1). The post-secondary dropout rate rises significantly between the ages of 18 to 20 and 20 to 22 before stabilizing at 11 to 12 percent of all youth or about 15 percent of those who begin post-secondary studies.

The 15 percent figure represents the proportion of post-secondary students who had discontinued their studies and not returned at the time of the fifth wave of the survey. The proportion of students who had ever dropped out of a program of study would, of course, be higher. As the YITS survey makes clear, many of those who discontinue their post-secondary studies do so only temporarily. For example:

- Shaienks, Eisl-Culkin and Bussière report that of those who had dropped out relatively early in their studies (i.e., by the time they were 18 to 20 years old), 35 percent returned within two years and 46 percent returned within four years. One in four graduated within four years of their initial decision to discontinue (2006, p. 15, 38, Table C5).
- Similarly, Finnie and Qiu find that "by one year after first having left school, 22.3 percent of college leavers and 35.6 percent of university leavers have returned. By three years later… the returns stand at 40.3 percent and 54.0 percent, respectively, for college and university leavers. These are substantial numbers" (2008, p. 193).

- Finally, Martinello's analysis of the same data shows that of the 40 percent of university undergraduates who did not complete their initial program of study within the YITS survey tracking period, 78 percent entered a second program; for college students, the figures are 47 percent and 65 percent respectively (2008, Figures 1 and 3, pp. 219–221). Thus only about one in five students who did not complete their first university program ended their post-secondary education at that point; the equivalent figure for college students is roughly one in three. The remainder either transferred directly to another program or institution or re-enrolled, after a period away from studies, within the tracking period covered by the survey.

It is thus possible to calculate different rates of persistence and discontinuation depending on how this movement of students into, out of and around the post-secondary system is treated. For example, a separate analysis of the same YITS-B data examines the proportion of students who by the time they had reached the age of 24 to 26 (i.e., the fourth wave of the YITS study) had dropped out of either the college or university "stream" of post-secondary education and not returned to that stream. This approach yields a drop-out figure of 21 percent, including 16 percent of those who had started at university and 25 percent of those who had started at college (Shaienks, Gluszynski & Baynard, 2008). The difference between this figure of 21 percent and the previously noted figure of 15 percent is explained by the fact that a number of students who discontinue a university program go on to enrol in college, or vice versa. These students therefore are not "true" dropouts, in that they return to post-secondary education (albeit in another stream).

Any attempt to calculate "true" rates of persistence and discontinuation has to go beyond the "snapshot" approach that simply reports students' status at a given moment in time, while at the same time fully taking into account both the switching of programs, institutions and post-secondary education streams and the tendency of many students to "stop out" and subsequently return to their studies. Such an endeavour has recently been completed by Finnie and Qiu (2008). Using the YITS-B data, they calculate the likelihood of students graduating within a specific time period, regardless of whether or not they switched or stopped out at some point along the way.

Finnie and Qiu's findings show that 82 percent of university students continue with their original program of study (or, in a very small number of cases, graduate) after the first year, as do 74 percent of college students (2008, p. 191, Table 2). Of the remaining 18 and 26 percent respectively, a relatively small number switch programs within the same institution. Excluding these "within institution" switchers, this means that universities lose about 14 percent of their students and colleges about 20 percent after the first year of study. Yet about half of these university students and a third of these college students in fact continue their studies elsewhere—they simply switch institutions. The real proportion of those who leave post-secondary education after their initial year of studies is 7.9 percent for university students and 12.9 percent for colleges.

Taking their analysis further, Finnie and Qiu calculate that while only 54 percent of university students and 58 percent of college students graduate from their original program within five years, many of the remaining students either continue in that program or, if they discontinue it, switch programs within the same institution or switch institutions. Some of these continuers and switchers stop out for a period of time before returning. Relatively few non-graduates can therefore be accurately classified as "dropouts."

From an institutional perspective (counting students who have switched programs within the same institution as continuers rather than leavers), the five-year drop-out rate is 26 percent for university students and 32 percent for college students (2008, p. 191, Table 2). The remainder (i.e. 74 percent and 68 percent of university and college students respectively) have either graduated or are continuing in their original program or another program within

the same institution. These drop-out rates, however, still do not take into account those who switch institutions or who stop out and subsequently re-enrol in another program or institution at a later date and who thus are not true dropouts. Once all these "switchers" and "stop-outs" are taken into account and reclassified as either graduates or continuers, the five-year drop-out rate falls to 10 percent for university students and 18 percent for college students (see Table 3.II.2). This represents by far the best estimate of overall persistence rates currently available in Canada, at least for young adults.

Note that drop-out rates change relatively little after the second year. This does not mean that virtually no one drops out after year two. It means rather that after year two, the system has reached a kind of "steady state" in which the number of new drop-outs is roughly equally to the number of previous drop-outs who have come back to school. The data do confirm, however, that most discontinuation occurs in the early years of study.

It should also be noted that these data pertain only to the "YITS-B" cohort of youth who were 18 to 20 years old in 1999 and who were tracked until they were 24 to 26. The sample therefore is not representative of the general post-secondary population, which includes students who enrol for the first time in their late twenties or even later. It can be assumed therefore that the results presented here are somewhat more positive than what could be expected for the general post-secondary population, since, as will be discussed below, older students tend to have more trouble persisting. In this context, it is interesting to note that Finnie and Qiu have recently made a first attempt to conduct the same analysis using the data from the "YITS-A" cohort of youth who were 15 years old in 1999. Their analysis shows that, on the whole, three-year graduation rates and drop-outs rates from college and university are remarkably similar to those reported for the slightly older "YITS-B" cohort, although some specific results are slightly more positive, as could be expected for students of a younger age. For instance, the three-year graduation rate for the younger YITS-A college studentsis 62 percent, compared with 57 percent for the YITS-B students (Finnie and Qiu, forthcoming).

In a separate study of the persistence and mobility of students in Atlantic Canada, using data from the Post-Secondary Student Information System (PSIS), Finnie and Qiu are once again able to confirm

Table 3.II.2 — Overall Persistence Rates of Young Adults in Post-Secondary Education in Canada*

	Graduated	Still in Post-Secondary Education	Discontinued Post-Secondary Education
College			
Year 1	12.0%	75.2%	12.9%
Year 2	36.9%	45.8%	17.3%
Year 3	57.0%	25.1%	17.9%
Year 4	66.2%	14.8%	19.0%
Year 5	73.1%	8.8%	18.0%
University			
Year 1	1.1%	91.0%	7.9%
Year 2	3.6%	86.7%	9.6%
Year 3	11.2%	78.8%	9.9%
Year 4	45.0%	45.2%	9.8%
Year 5	69.4%	20.4%	10.2%

*Note: Columns may not total 100% due to rounding.

Source: Finnie & Qiu, 2008, p. 197, Table 6.

the same general pattern.[2] They analyze the patterns of students enrolled in the twenty-two public post-secondary institutions in Atlantic Canada over a period covering the academic years 2001–02 to 2004–05. The nature of the PSIS data (individual records for each student in each year of study) allows longitudinal student records to be created by linking each student file across the years of the dataset. The PSIS data project was initially piloted in the four Atlantic provinces; thus, the most extensive and robust data were available for that region. Statistics Canada also prioritized the processing of the Atlantic college PSIS data for this project, which allowed PSIS university and college data to be linked together for the first time.

Looking at first-year transition rates using a restricted sample of first-time entrants to post-secondary education aged 17 to 20, Finnie and Qiu find that 79.8 percent of university undergraduate students continued their studies at the same institution into second year. In the college sector, 23.5 percent of students graduated after one year while 52.6 percent continued their studies at the same institution into second year. Only 5.1 percent of university undergrads and 1.3 percent of college students switched institutions after their first year. Finally, the PSIS first-year university leaving rate is 15.1 percent, and the first-year college leaving rate is 22.6 percent (see Table 3.II.3). (Note that by accounting for "switchers" the institutional drop-out rate of 20.2 percent for university students falls significantly to the "true" drop-out rate of 15.1 percent.)

The data also show that an additional group of students who made it past first year drop-out in the second year of study and that the cumulative drop-out rate after two years of study is 24.5 percent and 33 percent for university and college students respectively (Finnie and Qiu, 2009, Table 3). Two years after enrolling, 66.4 percent of university students were still studying at the same institution, as were 13.1 percent of college students; a little over half of college students have graduated (see Table 3.II.3).

These drop-out rates are higher than those derived from the YITS sample as reported above. This difference is explained by differences between the two datasets and by limits that apply to the PSIS-based study but do not apply to the YITS-based one. First, the PSIS-based data does not take account of those who "stop out" of their studies or return after having discontinued. This results in higher leaving rates. Secondly, in the nationwide YITS study, students can be tracked across provincial boundaries as long as they continue to respond to the surveys being applied. However, while PSIS itself is a national

Table 3.II.3 — Cumulative Transition Rates After Two Years for Students Entering Atlantic PSE Institutions (17- to 20-Year-Olds)

	Continuers	Graduates	Switchers	Leavers
University				
Year 1	79.8%	0.1%	5.1%	15.1%
Year 2	66.4%	0.7%	8.4%	24.5%
College				
Year 1	52.6%	23.5%	1.3%	22.6%
Year 2	13.1%	52.2%	1.7%	33.0%

Note: Unlike the figures in Table 3.II.2, these figures do not account for students who return to studies after leaving.
Source: Finnie & Qiu, 2009, Table 5.

2. The PSIS data set consists of administrative data collected from all of Canada's public post-secondary colleges and universities. Each student who registers at a public post-secondary institution has a data record in PSIS for each year. More information on PSIS can be found at: http://www.statcan.gc.ca/concepts/psis-siep/index-eng.htm.

database, Finnie and Qiu did not have access to student records west of New Brunswick for their analysis. Any student who left the four Atlantic provinces was lost to the study and would appear in this study as a "leaver."

In order to check the validity of the PSIS-based results, Finnie and Qiu re-ran their YITS-based results but with a restricted YITS sample that would more closely resemble the PSIS one. Once this is done, the results appear more similar (see Table 3.II.4). The similarity between the rates observed in the two data sets is a positive confirmation of each study's findings.

The study of the Atlantic region confirms again that somewhere between one in ten (university) and one in five (college) post-secondary students are not persisting past the early years of study. These figures—which take into account the effect of switching institutions and, in the case of the original, larger YITS study, "stopping out" (or leaving and returning)—are perhaps not as high as previous institution-based studies had indicated. Nonetheless, it represents significant lost opportunities for individuals, for institutions, and for society. In the next section, we take up the questions of who is discontinuing their studies, and why.

Table 3.II.4 — First-Year Transition Rates in the Atlantic Region in YITS and PSIS

	Continuers	Graduates	Switchers	Leavers
University				
PSIS	79.8%	0.1%	5.1%	15.1%
YITS	81.2%	0.4%	7.8%	10.5%
College				
PSIS	52.6%	23.5%	1.3%	22.6%
YITS	50.4%	27.1%	2.1%	20.4%

Note: The YITS sample here is restricted to more closely match the PSIS population and therefore differs from the one used to produce Table 2, above. Note also that, unlike in Table 3.II.2, these figures do not account for students who return to studies after leaving.

Source: Finnie & Qiu, 2009, Table A.4.1.

Chapter 3

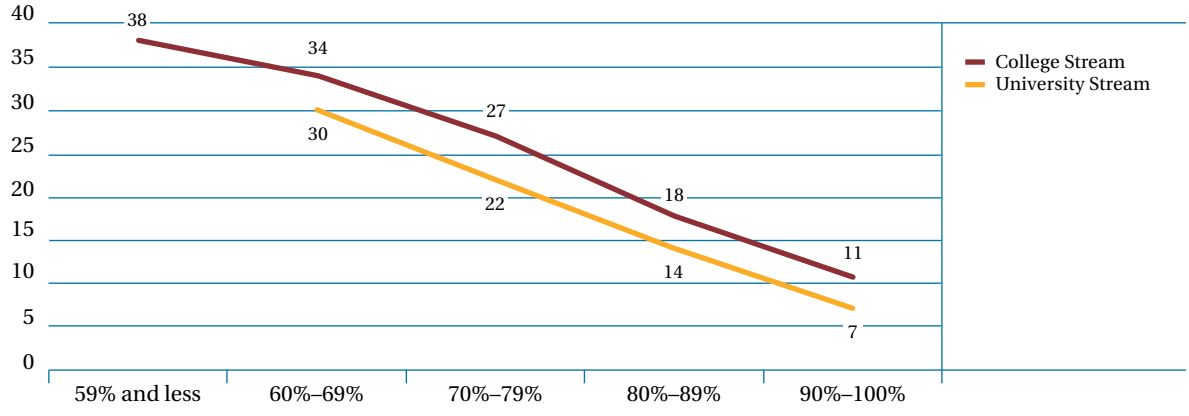
III. Who Leaves Post-Secondary Education and Why?

Different studies tend to offer somewhat different portraits of the attributes and factors associated with dropping out. Conclusions reached by one study are not always replicated in others (Grayson & Grayson, 2003, p. 31). Moreover, studies often lack the instruments or the sample to allow them to assess with precision the importance of certain key factors, such as the type or amounts of student financial aid received by students or students' ethno-cultural or socio-economic backgrounds. While these points and the need to avoid what Grayson and Grayson call the attempt to "fabricate" generalizations should be kept in mind, several patterns can nonetheless be derived from the Canadian literature on persistence reviewed for this chapter.[3]

Gender, age and dependants: Men are more likely to drop out than women, and older students and students with dependent children or who become parents during their studies have greater difficulty persisting.

Academics: Academic performance and engagement at both the high school and post-secondary level are associated with persistence (see for example Ma and Frempong, 2008). Simply put, grades are a very strong predictor of who is likely to succeed in their post-secondary studies and who is likely to discontinue. As Shaienks, Gluszynski and Bayard (2008, p. 20) report with respect to high school grades and studying habits, "learning habits are developed early and often persist with progressive levels of education" (see Figure 3.III.1). While weaker and less engaged

Figure 3.III.1 — Percentage of Post-Secondary Students Aged 24 to 26 Who Discontinued Their Original Post-Secondary Stream* by Grade Average in High School



* Note: While some of these students discontinued their studies, others switched streams.

Source: Shaienks, Gluszynski & Bayard, 2008.

3. One source included in the research summarized in this section is not in fact Canadian. A review of the link between persistence and student financial aid published recently by Don Hossler and his colleagues focuses almost exclusively on the American experience. However, as it summarizes the conclusions of a wide range of studies, we have decided to include it in our discussion where relevant.

students are less likely to persist, however, Shaienks and Gluszynski emphasize that a significant portion of capable students nonetheless drop out (2007).

Parental income: The Canadian literature offers little insight into whether parental income is correlated with persistence. The YITS data analyzed to date are of little help in this regard because they contain no information on parental income. Parental income data is collected for a younger cohort of youth (YITS-A), but their progress through post-secondary education has yet to be fully tracked. (An early attempt to analyze persistence using the YITS-A data by Finnie and Qiu suggests that youth from higher income families are less likely to drop out of college programs (Finnie and Qiu, forthcoming).)

Financial aid: It appears that receiving need-based student assistance in the form of loans or grants can improve persistence. At the same time, students whose financial aid package is not adequate to cover the actual cost of studying or who accumulate high levels of debt are less likely to complete their studies (Grayson & Grayson, 2003, p. 34.; Hossler *et al.*, 2008; McElroy, 2004, 2005a, 2005b, 2008a). This suggests that within a financial aid package, the non-repayable grant component, which can limit the accumulation of debt by substituting for loans or alternatively provide extra funds not provided through loans, is the key component in encouraging persistence. As Hossler *et al.* put it, "loans are not as effective as grants in enhancing persistence" (2008, p. 102). This conclusion is consistent with those reached by Lori McElroy in the context of her studies of the impact of the introduction of millennium bursaries in Canada in 2000 (for a summary of McElroy's studies, see Canada Millennium Scholarship Foundation, 2006). It is interesting to note, however, that according to Hossler and his colleagues, the real effect of financial aid (especially grants) on persistence is an "indirect" one, in that it allows students to work less, worry less and focus more on the various components of student life. They explain: "the most beneficial effect of financial aid may be that it increases students' freedom to become more engaged in the academic and social environments of the institutions they attend. This may in turn lead to increased student persistence" (Hossler *et al.*, 2008, p. 111; see also p. 103).[4]

Parental education: The relationship between persistence and parental education is unclear. An analysis of YITS data prepared for this chapter shows that the proportion of students who drop out of college or university five years after beginning their studies decreases as parental education increases. Specifically, 21 percent of those whose parents did not complete high school dropped out, compared with 12 percent of those whose parents completed university. As Finnie and Qiu point out, however, the relationship holds more strongly for college students and is not so evident in the case of university students (2008, p. 201).[5] Other studies offer a slightly different view. Given the important influence of parental education in the initial decision of youth to pursue a post-secondary education, Shaienks and Gluszynski find it interesting that in their analysis "drop-out rates did not differ significantly between students whose parents held various educational attainments" (2007, p. 18). This is confirmed through further analysis of the YITS data conducted by Martinello, who notes that "surprisingly, parents' education and the importance of PSE to parents were unrelated to students' success in their first program" (2008, p. 230; 235). According to Martinello, however, parental education is related to the decision of students to re-enrol after initially discontinuing their studies, a point that is discussed further below.

Career guidance: There is some evidence that certainty about career goals positively affects persistence. In other words, students are more likely to stay in school when there is a clear connection in their minds between their studies and their intended career path (Berger, Motte & Parkin, 2007, p. 40; Canadian Career Development Foundation, 2007, p. 21; Grayson & Grayson, 2003, p. 28).

Aboriginal status: Until recently, there has been little solid quantitative evidence available about the persistence of Aboriginal students. This has been the case despite the fact that the lower educational participation and attainment rates of Aboriginal

4. Note that these hypotheses will be explored further in the final report from the MESA project, which will be published in 2010.

5. Finnie and Qiu speculate that the weaker effect of parental education on university persistence compared with access could be the result of a "selection effect": "once students are selected into the university system, further background effects are nullified because they are an especially talented, accomplished group who have overcome the barriers that often prevent others of their type from making this start, and are therefore able to overcome any additional challenges they may face as they advance through their studies" (2008, p. 201).

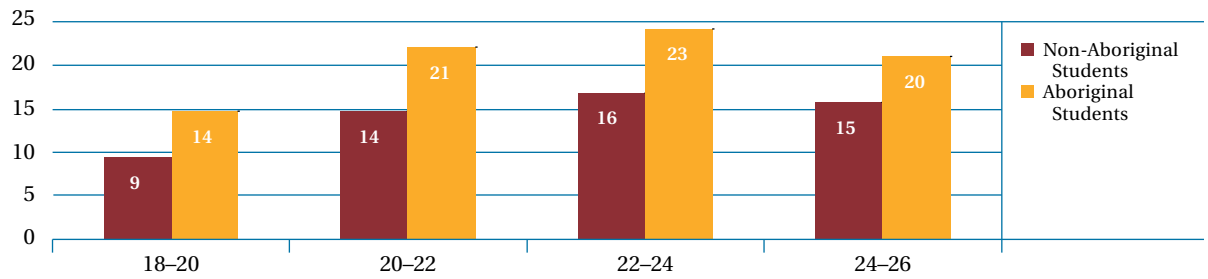
students are well documented (see, for example, Berger, Motte & Parkin, 2007, pp. 20–22), as is the scale of the obstacles facing Aboriginal students (Malatest & Associates Ltd., 2004, p. 1). Analysis prepared for this chapter confirms that the persistence rates of those Aboriginal students who do embark on post-secondary studies are lower than those of their non-Aboriginal counterparts (see Figure 3.III.2). The drop-out rate of Aboriginal post-secondary students is between 33 and 56 percent higher (depending on the age of students) than the rate for non-Aboriginals. Higher drop-out rates for Aboriginal students are also reported by Shaienks, Gluszynski and Bayard (2008). It should be noted, however, that the YITS sample excludes First Nations youth living on reserve. Since these students tend to face the greatest obstacles in moving through the education system, the figures presented here, if anything, can be said to overestimate the persistence rates of Aboriginal students as a whole.

In addition to studying the demographic, behavioural and attitudinal factors associated with persistence, researchers in Canada have also reported students' own explanations. One study of students two years after their final year of secondary school found that among those who had already discontinued post-secondary studies, lack of interest in their studies (29 percent) or the program not meeting expectations (27 percent) were the reasons most likely to be cited for dropping out. An additional 14 percent said they were undecided about their career. Taken together, reasons related to a lack of interest or satisfaction with their program or a lack of direction in their career were cited as the reason for discontinuing studies by 52 percent of dropouts. Financial reasons were cited by one in five (22 percent) of those who discontinued studies, while academic difficulties were cited by 12 percent (Berger, Motte & Parkin, 2007).

These findings are in line with those derived from the first two waves of the YITS study, which suggest that "among youth who had left post-secondary education without completing their program, the major reason cited related to a lack of program fit… Ultimately, a notable proportion of post-secondary leavers stated that they had done so either because they didn't like their program or their program wasn't 'for them' or because they were going to change programs or schools" (Lambert *et al.*, 2004, p. 19). Specifically, one-third of those who left their studies did so because they did not like their program or did not feel it fit with their interests. Another nine percent left to change schools or programs. Financial reasons were the next most important reason: 11 percent of those who discontinued their studies did so because they did not have enough money. These results are echoed by those produced by Finnie and Qiu, who find that "students leave school mostly because the schooling is judged not to be the right thing for them or they want to do other things such as work, make a change or take a break" (2008, p. 193).

Some refinement of these findings is provided by Shaienks and Gluszynski, who examine those who had dropped out by age 24 to 26 according to whether or not they had to borrow to finance their post-secondary

Figure 3.III.2 — Percentage of Post-Secondary Students Who Have Discontinued Their Studies (by Age Group and Aboriginal Status)



Note: The YITS sample excludes First Nations youth living on reserve.
Source: YITS (Cohort B)—special calculation.

education. They find that for students who did not borrow, the most likely reason offered for discontinuing their studies remains that they did not like their program. For those who borrowed, on the other hand, dissatisfaction with the program and not having enough money were equally likely to be mentioned (2007, pp. 21–22). This difference between the reasons offered by different groups of students again points to the difficulties associated with trying to develop general explanations that apply to all students who leave post-secondary education.

Finally, there is new evidence that even institutions' own administrative procedures, such as the timing of course withdrawal dates and tuition refund policies, can affect persistence (Martinello, 2009).

We can summarize this review of the research on who drops out and why by noting that, while different studies of persistence may stress different individual factors that affect student outcomes, they all agree that a variety of factors are at play. This observation leads to the conclusion that policy responses should be comprehensive in scope. Thus Grayson and Grayson argue that "attrition should be addressed systematically throughout the university rather than through isolated policies implemented by various departments of a college or university" (2003, 39), while Berger, Motte and Parkin maintain that:

> Specific interventions designed to alleviate a narrow set of barriers—by targeting one kind of barrier, such as academic ability—will be limited in their effectiveness because they leave the other sources of the problem untouched. Interconnected barriers need solutions that are wide in scope and that include elements of academic support, financial assistance, and the provision of information and encouragement. (2007, 34)

Similarly, with specific reference to Aboriginal students, Malatest writes that "no program or initiative will be effective unless it factors in the entire scope of barriers." (Malatest, 2004, 11).

Myth: PSE Continuers "Get it Right" on Their First Try

In assessing why some students drop out and others persist, it is important to avoid drawing an over-simplistic contrast between those who enrol in a program of studies and stick with it and those who leave. As we have seen above, many of those who discontinue their studies subsequently re-enrol. In other words, many students make a "second attempt" at post-secondary education, and this is an important element in contributing to overall persistence rates. This point is emphasized by Shaienks and Gluszynski, who show that less than 40 percent of those who persist only attempt one program, compared to 64 percent of dropouts (2007, p. 21). As one journalist reviewing the latest data on persistence put it, "today's students are a mobile bunch, just about as likely to take a zigzag course through college and university as they are to follow a straight line" (Church, 2008; see also Finnie & Qiu, 2008, p. 202). The difference between many of those who persist and those who drop out, therefore, is not that those who persist achieved optimal "program fit" on their first try but that they were able to make an adjustment that led them to stay enrolled.

It is in this context that Martinello's findings on the influence of parental education become especially important. As noted above, Martinello finds that parents' education was unrelated to students' success in their first program. He finds, however, that "for students who stopped their first program…Parents' education was positively and significantly correlated with the decision to re-enrol in another PSE program." On this basis, he argues that parents' education "appears to be related to students' ability to adjust to adversity in their first program by finding and undertaking alternative programs" (2008, p. 230).

In light of this, one difference between those who persist and those who drop out can best be viewed in terms of resilience, a concept that

Myth: PSE Continuers "Get it Right" on Their First Try *(continued)*

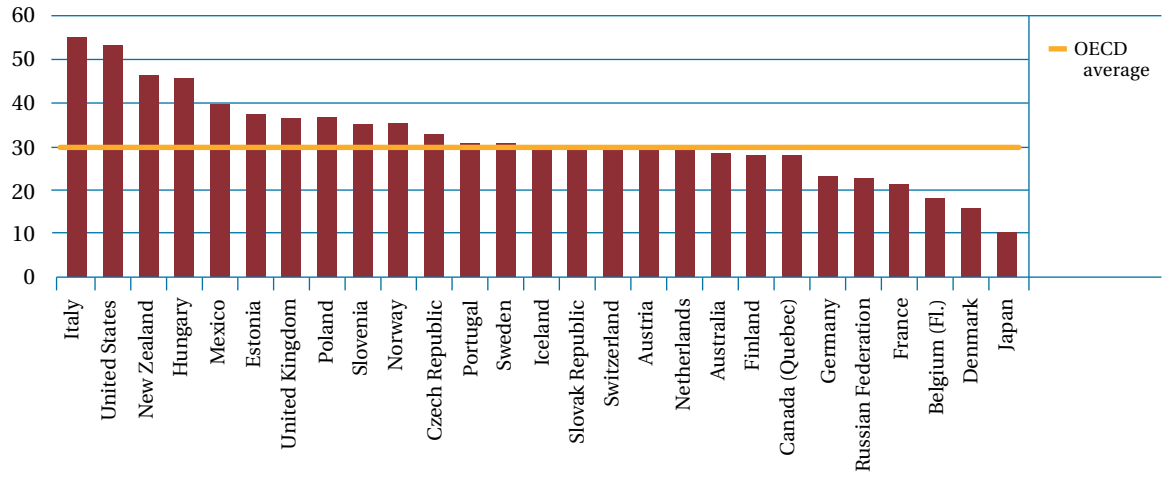
features in health and social work literature but which has lately been the focus of career development theory and curriculum development (Canadian Career Development Foundation, 2007). In general, resilience in this context refers to "the capacity to overcome obstacles, adapt to change, recover from trauma or to survive and thrive despite adversity." Notably, factors contributing to resilience in youth include supportive relationships with adults and parental expectations (Canadian Career Development Foundation, 2007, pp. 3–4). Thus, family background is correlated with resilience, which in turn is an essential tool that students need to persist in their studies, especially when setbacks are encountered and changes of plan required.

International Data

In view of this emerging data about persistence of Canadian post-secondary students, a reasonable question for discussion arises: are Canada's persistence, completion and drop-out rates good or bad? Certainly drop-out rates on the whole appear better than previously reported, although this is likely because, as was always suspected, previous institution-based studies tended to overestimate them. Looking outward, international data available from the OECD can provide some additional context for the Canadian data presented here, especially the results of the two studies by Finnie and Qiu.

The international comparison seems to provide a basis for feeling positive about the Canadian situation. The OECD average drop-out rate is 31 percent (Figure 3.III.3); the Canadian result presented here (for Quebec only) is below that

Figure 3.III.3 — Proportion of Students Who Enter a Tertiary Program and Leave Without at Least a First Tertiary Degree (2005)



Source: OECD, 2008. Table A4.1.

International Data *(continued)*

and among the best. Unfortunately, these international comparisons are less than perfect due to differences in methodology used to calculate drop-out rates across countries as well as differences in the structure of each nation's post-secondary education system. Indeed, these differences are significant enough to render the comparisons not entirely useful. The OECD figures also do not fully account for those students who switch institutions mid-stream in a period of study or those who stop out for one or more academic years before taking up their studies again, whether at the same institution and level or at a different institution or level. The fact that the Canadian entry in the OECD figure only reflects Quebec is also, of course, less than ideal.

Given the difficulty in comparing the new data on persistence in Canada either with previous studies or with international data, it is perhaps more productive to leave aside the question of whether our results are good or bad and focus instead in what has been learned. In this regard, the importance to policy-makers of the work done by Finnie and Qiu, Martinello and others showing the rates at which students who leave their first program of study return to some form of post-secondary education cannot be understated. Looking at the issue of persistence from a perspective that is wider than that of an individual institution provides a better sense of what is happening in the post-secondary system as a whole. This brings the discussion back to the issue of the degree of movement into, out of and through the Canadian post-secondary system. In comparison to students abandoning their studies permanently, it is clearly preferable for students to stop out and return to studies later or switch from a program in which they do not enjoy success into one in which they do. It is far from clear, however, whether this amount of switching and pausing is optimal, either from the perspective of the individual student, or from that of the system as a whole. For this reason, the paths taken by these "switchers" and "pausers" are in fact of equal if not greater interest to policy-makers than those of the "graduates" and "continuers."

IV. Conclusion: The Need for Intervention and Evaluation

While the bottom-line completion rates may be more encouraging than expected, it remains clear that for many young people the route through the post-secondary education system is hardly straightforward. Between one in five and one in ten students are discontinuing their college or university programs and not returning, and many more are taking longer than expected to graduate. Clearly, many students would benefit from additional support—both before and after arriving on a post-secondary campus, and in both financial and non-financial forms. As Santiago and his colleagues argue, "greater emphasis needs to be placed on equity of outcomes with policies more targeted at ensuring the success of students from under-represented groups. This would translate into more emphasis being placed on student progression throughout studies with special support and follow-up measures to assist those students at risk of failure" (Santiago *et al.*, 2008, p. 66). Universities and colleges must be able to identify their students from backgrounds that might lead them to experience challenges along the route to graduation and provide them with support programs created for and tailored to them so that they can make the necessary adjustments over time in order to succeed. Thus while the findings discussed in this chapter can allow governments and other policy-makers to look at persistence at the system-wide or "macro" level, institutions will increasingly need to focus on the "micro" level of subsets of their student populations. Their actions regarding these groups will help determine the success of the Canadian post-secondary system as a whole.

In this regard, the ongoing research by the Canada Millennium Scholarship Foundation on practices that might improve outcomes for selected groups of students is particularly relevant. The OECD's recent overview of tertiary education lamented that "presently…there is little evidence about the effects of institutional support programmes on student outcomes" (Santiago *et al.*, 2008, p. 50). This observation has been echoed in Canada. A recent independent review of post-secondary education commissioned by the Government of Ontario concluded specifically that more research was needed in the area of retention, noting that "it is ironic that institutions that spend so much time and money insisting on evidence-based decisions, spend so little time on research that evaluates higher education itself" (Rae, 2005, 15). Similarly, a separate survey of literature in the subject of Aboriginal peoples in post-secondary education in Canada found that there is "virtually no worthwhile empirical or quantitative evidence on the subject" of interventions believed to help increase enrolment and completion rates of Aboriginal students. The authors underlined "the need for more comprehensive studies that would include a larger statistical tracking element" (Malatest, 2004, 10). The Foundation, however, is currently completing a select number of research experiments designed to provide exactly this type of information. These experiments include Foundations for Success, a pilot project currently underway at three Ontario community colleges, that is designed to respond to the concern that too few Ontario college students complete the program they initiate. Foundations for

Success directs students who are deemed to be at risk of dropping out to case managers who in turn direct them to the specific support services they need most. They also include LE,NONET, a research project designed to test the effectiveness of initiatives to improve the retention and success of Aboriginal students at the University of Victoria in British Columbia. Early results of these projects have started to become available (see University of Victoria, 2008, and Malatest, 2009a, 2009b, and 2009c). The completion of these and similar projects will hopefully make it easier for colleges and universities to initiate and shape support programs so as to improve their performance as institutions and the success of their students.

Millennium Pilot Projects

Foundations for Success

Foundations for Success is a pilot project currently underway at three Ontario community colleges: Seneca College in Toronto, Mohawk College in Hamilton, and Confederation College in Thunder Bay. It is designed to respond to concern about completion rates by directing students who are deemed to be at risk of dropping out to case managers who in turn direct them to the specific support services they need most (see Malatest, 2009a).

The selection of participants began in the spring of 2007 at the time when entering college students are required to undergo post-admission examination. For the purpose of this project, the tests were also used to determine whether students could be deemed to be at-risk of dropping-out for at least one of three reasons: English placement results below college-level requirements; self-reported uncertainty regarding program selection and career direction; or self-reported difficulty in adapting to new environments.

At the end of the tests all students entering two-year programs were informed of the project and asked to sign an informed consent form that would make them eligible to participate in the project if their test results identified them as being at risk. Students who consented to participate and who were deemed at risk for at least one of the three attrition factors were randomly assigned into one of three groups:

- a "services" group that would be assigned case managers to direct them to services in accordance with the needs identified through the test;
- a "services plus" group that would be assigned case managers and also offered a financial incentive in the form of a bursary of $750 (representing approximately 50 percent of tuition per term) in the following term of study should they participate in at least 12 hours of approved support programming or campus engagement activities; and
- a comparison group that would be offered neither of these things.

Approximately 3,100 participants were recruited in three cohorts across the three colleges between the autumn of 2007 and the autumn of 2008. The case-managers were in place throughout the 2007–08 and 2008–09 academic years, and the students are being tracked until the autumn of 2009 to determine persistence and graduation rates.

Millennium Pilot Projects *(continued)*

Perhaps the most unique feature of the Foundations for Success project is the use of the case management approach to advise students identified as being at risk of dropping out. Case managers' initial interactions with students are informed by the results of the post-admission test. In addition, however, case managers follow students' progress during the two years of the project, responding to their needs and directing them to appropriate services available at the college. The main types of services to which case managers direct students are:

- tutoring and related academic support, both in program-specific subjects and in English for those with low English proficiency and who are required on the basis of their post-admission test score to take remedial English courses;
- peer mentoring, in which students are assigned to a trained student mentor who serves to answer questions about adapting to college life;
- career clarification workshops, followed by a group debriefing and an individual follow-up with a career counsellor, to confirm or help revise students' program choices.

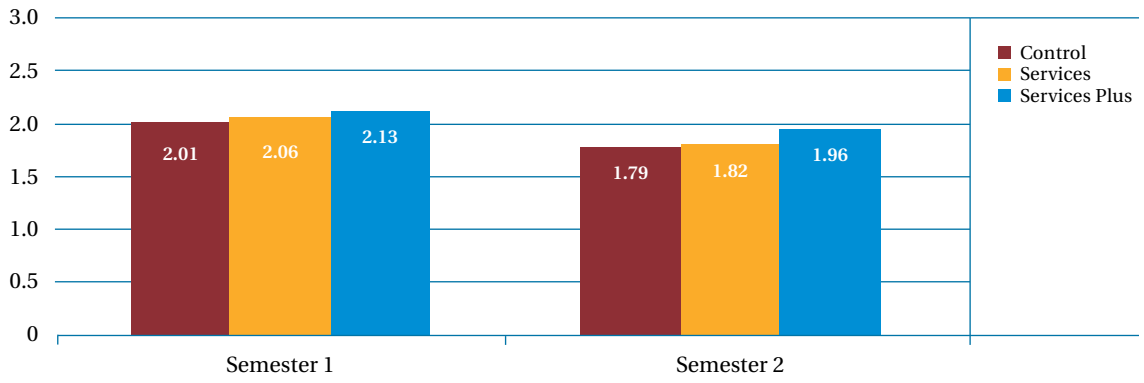
The primary research question is whether a case-manager system in which students are matched with college advisors who guide and facilitate their access to support services will increase the likelihood that students at risk of dropping out will persist in their studies and graduate. It should be noted that the difference between the services and the comparison group lies not so much in their access to services, since students in the comparison group have access to an array of services available at the colleges, but rather in the provision of a trained case manager who can direct them to specific services and encourage their participation in those service in the context of their post-admission test results. The secondary research question is whether the payment of a bursary as an incentive for participation will improve persistence either by successfully inciting students to participate in other support programming or by providing students with additional funds to pay for their studies.

The interim results from the project show first that services and services plus group students were more likely to make use of relevant support services than those in the control group (see Malatest, 2009c). Overall, 50 percent of the students in the services groups, and 72 percent of those in the services plus group, participated in relevant support activities, compared with 14 percent of those in the control group. Older students, low-income students, students with less confidence in their ability to succeed and students with English as a second language were all among those most likely to participate. Note that these results show that, in the absence of the case manager approach, only 14 percent of college students *at risk of dropping out* avail themselves of the campus services that are intended to help them succeed. They also show that financial incentives can be effective at influencing the behaviour of at-risk students.

More importantly, it seems that participation in the support services leads to better academic performance and persistence. The interim results show that students in the two program groups had higher grade point averages than those in the

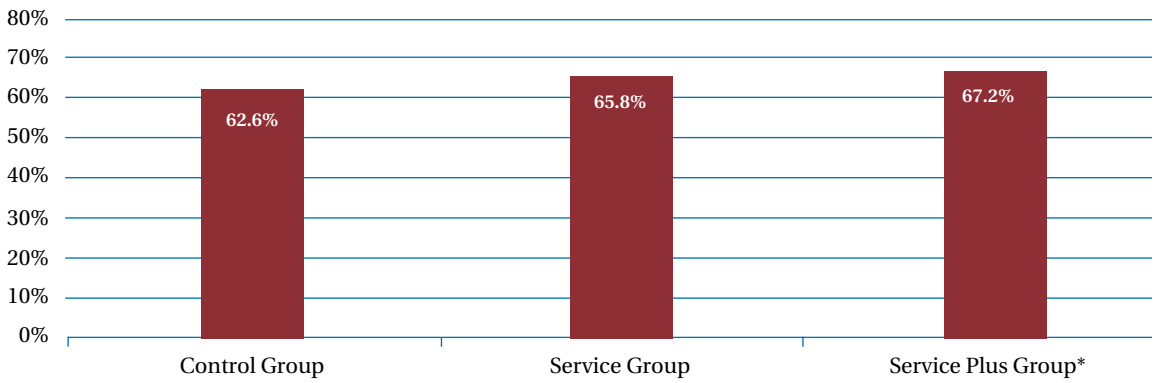
Millennium Pilot Projects *(continued)*

Figure 3.IV.1 — Foundations for Success: Grade Point Average By Program Group



Source: Malatest, 2009c, Figures 4 and 5.

Figure 3.IV.2 — Foundations for Success: Year 1 to Year 2 Retention Rates By Program Group



Source: Malatest, 2009c, Figure 6.

control group (see Figure 3.IV.1). They also had a statistically significantly greater likelihood of returning for their second year of study (Figure 3.IV.2).

In the absence of the final results based on the full tracking of all the project cohorts, it is too early to conclude definitely that Foundations for Success has been effective at improving persistence. Further research will also be conducted to confirm whether or not the benefits of any increase in persistence and ultimately graduation rates outweigh the costs of delivering the program. The interim results, however, are encouraging and, if nothing else, demonstrate clearly the advantage of introducing interventions in the context of a research experiment designed to empirically measure their effect.

Millennium Pilot Projects *(continued)*

LE,NONET

"LE,NONET" is a word meaning "success after enduring many hardships", in SENĆOŦEN, the language of the Straits Salish people of Vancouver Island. It is the title given to a research project designed to test the effectiveness of initiatives designed to improve the retention and success of Aboriginal students at the University of Victoria in British Columbia. As noted throughout this book, the educational outcomes of Aboriginal peoples in Canada are well below average. The University of Victoria is concerned in particular that it become an attractive option for Aboriginal students and that those Aboriginal students that it is able to attract are able to succeed once enrolled.

In conceiving the project, the university recognized that improved outcomes for Aboriginal students necessitate change not only in Aboriginal students but perhaps first and foremost in the institutional culture and practices of the university itself. Accordingly, while many of the interventions put in place by the project are directed towards students, others are directed towards faculty and staff so that they might "increase faculty and staff awareness of Aboriginal historical and contemporary realities in order to create a more respectful and culturally safe environment for students" (University of Victoria, 2008, 52).

The program is directed to all Aboriginal undergraduate students on campus enrolled in degree programs who participate voluntarily. The program itself supports students through a suite of services, each designed to address particular obstacles that Aboriginal students are likely to encounter, as follows:

- A bursary program provides financial aid to qualifying students;
- A peer mentoring program links new students with those already familiar with the university and its Aboriginal community and services;
- A research apprenticeship program provides an opportunity for students to work with a university faculty member on a research project;
- A community internship program provides an opportunity for students to gain experience and understanding by working in an Aboriginal community or organization;
- A preparation seminar prepares students for the apprenticeships and internships;
- A staff and faculty cultural training seminar increases awareness of Aboriginal culture and the needs of Aboriginal students among university personnel.

The primary research question in this case is as follows: will a series of interventions involving financial, academic, peer and cultural support have a demonstrable effect on the performance of Aboriginal students in post-secondary education and specifically on their persistence year-to-year and on their likelihood of completing their program of studies? To answer this question, the persistence of Aboriginal students during the period in which the program is in place will be compared to the persistence of Aboriginal students registered at the university in the five-year period before the program was introduced (2000–2005). Researchers will establish probabilities of students in the different cohorts completing courses, progressing from one year of study to the next, and graduating. This quantitative research will be complemented by qualitative research that will help to establish whether any changes in persistence rates can be attributed to the program and, if so, why.

Between the start of the program, in September 2005, and January 2008, 145 students participated in one or more elements of the program. Preliminary observations from qualitative research suggest

Millennium Pilot Projects *(continued)*

that the program appears to have had a positive effect on most participating students including:

- contributing to students' sense of connection to the on-campus Aboriginal community;
- contributing to students' sense of connection to the general university community;
- contributing to their success as students;
- strengthening their own Aboriginal identity and understanding of Aboriginal culture.

At this stage, just over half of students interviewed stated that the program had influenced their decision to continue with their studies. Certainly some individuals who had received financial support through the program stated that this support was a critical factor in enabling them to persist. Preliminary quantitative results also suggest an impact of the project on persistence, with a withdrawal rate for participants of less than half that of the historical cohort used for comparison (University of Victoria, 2008, 62).

The researchers note, however, that for many participants the program has enhanced their educational experience and therefore contributed to their sense of success as Aboriginal students without necessarily being a determinant in their decision to continue their studies at the university. It could be that for Aboriginal students this improved educational experience is no less important than improved persistence. Further qualitative and quantitative research will outline more conclusively the way in which the program impacts participants and the connections between enhanced educational experience and retention.

4 Paying for Post-Secondary Education

Anne Motte, Joseph Berger and Andrew Parkin

Chapter 4

I. Introduction

It is often remarked that post-secondary education has become more expensive in recent years. To understand more concretely what this means for Canadian families, however, we need to examine the issue more closely.

- First, we need to determine what is driving the changes in cost. Most discussions of post-secondary education costs focus on tuition. While this is important, tuition policy varies significantly by province, making generalizations difficult. In addition, room and board typically cost students almost as much, so these must be taken into account as well.
- Second, we need to explore whether higher education has become more expensive relative to other things. Over time, the cost of most things rises—that is the nature of inflation. But if the cost of going to college or university is rising at a faster pace than inflation, then higher education will put greater pressure on family budgets.
- Third, we need to ask whether costs are rising at a faster rate than are the financial resources students and their families have at their disposal. If they are, then post-secondary education can legitimately be said to have become less affordable.

In this chapter, we will examine how the cost of a post-secondary education has been changing throughout this decade. We will look at how the prices of the major items that students need to pay for have been changing—including tuition, food and housing, books and materials, and transportation, which together account for almost 80 percent of student expenses—and how these changes compare to the inflation rate. Then we will examine the question of whether changes in student resources have kept pace with the changes in their expenses.

This review of costs and resources will show that costs have been rising and that, in many cases, they have been rising faster than inflation. As important as this general rise in costs, however, is the fact that certain costs often undergo sudden, significant increases, making financial planning more difficult for students and their families. Such unpredictable cost increases are not limited to changes in tuition.

In addition, for some types of student—particularly those from lower-income backgrounds or those who rely on need-based student financial aid—the availability of resources has not increased to the same extent as costs. One important resource, income from student employment, has increased; however, this is not a result of rising wages but rather of the fact that students are working more hours. While this helps students make ends meet, it may adversely affect their academic success.

Taken together, the evidence suggests that the financial pressures on those students most likely to be concerned about their ability to pay for post-secondary education have continued to increase in recent years. Put simply, while recent cost increases are not as significant as those witnessed in the 1990s, there are good reasons to suggest that post-secondary education is still becoming less affordable. What is most worrying is that the developments reported on in this chapter took place prior to the economic downturn at the end of 2008. It would thus seem reasonable to expect that the financial challenges faced by many students will appear even more serious once the data for 2008 and 2009 become available.

Evidence of increasing financial pressures on some students and families does not mean that the positive returns to post-secondary education discussed in Chapter 1 do not apply. Post-secondary education is not merely something that a student purchases—it is an investment in his or her future. Even as costs rise, the investment remains sound (see Baum and Schwartz, forthcoming). This chapter, however, focuses on the issues of the costs that students face and the financial resources available to them at the time they enrol.

Chapter 4

II. Costs and Resources: An Overview

To cover the cost of a year of post-secondary education, whether college or university, students typically need between $10,000 and $15,000 (Berger, Motte and Parkin, 2007).

In our discussion of these costs and how they have been changing, we need to keep in mind a few things. The first is changes in the rate of inflation. As shown in Table 4.II.1, for the country as a whole, between 2002 and 2007, the annual inflation rate as measured by the Consumer Price Index (CPI) fluctuated between 1.8 and 2.8 percent. During that period, prices cumulatively rose by 11.5 percent. Generally speaking, if the price of a good has risen by less than the rate of inflation over the same period, the good has in effect become cheaper; conversely, if the price has risen by more than the inflation rate, it has become more expensive. The inflation rate varies by province, however, and it can be calculated at the level of a city or region as well. This is part of the differing economic landscape that must be taken into account when assessing the circumstances of students in different parts of the country.

Table 4.II.1 — Consumer Price Index, 2002–2007, by Province

	2002	2003	2004	2005	2006	2007
Canada	**100**	**102.8**	**104.7**	**107.0**	**109.1**	**111.5**
NL	100	102.9	104.8	107.6	109.5	111.1
PE	100	103.5	105.8	109.1	111.6	113.6
NS	100	103.4	105.3	108.2	110.4	112.5
NB	100	103.4	104.9	107.4	109.2	111.3
QC	100	102.5	104.5	106.9	108.7	110.4
ON	100	102.7	104.6	106.9	108.8	110.8
MB	100	101.8	103.8	106.6	108.7	110.9
SK	100	102.3	104.6	106.9	109.1	112.2
AB	100	104.4	105.9	108.1	112.3	117.9
BC	100	102.2	104.2	106.3	108.1	110.0

Source: Statistics Canada, CANSIM Table 326-0021.

Table 4.II.2 — Breakdown of Student Costs, 2003–04[1]

	All Students	University Students	College Students
Tuition	34%	36%	23%
Books/computers	13%	13%	16%
Accommodation/food	30%	29%	32%
Transportation	8%	8%	11%
Other (e.g., personal, leisure, child care)	15%	14%	18%

Source: Berger, Motte and Parkin, 2007.

Another factor that needs to be taken into consideration is the composition of students' expenses. According to the 2003–04 Canadian Post-Secondary Student Financial Survey, tuition is the largest cost that students face, representing 34 percent of their expenditures, while accommodation and food is the second highest (30 percent). Transportation and books each account for between eight and 13 percent of expenditures (see Table 4.II.2).

Students also rely on a number of different income sources (see Tables 4.II.3 and 4.II.4). Many rely on contributions from their parents or family to help finance their studies. Specifically, 69 percent of first-year university students and 50 percent of graduating students did so; for college students, the figure was 58 percent. Employment, whether in the form of summer earnings or work during the school year, is also an important source of financing, notably in college, where two out of three college students rely on work income to help pay for their studies. Government loans also play an important role, with about three post-secondary students in ten relying on such programs.

Table 4.II.3 — Sources of Financing for University Students, 2007 and 2009[2]

	First-Year University Students	Graduating Students
Parents/family/spouse	69%	50%
Personal savings	53%	30%
University scholarship/financial award/bursary	51%	37%
Earnings from summer work	50%	41%
Government loan or bursary	31%	36%
Earnings from current employment	26%	35%
RESP	14%	7%
Loan from a financial institution	7%	12%
Investment income	6%	3%
Co-op program/work term	<1%	5%
Work-study program	<1%	3%
Other	4%	3%

Source: CUSC survey, 2007 and 2009.

1. These figures exclude debt payments.
2. It is important to keep in mind that, for any given source, a high incidence does not mean that the amounts received are also high.

Table 4.II.4 — Sources of Financing for College Students, 2009

	Proportion of Students
Personal Sources	
Work income	68%
Personal savings	48%
Academic scholarship	27%
Bank loan/line of credit	20%
Family	
Money from family	58%
Government	
Government student loan	29%
Government student grant/bursary	16%
Employment insurance (EI)	10%
Training grant	8%
Aboriginal/native ancestry funding	5%
Social/income assistance	4%
Government disability benefits	4%

Source: College Student Survey, 2009.

Students and their families must successfully juggle the costs of post-secondary education and their available resources. The equilibrium can be precarious, however, especially for students from low-income families. As will be discussed below, costs such as tuition often rise significantly in a short period of time. If that happens, resources can be adjusted, but only to a certain extent: the number of hours a student can work is limited, financial aid programs have a cap on the loan and grant amounts available, savings can fluctuate with economic conditions, and so on. For these reasons, changes in either the economy or in government policies can have real effects on the ability of some groups of students to make ends meet.

Chapter 4

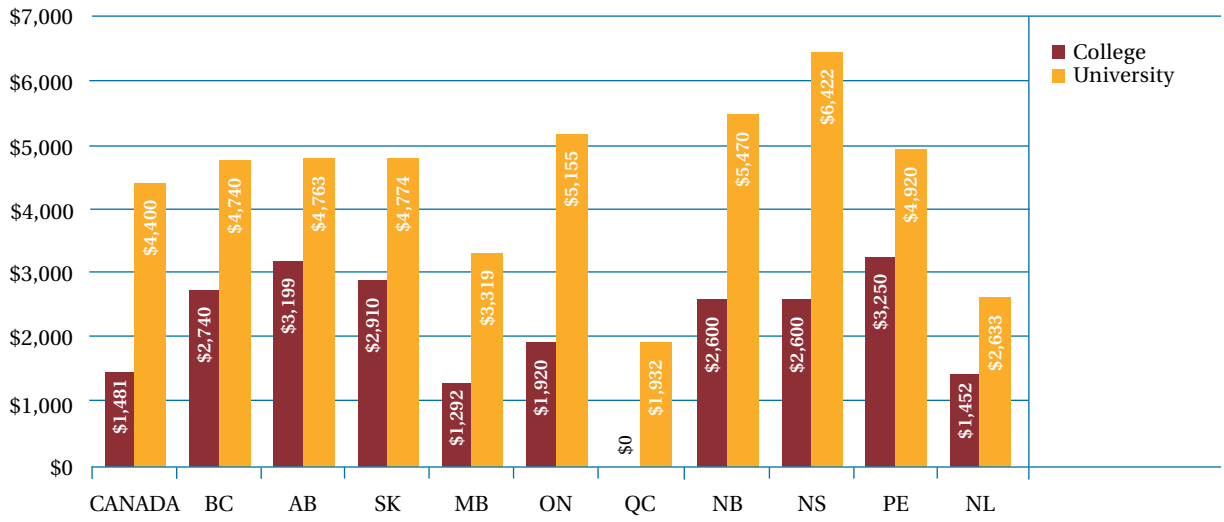
III. Update on Costs

Tuition

It is well known that post-secondary tuition in Canada has increased considerably during the past two decades. Between 1997–98 and 2008–09, average Canadian university tuition fees increased by 65 percent; this represents an increase of 37 percent after controlling for inflation (Tables 4.III.1 and 4.III.2). While college tuition fees typically are lower than university fees, they have increased at a similar pace in recent years. Specifically, between 1997–98 and 2006–07, college fees increased by 62 percent, or 35 percent after adjusting for inflation (Tables 4.III.3 and 4.III.4).

In 2008–09, university students in Canada paid an average of $4,724 in tuition for an undergraduate program. In 2006–07, the most recent year for which college data are available, the average college tuition in Canada was $1,481, compared to $4,400 for university (Figure 4.III.1). Excluding Quebec, where 40 percent of Canada's college students study but where there is no college tuition due to the CEGEP system, the average tuition totalled $2,354 (Table 4.III.3).

Figure 4.III.1 — College and University Tuition, 2006–07



Note: 2006–07 figures are used because that is the most recent year for which college tuition data are available.

Source: Statistics Canada, Tuition and Living Accommodation Costs Survey; Manitoba Council on Post-Secondary Education, 2007.

Table 4.III.1 — Average Undergraduate University Tuition in Canada in Nominal Dollars by Province, 1997–98 to 2008–09

	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07	07–08	08–09
Canada	$2,869	$3,064	$3,328	$3,447	$3,585	$3,749	$4,018	$4,140	$4,211	$4,400	$4,558	$4,724
BC	$2,518	$2,525	$2,568	$2,592	$2,527	$3,176	$4,098	$4,735	$4,867	$4,740	$4,922	$5,040
AB	$3,241	$3,519	$3,723	$3,907	$4,030	$4,165	$4,511	$4,940	$4,838	$4,763	$5,122	$5,361
SK	$3,074	$3,279	$3,367	$3,668	$4,142	$4,286	$4,644	$5,062	$5,063	$4,774	$5,015	$5,015
MB	$2,921	$3,149	$3,488	$3,219	$3,243	$3,144	$3,155	$3,236	$3,333	$3,319	$3,271	$3,276
ON	$3,293	$3,640	$4,084	$4,256	$4,492	$4,665	$4,911	$4,831	$4,933	$5,155	$5,388	$5,643
QC	$1,803	$1,803	$1,813	$1,819	$1,842	$1,851	$1,865	$1,888	$1,900	$1,932	$2,056	$2,167
NB	$3,026	$3,225	$3,350	$3,585	$3,863	$4,186	$4,457	$4,719	$5,037	$5,470	$5,590	$5,590
NS	$3,892	$4,074	$4,262	$4,631	$4,855	$5,214	$5,556	$6,003	$6,323	$6,422	$6,110	$5,932
PE	$3,162	$3,327	$3,499	$3,499	$3,710	$3,891	$4,133	$4,374	$4,645	$4,920	$4,440	$4,530
NL	$3,211	$3,216	$3,373	$3,373	$3,036	$2,729	$2,606	$2,606	$2,606	$2,633	$2,632	$2,632

Source: Statistics Canada, Tuition and Living Accommodation Costs Survey.

Table 4.III.2 — Average Undergraduate University Tuition in Canada in 2008 Dollars by Province, 1997–98 to 2008–09

	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07	07–08	08–09
Canada	$3,658	$3,869	$4,134	$4,165	$4,192	$4,331	$4,524	$4,546	$4,546	$4,637	$4,701	$4,724
BC	$3,211	$3,188	$3,190	$3,132	$2,955	$3,669	$4,614	$5,199	$5,254	$4,995	$5,076	$5,040
AB	$4,133	$4,443	$4,625	$4,721	$4,712	$4,811	$5,079	$5,424	$5,223	$5,020	$5,282	$5,361
SK	$3,920	$4,140	$4,182	$4,432	$4,843	$4,951	$5,229	$5,558	$5,466	$5,031	$5,172	$5,015
MB	$3,725	$3,976	$4,333	$3,890	$3,792	$3,632	$3,552	$3,553	$3,598	$3,498	$3,373	$3,276
ON	$4,199	$4,596	$5,073	$5,143	$5,252	$5,389	$5,529	$5,304	$5,325	$5,433	$5,557	$5,643
QC	$2,299	$2,276	$2,252	$2,198	$2,154	$2,138	$2,100	$2,073	$2,051	$2,036	$2,120	$2,167
NB	$3,858	$4,072	$4,161	$4,332	$4,517	$4,836	$5,018	$5,181	$5,437	$5,765	$5,765	$5,590
NS	$4,963	$5,144	$5,294	$5,596	$5,676	$6,023	$6,256	$6,591	$6,826	$6,768	$6,301	$5,932
PE	$4,032	$4,201	$4,346	$4,228	$4,338	$4,495	$4,653	$4,803	$5,014	$5,185	$4,579	$4,530
NL	$4,094	$4,061	$4,190	$4,076	$3,550	$3,153	$2,934	$2,861	$2,813	$2,775	$2,714	$2,632

Source: Statistics Canada, Tuition and Living Accommodation Costs Survey.

Table 4.III.3 — Average College Tuition in Canada in Nominal Dollars by Province, 1997–98 to 2006–07

	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07
Canada	$915	$1,002	$1,073	$1,048	$1,196	$1,238	$1,396	$1,448	$1,477	$1,481
Canada (excluding Quebec)	$1,420	$1,545	$1,657	$1,723	$1,934	$1,965	$2,187	$2,254	$2,298	$2,354
BC	$1,340	$1,340	$1,340	$1,340	$1,791	$1,914	$2,586	$2,638	$2,674	$2,740
AB	$1,668	$1,923	$2,130	$2,339	$2,653	$2,653	$2,840	$3,089	$3,199	$3,199
SK	$1,727	$1,885	$2,055	$2,240	$2,657	$2,190	$2,400	$2,640	$2,772	$2,910
MB	$1,224	$1,322	$1,435	$1,292	$1,292	$1,292	$1,292	$1,292	$1,292	$1,292
ON	$1,403	$1,543	$1,684	$1,718	$1,786	$1,786	$1,820	$1,820	$1,820	$1,920
QC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NB	$1,600	$2,000	$2,400	$2,400	$2,400	$2,400	$2,400	$2,500	$2,600	$2,600
NS	$1,000	$1,150	$1,500	$1,750	$1,950	$2,150	$2,250	$2,400	$2,500	$2,600
PE	$2,000	$2,000	$2,000	$2,000	$3,250	$3,250	$3,250	$3,250	$3,250	$3,250
NL	$1,320	$1,452	$1,452	$1,452	$1,452	$1,452	$1,452	$1,452	$1,452	$1,452

Source: Statistics Canada, PSIS; Statistics Canada; Manitoba Council on Post-Secondary Education, 2003, 2004 and 2007.

Table 4.III.4 — Average College Tuition in Canada in 2008 Dollars by Province, 1997–98 to 2006–07

	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07
Canada	$1,166	$1,265	$1,333	$1,266	$1,399	$1,431	$1,572	$1,590	$1,594	$1,561
Canada (excluding Quebec)	$1,810	$1,951	$2,058	$2,082	$2,262	$2,271	$2,462	$2,475	$2,481	$2,481
BC	$1,709	$1,692	$1,665	$1,619	$2,094	$2,211	$2,912	$2,897	$2,887	$2,888
AB	$2,127	$2,428	$2,646	$2,826	$3,102	$3,065	$3,198	$3,392	$3,453	$3,371
SK	$2,202	$2,380	$2,553	$2,707	$3,107	$2,530	$2,702	$2,899	$2,992	$3,067
MB	$1,561	$1,669	$1,783	$1,561	$1,511	$1,493	$1,455	$1,419	$1,395	$1,362
ON	$1,789	$1,948	$2,092	$2,076	$2,088	$2,063	$2,049	$1,998	$1,965	$2,023
QC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NB	$2,040	$2,525	$2,981	$2,900	$2,806	$2,772	$2,702	$2,745	$2,807	$2,740
NS	$1,275	$1,452	$1,863	$2,115	$2,280	$2,484	$2,533	$2,635	$2,699	$2,740
PE	$2,550	$2,525	$2,484	$2,417	$3,800	$3,754	$3,659	$3,569	$3,508	$3,425
NL	$1,683	$1,833	$1,804	$1,755	$1,698	$1,677	$1,635	$1,594	$1,567	$1,530

Source: Statistics Canada, PSIS; Statistics Canada; Manitoba Council on Post-Secondary Education, 2003, 2004 and 2007.

The national portrait of post-secondary costs and student financial aid can obscure as much as it reveals, since tuition policy and practice vary considerably from one jurisdiction to the next. As Tables 4.III.1 to 4.III.4 demonstrate, tuition increases have occurred at a much faster place in some provinces than others. For instance:

- Tuition increased substantially and quickly in British Columbia during the early part of this decade. A student who began a four-year university program in 2001–02, when tuition fees were frozen in B.C., would have wound up paying 88 percent more in his or her last year of studies. During the same time, inflation increased by only seven percent. College tuition in B.C. more than doubled between 2000–01 and 2006–07, while inflation increased by only 14 percent.[3]
- In Alberta, Saskatchewan and New Brunswick, university tuition increased at a faster pace than in the rest of the country between 1997–98 and 2006–07. The increase in Alberta occurred fairly quickly. Tuition rose from $4,165 to $4,940 (a jump of 19 percent) between 2002–03 and 2004–05. During those same two years, university tuition increased by nearly $800 in Saskatchewan. Similarly, tuition increased by more than $700 in New Brunswick between 2004–05 and 2006–07.
- College tuition also increased faster in B.C., Alberta, Saskatchewan and Nova Scotia than in the rest of the country between 1997–98 and 2006–07. College tuition in Nova Scotia increased by at least $100 during each of the years between 1997–98 and 2006–07. College tuition is highest in P.E.I., followed by Alberta and Saskatchewan.
- University tuition increased at a slower pace in Manitoba, Quebec, Nova Scotia and Prince Edward Island. In some instances, tuition decreased. Manitoba decreased tuition fees by $270 between 1999–2000 and 2000–01; they remained frozen until 2008–09, and were scheduled to increase by 4.5 percent for the 2009–10 academic year. Tuition decreased by 18 percent in Newfoundland and Labrador between 1997–98 and 2008–09; tuition in this province was nearly $750 cheaper in 2008–09 than in 2000–01.
- College tuition in New Brunswick and P.E.I. increased at the median (63 percent), while in Manitoba, Ontario and Newfoundland and Labrador it increased at a slower pace. In P.E.I., tuition was frozen at $2,000 until 2001–02, when it increased to $3,250, where it has remained since. In Quebec, college (CEGEP) studies remain free.

To summarize, with rare exceptions (university tuition in Newfoundland and Labrador; college tuition in Quebec), college and university tuition in Canada has continued to rise. Beyond the fact of this increase, two points are important. First, outside of Manitoba, Newfoundland and Labrador and Quebec, tuition increased faster than the rate of inflation—often, it rose at three or four times the pace of the Consumer Price Index. This means that we can confidently state that most post-secondary programs have become more expensive relative to other things. Second, tuition does not necessarily increase in a steady, predictable manner. Much—if not all—of a political party's post-secondary platform tends to be devoted to tuition, meaning it can shift dramatically upon the election of a new government. Parents saving to buy a car have a reasonable idea of how much money they will need to put aside each year to afford the model they like in five years' time; parents saving for their children's higher education are not always so lucky.

3. The amounts in this section have not been adjusted for inflation.

Is Net Tuition What Counts?

As indicated earlier, tuition typically is a student's single largest expenditure. In recognition of this, and of the financial barriers that many students face, governments provide tax credits and grants that, technically speaking, defray the price of tuition.

The concept of "net tuition" has been developed to capture the effect of these programs; it measures the costs to students and their families once these subsidies have been taken into account. Some commentators argue that this is what matters most in discussions of affordability: assessments of the real burden of financing post-secondary studies should take into account the very real rebates that are delivered in the form of tax credits and student aid (Usher, 2006; Usher and Duncan, 2008).

The concept of net tuition captures more fully the division of the aggregate burden of paying for post-secondary education between private sources (students and their families) and public ones (governments). Unfortunately, for students and families thinking about whether they can afford higher education (especially low-income families), it is not clear that the concept is all that useful. Discussions of net tuition do not focus on when and how tuition is paid.

Being able to figure out how education tax credits will offset tuition bills requires knowing how much one is going to receive in the form of such credits when they are claimed at least eight months down the road. It also requires knowing if one will have taxable income and, if not, how the rules surrounding the carrying forward or transferring of credits come into play. Only the most sophisticated tax filers will make budgets that take the eventual receipt of these credits into account; for most people, including parents from low-income families and students who may not have filed income taxes before, the effect of education tax credits is unknown. Furthermore, because the tax credits are not refundable, many low-income students cannot actually use them until well after they have graduated and start to have taxable income against which to claim them.

The concept of net tuition is a clever way to think of the full subsidy governments provide for post-secondary education. From this perspective, as Usher and Duncan write, "in a strict accounting sense, the timing of the payment is irrelevant"(12). It is a little less useful to families thinking about the issue of affordability. In September of each school year, students need to pay the tuition charged by their institution; they cannot ask to pay net tuition and let their school collect the balance from the Canada Revenue Agency. And bills are due when they are due, regardless of any possible future tax credits.

There is clearly a difference between net tuition and the amount students must come up with at the start of the year. Ideally, the two amounts would correspond, so that the net price individuals take into account when determining whether to invest in post-secondary education would resemble the price they have to pay up front. Policy efforts that, by intention or effect, reduce net price are undermined if they do not also affect the perception of post-secondary costs.

Canadian Household Spending on Post-Secondary Tuition

Data from Statistics Canada's Survey of Household Spending reveal that in 2007 about 15 percent of Canadian households had spent part of their annual budget on tuition for post-secondary education, whether university or college (see Table 4.III.5). For the country as a whole, households declared spending about $4,000 on average. While the percentage of households declaring that they spent money on post-secondary tuition did not vary much by province, the average amount spent did (see Figure 4.III.2). Predictably, given current tuition levels, households in New Brunswick and Nova Scotia reported the highest average amounts, while those in Quebec reported the lowest. Between 1997 and 2007, the average household expenditure on post-secondary tuition fees more than doubled in real terms, increasing from $1,925 to $4,017 in constant 2007 dollars (Statistics Canada, 2009d).

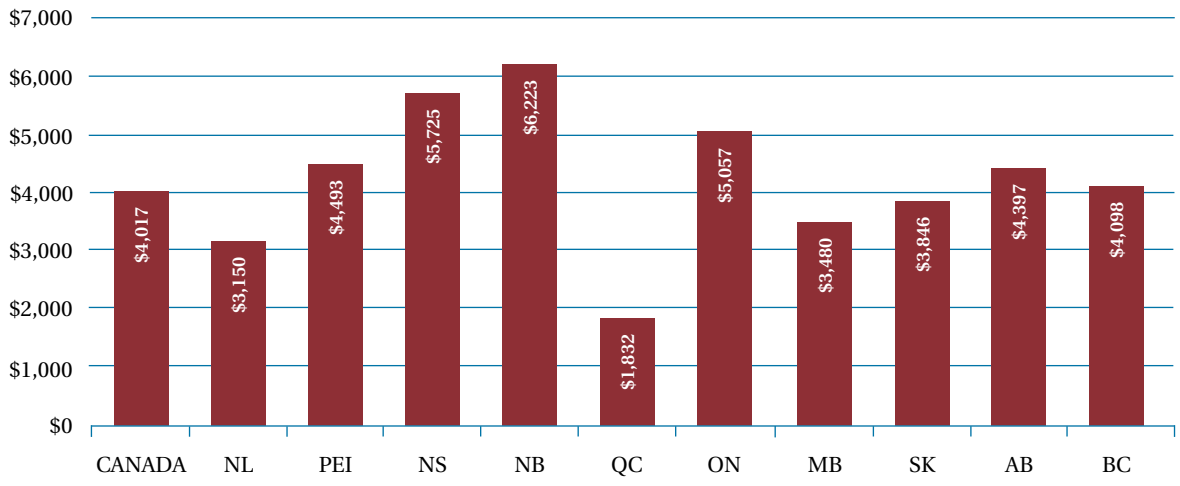
The data available from Statistics Canada do not allow us to control for the number of household members that attend post-secondary education. Nevertheless, it is worth noting that the average amounts reported in each province are very close to the average amounts of undergraduate university tuition discussed above, suggesting that on average households with tuition expenses spend roughly the equivalent of average provincial undergraduate university tuition each year.

Table 4.III.5 — Percentage of Households Reporting Post-Secondary Tuition Expenditures, 2007

	Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Percentage	15.4%	12.2%	12.6%	13.9%	12.5%	14.1%	16%	16.2%	13.1%	16.8%	16.6%

Source: Statistics Canada, 2009d, Table B.2.7.

Figure 4.III.2 — Average Amount Spent on Tuition by Households Incurring Post-Secondary Tuition Expenditures, 2007



Source: Statistics Canada, 2009d, Table B.2.7.

Textbooks

In focus groups and other forums, students often complain about the high cost of textbooks (and to a lesser extent, that some of the textbooks they are required to purchase are rarely used by the professor or instructor). Students also report having been surprised by the cost of textbooks. Since the number and nature of required textbooks vary considerably across disciplines and courses,[4] it is difficult for students to estimate how much they should expect to spend on them. It also appears equally difficult for institutions to present students with a clear idea of how much their books will cost.

Table 4.III.6 offers an idea of the textbook costs faced by first-year university students in different disciplines enrolled in compulsory courses. Within a single discipline, the range of prices can be quite wide; in a number of cases, the difference between the minimum and maximum price is over $400. Arts students tend to have lower overall costs.

In the absence of a comprehensive, regular survey of student costs and resources, we cannot monitor the evolution of textbook costs. However the Survey of

Table 4.III.6 — Minimum, Maximum and Average Prices of First-Year University Compulsory Course Textbooks by Discipline in 2008

	Minimum	Maximum	Average
Commerce			
Finance	$495	$790	$608
Business administration	$398	$695	$550
Marketing	$378	$753	$554
International business	$436	$622	$529
Human resources management	$274	$729	$570
Engineering			
Mechanical engineering	$400	$777	$617
Chemical engineering	$330	$747	$605
Civil engineering	$348	$764	$573
Computer engineering	$360	$814	$575
Electrical engineering	$406	$791	$661
Arts			
Economics	$490	$738	$616
Literature	$180	$832	$436
History	$163	$751	$441
Politics	$188	$745	$448
Sociology	$179	$612	$451
Science			
Biology	$405	$912	$651
Chemistry	$301	$942	$656
Computer science	$285	$787	$593
Geography	$214	$1,013	$585
Mathematics	$195	$800	$595

Source: Data collected by the Canada Millennium Scholarship Foundation, 2008.

4. We have, for example, noted certain instances where professors teaching the same course assigned different textbooks.

Household Spending offers information on household spending on post-secondary education related to post-secondary course materials and books. Table 4.III.7 shows that between 1997 and 2007, there was very little change in the amount spent. Over the past five years, median household spending on books and materials has stayed at $600 (this includes all levels of post-secondary education, including both college and university courses). This is not to say that there are no programs and courses where the costs of required materials have risen; there are also courses that require particularly expensive books or equipment. Overall, however, it appears that the variation and unpredictability of the cost of books is probably more of a problem for students than the escalation of costs over time.

Table 4.III.7 — Median Amount Spent on Materials and Textbooks at the Post-Secondary Level, Canada, 1997–2007 (Current Dollars)

	1997	1999	2001	2003	2005	2007
Materials	$100	$100	$100	$100	$100	$100
Textbooks	$400	$430	$500	$500	$500	$500

Source: Statistics Canada, Survey of Household Spending, CANSIM Table 203-0012.

Rent

In addition to educational costs like tuition, fees and textbooks, students also need somewhere to live. According to the CUSC survey, 54 percent of first-year university students (in 2007) and 65 percent of graduating university students (in 2009) were not living with their parents. The 2009 College Student Survey indicates that 64 percent of college students did not live with their parents. Again, however, in the absence of a regular survey of students' living costs, it is not easy to determine how much students spend on rent. Table 4.III.8 offers a portrait of the cost of renting a one-bedroom apartment in different Canadian cities in 2007. Of course, as mentioned, many students live at home, either during the school year, the summer or both. Others live on campus in residence, and many students find it cheaper to share accommodations than to live alone. The figures in the table also mask geographical variation in price within cities; apartments near colleges and universities may cluster at the higher or lower end of the price scale, depending on the city. Nevertheless, while the amounts shown in the table might not correspond to the actual rent students pay, they are instructive for two reasons. First, they give a general sense of what apartments cost in different parts of the country, although they perhaps represent the upper range of what students pay. Second, they offer a portrait of how fast rent has been increasing.

In 2007, Toronto was the most expensive city to live in, while Trois-Rivières was the cheapest. Over the course of an eight-month academic year, students renting a one-bedroom apartment would have spent on average between $3,200 and $7,200, depending on where they lived.

Rent has increased considerably in many cities between 2003 and 2007; in most cases, the increases were greater than the rate of inflation (see Table 4.III.8). In Calgary, Edmonton, Saskatoon, Victoria, Sudbury, Peterborough, Toronto and Kingston, rent grew more than twice as quickly as the rate of provincial inflation. In some cities, on the other hand, including Windsor, Ottawa, Guelph, Hamilton, St. John's and Kitchener, rent increased at a slower pace than inflation. It is also interesting to note that in several cases rent has risen faster than undergraduate university tuition. In cities in the Prairies, for instance, rent has increased at a pace two to four times greater than the pace of tuition increases. This is not to minimize the importance of changes in tuition; it is simply to note that the factors that put pressure on student budgets vary from place to place and that discussions of affordability must take the full range of students' costs and resources into account.

Table 4.III.8 — Cost of Renting a One-Bedroom Apartment in Major Canadian Cities

City	Average Monthly Rent in 2007	Cost of Rent for 8 Months	Percentage Difference from 2003[5]	Inflation Rate Between 2003 and 2007 in the Province	Change in University Tuition in the Province over the Same Period
St. John's, NL	$545	$4,360	6.9%	8.2%	1.0%
Charlottetown, PE	$524	$4,192	13.2%	10.1%	7.4%
Halifax, NS	$659	$5,272	15.2%	9.1%	10.0%
Moncton, NB	$532	$4,256	14.9%	7.9%	25.4%
Montreal, QC	$581	$4,648	15.1%	7.9%	10.2%
Quebec, QC	$547	$4,376	11.9%	7.9%	10.2%
Sherbrooke, QC	$424	$3,392	14.9%	7.9%	10.2%
Trois-Rivières, QC	$406	$3,248	9.7%	7.9%	10.2%
Guelph, ON	$743	$5,944	5.1%	8.1%	9.7%
Hamilton, ON	$666	$5,328	6.2%	8.1%	9.7%
Kingston, ON	$701	$5,608	17.2%	8.1%	9.7%
Kitchener, ON	$690	$5,520	8.2%	8.1%	9.7%
London, ON	$652	$5,216	15.2%	8.1%	9.7%
Ottawa, ON	$798	$6,384	4.0%	8.1%	9.7%
Peterborough, ON	$709	$5,672	18.2%	8.1%	9.7%
St. Catharines-Niagara, ON	$648	$5,184	11.3%	8.1%	9.7%
Sudbury, ON	$609	$4,872	18.7%	8.1%	9.7%
Thunder Bay, ON	$584	$4,672	9.8%	8.1%	9.7%
Toronto (Central), ON	$1,052	$8,416	18.1%	8.1%	9.7%
Windsor, ON	$641	$5,128	0.6%	8.1%	9.7%
Winnipeg, MB	$578	$4,624	18.0%	9.1%	3.7%
Regina, SK	$554	$4,432	15.4%	9.9%	8.0%
Saskatoon, SK	$564	$4,512	22.3%	9.9%	8.0%
Calgary, AB	$897	$7,176	36.7%	13.5%	13.5%
Edmonton, AB	$784	$6,272	36.4%	13.5%	13.5%
Vancouver, BC	$846	$6,768	13.9%	7.8%	20.1%
Victoria, BC	$716	$5,728	18.4%	7.8%	20.1%

Source: Canada Mortgage and Housing Corporation.

5. Data for 2003 are taken from Junor and Usher, 2004.

Transportation

Students who do not live on or close to campus must pay for public or private transportation. Those driving their own vehicles have been hit with rising gas prices, which over the past five years (2002–2007) have increased by 46 percent. In the case of public transportation, both the amounts students have to pay and the rate of change vary considerably by city. As Table 4.III.9 shows, the monthly cost of a student transit pass varies from a low of $18.50 in Calgary to a high of $89 in Toronto. And while some cities have seen a reduction in prices in recent years, others have seen price increases of over 20 percent.

Table 4.III.9 — Cost of Monthly Public Transportation Passes for Full-Time Students in Major Canadian Cities (2003–04 and 2008–09)

City	Cost of Student Transit Pass in 2003–04	Cost of Student Transit Pass in 2008–09	Increase Since 2003
St. John's, NL	$50.00	$49.00	-2.00%
Halifax, NS	$51.00	$54.00	5.88%
Fredericton, NB	$38.00	$38.00	0.00%
Moncton, NB	$36.50	$44.00	20.55%
Quebec, QC	$42.60	$45.80	7.51%
Sherbrooke, QC	$42.00	$46.00	9.52%
Montreal, QC	$31.00	$36.00	16.13%
Trois-Rivières, QC	$43.00	$48.00	11.63%
Guelph, ON	$55.00	$58.00	5.45%
Hamilton, ON	$65.00	$79.00	21.54%
Kingston, ON	$46.25	$48.00	3.78%
Kitchener, ON	$45.33	$47.25–$50.35	N/A
London, ON	$64.00	$64.00	0.00%
North Bay, ON	$60.00	$65.00	8.33%
Ottawa, ON	$50.25	$59.75	18.91%
Peterborough, ON	$64.00	$45.00	-29.69%
St. Catharines, ON	$67.50	$72.50	7.41%
Sudbury, ON	$63.00	$62.00	-1.59%
Thunder Bay, ON	$48.75	$48.75	0.00%
Toronto, ON	$87.00	$89.00	2.30%
Windsor, ON	$50.00	$54.50	9.00%
Brandon, MB	$42.00	$40.00	-4.76%
Winnipeg, MB	$53.90	$57.00	5.75%
Regina, SK	$45.50	$48.00	5.49%
Saskatoon, SK	$42.00	$55.00	30.95%
Calgary, AB	$65.00	$18.75	-71.15%
Edmonton, AB	$54.00	$60.00	11.11%
Lethbridge, AB	$45.50	$55.00	20.88%
Prince George, BC	$32.00	$32.00	0.00%
Vancouver, BC (3 zones)	$36/$87/$120	$73/$99/$136	102%/14%/13%
Victoria, BC	$55.00	$65.25	18.64%

Source: For 2008–09, information was retrieved from the Internet in June and July 2008; for 2003–04, the source is Junor and Usher, 2004.

Chapter 4

IV. Update on Resources

Employment

Being employed during the school year is common among students. Data from Statistics Canada's Labour Force Survey show that since the early 1990s, the proportion of full-time university and college students that has chosen to combine work with studies has increased slightly. As Figure 4.IV.1 indicates, the employment rate between September and April among 20- to 24-year-old full-time students grew from 42 percent in 1994–95 to 48 percent in 2007–08, before dropping to 46 percent in 2008–09.

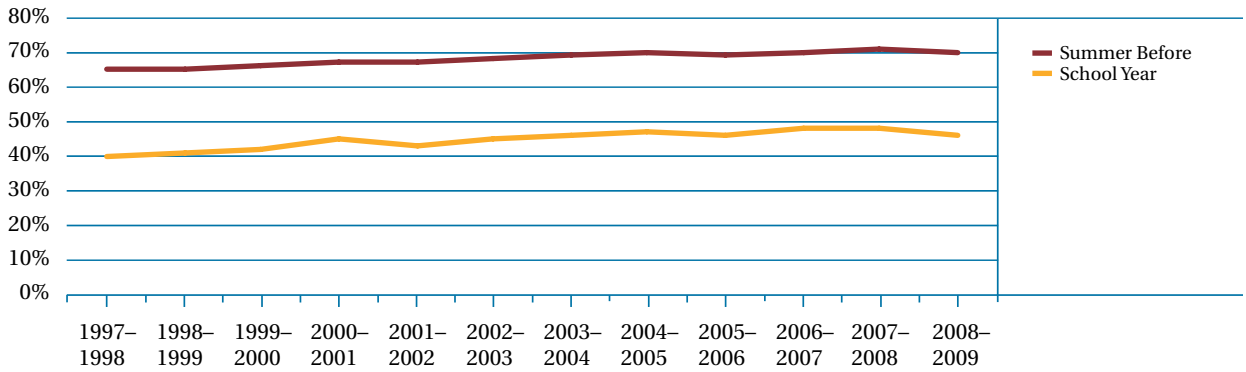
Data from other surveys tend to show slightly higher employment rates compared with the Labour Force Survey. These data allow us to explore differences among specific groups of students:

- A 2009 survey of university students in the last year of their undergraduate program (Prairie Research Associates, 2009a) revealed that 62 percent were working during the academic year. These students worked an average of 18 hours per week, with two-thirds reporting working more than ten hours per week. More than two-thirds of these students were working off campus.
- First-year university students appear to work somewhat less: 45 percent of first-year students were working in 2007 for an average of 15 hours per week. Sixty-five percent of those employed reported working more than ten hours per week (Prairie Research Associates, 2007a).
- At the college level, 52 percent of students in 2009 reported working while in school (Prairie Research Associates, 2009b). About two-thirds of employed college students reported working more than ten hours per week.

Students also rely on work during the summer to cover their education costs. Since 2000, Labour Force Survey data show that between 67 and 70 percent of full-time students aged 20 to 24 have worked during the summer months. Some groups of students may be more likely to work than others. For example, 80 percent of college students surveyed in 2009 reported working during the previous summer (Prairie Research Associates, 2009b).

For a number of students, earnings from summer months are stretched to cover costs for the school year. Forty-one percent of university students graduating in the spring of 2009 reported using income earned in the

Figure 4.IV.1 — Average Employment Rate among 20- to 24-Year-Old Full-Time Students, September–April and May–August, 1997–98 to 2008–09



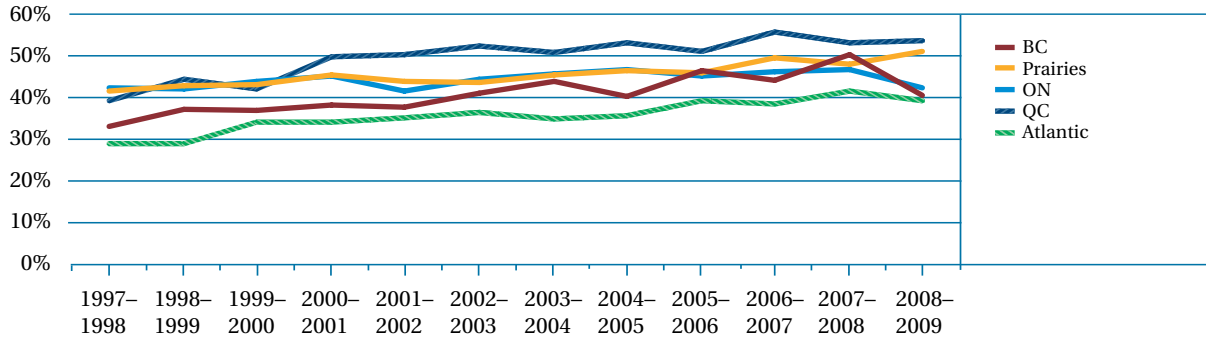
Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0005 and 282-0006.

summer of 2008 to help pay for their studies (Prairie Research Associates, 2009a). Half of first-year students were relying on summer earnings in their first year of study (Prairie Research Associates, 2007a).

The national averages presented above hide important regional differences. Indeed, there is a sizable gap in the employment rate from region to region. During the 2008–09 academic year, nearly 54 percent of full-time students in Quebec were employed, compared to only 39 percent of full-time students in the Atlantic provinces. Students in the Prairies were also more likely to work than were those in Ontario or B.C. (see Figure 4.IV.2).

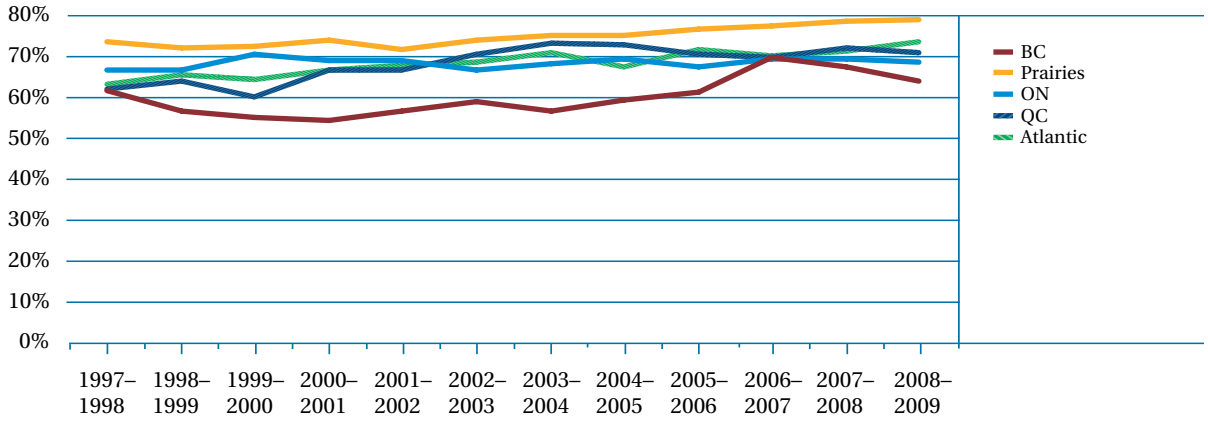
Slightly different patterns emerge during the summer. While student employment increases in every part of the country in this season, there are still variations by region. Students in the Atlantic provinces had the lowest school-year employment rate, but their incidence of summer work trails only that of students in the Prairies. Students in B.C., meanwhile, have relatively low levels of employment throughout the calendar year, while Quebec students, who work the most during the academic year, are less likely than those in the Atlantic and Prairie provinces to work during the summer (see Figure 4.IV.3).

Figure 4.IV.2 — Average Employment Rate among 20- to 24-Year-Old Full-Time Students, September–April, 1997–98 to 2008–09



Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0005.

Figure 4.IV.3 — Average Employment Rate among 20- to 24-Year-Old Full-Time Students, May–August, 1997–98 to 2008–09

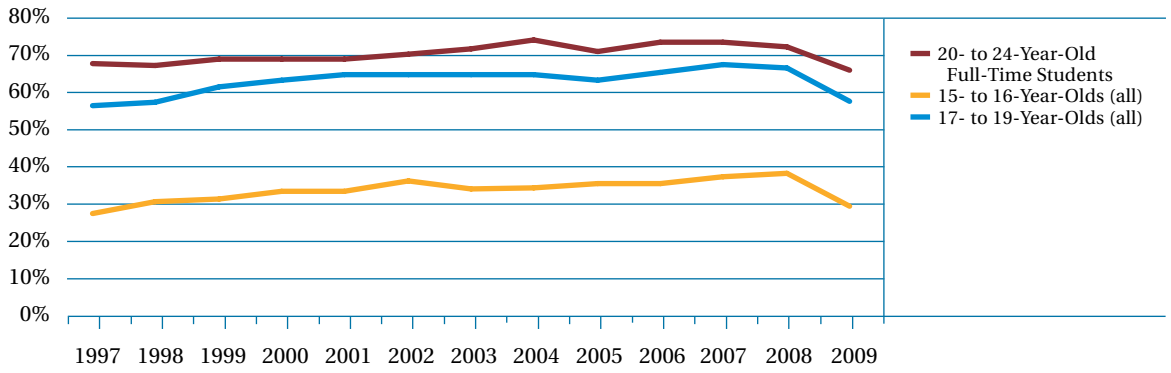


Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0006.

A Recession Takes Hold

The most recent data suggest that the current economic climate is unfavourable to students. As Figure 4.IV.4 demonstrates, the employment rate among 20- to 24-year-old full-time students in the month of June fell six percentage points, to 64 percent, between 2008 and 2009. By contrast, it had not dropped by more than three percentage points in the 15 previous years for which data are available. High school-aged youth, who may plan on financing their future studies in part through savings from summer employment, are also feeling the pinch. The employment rate among both 15- to 16-year-olds and 17- to 19-year-olds in the month of June fell by ten percentage points between 2008 and 2009.

Figure 4.IV.4 — Employment Rate for the Month of June among 20- to 24-Year-Old Full-Time Students, 15- to 16-Year-Olds and 17- to 19-Year-Olds, 1997–98 to 2008–09



Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0006.

In terms of earnings, university students in the last (first) year of their program who work during the school year reported earning an average of $3,775 ($1,883) in employment income, while those who worked during the previous summer reported using an average of $5,318 ($2,112) from this source during the school year. The earnings of employed college students break down as follows (including both current and summer income):

- 15 percent earned between $0 and $1,000
- 10 percent earned between $1,001 and $2,000
- 13 percent earned between $2,001 and $4,000
- 12 percent earned between $4,001 and $7,000
- 8 percent earned between $7,001 and $10,000
- 10 percent earned more than $10,000.

Aside from these figures, we have limited information on the wages earned by students and their evolution over time. According to Usalcas and Bowlby (2006), and as reported in the previous edition of *The Price of Knowledge*, students aged 18 to 24 have seen only a small gain in their average hourly wages since 1997–98: about 2.1 percent after adjusting for inflation (see Berger, Motte and Parkin, 2007, 82). The increase in overall earnings that students report is thus almost entirely attributable to the increased numbers of hours worked, as opposed to a significant increase in wages.

While it is clear that students rely heavily on employment to finance their studies, without comprehensive individual-level data on student wages, we cannot fully track the evolution of their earnings over time. We can, however, examine how the minimum

wage in Canada has evolved, since it may represent the hourly pay for students in typical entry-level, part-time or summer jobs. The minimum wage varies substantially from region to region.[6]

- British Columbia had the highest minimum wage in Canada until 2007, when a number of provinces caught up to it. Frozen at $8.00 per hour in 2000, the relative value of the B.C. minimum wage has been decreasing ever since.
- In the three Prairie provinces, the minimum wage has increased by 60 percent since 1997. It has grown particularly quickly since 2004, from just over $6.50 per hour to $8.50 per hour, likely due to the strong economy in Western Canada.
- In Ontario the minimum wage did not increase between 1997 and 2004, although recent annual increases since then have allowed it to catch up to the 1997 level after adjusting for inflation. At $8.75 per hour, Ontario's minimum wage is the highest in the country, having grown by 28 percent since 2003.
- Minimum wage increases in Quebec have kept up with provincial inflation,[7] with the wage rising from $6.80 to $8.50 between 1997 and 2008.
- In the Atlantic provinces, the minimum wage grew by an average of 49 percent during the years in question, increasing from an average of $5.35 in 1997 to $7.96 in 2008.

It is interesting to note that the gap in minimum wages across provinces has been narrowing. In 2001, the gap between the highest minimum wage ($8.00 in B.C.) and the lowest ($5.50 in Newfoundland and Labrador) was $2.50. It had shrunk to $1.00 in 2008, with Ontario's wage of $8.75 being one dollar higher than New Brunswick's.

Combining what we know about both minimum wage rates and tuition costs, it is possible to show how income from work might contribute to paying for post-secondary education in each province. As reported earlier, the 62 percent of students working while in their last year of undergraduate studies in 2009 worked an average of 18 hours per week. Assuming that a typical academic year lasts 34 weeks, then the average student who is working while in school works a total of 612 hours. In Quebec and Manitoba, students working for this number of hours could earn well over the amount needed to pay for university undergraduate tuition. In P.E.I., Ontario, Alberta and B.C., they could almost cover their

Table 4.IV.1 — Minimum Wage by Province, 1997 to 2008

	97	98	99	00	01	02	03	04	05	06	07	08
BC	$7.15	$7.15	$7.60	$8.00	$8.00	$8.00	$8.00	$8.00	$8.00	$8.00	$8.00	$8.00
AB	$5.00	$5.40	$5.90	$5.90	$5.90	$5.90	$5.90	$5.90	$7.00	$7.00	$8.00	$8.40
SK	$5.60	$5.60	$6.00	$6.00	$6.00	$6.65	$6.65	$6.65	$7.05	$7.55	$7.95	$8.60
MB	$5.40	$5.40	$6.00	$6.00	$6.25	$6.50	$6.75	$7.00	$7.25	$7.60	$8.00	$8.50
ON	$6.85	$6.85	$6.85	$6.85	$6.85	$6.85	$6.85	$7.15	$7.45	$7.75	$8.00	$8.75
QC	$6.80	$6.90	$6.90	$6.90	$7.00	$7.20	$7.30	$7.45	$7.60	$7.75	$8.00	$8.50
NB	$5.25	$5.25	$5.25	$5.75	$5.90	$6.00	$6.00	$6.20	$6.30	$6.70	$7.25	$7.75
NS	$5.50	$5.50	$5.60	$5.70	$5.80	$6.00	$6.25	$6.50	$6.80	$7.15	$7.60	$8.10
PE	$5.40	$5.40	$5.40	$5.60	$5.80	$6.00	$6.25	$6.50	$6.80	$7.15	$7.50	$8.00
NL	$5.25	$5.25	$5.50	$5.50	$5.50	$5.75	$6.00	$6.00	$6.25	$6.75	$7.50	$8.00

Note: Figures have not been adjusted for inflation. Figures represent the minimum wage in effect on December 31 of the year in question.
Source: Human Resources and Skills Development Canada, Hourly Minimum Wages in Canada for Adult Workers

6. None of the minimum wages reported here have been adjusted for inflation. Between 1997 and 2008, inflation in Canada was 27.51 percent, meaning that any growth in the minimum wage below that amount would constitute a decline in the actual value of the wage over the same period.
7. Inflation in Quebec grew by 24.12 percent between 1997 and 2008, slightly below the national average of 27.51 percent.

Table 4.IV.2 — Percentage of University and College Tuition Earned by Students Working at Minimum Wage for the Average Number of Hours During a Typical Academic Year

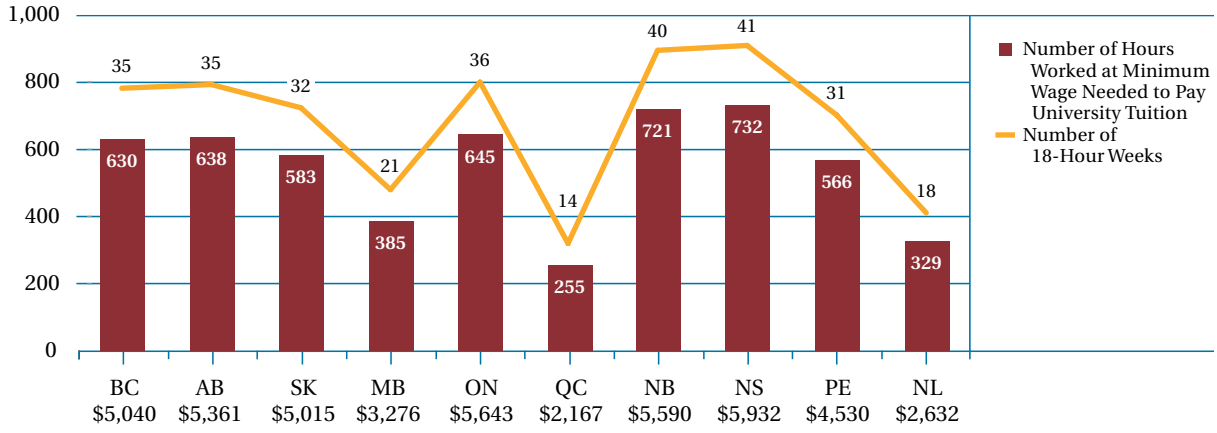
Province	Percentage of University Tuition Earned	Percentage of College Tuition Earned	Employment Rate (Annual, Full-Time Students Aged 20–24)	Unemployment Rate (Annual, Full-Time Students Aged 20–24)
BC	97%	179%	40.4%	5.1%
AB	96%	161%	47.1%	x
SK	105%	181%	45.5%	x
MB	159%	403%	60.0%	3.6%
ON	95%	279%	42.4%	7.1%
QC	240%	N/A	53.6%	4.9%
NB	85%	182%	37.4%	11.7%
NS	84%	191%	44.5%	5.6%
PE	108%	151%	40.5%	11.1%
NL	186%	337%	34.6%	x

Note: x = Suppressed to meet the confidentiality requirements of the Statistics Act.
Source: Authors' calculations; Statistics Canada's Labour Force Survey, CANSIM Table 282-0006 and 282-0095.

tuition bill. In Nova Scotia and New Brunswick, however, they would be left well short. College students are better positioned, but there are still considerable differences by province (see Table 4.IV.2).

Another way of looking at this is shown in Figure 4.IV.5. In Nova Scotia and New Brunswick, a student would need to work more than 720 hours to come up with one year's university tuition, or 40 weeks at 18 hours per week (in comparison, a typical academic year lasts 34 weeks).[8] Students in Manitoba, on the other hand, would only have to work 21 weeks, and students in Quebec 14.

Figure 4.IV.5 — Number of Hours Worked at Minimum Wage and Number of 18-Hour Work-Weeks Required to Pay One Year's University Tuition in Canada in 2008–09, by Province



Source: Authors' calculations based on Statistics Canada, Tuition and Living Accommodation Costs Survey; Human Resources and Skills Development Canada, Hourly Minimum Wages in Canada for Adult Workers.

8. Moreover, these calculations do not factor in taxes and other payroll deductions.

Should Students Work?

More students than ever before combine work and attending post-secondary education (see Usalcas and Bowlby, 2006; Motte and Schwartz, 2009). In recent years, at least prior to the economic downturn of 2008–09, it was relatively easy for students to find work.

The impressive increase in the proportion of students who work during the school year typically triggers two types of question. The first is: "Why are students working?" When asked such a question directly, students' answers will vary from reporting a need for money to cover the basics (education, food and rent) to saying they need money for leisure or to maintain a certain lifestyle.

The second type of question is: "What is the effect of work on students' persistence and performance?" When asked directly, students will admit that the number of hours they work may be detrimental to their performance. In fact, recent data show that the more hours university students work, the more likely they are to say that it affects their academic performance. Specifically, "about 35% of those who work over 30 hours a week report that employment has a negative impact on their academic performance. This compares to about 17% of those who work 10 hours a week or less" (Prairie Research Associates, 2009a).

Establishing a clear causality between employment and academic performance, however, is a particularly difficult issue from a methodological perspective. That is, it is hard to say whether students perform worse in school because they work, or whether students are drawn to work because they do poorly in school.

Recent data from Statistics Canada's Youth in Transition Survey have shed some light on this question. In their attempt to get at the relationship between work and persistence using YITS data, Motte and Schwartz (2009) observe that students who did not re-enroll in second year after the first year of their first post-secondary program were more likely to have worked a greater number of hours during that first year. They also find that work is negatively correlated with persistence: the more hours students work during the first year of study, the less likely they are to come back in the second year.

While we are far from having a definite answer on the effect of work on post-secondary performance, this research suggests that students should be challenged on their need for work: if there is any doubt that it may affect their school performance, are they in a position to reduce the number of hours they work? A more difficult question is whether students who lack resources would be better off requesting student financial aid, as opposed to working.

Family Income and Savings

As mentioned above, the financial contributions that students receive from their families—typically parents—is one of the most important sources of post-secondary education funding. Unfortunately, there is no easy way to tell whether students have been getting more or less financial support from their parents over time. Unlike employment earnings or student loan payments, transfers of funds within families are not reported to or tracked by the government. They may also be accounted for less accurately by respondents to student surveys.

Even if we knew how family contributions were changing over time, however, we would still be missing an important part of the picture. In terms of assessing the affordability of post-secondary education, what counts is not only what parents give to their student children, but how affordable parents feel these contributions to be. If family income is declining over time, for instance, then a family committed to providing their children with a certain amount of money each year will find it harder and harder to do so. For this reason, in this section we will examine how the financial circumstances of Canadian families have been changing in recent years and consider how this may be affecting their ability to contribute financially to their children's post-secondary education.

Family Income[9]

The earnings of individual Canadians have not changed in real terms over the past 25 years, which means that earnings have increased at the exact same rate as inflation. The earnings of families, however, have increased in real terms by just over nine percent (family earnings have increased despite the stagnation in individual earnings because there are now more dual-earner families). Median family income, which includes income from investments and government transfers as well as employment, increased by 11 percent above inflation between 1980 and 2005 (Statistics Canada, 2008a). The increase has been especially pronounced in the recent period of economic growth prior to the 2008 economic crisis: from 2000 to 2005, there was a real increase in median family income of 3.7 percent and a further 4.7 percent increase between 2005 and 2007 (Statistics Canada, 2009c).

Perhaps the best measure of family income in the context of the affordability of post-secondary education is the after-tax income of non-elderly families. After-tax income reflects what families have available to spend; by excluding elderly families, we can focus on the families most likely to have dependent children. Non-elderly families gained little ground between 1980 and 2000—in real terms, their median after-tax income grew by only 0.3 percent. Since then, however, their income has been growing (although the available figures do not take into account the 2008 economic downturn): between 2000 and 2007, the real median after-tax income of these families increased by 13.3 percent.

The fact that families are better off now than they used to be is no doubt good news when considering how students pay for post-secondary education. At the same time, however, the stagnation in after-tax income between 1980 and 2000 was overshadowed by the doubling (in real terms) in undergraduate university tuition over the same period, and the more recent real growth in family income (13.3 percent) between 2000 and 2007 has simply allowed families to keep pace with rising costs, at least as measured by the increase in tuition levels (13.1 percent over the same period). Seen in these terms, university education became much less affordable prior to 2000, and has not become any more or less affordable since then.

9. Unless otherwise noted, the income figures referred to in this section are taken from Statistics Canada's CANSIM tables. The consumer price index and recent tuition figures used in the authors' own calculations are also from Statistics Canada. The historic tuition figures were provided by the AUCC.

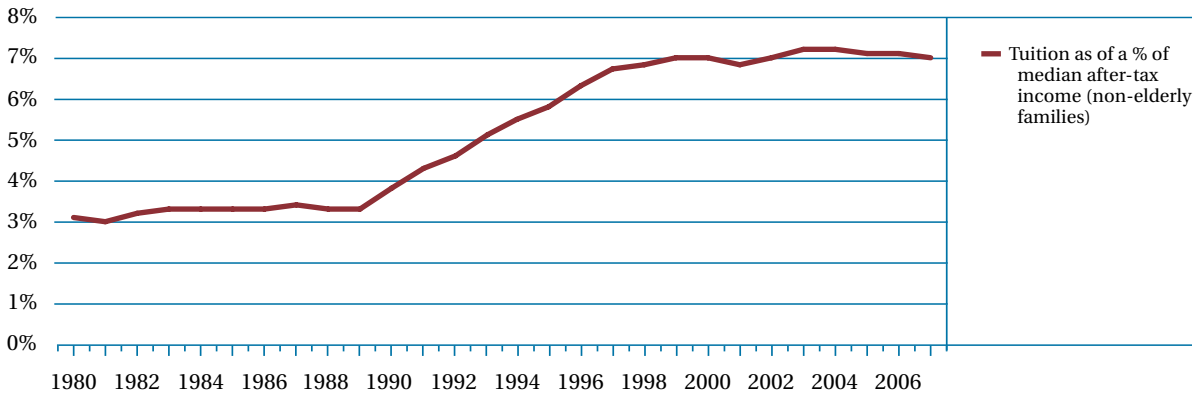
The longer-term trend just described is represented in Figure 4.IV.6. Twenty-five years ago, average undergraduate university tuition represented just over three percent of the annual income that non-elderly families had to spend. That proportion more than doubled in the decade between 1989 and 1999. The situation has stabilized again in the last five years or so, with tuition hovering at around seven percent of the median after-tax income of non-elderly families.

An equally important point to consider is the fact that income has not been increasing at the same rate for all types of families. The distribution of income in Canada has become more unequal over the past decades, meaning that richer families have seen more income growth than poorer ones. This trend was particularly apparent in the 1990s, when lower-income families actually lost ground, while higher-income families continued to gain (Heisz, 2007).

To illustrate, consider the average after-tax income of families[10] in each of five equal-sized quintiles. In the 15 years between 1989 and 2004, the after-tax income of families in the lowest income quintile barely changed in real terms, increasing by 2.2 percent. By comparison, the income of those in the highest income quintile grew by almost ten times as much (20.2 percent). In recent years, however, the trend has reversed: between 2004 and 2007, the real incomes of those in the lowest quintile grew by 11.9 percent compared to 7.1 percent for those in the highest quintile.[11]

In terms of paying for post-secondary education, this means that for those in the lowest income quintile, average university tuition grew from about eight

Figure 4.IV.6 — Average Undergraduate University Tuition as a Proportion of Median After-Tax Income (Non-Elderly Families)



Source: See Note 9.

10. In this case, we are considering all economic families (families of two or more persons) and not exclusively non-elderly families, due to restrictions in the availability of data.

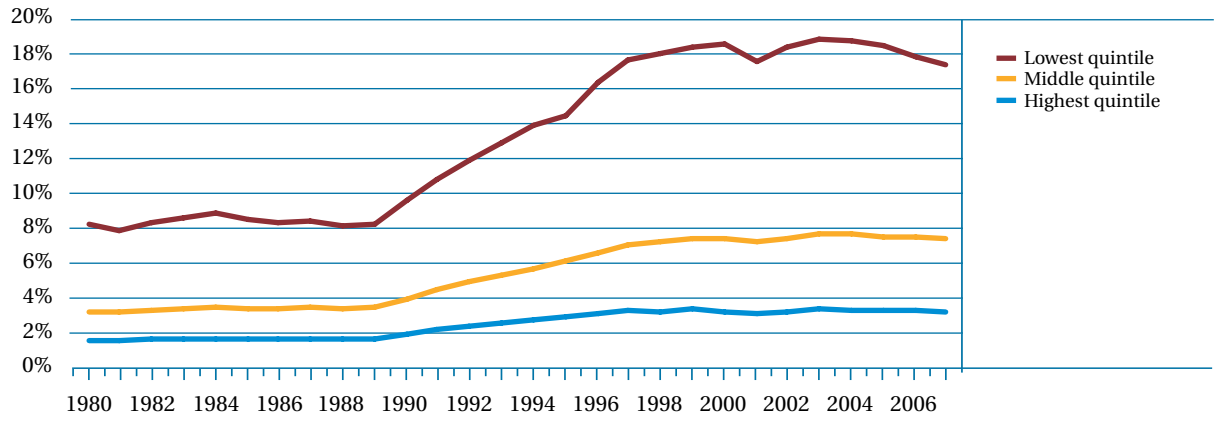
11. Source: Statistics Canada CANSIM Table 202-0701.

percent of average after-tax income to about 18 percent between 1980 and 2007; for those in the highest income group, the figure grew from just under two percent to just over three percent (see Figure 4.IV.7). Higher-income families today must devote about 1/25th of their average after-tax income to paying their child's university tuition in Canada; lower-income families must pay almost a fifth of theirs. The key point, however, is that over the past two decades—and particularly during the 1990s—post-secondary education became much less affordable for lower-income families in comparison to higher-income families, although the situation has stabilized since 2000.[12]

Family Savings

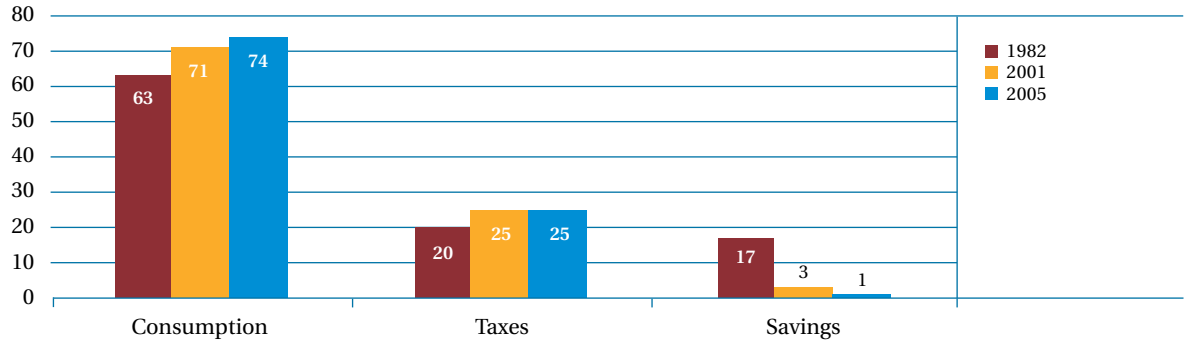
Another dimension of family finances to consider is savings. It is arguably easier for parents to contribute financially to their children's post-secondary education if that contribution can come from savings rather than current income—especially given the rise in the cost-to-income ratio just discussed. The amount of their income that Canadians families are saving, however, has declined significantly over the past 25 years. Whereas in 1982 they saved 17 cents of every dollar of income, in 2005 they saved only one cent (Chawla and Wannell, 2005; Statistics Canada, 2006a) (see Figure 4.IV.8).

Figure 4.IV.7 — Undergraduate University Tuition as a Proportion of Average After-Tax Income (Economic Families), by Income Quintile



Source: See Note 9.

Figure 4.IV.8 — Allocation by Household of Each Dollar of Personal Income Received



Source: Chawla and Wannell, 2005; Statistics Canada, 2007.

12. Technically, the fraction of income needed to cover average undergraduate university tuition grew by a similar degree for both high- and low-income families, roughly doubling in each case. Our argument, however, is that the change from 1.6 to 3.2 percent experienced by high-income families does not affect the affordability of higher education nearly as much as the change from 8.2 to 17.3 percent witnessed by low-income families.

As average savings have declined, the proportion of households that have "negative savings"—that is, who spend more than their income—has increased. In 1982, for instance, two in five (36 percent) households spent more than their income; 20 years later, the figure was almost one in two (47 percent) (Chawla and Wannell, 2005, 8).

Thus, as Chawla and Wannell (2005, 5-6) write, "the broad trends are clear: Canadians are now spending more on taxes and personal consumption than a generation ago and, as a result, are saving less of their income…Many households do save, but increasing numbers are slipping into the red and spending more than they earn in a year."

Once again, however, the situations of lower- and higher-income households are significantly different. Lower-income households are three times more likely to be in the red than higher-income households: in 2001, for instance, 66 percent of households with income below $20,000 spent more than they earned, compared with 23 percent of households above $100,000. Four in five low-income households whose main income recipient was under 45 years of age—and thus more likely to have children old enough to attend post-secondary education—had negative savings in 2001 (Chawla and Wannell, 2005, 8).

This trend is important given the emphasis that has been placed by public policy-makers in recent years on education savings programs. The federal government, for instance, has introduced various savings incentives,[13] including Registered Education Savings Plans (introduced in the early 1970s), the Canada Education Savings Grant (introduced in 1998) and the Canada Learning Bond (introduced in 2004). While these programs clearly benefit many—and take-up has been rising over time—the fact is that over time fewer families have found themselves with money to save. Lower-income families with the greatest need to save money to pay for their children's post-secondary education are of course the ones least likely to be able to do so.

If spending outstrips income, then families must finance their spending either by depleting what reserves they have or by borrowing. With regard to the latter scenario, both the proportion of families with debt and the amounts owed have been rising. In the short time between 1999 and 2005, the proportion of families with debt grew from 67.3 percent to 69.4 percent, while the median amount they owed grew by 38 percent (from $32,300 to $44,500 per family) and the total value of the debt they held grew by 47 percent (Statistics Canada, 2006b).

The return to income growth, even for lower-income families, in the period between 2000 and 2007 allowed many to manage their declining savings and escalating debt levels. Analysts assessing these trends have nonetheless argued that an increasing number of Canadian families are in a precarious financial situation. In particular, they are said to be poorly prepared to handle either unexpected costs or a general worsening of economic conditions. For example, it has been noted that "even with the temporary relief of a credit card or line of credit, 1 in 5 Canadians would not be able to handle an unforeseen expenditure of $5,000 and 1 in 10 would face difficulty in dealing with a $500 unforeseen expense" (Certified General Accountants Association of Canada, 2007, 22). In this chapter, however, we have seen that, historically, tuition and accommodation costs for students have undergone sudden, significant fluctuations; other costs—such as books—are hard for students to predict since they vary so much from one situation to another. Meanwhile, Canada's accountants have warned that "the steadily increasing indebtedness of households does heighten vulnerability to different types and intensities of shock" (Certified General Accountants Association of Canada, 2007, 11–12), such as the shock associated with a recession of the type that took hold at the end of 2008. As always, lower-income families are in the worst position: "The growing wealth dispersion since the mid-1980s suggests that Canadian families are becoming increasingly unequal in their capacity to mitigate negative income shocks or to initiate forward-looking strategies in good times" (Morissette and Zhang, 2006, 14). For these reasons, the affordability of post-secondary education remains a concern as Canadian families navigate the current change in economic conditions.

13. These programs will be discussed in more detail in Chapter 6.

Student Financial Assistance

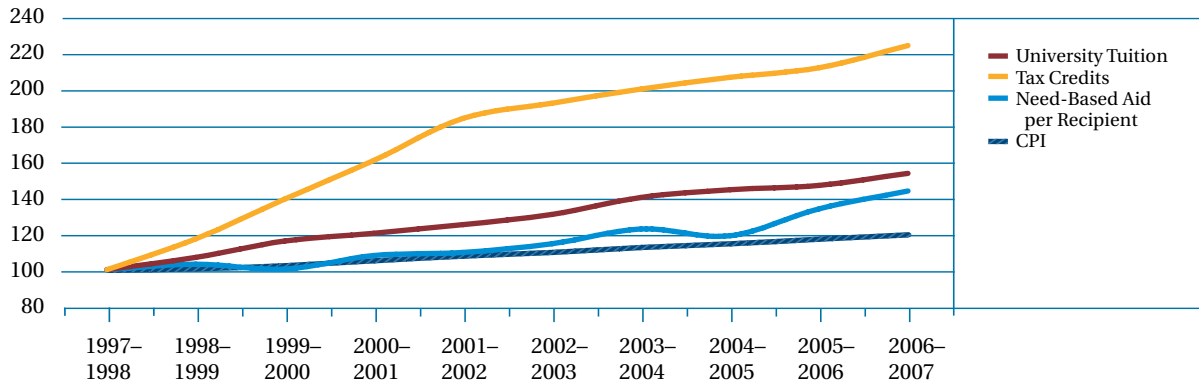
There are two distinct types of government financial support for post-secondary students (see Chapter 6 and Berger and Parkin, 2008). Need-based aid consists of direct support to students in the form of student loans, grants and loan reduction programs. Non-need-based or universal aid involves the provision of support, either directly (merit scholarships) or indirectly (tax credits, matching grants for education savings plans), to current and future students and their families regardless of their level of financial need.

Among students who completed undergraduate studies in 2009, 40 percent reported receiving government student aid at some point in their studies (Prairie Research Associates, 2009a). Meanwhile, 31 percent of college students in 2009 reported receiving a government loan or bursary during the current academic year (Prairie Research Associates, 2009b).

Education tax credits are of course available to all students, but their value in any given year is relatively modest. According to Usher and Duncan's analysis of 2005 data from Finance Canada (2008), 45 percent of all tax credits are used by the student in the year they are earned, 35 percent are transferred to family members and 20 percent are carried forward for future use. To put it another way, of the $1.9 billion in tax credit expenditures issued by the federal and provincial governments in 2006–07, $1.52 billion would have been used that year, with the remainder carried over to future years. Fewer students benefit from the tax-free earnings or matching grants available through RESPs, because not all parents choose or are able to save in this way. In 2008, just over 225,000 students benefitted from withdrawals from an RESP account, which represents approximately 14 per-cent of the post-secondary student popu-lation. The average withdrawal amount of $6,600, however, is relatively substantial (HRSDC, 2008, 17).

While the cost of post-secondary education has increased over and above the rate of inflation in recent years, increases in certain kinds of student financial support have kept pace. As Figures 4.IV.9

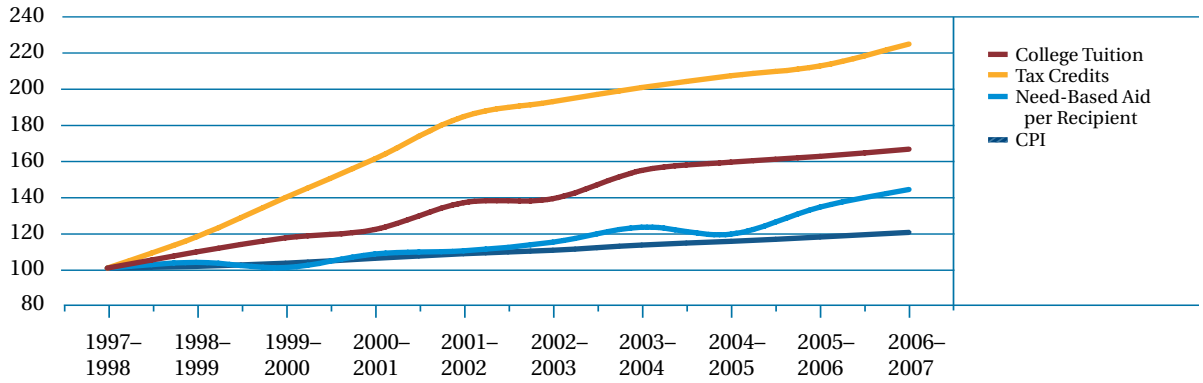
Figure 4.IV.9 — Change in University Tuition, Education Tax Credits, Need-Based Student Financial Aid per Recipient and Consumer Price Index in Canada, 1997–98 to 2006–07 (1997–98 = 100)



Note: "Need-based student financial aid" includes only loans, grants and loan remission.

Source: Statistics Canada, Tuition and Living Accommodation Costs Survey; Statistics Canada, PSIS; Statistics Canada, Consumer Price Index; Berger and Parkin, 2008.

Figure 4.IV.10 — Change in College Tuition, Educational Tax Credits, Need-Based Student Financial Aid per Recipient and Consumer Price Index in Canada, 1997–98 to 2006–07 (1997–98 = 100)



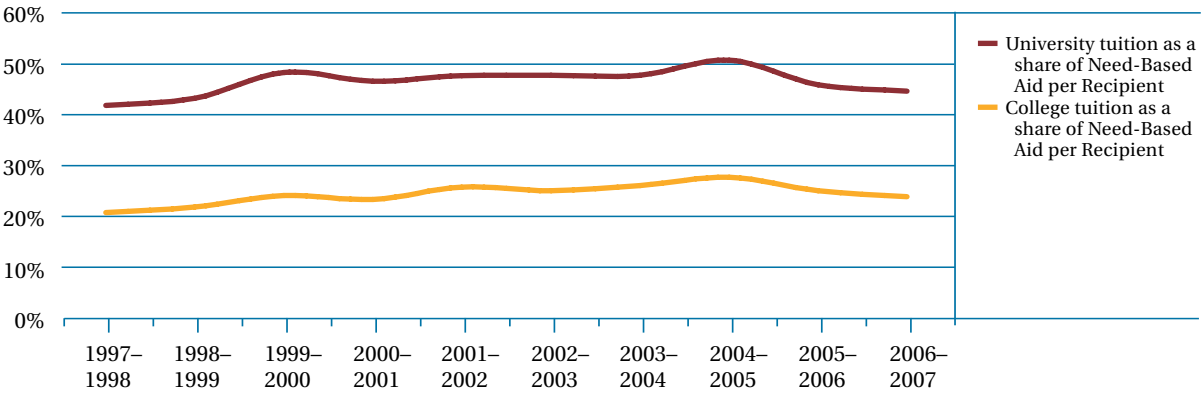
Note: "Need-based student financial aid" includes only loans, grants and loan remission. The college tuition amount excludes Quebec, which does not charge tuition fees.

Source: Statistics Canada, PSIS; Statistics Canada, Consumer Price Index; Manitoba Council on Post-Secondary Education, 2003, 2004 and 2007; Berger and Parkin, 2008.

and 4.IV.10 demonstrate, non-need-based aid (in the form of tax credits for students and their families) actually grew at a faster pace than both inflation and increases in university and college tuition for much of the last ten years.

In recent years, however, spending on need-based aid only (measured on a per-recipient basis to account for changes in enrolment) has not kept pace with increases in tuition, although it has increased at roughly the same rate as inflation. As Figure 4.IV.11 makes clear, the result is that tuition costs have increased as a share of need-based financial aid, leaving students who rely on student loans and grants with less to cover other costs such as accommodation. University tuition increased from 42 percent to 51 percent of need-based financial aid per recipient, while college tuition increased from 21 percent to 28 percent. The situation has improved slightly in recent years, however.[14]

Figure 4.IV.11 — University and College Tuition as a Share of Need-Based Student Financial Aid per Recipient in Canada, 1997–98 to 2006–07



Note: "Need-based student financial aid" includes only loans, grants and loan remission.

Source: Statistics Canada, Tuition and Living Accommodation Costs Survey; Manitoba Council on Post-Secondary Education, 2003, 2004 and 2007; Berger and Parkin, 2008

14. Changes in government spending in support of students will be discussed in more detail in Chapter 6.

These figures show why it is important to distinguish between need-based and non-need-based aid when examining government-supported student financial resources. While tax credits, the principal form of non-need-based aid, are *available* to all students, they cannot be *used* by all students. The credits, which are non-refundable, can only be used to reduce a student's income tax; students with little or no income tax to pay can either transfer the credits to a family member or carry them forward for future use (and they are not indexed to inflation). Wealthy families, then, can derive an immediate benefit from the tax credits, while low-income families might have to wait—often until several years after the study period—to use them. That tax credits are used disproportionately by the families of wealthy students is well known among post-secondary policy-makers.[15] That they alone have allowed student financial aid to keep up with rising tuition costs is not as well understood.

As we have demonstrated, need-based financial aid, measured on a per-recipient basis, increased by 44 percent between 1997–98 and 2006–07, somewhat above the measure of inflation but lower than tuition increases. Meanwhile, tax expenditures on support for post-secondary education increased by 224 percent. Wealthy families that rely on tax credits to pay for post-secondary education have thus benefitted from a large expansion of government-funded financial support. But low-income families, who often cannot use their tax credits, have seen tuition increases far outstrip growth in the kind of government support for which they qualify. As a result of this major trend in government spending on student financial support, higher education is now more affordable for wealthy families and less affordable for low-income Canadians.

Private Borrowing

For a number of reasons, students may need to rely on private loans from banks or credit cards to make ends meet. The reliance on private sources of lending raises a number of interesting questions. Why are students using bank loans or credit lines? Did these students apply for a government loan? What is the trend in credit use among students? Unfortunately, we have very limited information with which to shed light on these issues.

According to Statistics Canada's National Graduates Survey (NGS), 20 percent of college students who graduated in 2005 owed money to non-government sources, with the average amount owed being $9,000. The incidence and amount of private debt both went up since 2000, when 16 percent of college graduates owed an average of $7,611 to non-government sources. Twenty-six percent of bachelor's degree graduates owed an average of $14,600 to non-government sources in 2005. These figures are up from 2000, when 19 percent owed an average of $12,089 to non-government sources.[16]

More recently, in 2009, 20 percent of graduating university students reported having a loan from a financial institution to pay for their studies (Prairie Research Associates, 2009a). Among these students, the average loan was $14,862. A survey of college students in all years of study in 2009 revealed that 26 percent had accumulated an average of $3,052 in debt from financial institutions (Prairie Research Associates, 2009b).

Credit cards are commonly used by students. In 2009, nine in ten graduating university students reported having at least one credit card, and 24 percent reported carrying an average balance of $3,440 from month to month (Prairie Research Associates, 2009a).

15. See Neill (2007) for an authoritative assessment.

16. These figures have been adjusted to 2005 dollars. Furthermore, the NGS data are restricted to individuals who *only* had non-government debt. An additional nine percent of college graduates and 15 percent of university graduates owed debt both to government and non-government sources, although the amounts are not broken down by source. These percentages are up since 2000, from eight and 11 percent, respectively.

Myth: Private Borrowing Costs Less

Financial institutions specifically target students by offering a full-range of student-tailored products: "student" banking accounts, "student" credit cards and "student" lines of credit. A quick scan of major financial institutions' websites highlights the relatively aggressive marketing strategies they put forth. Promotional statements such as "lower borrowing costs than a student loan—pay interest only on the amount you actually use" to describe the advantages of a student line of credit are misleading: students do not pay any interest on government student loans as long as they are in school, nor does any interest accumulate. This is not the case for a line of credit: interest is owed immediately on the amount that has been borrowed. Moreover, at the end of their studies, students with government loans will only pay interest on the portion of the loan they owe, i.e., the amount they "actually" use, which is no different from the advertised advantage of a private line of credit. A few institutions offer a slightly more nuanced pitch by pointing out that lines of credits are a good instrument for students who are not eligible for government financial aid.

Students often emphasize the relative ease with which they can obtain credit cards, lines of credit or bank loans. During focus groups conducted for the MESA project,[17] some recipients of non-repayable millennium access bursaries suggested that the government was making money on their student loans and that they preferred borrowing from their bank (despite the fact that financial institutions will of course only issue loans under terms that are profitable to them). While it may not be a widespread view, such statements suggest that student financial aid has an image problem. Moreover, it suggests that improving the financial literacy of youth is essential.

That work should start at an early stage: before students begin post-secondary education. As noted in *Closing the Access Gap: Does Information Matter?*, high school seniors surveyed in 2005 were more likely to cite credit cards as a way of paying for their post-secondary education than scholarships, loans and bursaries (Canada Millennium Scholarship Foundation, 2006b).

The use of credit cards and lines of credit is not necessarily a bad thing. However, as pointed out in research undertaken by Lachance *et al.* (2005, 2006) on young adults in Quebec, it becomes a problem when there is a clear lack of knowledge of how credit works. Indeed, there is no direct link between the amount young adults owe on their credit cards and the extent of their knowledge about credit. This is particularly troubling given the high interest rate charged on outstanding credit card balances.

The challenge of improving financial literacy is not small. In Budget 2009, the federal government highlighted the importance of financial literacy and announced the creation of an independent task force on the topic.[18] "Financial literacy," the budget documents noted, "is the ability to understand personal and broader financial matters, apply that knowledge and assume responsibility for one's financial decisions. Financial literacy is an important life skill that empowers consumers to make the best financial decisions in their particular circumstances." The composition of the task force was announced in June 2009 and will focus in particular on youth. Recommendations are expected in the fall of 2010.[19]

17. The Measuring the Effectiveness of Student Aid (MESA) project is a four-year research effort being conducted by the Educational Policy Institute and the School of Policy Studies at Queen's University on behalf of the Canada Millennium Scholarship Foundation. Participating researchers were asked to write about issues of access and persistence in post-secondary education in Canada. Each of the papers commissioned during this project is available for downloading at www.mesa-project.org.

18. Finance Canada (2009), *Canada's Economic Action Plan: Budget 2009*, Chapter 3, p. 89 (available online at www.budget.gc.ca/2009/pdf/budget-planbugetaire-eng.pdf).

19. For more details, see the Action Plan website: www.actionplan.gc.ca/initiatives/eng/.

Chapter 4

V. How Under-Represented Students Make Ends Meet

In this section, we will discuss how specific groups of students make ends meet while in post-secondary education: low-income students, student parents, Aboriginal students and students with disabilities. For these students, who tend to be under-represented in higher education, the data clearly establish the importance that loans, whether from the government or private sources, play in helping making ends meet. Simply put, these students rely on student support policies to meet their needs.

Low-Income Students

While low-income students face a number of complex barriers to post-secondary education, it is clear that they must overcome financial obstacles to get a higher education. As described earlier, in recent years, undergraduate university tuition alone could represent more than 15 percent of the after-tax income of families in the lowest income quintile.

Many low-income students adopt different strategies to minimize their costs while in school, such as choosing lower-cost programs (see Ouellette, 2006) or living with their parents. While we have yet to fully understand how these choices are made, there is one important observation we can make: not all low-income students rely on student financial aid. According to the Youth in Transition Survey (Cohort A), by age 19, no more than half of students whose family income was below $50,000 when they were aged 15 relied on student loans.[20]

Policy-makers interested in easing the financial burden of low-income students (through programs such as the new Canada Student Grant Program) must be aware that not all students entitled to financial aid—including grants—will apply for it.

Table 4.V.1 — Proportion of Post-Secondary Students Who Had Received a Government Student Loan by Age 19 (2004)

Parental Income Level at Age 15	College	University
Less than $25,000	49.8%	52.9%
$25,000 to $50,000	40.6%	49.8%
$50,000 to $75,000	20.0%	30.3%
$75,000 to $100,000	8.5%	11.6%
$100,000 and up	4.2%	7.9%

Source: Educational Policy Institute, forthcoming; Youth in Transition Survey.

The evaluation of the Millennium Access Bursary Program offers a unique opportunity to gather information on low-income students who applied for student financial aid and received a bursary. A sample of bursary recipients was surveyed over the course of three years.

Table 4.V.2 presents the incidence and mean amount of income from different sources for low-income millennium access bursary recipients in their second year of study. While all of these students received a loan in their first year of post-secondary education, the proportion relying on student loans in the second year was only 85 percent.[21] Work during school plays an important role: 50 percent of students worked at some point or another during the year. College students were more likely to work than university students, and the same was true for women compared with men. It should be noted that, on average, these students need roughly $10,000 in income to fund a year of post-secondary studies.

20. Slightly different figures are derived from the Post-Secondary Education Participation Survey (PEPS). These findings are discussed in Chapter 6 and in the MESA 2008 annual report (Educational Policy Institute, forthcoming).

21. In most provinces, eligibility to receive the millennium access bursary is based on: 1) applying for and receiving student financial aid, and 2) meeting a low-income threshold that varies from province to province.

Student Parents

Aside from other constraints faced by a "typical" student, student parents also need to factor taking care of their child(ren) into the equation. A thorough report by Lero, *et al.* (2008) on student parents submitted to HRSDC provides unique information on this group of students.

Based on the National Graduates Survey, the authors compare the reliance on borrowing of parent and non-parent graduates. Table 4.V.3 shows that female parents were more likely to rely on government loans while in school. This is particularly true of single female parents: 80 percent of these graduates had received a government loan.

Differences between young parents and their colleagues of the same age are equally pronounced. Using the Youth in Transition Survey (Cohort B), Lero *et al.* show that 73 percent of student parents aged 22 to 24 rely on student loans, compared with 53 percent of non-parents.

Aboriginal Students

A commonly held view regarding Aboriginal students is that their post-secondary education costs are entirely covered by band funding. While we do not have data on the proportion of potentially eligible students supported through such funding, it is clear that:

Table 4.V.2 — Income Sources for Second-Year Students Who Received an Access Bursary in the Previous Year

	Loans		Bursaries		Summer Savings		Work Income While in School		Family Contributions		
	Incidence	Mean	Incidence	Mean	Incidence	Mean	Incidence	Mean (per Month)	Incidence	Mean	Total
All	84.6%	$6,319	42.5%	$1,953	63.3%	$2,475	50%	$579	46.8%	$1,083	$10,929
Female	84.7%	$6,458	43.9%	$1,975	61.3%	$2,251	53.4%	$533	44.5%	$997	$10,786
Male	84.4%	$6,096	40.2%	$1,914	66.4%	$2,807	44.5%	$665	50.4%	$1,222	$11,159
College	81.1%	$5,939	39.2%	$1,669	60.7%	$2,273	54.4%	$616	42%	$815	$10,096
University	86.7%	$6,401	44.7%	$2,095	65.7%	$2,584	47.6%	$551	49.8%	$1,230	$11,340

Source: Educational Policy Institute, forthcoming.

Table 4.V.3 — Information on Borrowing among Graduates (by Gender and Marital Status)

	Parent					Non-Parent				
	Single Female	Married Female	Divorced Female	Total Females	Males	Single Female	Married Female	Divorced Female	Total Females	Males
Received Government Loan	80%	45%	64%	54%	46%	50%	51%	33%	50%	48%
Borrowed from Other Sources	16%	16%	26%	18%	20%	22%	19%	15%	21%	24%
Bursaries/Grants	48%	24%	40%	31%	21%	22%	18%	21%	21%	18%
Scholarships	21%	20%	22%	20%	17%	32%	27%	18%	30%	28%

Note: The sample size for males is too small to be decomposed in the same way as for females.

Source: Lero *et al.* (2008); NGS data (2002).

Table 4.V.4 — Income Sources for Second-Year Students Who Received an Access Bursary in the Previous Year, by Aboriginal Status

	Loans		Bursaries		Summer Savings		Work Income While in School		Family Contributions		
	Incidence	Mean	Incidence	Mean	Incidence	Mean	Incidence	Mean (per Month)	Incidence	Mean	Total
Non-Aboriginal	84.7%	$6,481	42.1%	$2,032	70.3%	$2,678	51%	$586	46.2%	$973	$11,384
Aboriginal	79.5%	$10,040	31%	$2,097	35.4%	$1,779	40.5%	$736	37%	$715	$12,051

Source: Educational Policy Institute, forthcoming.

1) not all Aboriginal or even First Nations students receive band funding; and

2) when they do receive band funding, it does not cover all their costs (see Berger and Parkin, 2008, for more details).

Preliminary results from a recent survey of Aboriginal peoples living in Canada's main urban centres provide some insight into the financial issues facing Aboriginal students. The Urban Aboriginal Peoples Study (UAPS)[22] found that, among those surveyed who were attending post-secondary education, only 40 percent received funding from a band. This number was naturally higher among those who identified as First Nations—67 percent. Still, it remains clear that band funding is far from universally available for these students.

The survey further shows that only 26 percent of urban Aboriginal post-secondary students rely on personal or family savings or income from employment as their primary source of funding for their studies. Among those identifying themselves as First Nations, the figure is 15 percent. By comparison, two-thirds of the post-secondary students surveyed in the Class of 2003 study, the vast majority of whom were not Aboriginal, relied primarily on these sources of funding (Malatest, 2007).

The difference in access to family savings is hardly surprising given that the UAPS also shows that only 34 percent of the urban Aboriginal respondents with children are currently saving money to pay for their children's education after high school. This compares to 75 percent of a general population sample also surveyed by the UAPS.

Given the lack of personal and family savings, many Aboriginal students rely on government student loans and bursaries. Data from the MESA project allow a breakdown of the means of financing post-secondary education used by Aboriginal students who received a millennium access bursary.[23] As shown in Table 4.V.4, 80 percent of Aboriginal students who received an access bursary in their first year of study received financial aid in their second year. While the percentage relying on loans was lower than the same figure for non-Aboriginal students, the mean amount borrowed was much higher: about $10,000 compared with a little more than $6,400.

The LE,NONET project, based at the University of Victoria and funded by the Canada Millennium Scholarship Foundation, offers slightly different information (in large part because LE,NONET participants did not have to apply for student financial

22. Preliminary unpublished results of this study were made available by the Environics Institute to the authors.

23. It is important to remember that Aboriginal students in Manitoba and Saskatchewan qualified for a bursary independently of family income. This caveat should be borne in mind when considering the comparison with non-Aboriginal access bursary recipients (strictly speaking, we are not comparing equivalent groups of students).

aid to receive a bursary). Table 4.V.5 shows the six main sources of funding for Aboriginal students participating in the project.

Table 4.V.5 — Main Sources of Funding for LE,NONET Project Participants

Source	Proportion
Band sponsorship	33%
Work	39%
Bursaries	39%
Scholarships (merit-based)	29%
Student loans	39%
Savings	28%

Source: University of Victoria, 2008.

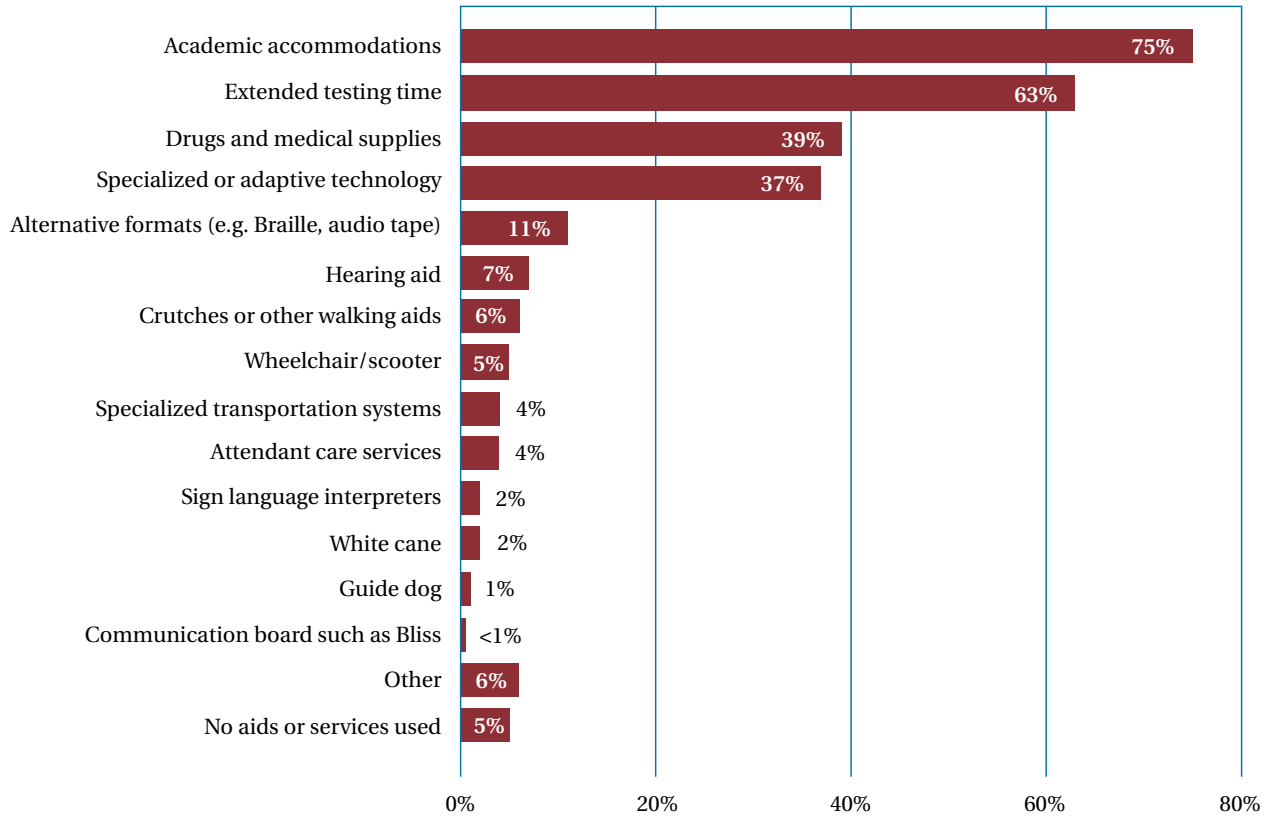
Students with Disabilities

Students with disabilities often face extra costs associated with the different kinds of aids they need to pursue their studies. According to a recent survey of 1,026 Canadian students with disabilities, only five percent did not require a specific aid or service on a daily basis.

Figure 4.V.1 shows the reliance on different kinds of aids by students with disabilities. While there is often no cost related to receiving academic accommodation or extra extended testing time, drugs and medical supplies or specialized technology are certainly more expensive.

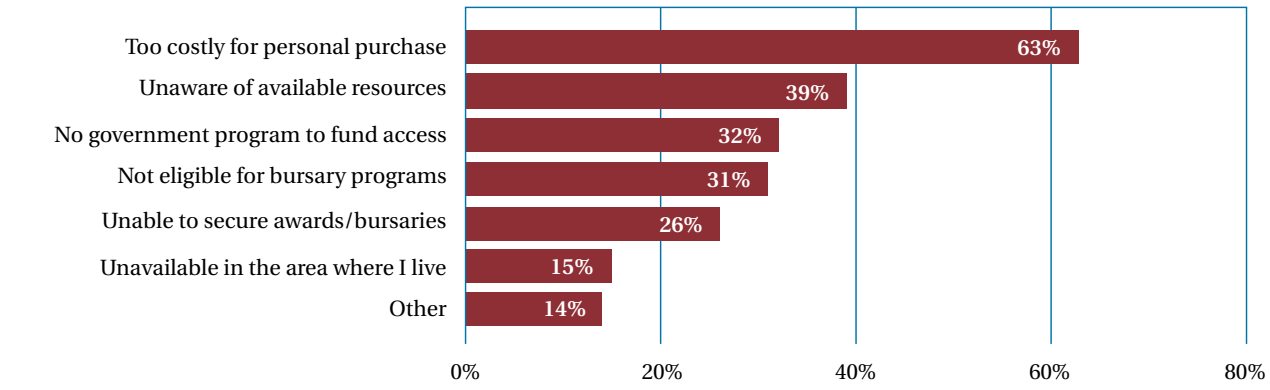
About one-third of the survey respondents mentioned that there were types of aid they would use

Figure 4.V.1 — Types of Aids and Services Used by Students with Disabilities



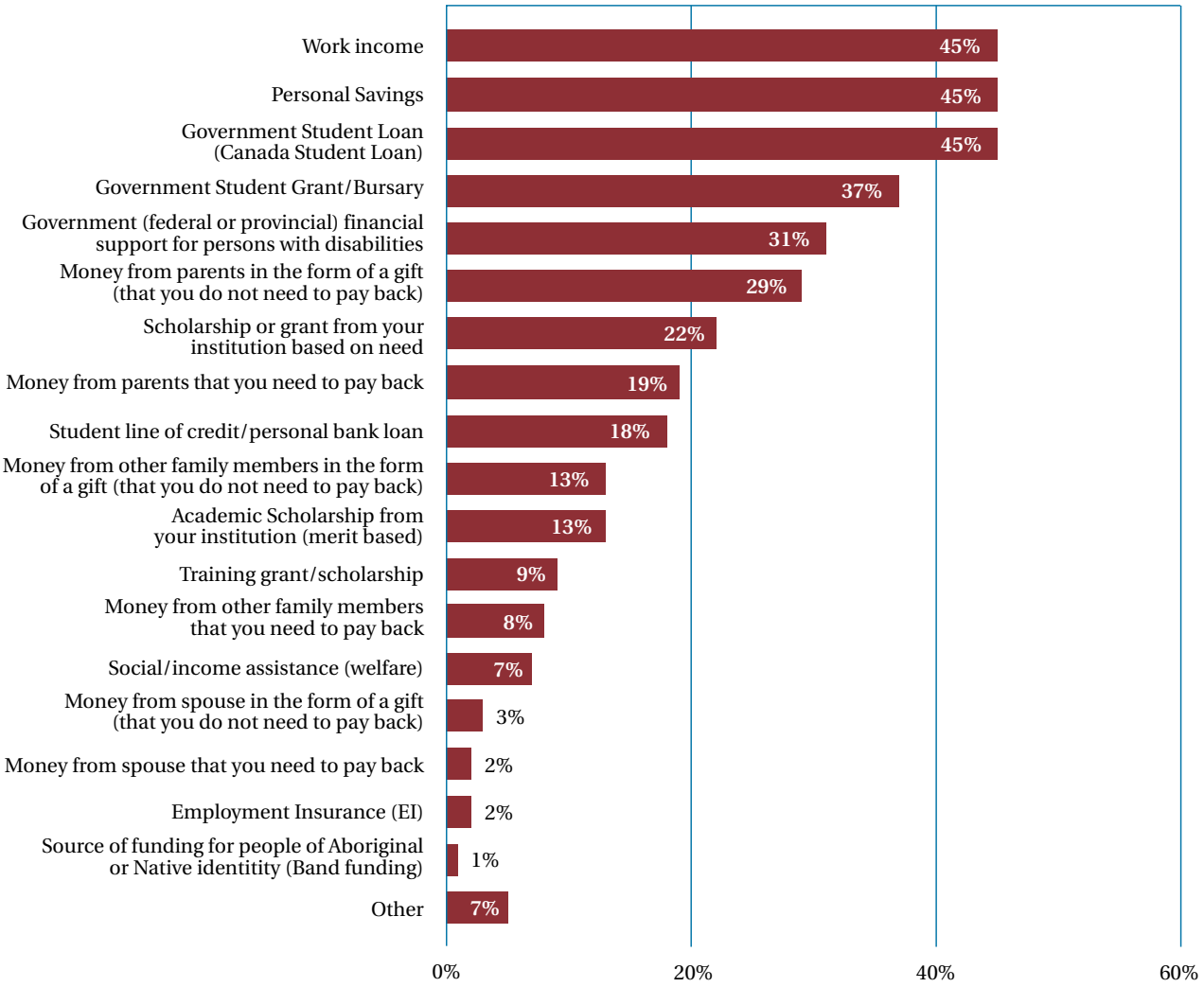
Note: n=1,026
Source: Chambers *et al.*, forthcoming.

Figure 4.V.2 — Reasons for Not Accessing Aids and Services



Source: Chambers *et al.*, forthcoming.

Figure 4.V.3 — Sources of Income for Students with Disabilities



Source: Chambers *et al.*, forthcoming.

but did not have access to. When asked why they were not accessing these services, cost was often cited as the chief reason, whether because it was "too costly for personal purchase, there was "no government program to fund" it or the student was "not eligible for bursary program" (Figure 4.V.2).

In terms of sources of income (see Figure 4.V.3), students with disabilities rely mostly on government loans, personal savings and work. About two in ten students said they were getting money from their institution.

While only 18 percent of survey respondents said they had a line of credit or a bank loan, the amount they relied on was on average the highest among under-represented students (Table 4.V.6).

Table 4.V.6 — Sources of Annual Income for Students with Disabilities (Mean Amounts)

Source	Mean Amount
Student line of credit/personal bank loan	$9,071
Government student loan (Canada Student Loan)	$7,864
Work income	$7,241
Other	$7,113
Training grant/scholarship	$6,688
Money from spouse in the form of a gift (that does not need to be paid back)	$6,544
Employment insurance (EI)	$6,473
Money from parents in the form of a gift (that does not need to be paid back)	$5,518
Academic scholarship from institution (merit-based)	$5,269
Social/income assistance (welfare)	$5,066
Source of funding for people of Aboriginal or Native identity (band funding)	$4,319
Money from spouse that has to be paid back	$4,009
Money from parents that has to be paid back	$3,731
Government student grant/bursary	$3,701
Personal savings	$3,651
Government (federal or provincial) financial support for persons with disabilities	$3,580
Money from other family members that has to be paid back	$3,496
Scholarship or grant from institution (need-based)	$2,285
Money from other family members in the form of a gift (that does not need to be paid back)	$2,185

Source: Chambers *et al.*, forthcoming.

Chapter 4

VI. Conclusion

Has post-secondary education become more or less affordable over time? The costs students face, including but not limited to tuition and fees, books, accommodations and transit, have been increasing at a faster pace than inflation. We cannot, however, end the discussion there. After all, if student resources have been growing as quickly as their costs, one could argue that post-secondary education has remained as affordable as ever. Our review of the evolution of students' resources, however, suggests that particularly for low-income families, revenues have not kept pace with rising post-secondary costs.

This observation should be a preoccupation for policy-makers: if we want to increase the participation of this under-represented group, at the very least we should make sure that the costs of attending post-secondary education do not represent a disproportionate share of their income. This means making sure that financial aid programs are well designed and include an appropriate mix of grant and loans.

To a large extent, this is what we already have in Canada—even more so as of the fall of 2009, with the introduction of the new Canada Student Grants Program. But the challenge does not end here, as not all low-income students make use of financial aid. Finding ways to reach out to these students and provide them with the support they need will be one of the challenges of the next decade.

The discussion of students' costs and resources is by no means limited to determining what students need to have in hand to cover their costs over a year of study. Indeed, what students need to pay feeds into the bigger issue of the rate of return to education: when everything else is held constant, the higher the costs of education, the lower the returns. In order to entice people to invest in education, we need to find means to lower the costs of higher education to a manageable level. For students who rely on government tax credits and family savings, the return to higher education is a no-brainer—and affordability a challenge that can be overcome. For individuals relying on financial aid and employment income that has been struggling to keep up with rapidly increasing costs, the benefits of post-secondary education are obscured by the immediate financial obstacles in the way.

The next decade will require that post-secondary education stakeholders and policy-makers find ways to make sure that studying does not pose an insurmountable financial burden, seeing groups of students already under-represented in higher education increasingly left behind.

5 Getting to Post-Secondary Studies

Anne Motte

Chapter 5

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.

Chapter 5

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.

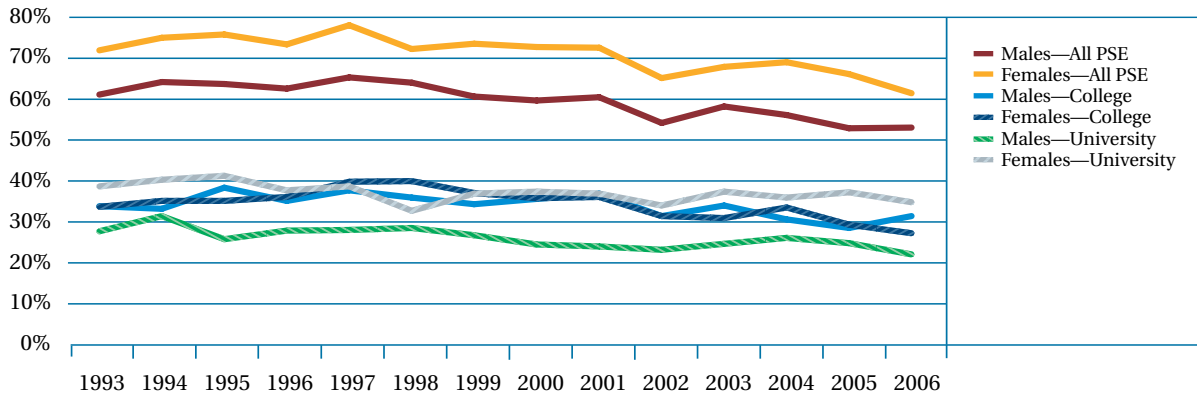
Gaps Between Boys and Girls

Unequal rates of participation by men and women in post-secondary studies have become a notable preoccupation 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.

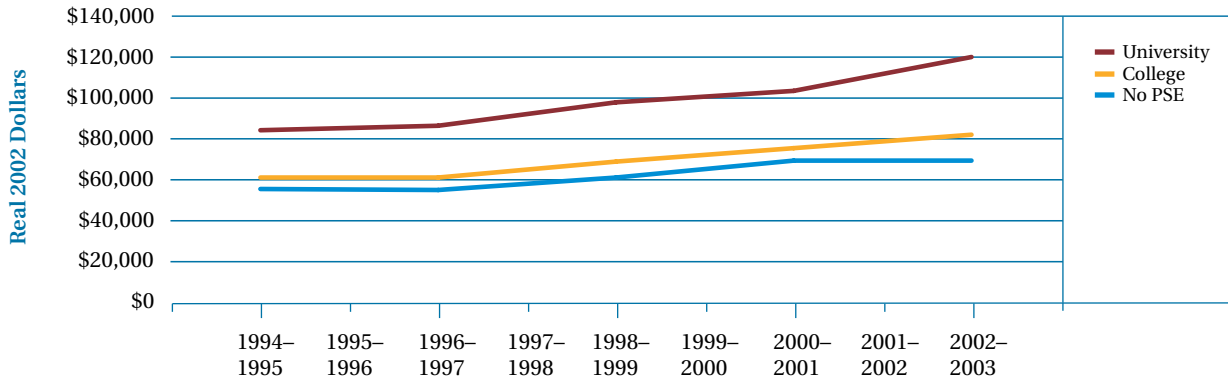
Gaps Between Youth from Low- and High-Income Families

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.

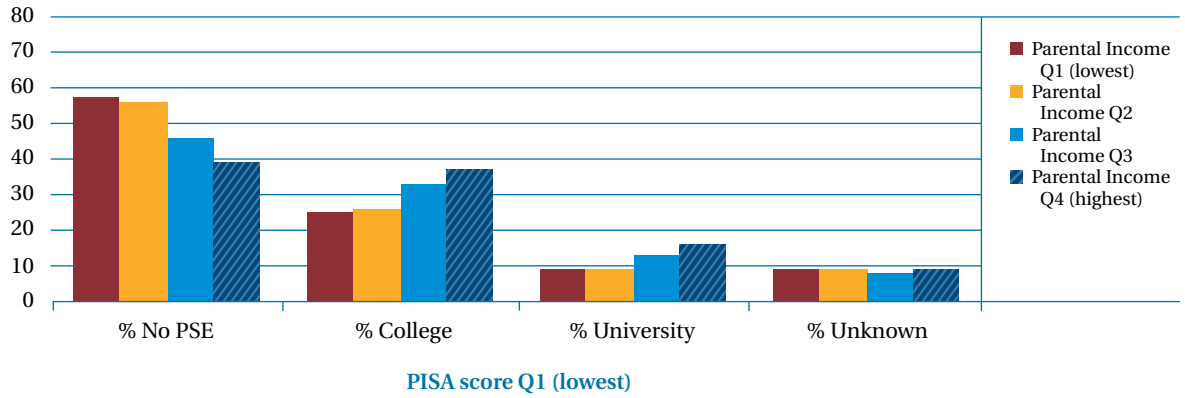
Does Money Matter More Than Ability?

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

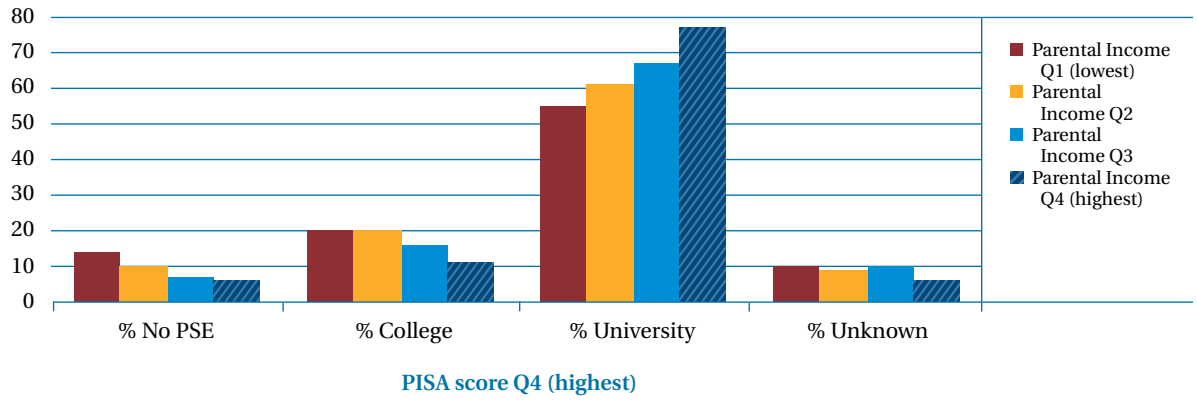
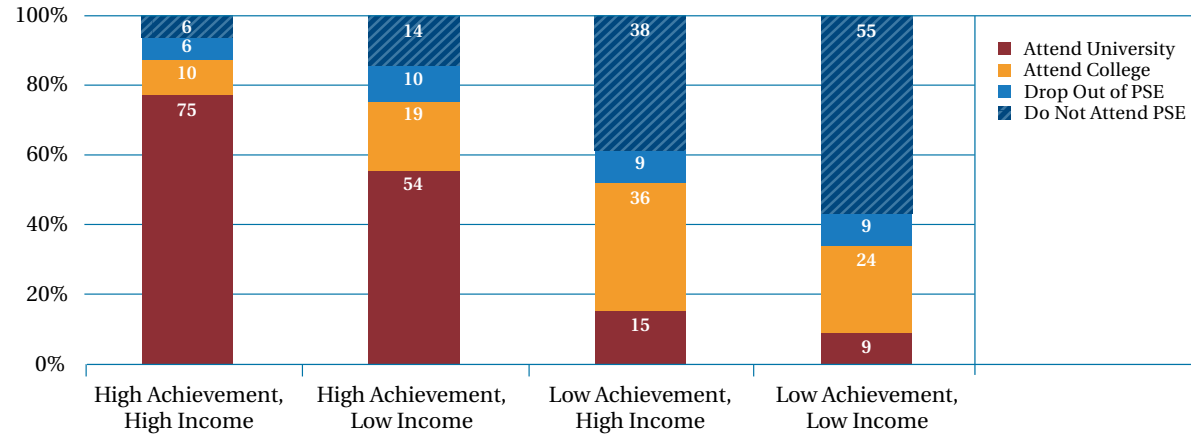


Figure 5.II.5 — Participation in Post-Secondary Education by PISA Score and Family Income



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

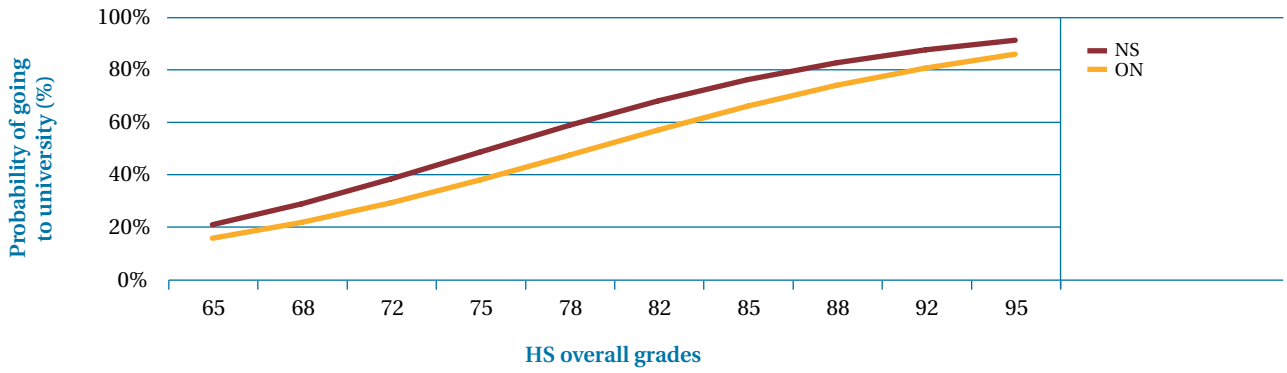
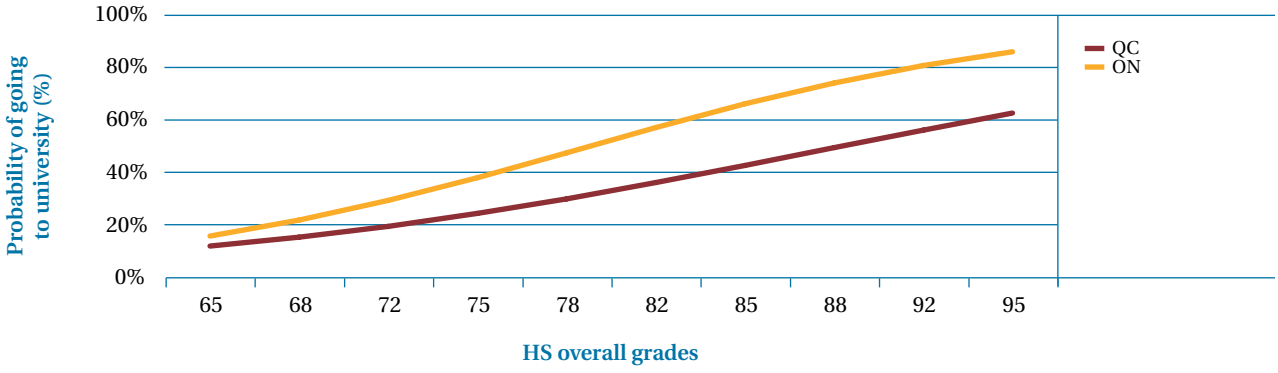


Figure 5.II.7 — Predicted Probability of University Participation by Overall High School Grade in Quebec and Ontario



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

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.

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

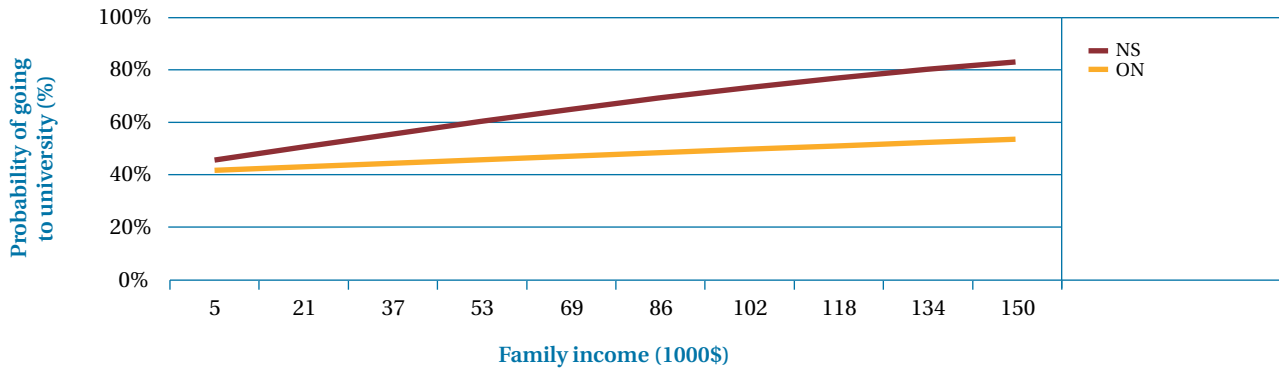
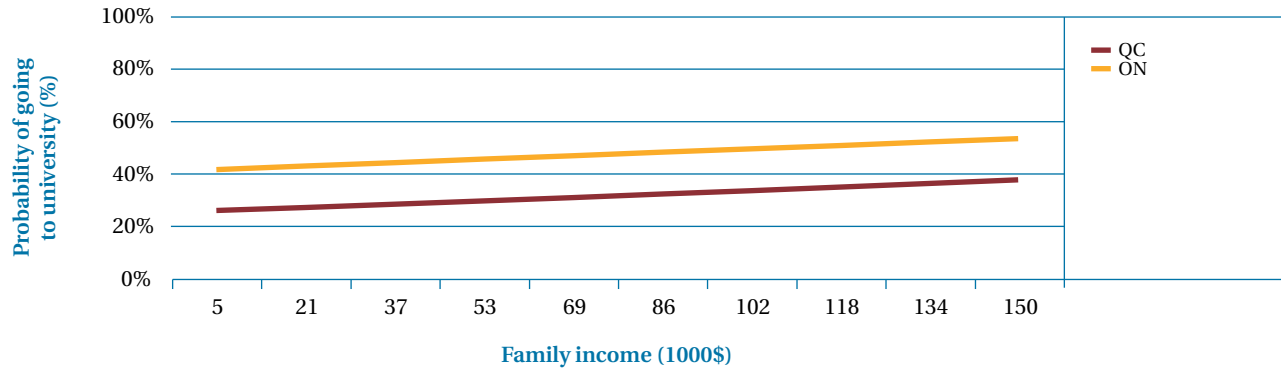


Figure 5.II.9 — Predicted Probability of University Participation by Family Income in Quebec and Ontario

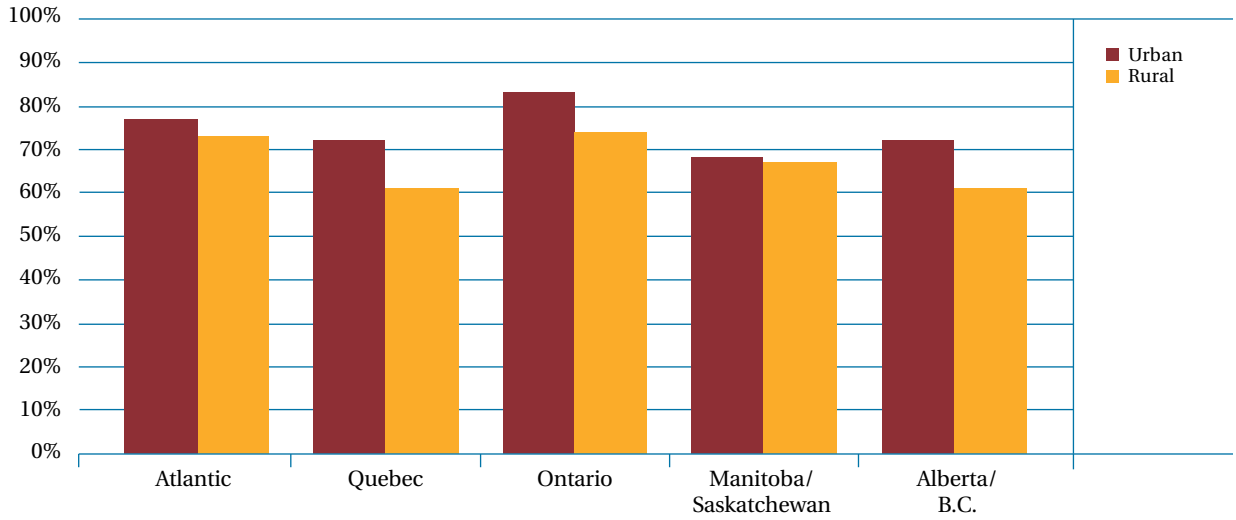


The situation appears slightly more complicated if we focus on differences in participation by region. Figure 5.II.10 reveals that, except in the Prairies (Manitoba and Saskatchewan), where the difference is minimal, the rate of participation in post-secondary studies among rural and urban youth varies 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.

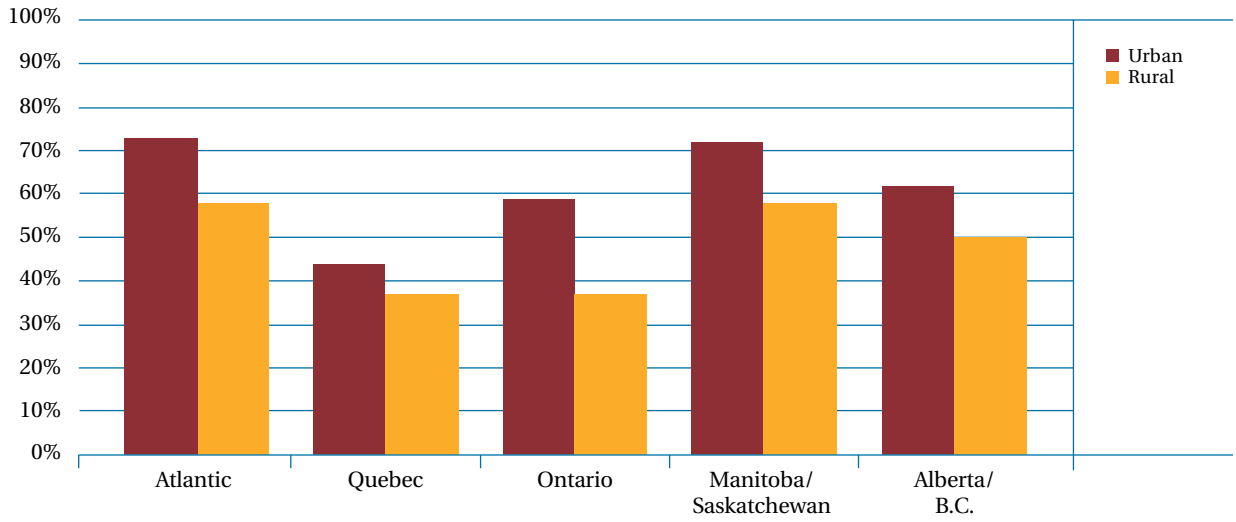
To understand these differences, it is worth examining whether it is the fact of living in a rural

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.

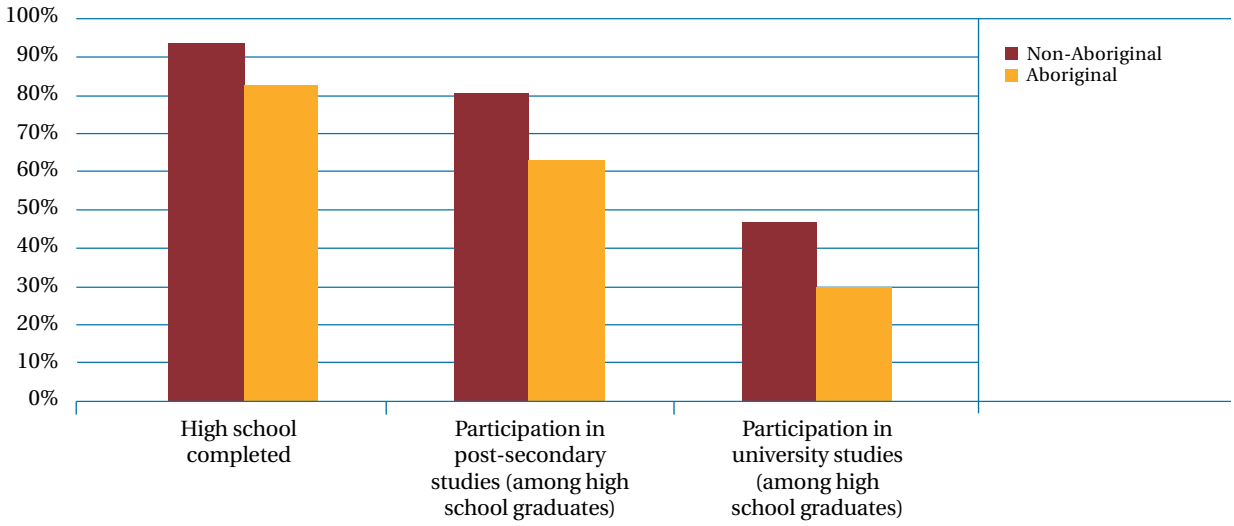
Gaps Between Aboriginal and Non-Aboriginal Youth

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.

Chapter 5

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.

Chapter 5

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.

6

Student Financial Assistance in Canada: Past, Present and Future

Joseph Berger and Noel Baldwin

Chapter 6

I. Introduction

Governments spend a significant amount of money on post-secondary students. In 2007–08, Canadian governments provided more than $4.4 billion worth of student loans, grants and loan reduction payments to students with financial need. In addition, governments provided more than $3 billion in education tax credits, merit scholarships and education savings grants (paid to families saving for their children's education). As explained in Chapter 4, governments use student aid programs as the principal method of enabling Canadians with limited resources to keep up with the rising cost of post-secondary education.

As described in previous volumes of *The Price of Knowledge* and in Berger and Parkin (2008), government expenditures on public student support in Canada are not only substantial but complex. Student financial aid is delivered through an intricate web of both federal and provincial/territorial programs; increasingly, colleges and universities are also involved as sources of funds and administrators of aid programs. In this chapter, as in previous volumes, we again enumerate what governments provide to students in the form of need-based aid (loans, grants and loan remission programs) and non-need-based aid (tax credits, education savings grant payments and merit scholarships). We also describe how changes in government policies have affected the amounts and types of student aid distributed.[1] As was the case the last time we reviewed these data (Berger and Parkin, 2008), the news is mostly good, at least as far as need-based aid is concerned. Not only are students receiving more aid, the aid they are receiving is increasingly non-repayable. Need-based student aid has improved since 2000 in two distinct waves. Were it not for the fact that governments continue to devote billions of dollars to education tax measures that do little to help those most in need pay for their studies, the news would be entirely positive.

Following the review of how much financial support students have been receiving, we shift the focus to the question of what comes next. We discuss several different approaches to the modernization and simplification of student financial aid—approaches that, taken together, could be part of a comprehensive strategy to improve access and student success. In the context of a severe recession and anticipated government budget constraints in the years to come, we offer suggestions for governments seeking to get the most out of their aid program dollars. This can be done by moving toward a system that: reaches students early enough to influence their educational aspirations and planning; is easy to access and navigate; delivers the best types of aid to the students who need it most; adequately covers costs; keeps debt levels in check; and complements initiatives designed to alleviate non-financial barriers to access. Student financial aid programs in Canada have improved since the 1990s, but, as our discussion will show, we can still do much better.

1. In the next chapter, we examine how these policies affect student debt levels at graduation.

Chapter 6

II. Need-Based Student Aid in Canada[2]

Need-based aid in Canada is composed of student loans, grants and loan remission payments (to avoid double-counting, we henceforth refer to "net loans" as the value of a loan once remission payments have been taken into account). Governments provide need-based aid to students who lack their own funds to pay for tuition, books and educational and living costs while in school. All need-based aid is subsidized in Canada: student loans are offered interest-free while the student is in school, and grants and loan remission payments do not need to be paid back (loan remission is paid to reduce the student's loan balance retroactively, while grants either act as "upfront" remission by reducing the loan amount a student receives or provide non-repayable funds in addition to the loan amount).

In 2007–08, Canada's federal and provincial governments provided students with $4.4 billion in need-based aid, including $2.9 billion in net loans, $960 million in grants and $541 million in loan remission payments. After falling in the late 1990s, the value of need-based aid has been steadily increasing since 2001–02. The average over the last three years is 13 percent higher than it was in the first few years of this decade. Between 2004–05 and 2007–08, loan remission increased by $211 million, or 64 percent, while grant expenditures increased by $285 million, or 42 percent. Net loans, meanwhile, declined by $32 million, or one percent. Thus, the entire increase in government spending on students has occurred in the form of non-repayable assistance.

Non-repayable assistance grew after 2004–05 for three reasons.

- First, in 2005–06, the federal government, the Canada Millennium Scholarship Foundation and the Government of Ontario introduced approximately $125 million in new grant programs for students from low-income families, students with permanent disabilities, rural students, Aboriginal students and certain adult learners. As Berger (2007) explains, a substantial proportion of these grant funds were designed specifically to support students previously unlikely to qualify for existing grants or loan remission programs.
- Second, also in 2005–06, the federal and provincial governments increased the maximum amount of financial aid provided to students. Typically, this meant that students had access to $11,900 in loans, grants and remission, up from $9,350 in previous years (student aid limits are not indexed to inflation or increases in tuition; they are therefore adjusted periodically). Because of the nature of the grant and remission programs in certain provinces, the lion's share of these new funds was provided in the form of non-repayable assistance. In Ontario, for example, the province left its Ontario Student Opportunity Grant in place, meaning that it would continue to remit any student loan in excess of $7,000 per year on the condition that the student successfully completed the academic year (the OSOG "floor" increases to $10,500 for students who study during three terms during one academic year). This meant that the *additional* aid that flowed to students as a result of the increase in aid maximums was in most cases converted from a loan to a grant through the OSOG program.

2. All figures in this chapter, unless otherwise noted, have been adjusted to account for inflation and are expressed in September 2007 dollars.

- In Quebec, the cut in grants that took effect in 2004–05 was reversed. In two stages beginning in 2005–06, the province restored its annual debt cap to the level it had been before it was increased in 2004–05. This meant that by 2007–08, Quebec students once again received a grant to cover any aid amount greater than $1,760 (CEGEP students), $2,440 (undergraduate students) and $3,240 (graduate students).[3] Between 2006–07 and 2007–08, net loan expenditures in Quebec dropped by $48 million, or nine percent, while grant expenditures increased by $190 million, or 63 percent.

Because aggregate amounts of loans, grants and remission can fluctuate based on demand—that is, they can rise or fall depending on whether more or fewer students apply for financial aid in any given year—it is important to examine year-over-year trends on a per-recipient basis. In 2007–08, Canadian student aid recipients were provided with an average of $10,494 each in need-based aid, 20 percent more

How Much Does a Student Loan Cost?

While Canadian governments provided students with $2.9 billion in net student loans in 2007–08, this figure masks what was actually spent on these loans. Because most student loans are repaid, their net cost is considerably cheaper than their value. For example, in 2006–07, the Canada Student Loans Program issued $1.99 billion in student loans. However, according to its public financial statements, its expenses (which include interest subsidies, administration, provision for bad debt and defaults but exclude its grant programs and the alternative payment to non-participating provinces) were only $840 million. Additionally, its revenue, stemming principally from loan repayment, totalled $523 million. Thus, the net operating costs for the loan program were only $316 million (Canada, 2009). The net cost to the federal government of running its student loan program represents only 38 percent of the total costs incurred that year.

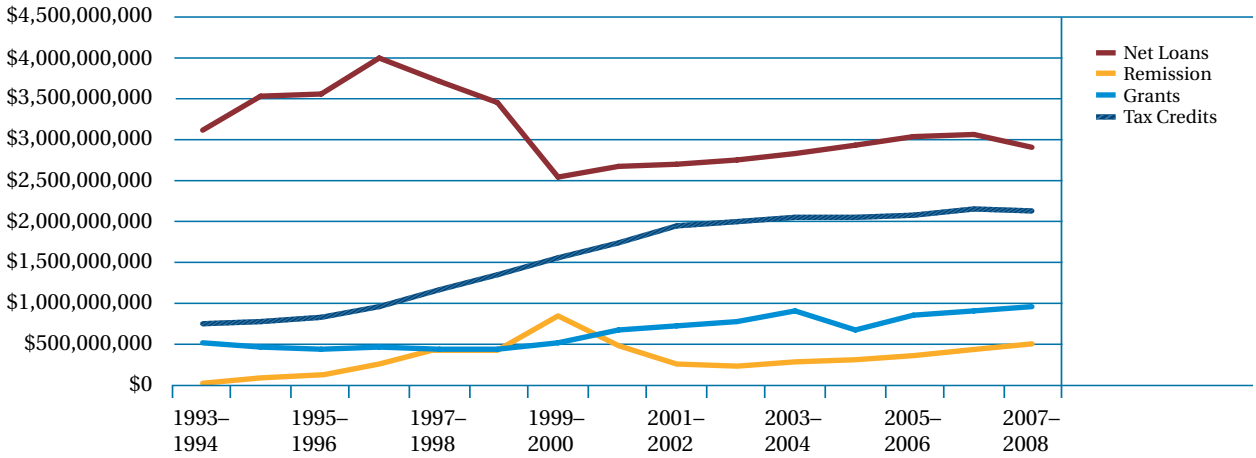
The actual cost of a loan is determined by calculating the expenditure not recovered in repayment, typically including the interest subsidy and costs associated with default. The net cost is generally estimated to be between 30 and 40 percent of the loan's value, meaning governments can, for the same cost, provide a grant of, say, $1 or a loan of between $2.50 and $3. When thinking about government expenditures on student support, including loans, remission, grants and tax expenditures, it is worth keeping in mind that loans are substantially cheaper than their face value. While the *value* of all need-based aid far exceeds the value of non-need-based aid currently provided in Canada, the *cost* of the former is probably not substantially greater.

3. It should be noted that not all students are eligible for the debt cap. However, the eligibility requirements did not change during the period when the level of the debt cap was first raised and then restored to its previous level.

than in 2004–05. In 2004–05, the average financial aid recipient received a net loan of $6,511, a grant of $1,501 and a loan remission payment of $732. By 2007–08, these amounts had increased to $6,913, $2,290 and $1,291, respectively (net loans increased by six percent, grants by 53 percent and loan remission by 76 percent). In all three cases, the increase per recipient exceeded the increase in the aggregate amount. This is because the number of provincial student aid recipients has been declining steadily since 2004–05.

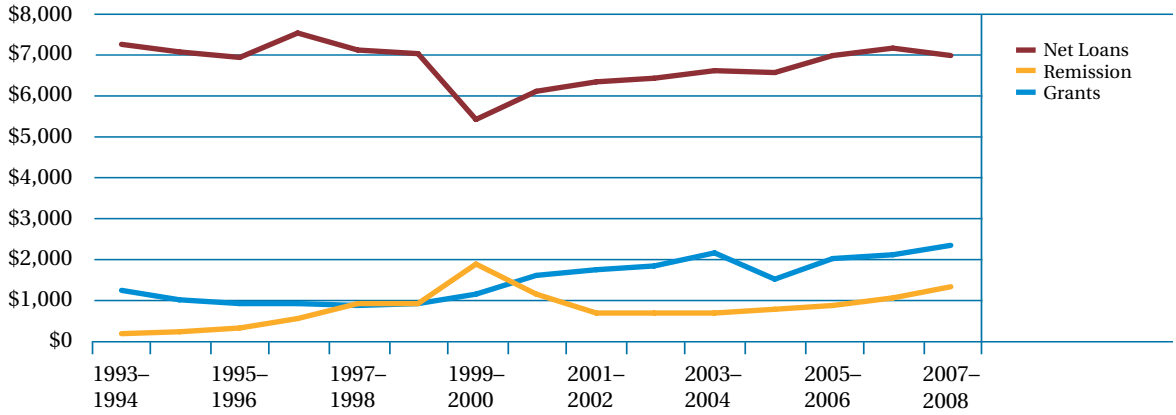
Figures 6.II.1, 6.II.2 and 6.II.3 demonstrate the expansion of grant and loan remission aid in recent years.

Figure 6.II.1 — Total Student Financial Aid in Canada by Type of Aid, 1993–94 to 2007–08



Source: State of Student Aid Survey, 2009.[4]

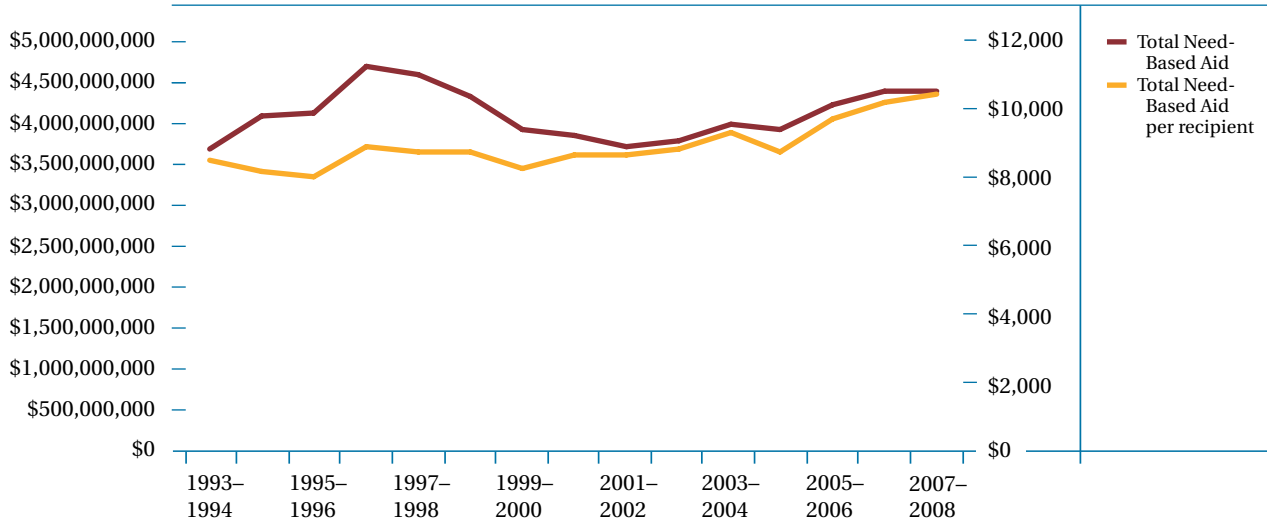
Figure 6.II.2 — Total Need-Based Student Financial Aid per Recipient in Canada by Type of Aid, 1993–94 to 2007–08



Source: State of Student Aid Survey, 2009.

4. The State of Student Aid Survey is conducted annually by the Educational Policy Institute on behalf of the Canada Millennium Scholarship Foundation. It consists of questions about the value of loans, grants loan remission, tax credits and other forms of financial aid. It is administered to officials in all 14 Canadian governments.

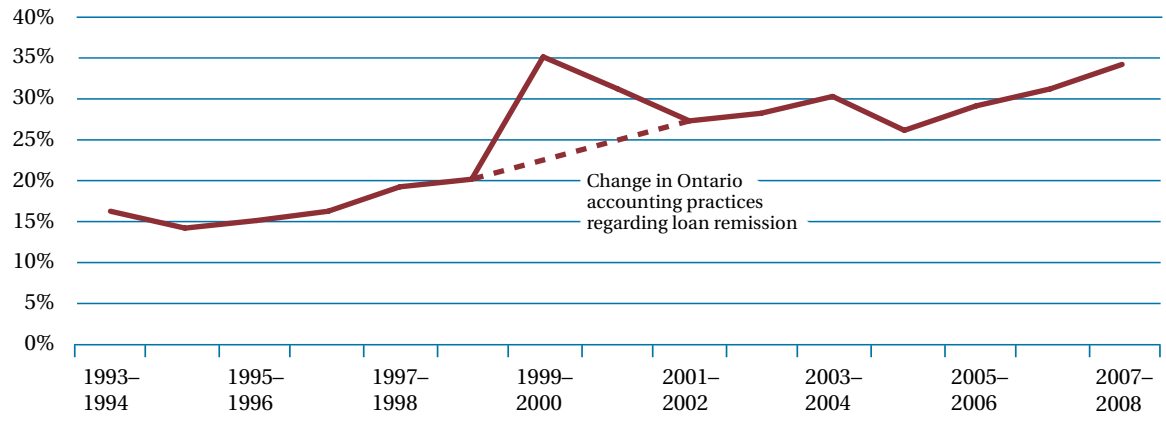
Figure 6.II.3 — Aggregate and Per-Recipient Need-Based Student Financial Aid in Canada by Type of Aid, 1993–94 to 2007–08



Source: State of Student Aid Survey, 2009.

Another way of measuring the trend in student aid in recent years is to examine the share of financial aid provided in the form of non-repayable assistance. The proportion of all need-based aid received as a grant or loan remission payment reached 34 percent in 2007–08, the highest ever, compared to 26 percent in 2004–05.[5] Of course, the proportion is not the same in every province. In Manitoba, the share of non-repayable aid has grown by 20 percentage points, from 31 percent in 2004–05 to 51 percent in 2007–08. In Quebec, the proportion follows closely behind, at 50 percent. The share of non-repayable aid is lowest in New Brunswick and Nova Scotia, at 15 and 18 percent, respectively. After reaching a low of 17 percent in 2004–05 in B.C., the figure has been increasing, reaching 22 percent in 2007–08.

Figure 6.II.4 — Proportion of Need-Based Aid That Is Non-Repayable in Canada, 1993–94 to 2007–08[6]



Source: State of Student Aid Survey, 2009.

5. This excludes the exceptional 1999–2000 academic year, during which the Ontario government adjusted the way it accounted for loan remission payments.
6. The spike observed in 1999–2000 was caused by a change in the way the Government of Ontario accounted for its loan remission program. That year, it shifted from paying remission at the end of a student's program of study to the end of each academic year. While the effect for students remained the same, the change meant that the province's expenditure on remission for the year spiked abnormally.

The proportion of aid that is non-repayable increased significantly in several provinces besides Manitoba: from 27 to 43 percent in Saskatchewan and from 14 to 38 percent in Newfoundland and Labrador. Ontario's share increased at the same rate as the national average, eight percentage points, from 22 to 30 percent. B.C., Nova Scotia and P.E.I. grew at rates below the national average. In Quebec, New Brunswick and Alberta, the share of non-repayable aid was lower in 2007–08 than in 2004–05, although the amounts for Quebec and Alberta were at all-time highs in 2004–05, well above the national average.[7]

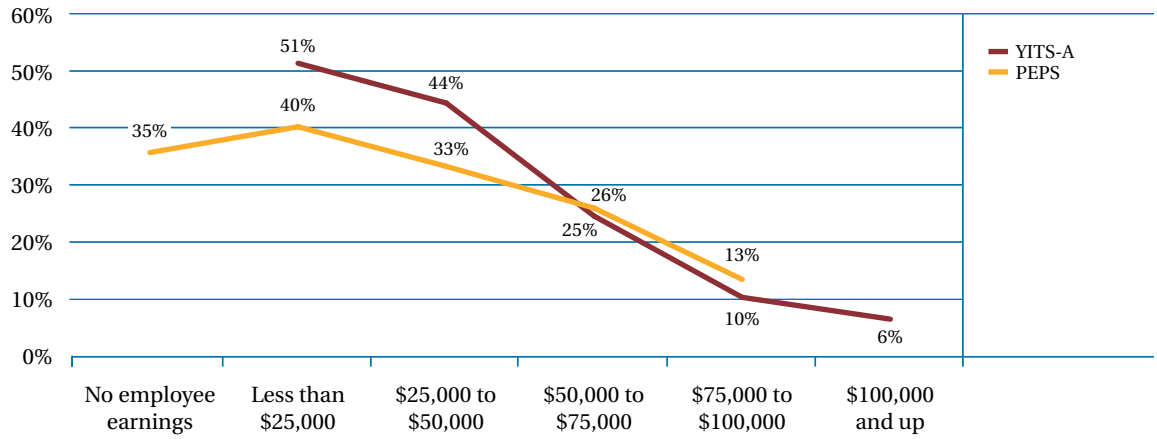
Myth: Most Low-Income Students Rely on Student Financial Aid

While we might assume that students from low-income households benefit from student financial aid programs, this is not the case for the following two reasons.

First, as outlined in Berger (2007), the nature of the student aid need assessment process means that many low-income students are only eligible to receive relatively small amounts of financial aid. Low-income students who work a significant number of hours per week, live at home or attend relatively low-cost programs are effectively prevented from receiving the largest amounts of financial aid, although the introduction of income-based grants in 2005–06 has moderated this somewhat.

Second, only a minority of students from low-income families actually participate in student aid programs. Data from Statistics Canada's Youth in Transition Survey (YITS) and Post-Secondary Education Participation Survey (PEPS) reveal that fewer than half of all students from families earning less than $50,000 per year receive student financial aid. As Figure 6.II.5 makes clear, while student aid is rare among high-income households, a majority of low-income students do not

Figure 6.II.5 — Student Loan Take-Up among College and University Students by Parental Income



Note: The YITS-A data refer to student aid take-up at age 19. The income of students' parents was reported when the students were 15. The PEPS data were collected among students and families in 2002.

Source: Educational Policy Institute, MESA Annual Report 2008 (forthcoming).

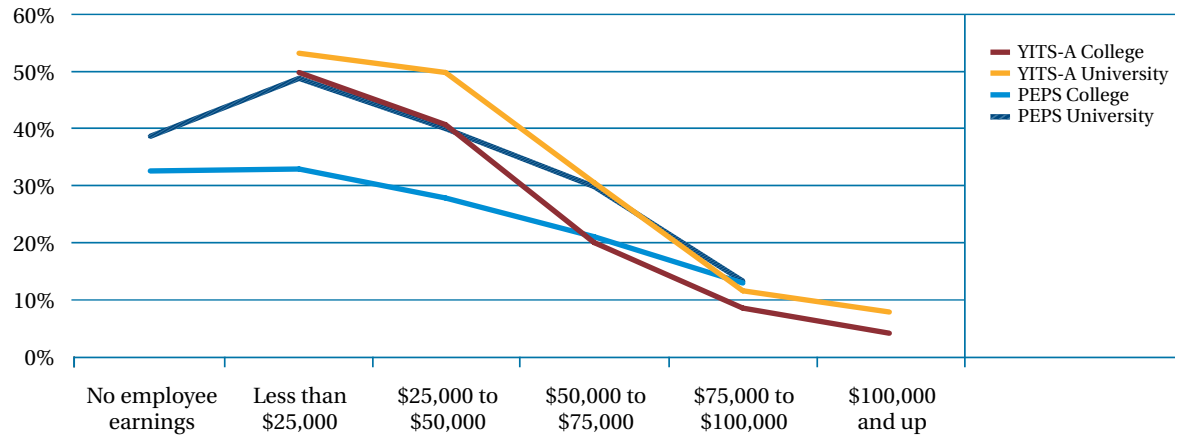
7. For this exercise, Quebec's 2007–08 figure is compared to its figure for 2003–04, since the 2004–05 figure is an outlier. That year, the provincial government cut its bursary program by $103 million. As mentioned above, this amount was restored beginning in 2005–06.

Myth: Most Low-Income Students Rely on Student Financial Aid *(continued)*

borrow from government student aid programs. Meanwhile, as shown in Figure 6.II.6, a majority of university students from families earning below $25,000 per year receive student aid, but less than one-third of college students with similar parental income reported accessing student aid. This may be in part due to the fact that need is largely determined by educational cost, which tends to be lower for college students.

These data should be kept in mind by policy-makers seeking to improve access for students from low-income families. To the extent that the main policy "tool" being relied on is loan and grant programs, efforts are destined to miss at least half of the group being targeted—at least until the relationship between these programs and potential clients is changed.

Figure 6.II.6 — Student Loan Take-Up among College and University Students by Parental Income



Note: The YITS-A data refer to student aid take-up at age 19. The income of students' parents was reported when the students were 15. The PEPS data were collected among students and families in 2002.

Source: Educational Policy Institute, MESA Annual Report 2008 (forthcoming).

Institutional Financial Aid in Canada

While financial aid generally falls under the purview of Canada's federal, provincial and territorial governments, post-secondary institutions also provide considerable assistance to their students. As described by Berger and Parkin (2008), the most recent survey of institutional aid, conducted among 31 universities and 11 colleges representing 73 percent of Canadian undergraduates, revealed that institutions spent at least $114 million on need-based financial aid and $144 million on merit scholarships for undergraduate students in 2006–07.

- At "G-13" universities (Canada's major research institutions), 19 percent of students received an average of $2,000 in need-based aid from their institution. Outside the G-13, only 11 percent of students received an average of $1,200 in need-based aid.
- Merit scholarships are more common on campus, with 23 percent of G-13 and 20 percent of non-G-13 universities providing their students with this kind of aid, worth an average of $1,750 and $1,375, respectively.
- Only eight percent of college students received need-based aid, worth an average of $800. Six percent received merit aid, worth an average of $911.
- Ontario universities are required to spend a portion of funds collected through increased tuition fees on need-based aid. Ontario G-13 universities provided more need-based aid to their students than their non-Ontario counterparts, although their tuition fees were higher.

Provincial Trends

Nationally, on a per-recipient basis the average amount of need-based aid for the years 2005–06 to 2007–08 was 14 percent higher than for the period 2001–02 to 2004–05.[8] Outside of Ontario and Saskatchewan, every province has seen a double-digit increase in need-based aid provided to students in recent years.

As discussed earlier, the growth in student aid during this period was primarily driven by non-repayable grants and loan remission. This was the case in all provinces except Alberta, B.C. and New Brunswick. In Alberta, non-repayable aid did increase by a significant amount (12 percent), but this change was not solely responsible for the increase in total aid, since net loans also increased by 13 percent. In B.C., non-repayable aid per recipient actually declined by five percent, while in New Brunswick it grew by one percent (net loans increased by 12 percent).

In a few provinces, non-repayable aid per recipient increased dramatically. In Newfoundland and Labrador, non-repayable aid per recipient increased by 154 percent between the two periods, while in Manitoba it increased by 91 percent and in Nova Scotia by 87 percent. In Manitoba, Saskatchewan, Newfoundland and Labrador and Ontario, the average amount of net loans per recipient declined.

The highest net loans in Canada are in the Maritimes, where the average student aid recipient borrows $8,603 and receives non-repayable aid in the amount of $1,815. Given that costs in the Maritimes are higher than in most of the country (total need-based aid is only higher in Alberta) and that only 17 percent of financial aid is non-repayable, it is likely that Maritime students will remain the most indebted in Canada (see Chapter 7 for a discussion of student

8. Average amounts for these two periods have been used for two reasons. First, multi-year averages are less likely than single-year data points to present one-time, skewed figures. Second, the years in question allow for a broader examination of the trend in student aid leading up to and following the significant policy changes introduced in 2005–06.

debt). Net loans are lowest in Quebec ($3,542) and Manitoba ($4,759)—the two provinces where non-repayable aid per recipient is highest both in dollar figures ($3,581 and $4,981, respectively) and as a proportion of total aid (50 percent and 51 percent, respectively)—as well as Saskatchewan, where non-repayable aid per recipient was $4,382 in 2007–08. Net loans are lower than the national average in Ontario ($6,314) and Saskatchewan ($5,737).

Table 6.II.1 — Change in Student Aid per Recipient Between the Periods 2001–02 to 2004–05 and 2005–06 to 2007–08 by Type of Aid and Province

	Net Loans	Remission	Grants	Total Non-Repayable Aid	Total Need-Based Aid	% of Aid That Is Non-Repayable
BC	16%	389%	-63%	-5%	11%	-13%
AB	13%	-6%	21%	12%	12%	0%
SK	-7%	24%	32%	26%	2%	23%
MB	-13%	69%	173%	91%	18%	62%
ON	-3%	32%	23%	27%	4%	22%
QC	18%	-39%	25%	24%	21%	3%
NB	12%	-11%	7%	1%	10%	-8%
NS	2%	42%	239%	87%	11%	68%
PE	8%	9%	86%	35%	12%	20%
NL	-7%	51%	398%	163%	14%	130%
CA	9%	58%	19%	29%	14%	13%

Source: State of Student Aid Survey, 2009.

Table 6.II.2 — Average Student Aid per Recipient in 2007–08 by Type of Aid and Province

	Net Loans	Remission	Grants	Total Non-Repayable Aid	Total Need-Based Aid	% of Aid That Is Non-Repayable
BC	$7,437.32	$1,444.26	$677.76	$2,122.01	$9,559.33	22%
AB	$7,976.18	$822.71	$2,594.94	$3,417.65	$11,393.83	30%
SK	$5,737.68	$3,484.69	$897.66	$4,382.35	$10,120.04	43%
MB	$4,759.47	$3,312.10	$1,668.30	$4,980.41	$9,739.88	51%
ON	$6,314.35	$1,429.74	$1,300.39	$2,730.13	$9,044.48	30%
QC	$3,542.79	$11.63	$3,569.79	$3,581.42	$7,124.21	50%
NB	$8,996.66	$440.72	$1,089.68	$1,530.40	$10,527.06	15%
NS	$8,098.96	$1,064.78	$693.23	$1,758.00	$9,856.96	18%
PE	$8,714.64	$918.43	$1,238.96	$2,157.39	$10,872.03	20%
NL	$6,042.46	$1,126.33	$2,549.74	$3,676.07	$9,718.53	38%
CA	$6,930.50	$1,273.96	$2,289.68	$3,563.65	$10,494.15	34%

Source: State of Student Aid Survey, 2009.

How Many Student Aid Recipients Are There?

According to the 2009 State of Student Aid Survey, the number of Canada Student Loan recipients has been growing in recent years, although the number of provincial student aid recipients has been declining; this trend holds even when excluding Quebec, which does not participate in the CSLP. Between 2004–05 and 2007–08, the number of CSL recipients increased by 15,000, or five percent. The number of provincial student aid recipients dropped by 30,000, or seven percent. The number of recipients of provincial aid has been increasing in Ontario, Quebec and New Brunswick, and declining elsewhere, particularly in B.C. (35 percent).

Using recent university and college enrolment data, we can estimate the proportion of post-secondary students receiving student financial aid. In 2005–06, the most recent year for which both college and university data are available, 26 percent of students were receiving a provincial student loan, while 21 percent were receiving a Canada Student Loan.

It is reasonable to conclude that a booming economy, particularly in Western Canada, during the early part of the current decade meant two things: that a larger share of students could pay for their studies without borrowing and that many prospective students were lured away from higher education by a flourishing labour market. In the context of a global recession, however, news stories about rising numbers of financial aid applications are unsurprising. A cool labour market likely means fewer students can fund their education via employment income and more young Canadians will turn away from work and toward school.

Chapter 6

III. Non-Need-Based Student Aid in Canada

Since the late 1990s, Canadian governments have provided students with billions of dollars in educational tax credits. As Neill (2007) describes, students receive tax credits in relation to the amount of tuition they pay and the number of months in which they are registered at a post-secondary institution. The federal government also provides assistance to prospective students through the Canada Education Savings Program, through which it offers the Canada Education Savings Grant (CESG) and Canada Learning Bond (CLB). The CESG is a matching contribution paid into a Registered Education Savings Plan (RESP); the federal government typically matches contributions at a rate of 20 percent, up to $400 per year. Low- and middle-income families can receive the one-time CLB of $500, as well as an additional annual contribution of $150 to $200 through the CESG.

Spending on education-related tax credits has remained fairly constant since the beginning of this decade. Between 2004–05 and 2007–08, when non-repayable aid grew by 49 percent, tax credits only grew by four percent, or $74 million. In 2007–08, governments spent $2.1 billion on tax credits, $615 million more than they did on loan remission and grants. Tax expenditures surely surpassed net expenditures on loans as well, which were likely in the neighbourhood of $1 billion—see the box in Section 6.II.

Although tax credits comprise the largest single source of spending on student support in Canada, it is unlikely that they have a significant impact on access to or success in post-secondary education. Because they are untargeted, tax credits disproportionately benefit the individuals least likely to need them, since all students receive them and students from low-income families are under-represented in post-secondary education. Because they cannot be claimed until the spring following the calendar year when they were earned, rather than when tuition bills are due, they are unlikely to provide recipients with the funds they need in a timely fashion. Because they are not refundable, they cannot benefit those without taxable income. And because their value is determined by the student's term of study and tuition costs, they are akin to an entitlement program, meaning they grow substantially if enrolment booms and can easily crowd out other, more effective forms of student support.

Education savings grants are meant to encourage families to save for their children's post-secondary education. Like tax credits, CESGs disproportionately support higher-income families that have the means to set money aside for future education. The introduction of the CLB was meant to better target education savings incentive funds to low-income families, since it does not require low-income families to invest any of their own money.[9] However, while the take-up rate in the program has been growing, it remains extremely low. The CLB was introduced in 2005, but as of December 2008, only 16 percent of eligible families had taken up the program. By comparison, 39 percent of eligible families were participating in the CESG program in December 2008 (Canada, 2008).

9. The CLB is available to families receiving the National Child Benefit Supplement whose child was born after January 1, 2004. They must open an RESP, although they do not have to make a contribution to it.

IV. The Future: Modernizing Student Financial Assistance in Canada

As the preceding discussion of government student financial aid has shown, students have benefited from more generous financial aid during the past decade. Prior to 2000, need-based aid levels were falling, with the share of financial aid that was non-repayable between 15 and 20 percent. Following the introduction of the Canada Millennium Scholarship Foundation and the sub-sequent investment in loan remission and grant aid in 1999–2000, the amount of non-repayable aid increased, to approximately 30 percent. The expansion of need-based aid following the policy changes of 2005–06 occurred primarily in the form of additional non-repayable assistance, and the proportion of need-based aid provided as a grant or loan remission payment reached an all-time high of 34 percent in 2007–08. The student aid system itself, however, has not changed dramatically, despite fluctuations in spending on different types of aid. The question of whether there are ways of improving the Canadian student aid system remains. In this section, we turn our attention to this issue.

Over the past few years, numerous conversations have taken place about the future of financial aid in Canada. Often these have been stimulated by issues such as rising student debt levels or low participation rates among students from low-income families. On other occasions, they have coincided with the introduction of a new program or policy, such as the creation of access grants in 2005 or the announcement in 2008 of the winding down of the Canada Millennium Scholarship Foundation and its replacement by the new federal Canada Student Grants Program. Sometimes, perhaps less productively, they have been provoked by editorials or lobbying campaigns. Even less frequently, unfortunately, these conversations have been stimulated by new insights into how financial aid works.

The various chapters in this volume summarize the state of knowledge in Canada about the factors that affect access to and success in post-secondary education and about trends in government spending on financial support for students and their families. In our view, this research offers the best starting point for a conversation about the future direction that student financial assistance programs should take. Reflecting on the evidence gathered and knowledge gained in recent years allows us to think more productively about what might be possible in the future.

The purpose of this section is not to summarize again the numerous research conclusions related to access and student finance. It suffices here to recognize that over the past decade we have learned a great deal about the nature of the obstacles that different students face in making the transition into post-secondary education, about the information (or misinformation) that high school students receive on the benefits and costs of higher education, about who is and is not likely to access student financial aid, about which types of students tend to receive which types of aid and about the way in which student aid policies can negatively impact persistence and completion (by resulting in the accumulation of excessive debt from year to year, by providing aid that is not sufficient to cover costs, etc.). We are even starting to learn more about the impact of different student aid policies and financial

Principles for Reforming Student Aid

Canada Millennium Scholarship Foundation (Baldwin and Parkin, 2007)	Reforming Student Aid study group (College Board, 2008)
Four principles for modernization: 1. Provide early access to SFA information and SFA system to increase understanding and predictability 2. Target aid to the right people and provide the right mix of loans, grants and other aid 3. Take a comprehensive approach that acknowledges and addresses all barriers: financial and non-financial 4. Ensure flexibility, transparency and accountability	Federal student aid should be: • Targeted to those in need • Adequately funded • Clear, transparent and well communicated • Predictable • Student-focused • Supportive of both access and success • Efficient in using taxpayer funds

incentives through various experimental projects (see, for instance, Malatest, 2009a, b and c and SRDC, 2009).

We continue to add to this stock of knowledge through new studies that have only just been completed. For instance, we are learning that the complexity of the student aid system in Canada is not limited to the difficulties students have in discovering what programs are available and anticipating how much they will receive; it is also evident that advanced literacy and numeracy skills are required to successfully complete the task of applying for a loan or grant (Baldwin, forthcoming). We have also learned that the way in which the student aid system interacts with other government programs, such as social assistance, is important (Torjman, 2009). Beyond the question of the actual level of support provided, other programs can put tremendous strain on student aid clients by asking them to complete additional forms, produce additional material and regularly justify continued support. There is a case for better coordinating programs and reducing the overall administrative burden.

These and other conclusions from research should inform our thinking about future developments in student aid. Research findings provide a basis upon which to evaluate and prioritize policy options. Those options that can be validated by evidence should be favoured; those that do not find support in research should be viewed with more skepticism. This is hardly a controversial approach, yet experience shows it is still all too often discarded at the moment policy decisions are made.

Based on just the kind of research findings mentioned above, we previously proposed four principles to guide the developing conversation about the "modernization" of student aid in Canada (Baldwin and Parkin, 2007):

- Provide early and easy access to the student aid system, especially for under-represented students who need to know there will be predictable funding available to support their studies;
- Target assistance to those with the greatest need first;
- Be sure to acknowledge and address non-financial barriers to access and success; and
- Ensure flexibility, transparency and accountability in the delivery of aid.

These principles still seem relevant. They have been echoed in work conducted in other jurisdictions, most notably in the work of the U.S. College Board's Rethinking Student Aid study group, whose report *Fulfilling the Commitment: Recommendations for Reforming Federal Student Aid* grounds its recommendations in a very similar set of principles (College Board, 2008). The College Board, however, included an additional principle at the heart of its work that was notably, and regrettably, omitted from Baldwin and Parkin's list—namely, the interests of students

must be at the centre of reform. This principle is a welcome addition to the Canadian conversation about modernizing student aid.

We will use these principles to shape the suggestions we offer below about how to change the way in which student aid is delivered in Canada. These suggestions are neither especially radical nor especially expensive. This is not because we lack imagination; it is rather because we recognize that bold, expensive proposals are not likely to be welcomed at a time when the effects of the 2008–09 recession are still being played out. These effects will certainly shape policy-making for some time to come. Already, it appears that some institutions are reducing their own student aid offerings in the wake of the reductions to the size of their endowment that resulted from the tumbling stock market.[10] In addition, as Usher and Dunn (2009) have argued, if past experience is anything to go by, we can anticipate a period of constraints on public spending even once the economic recovery takes hold. After the recession of the early 1990s, for example, when "zero deficits" came into vogue, student grant programs were scaled back or eliminated and tougher eligibility restrictions were imposed to limit access to loans. The coming post-recovery period in Canada could turn out to be an equally precarious one for student aid funding.

That being said, it is important not to ignore the improvements that have been made in recent years. Since the introduction of the Millennium and Canada Access Grants in 2005, both Ontario and Nova Scotia have invested in similar programs, significantly increasing available grant aid for students from low- and moderate-income families in those provinces. These programs, along with other provincial loan and grant programs, will need to accommodate the new federal Canada Student Grants Program, but setting aside the need for inter-jurisdictional coordination, the CSGP is another positive development. First, the $350 million in non-repayable aid to be delivered annually through the CSGP (scheduled to rise to $430 million by 2012–13) will be directed to students from low- and moderate-income families and other under-represented populations for whom low-income is a proxy. This targeting of aid is important (although it raises questions about whether some high-need students will end up with higher debt levels, as we will discuss in the next chapter). Second, the CSGP will guarantee four years of funding to eligible students as long as they continue to have at least one dollar of assessed need.[11] This nod toward predictability is welcome, as it will provide some additional peace of mind to students with few financial resources of their own. This predictability should be considered the "new norm" in student aid programs—at the very least in those directed to low-income and under-represented students—and should feed into future initiatives to streamline the process. As we will discuss below, there are other ways to provide transparent and predictable financial support for students from low-income families that should be explored.

Also announced in the 2008 Federal Budget was the Repayment Assistance Program (RAP), which replaces the old Interest Relief (IR) and Debt Relief in Repayment (DRR) programs at the federal level and has been adopted by Nova Scotia (which pioneered the idea), New Brunswick and Saskatchewan. As will be discussed in Chapter 7, the RAP offers clients repaying their student loans relief during periods of low income due to unemployment or under-employment when making their loan payments is impossible or a major hardship (student debt can also be completely wiped out after 15 years of persistent eligibility for the RAP). Eligibility for the RAP is determined based on income and family size, and payments are made on a sliding scale such that no borrowers who enter the program would have to make a payment of more than 20 percent of their income. The program has some flaws, however. Clients in financial distress must opt in to the RAP, and anyone who has already defaulted, presumably because of the very burdens that the RAP seeks to ease, is excluded from the program. Nevertheless, it represents an improvement in the way we treat students who have borrowed to pay for their studies and subsequently found that, for whatever reason, their post-graduation earnings are lower than expected.

10. For example, a news story on the impact of universities' receding investment income stated: "At many… universities, especially smaller ones, endowments aren't used to cover operating costs, but fund primarily scholarships and student financial aid—a purpose for which they are crucial… Some universities, such as Bishop's, Queen's and the University of Regina, said they won't be cutting scholarships or financial aid this year, but student aid could suffer in the long run if the market doesn't rebound" (CBC.ca, 2009).

11. We hope that eligibility for Canada Student Grants will not be tied to assessed need for very long. As discussed in the next section, providing grants to students from low-income families serves useful purposes regardless of their eligibility for a loan.

These recent developments, the research findings and the principles stated above all lay the foundation for our thinking about future directions for the way student aid is organized, delivered and funded. There are many positive attributes of the current system, and for many students it has worked reasonably well and efficiently for nearly half a century. However, as has been argued throughout this volume (as well as in its previous edition), participation in higher education needs to be expanded by bringing in more students from traditionally under-represented groups. In thinking about student aid, we thus need to anticipate the needs of tomorrow's clients as well as today's. We need to develop policies and programs that facilitate the pathways into post-secondary education for those that the current system has not generally served best. With these objectives in mind, we turn now to a series of suggestions.

The Limits of What We Know

Many of the findings in this chapter echo those of reports discussing earlier waves of the annual State of Student Aid Survey. While we have become accustomed to annual reporting on aggregate student aid amounts in recent years, we continue to lack individual-level data that could reveal much more about the impact of the $4.4 billion provided to students in the form of need-based aid in Canada. In the absence of a research project that examines data at a deeper level, many of the questions Canadian policy observers have about student aid stubbornly persist:

- Who gets what? While we have a fairly accurate idea of what governments spend in total, we lack reliable data on the characteristics of the recipients of each different type of aid. We cannot compare, for instance, the amounts that lower-income students typically receive from loan and grant programs with the amounts that higher-income students typically receive from merit scholarships, tax credits and savings grants.
- What is the right mix of financial aid? Governments chiefly offer loans, grants and tax credits to students. The share of aid that is repayable or non-repayable, or that is based on financial need or provided to all students regardless of their financial situation, varies from province to province. We are only just beginning to develop a solid understanding of how each of these measures (or combinations of them) impacts access and persistence.
- Is Canadian student aid too complicated? From the legalistic wording of student aid application forms to the federal-provincial split in the funding of loans and grants to the various terms of loan repayment in effect, student aid in Canada is certainly complex. We do not know, however, whether its complexity is merely inconvenient or poses a significant barrier to access and success in post-secondary education.
- What contribution do post-secondary institutions make to student aid? Institutions provide both need-based bursaries and merit scholarships, but, despite some recent research efforts (Berger and Parkin, 2008), there are few data available on either the relative amounts or the profile of the recipients. The lack of data makes it difficult to explore the question of whether or not this funding complements government student aid funding (as is expected, at least, in Ontario through its "access guarantee" policy), thereby contributing to the coherence of the overall system.

Reform the Form

For years, policy-makers in the U.S. have debated the complexity of the Free Application for Federal Student Aid (FAFSA) process. The current U.S. Secretary of Education, Arne Duncan, even declared that an applicant needs a Ph.D. simply to complete the form.[12] This concern has led both to research and to innovative policy proposals about how to simplify the FAFSA.

One of the most well-known of these is a paper by Harvard economists Susan Dynarski and Judith Scott-Clayton entitled "College Grants on a Postcard: A Proposal for Simple and Predictable Federal Student Aid" (2007). The authors evaluate the impact on the distribution of aid that would result from dropping some of the required data elements of the FAFSA. Their analysis suggests that even if as many as 82 percent of the required questions were eliminated, 77 percent of Pell Grant recipients (the signature student aid program in the U.S.) would remain eligible for a grant whose value was within $100 of their actual grant and 88 percent would be eligible for a grant whose value was within $500 of their actual grant. Based on this, they conclude that the U.S. government has all the information it needs to determine eligibility for Pell Grants, as well as Hope and Lifetime Learning tax credits, through the data it collects on tax forms. The information required to determine eligibility "could fit on a postcard," which in turn could be used as part of a campaign to provide early information about student aid eligibility.

Until recently, there has been no parallel debate in Canada, perhaps in part because there are 13 different application forms for government student aid rather than one. In 2009, however, a project similar to Dynarski and Scott-Clayton's was conducted in this country. Unfortunately, the results were much less promising in terms of streamlining student aid applications.

Prairie Research Associates, Inc. (PRA) concluded an analysis of need-assessment data from four provinces by saying that "there appears to be little scope for needs assessment simplification while maintaining the accuracy of the assessment process." (Baldwin, forthcoming)

The reason it is difficult to eliminate variables from the need assessment process, and the attendant questions on student loan application forms, is largely that need assessment is currently serving two distinct functions. First, it is used to allocate loans (as well as loan-reducing grants for students with large loans) by determining a student's total financial need. Since government loan programs strive to allocate precisely the amount of aid a student needs for a year of study, reducing the precision of the calculation of need by simplifying the application form is not necessarily desirable. Second, the calculation is also used to determine eligibility for access grants (prior to 2009–10) and the new Canada Student Grants Program (from 2009–10 onward). This is done by establishing that the students' family income falls under the eligibility threshold and that they have at least one dollar of need. The latter calculation is much simpler than the calculation of total need and requires less information from the applicant.[13] As long as the same application form is used for both functions, however, the options are limited in terms of substantial simplification for income-based grants.

The limitations on eliminating questions on student loan application forms as they currently stand, however, do not limit our ability to make them better. Also in 2009, Clear Language and Design (CLAD) conducted literacy skill assessments of paper and online student loan application forms used in Alberta, Saskatchewan, Manitoba and Nova Scotia. It found that the literacy skills demanded of the programs' clients are not appropriate given that most student applicants have yet to begin post-secondary studies. In the four provinces, the average grade reading level of the paper forms was 15.4 (assessments of the online forms are forthcoming). In fact, it was rare to find even a single section of the forms that was written at an appropriate reading level, which was pegged at Grade 11 for this purpose. The forms not only demand a daunting amount of information from multiple sources, including students, parents and spouses, but are also written in such a way as to make it very difficult to understand what is being asked. In particular, in all three provinces the declaration of

12. See www.insidehighered.com/news/2009/01/14/duncan.

13. That said, the actual amount of a student's access grant has, in the past, been determined in part on the basis of his or her assessed need.

informed consent that both students and their parents or spouse (if necessary) are asked to sign requires such a high level of reading comprehension that it is unrealistic to consider that the "consent" given by most applicants is truly "informed."

All governments that are in the business of administering student loan programs would benefit from submitting their forms to a "plain language" assessment and working to improve their comprehensibility. This would reduce errors, which might save governments money in the long run. It could also result in more applications being successfully completed, which would redirect that saved money to its primary purpose. It would also likely improve students' experience of applying for and receiving aid, which should be the object of any reform.

Start Early

One of the greatest challenges in efforts to improve access for those who might not otherwise plan to participate in post-secondary education is the need to reach them early enough to shift both their aspirations and their preparations. As Saul Schwartz (2008) has explained, in terms of financial aid programs, there are two main reasons for thinking that reaching students earlier would help: "First, the knowledge that college was affordable might give some students the incentive to work harder in elementary and secondary school than they would if they thought college was financially out of reach. Second, and regardless of the possible effect of early commitment on academic achievement, students and their families would be better able to plan the financing of college" (p. 177). The question is whether there is a feasible way to provide information about financial aid to low-income families, information that could help their planning and dispel myths about the costs and benefits of post-secondary education. The answer is yes.

The Canada Child Tax Benefit (CCTB) and National Child Benefit Supplement (NCBS) are fairly simple programs: Canadians who have children and are below an income eligibility threshold receive a cheque from the federal government every month until their children reach 18 years of age. In fact, the income eligibility thresholds for many of the Millennium Access Grants and Canada Access Grants available prior to 2009–10, as well as the new Canada Student Grants Program, are based on income eligibility thresholds for the NCBS. The CCTB and NCBS are remarkably efficient in their ability to reach their intended recipients.[14]

As discussed above, take-up rates for the Canada Learning Bond remain low (at the end of 2008, only 16 percent of eligible families had taken the steps necessary to receive the benefit). It would be better if it were transformed from an opt-in program to an automatic entitlement for low-income families, along the lines of the NCBS, beginning from the year in which they report a dependent child on their tax return. An auto-enrol CLB could then be treated as a virtual individual development account in which the government contribution accumulates and is held for children until they pursue a post-secondary education. If they never do so, the government would not be required to pay benefits from the account (or the account could have certain other approved uses, such as on-the-job training, even if these are not considered forms of post-secondary education). A program along these lines was recently created in B.C.: for each child born in the province after January 1, 2007, the government is investing a fund of $1,000, which is expected to grow to roughly $2,200 by the time the child is 17 and can be used to pay for post-secondary education. It should be noted, however, that this program is universal, rather than targeted to low-income families.

The periodic deposits into the account could be accompanied by clear and useful information about the costs and benefits of post-secondary education, financial assistance programs and other support programs that might be available locally for their children. These communications could change over time as the child ages, from initial messages about the idea of post-secondary education as an attainable goal to specific information directing parents and children to local initiatives that could support their efforts to navigate through the system. Starting this process early, essentially from birth, might relieve some of the anxiety that parents feel if they believe

14. They cannot, however, reach those people who do not file income tax forms.

they cannot afford the post-secondary education that they want for their children (or that their children want for themselves).

The opportunity to communicate directly with parents who, because of their financial situation, may see post-secondary education as something that is not attainable for their children is one that should not be missed. Parents play a key role in shaping the educational pathways of their children. As previous research has shown, however, while children turn to their parents for information about their futures, parents are not always able to provide them with accurate information about how college or university studies can be financed (Canada Millennium Scholarship Foundation, 2006). Moreover, one of the greatest challenges in delivering programs to more marginalized populations is to find a way to make a connection with them. Piggy-backing on top of the tax system, which has already identified who is eligible for the program and already delivers benefits to them, would be not only simple and efficient but also potentially quite effective.

Such a program would not be a substitute for conventional student aid. It also would not prevent anyone from participating in other savings-based programs as well (e.g., RESPs). It would, however, provide initial "seed funding," allowing low-income parents to put aside some money toward their children's post-secondary education. Given that the eligibility threshold we propose for this early investment program is the same as that used for the Canada Student Grants Program, it would be relatively easy to build a bridge between the two, encouraging students from low-income families to take advantage of the available student aid and adding to the coherence of the system.

Finally, such a program would also need to fit well into the mix of other government programs aimed at low-income Canadians, such as social assistance. A new national survey of the interface between student aid and social assistance (Torjman, 2009) and a report on the same topic in Ontario (Stapleton, 2007) both argue convincingly that for low-income Canadians who are forced into the social assistance system, getting out, especially to pursue education, is very challenging. This is in part because of the way the assets that those living in poverty might wish to improve their skills through further education are often taxed back at incredibly high rates as long as they remain in the social assistance system. As always, changes to programs and their rules have to be well thought out and coordinated to limit unintended consequences.

Decouple Loans and Grants

In Canada, a post-secondary student who wishes to obtain a government need-based grant can only do so by first applying and qualifying for a student loan. This makes sense if the policy objective of grants is to limit the accumulation of debt; the most important form of student aid is a loan, which must be accessed first, but those who qualify for the largest loans also then receive a grant. It makes less sense if, as was the case with the access bursaries available until 2008–09 and will be case with the Canada Student Grants available from 2009–10 onward, the goal is to help low-income students overcome financial barriers to participation regardless of whether they have a large loan or not. Since, for these students, the most important form of student aid might be a grant, it is not clear why a loan must be accessed first (as opposed to subsequently, if desired).

It is possible in theory to separate the processes of applying for loans and grants, as is the case, for example, in the U.S. with Pell Grants and Stafford Loans. This could be done either by having two separate application forms or by dividing the application form into a short "part one" used to determine grant eligibility and a longer, optional "part two" for those who also wish to be considered for a loan.

The decoupling of student loans and grants would accomplish two things. First, it would serve to simplify the process of applying for and receiving grants. As mentioned above, the number of questions needed to determine eligibility for the new federal grants that are replacing the millennium bursaries—grants that are targeted to low- or moderate-income students—is relatively limited. The main items of information that need to be collected (apart from

name and address) are family income, family size[15] and institution attended. To borrow from Dynarsky and Scott-Clayton (2007), an application form designed to collect this information could fit on a postcard.

In fact, it would be possible to go even further. Given the use of National Child Benefit Supplement cut-offs for determining eligibility for Canada Student Grants, the government could in principle identify potential recipients before they even apply for financial aid. This ability to identify eligible youth in advance through the income tax system has a number of potential advantages: it would allow promotional material about both post-secondary education and financial assistance to be distributed in a targeted way well in advance of the point of application; it would make aid much more predictable (the grant program could become in part an early promise of aid, made to students identified through the tax system even before they complete high school); and, by connecting it to parents' tax returns, it could lead to the generation of an application form that is already complete except for the applicant's signature and choice of post-secondary institution. Linking student aid forms with tax data in order to pre-populate certain fields of data is an approach that has been advocated in the U.S. by The Institute for College Access and Success (Asher, 2007) and is being explored by the U.S. Department of Education (2009). All of this would significantly alleviate the burden of applying for grants, as well as reducing concerns about error rates in the information submitted.

Secondly, beyond the issue of simplification, decoupling could also serve to send an important signal to low-income students about the types of aid that are available for them. Clearly, grants are more attractive to students than loans.[16] In the absence of a decoupled system, however, the first question students must ask themselves before applying for student financial assistance is whether or not they desire a loan, not a grant. In fact, it would be fair to say that in the current system, grants are buried under or hidden within a student loan program. It is thus very difficult to signal to low-income students that grants are available for them when such information is drowned out by the competing signal that student financial aid in Canada means taking out a student loan. (The Canada Millennium Scholarship Foundation has observed in focus groups that some students from low-income or under-represented backgrounds are even skeptical that they will receive a grant if they apply for student aid, while some doubt that the grants would really be grants and suspect they would ultimately have to be paid back). Relieving low-income students of the requirement to borrow in order to receive non-repayable funding for their post-secondary education is a viable way out of this signalling problem. Decoupling loans and grants would make it clearer to the student what types of aid are available and how much funding of each type they could expect to receive.

The decoupling of loans and grants would change little on the loan side. The current mechanism remains a relatively efficient one for allocating significant amounts of public funds to those facing high post-secondary education costs and low personal resources. Loan remission for high borrowers, which remains an important feature of many provincial programs (and, as we will argue below, should not be ignored), would also continue to be allocated through a traditional process for assessing need. While some low-income students who receive a grant may choose to try to work in order to pay for their remaining education and living expenses, others will choose to proceed to the second step in the financial aid application process and request a loan.

In short, then, the argument for splitting loans and grants into two separate systems is based on the premise that in so doing we can affect the perceptions of young people from under-represented backgrounds whom we wish to pursue post-secondary education in greater numbers. The changes that have occurred in Canadian financial assistance since 2005 have set the stage for this move by delinking eligibility for loans from the new federal and provincial access grants. A great deal of the mystery about what a student is applying for and what they can expect to receive could be resolved by using a one-page form for grants and a separate one for loans.

15. The income eligibility threshold is adjusted for family size.

16. This is not merely an assumption. The economic experiments conducted for the Foundation, discussed earlier in Chapter 5, show that grants are indeed more effective than loans *of the same face value* in encouraging youth to opt for post-secondary education, for the simple reason that loans, because they have to be paid back, are more costly to students than grants.

Fully Fund Assessed Need

On the CanLearn.ca website, the main online information portal for the Canada Student Loans Program and other federal student aid, the following statement is posted:

> Student loans are a great help if you need some financial assistance to get through school. But they're meant to give you a helping hand, not to pay for your entire post-secondary education. You are still expected to contribute some money (CanLearn, 2009).

As this suggests, expected personal and family contributions toward the cost of a higher education are an important part of the student financial aid system in Canada. That said, to a surprising extent, many students who have agreed to make these contributions nevertheless find that they have unmet financial need. Unmet need is the difference between the finances the student aid system recognizes that students need for a year of study and the maximum amount of aid they are actually provided.[17] To offer an analogy, it is as if a bank agreed to provide a mortgage to a home buyer but, after taking into consideration the buyer's down payment and income, issued several thousand dollars less than required to complete the transaction. Most people would consider this a bizarre form of "bait and switch," yet it is common in student aid.

A recent study of eight provincial aid systems shows that the proportion of student aid recipients with unmet need rose steadily until 2005. In 2005–06, maximum student aid limits were increased and the incidence of unmet need dropped sharply but temporarily. By the 2006–07 academic year, the percentage of students across Canada (excluding Quebec) experiencing "high" unmet need (greater than $1,360 per year) had reached 21 percent; in six of these provinces, more than 20 percent of students experienced high levels of unmet need. In B.C., more than half of student aid recipients were considered to have high unmet need (McElroy, 2009; State of Student Aid, 2009).

Unmet need can have negative effects on persistence and completion (see, for instance, McElroy, 2004). Other effects include increasing the amounts that students must borrow from private sources (such as banks) and the amount of hours worked while in school. An ongoing study in Manitoba, involving students who initially had unmet need in the 2008–09 academic year and who were provided with a Millennium Student Success Grant part way through the year to cover most or all of the funding gap, sheds some light on the problem. In focus groups, most recipients of the grant said they had used a loan calculator available on a student aid website prior to applying for aid but were still not expecting to have unmet need. In a survey of these students, more than a quarter (27 percent) said they would be borrowing from a private financial institution to deal with their unmet need and more than half (54 percent) said they would be relying on employment income; these answers were not mutually exclusive. The amount the students estimated they would obtain from each source varied quite substantially: $13,335 from private financial institutions and a little more than $4,500 from employment income, including both earnings during the summer and during the school year.

The study also asked about the effect of receiving the grant to cover unmet need. Sixty percent of recipients agreed that having their unmet need covered by the Student Success Grant meant that they were able to meet their basic needs for the year and did not have to turn to others for loans of food, additional money or a place to stay. The fact that these students with unmet need would otherwise have considered these options is particularly troubling given that they were predominantly older (average age of 28 years) and female (64 percent), with half having dependants of their own.

About 30 percent of Student Success Grant recipients were working in the academic year in which they received their grant. They worked part-time for an average of 16 hours per week. While these students did not necessarily attribute it to receiving the grant, in the survey, 36 percent reduced their work hours in the winter semester (when the grant was delivered) compared to the fall semester, and 18 percent of those who worked in the fall semester did not work at all in the winter semester.

17. It should be noted that there is a difference between unmet need and unrecognized need. Unmet need does not take into account those costs that the student financial aid system simply does not recognize. Unrecognized need is thus even greater than unmet need.

Table 6.IV.1 — Incidence and Average Amount of Unmet Need in Select Provinces in 2006–07

	No unmet need	% low unmet need	% high unmet need	$ unmet need low	$ unmet need high	avg $ unmet need
BC	37%	12%	5%	$783	$6,345	$2,490
AB	65%	14%	22%	$636	$5,504	$3,612
SK	55%	12%	33%	$629	$4,379	$3,394
MB	63%	15%	23%	$561	$4,938	$3,216
NB	81%	4%	14%	$646	$6,619	$5,214
NS	49%	16%	35%	$743	$5,387	$3,942
PE	87%	6%	7%	$568	$4,752	$2,868
NL	55%	19%	26%	$529	$4,377	$2,762
Unweighted average	61%	12%	21%	$637	$5,288	$3,437
Ontario	58%	–	–	–	–	$1,191

Source: McElroy (2009); source for Ontario is the 2009 State of Student Aid survey.

Of course, there are many different reasons why students face high costs and therefore potentially have unmet need: some students have dependent children, while others are enrolled in programs that have higher costs, usually university professional programs. In the case of those who are raising children while in school, it is clear that they simply are not eligible for enough funding to support their costs. In most provinces, the maximum aid available to students with children is less than $20,000, which, once full-time education costs are deducted, poses a clear challenge to their ability to support children. While we need to reduce, if not eliminate, the prevalence and burden of unmet need in the student aid system, we also need an approach that recognizes that not every student is in the same situation.

First, governments across the country should once again adjust aid limits upward. Each province needs to look carefully at the incidence of unmet need among its students and work with the federal government to adjust aid limits accordingly. In addition, aid limits should then be indexed to meet tuition and other cost increases. Unmet need should be continuously monitored and further adjustments to aid levels made as required.

Second, students who experience very large amounts of unmet need because they are enrolled in competitive, expensive programs, such as medicine, law and dentistry, which are also likely to yield high incomes fairly soon after graduation, could be offered a second type of government loan that covers their unmet need but more closely resembles a private loan. For example, the in-study interest subsidy could be eliminated. While concerns may arise about these students owing even more money to governments, the alternative for many is to end up no less indebted to private lending institutions, which do not tend to have creative repayment options like the new Repayment Assistance Program.[18]

Third, students with dependent children of their own should not find themselves thousands of dollars short of their assessed need for their year of study while also supporting a family. (The situation is perhaps easier for those who can count on spousal income, but this spousal income is already taken into account in the assessment of the student's need.) These students tend to be older, and many are returning to education in order to improve their employment prospects, keep the job they have or, in the case of many immigrants, have an existing

18. Another option for governments is to collect these unsubsidized loans through the income tax system once a young doctor, lawyer or dentist has established a successful practice.

credential recognized in Canada. In the context of the economic difficulties of 2008–09, it is unwise to add to the challenges of those attempting to return to or improve their standing in the labour market. Therefore governments should also review their aid limits for students with dependent children to ensure that those limits reflect the reality of the costs associated with raising children while studying, including, but certainly not limited to, the cost of child care where it is not provided.

The student aid system in Canada helps provide many students with the financial resources they need to pursue their educational goals. It is also, however, structurally designed to fail to meet the need it identifies for a significant number of students, some of whom are in quite vulnerable circumstances. Given the detrimental effect unmet need can have on a student's ability to succeed in post-secondary education, this state of affairs should not be allowed to continue.

Don't Ignore Student Debt

As discussed in the previous edition of this volume and elsewhere,[19] there are important reasons to be concerned about the accumulation of student debt (either annually or in total). High levels of annualized debt have been shown to affect persistence from one year of study to the next and completion of a student's program. There is some evidence that they can also dissuade those students who do complete their first program from continuing their studies (Prairie Research Associates, 2007b). Students with high levels of debt relative to their post-graduation incomes are also likely to have difficulty keeping up with repayment. All in all, the accumulation of debt can be an obstacle to students progressing through the post-secondary system and transitioning into the labour market.

In the 1990s, average student debt of undergraduates in Canada doubled in real terms. As we will discuss in the next chapter, student debt levels have more or less stabilized since then. This is due in part to the introduction of the millennium bursaries in 2000, as well as to provincial investments in grants in the years that followed (as well as some increase in federal grants).[20] As we have noted above, millennium bursaries were allocated to students with the highest levels of financial need. They thus served to limit the amount of debt accumulated by those who needed to borrow the most. Their debt-limiting effect complemented those of provincial bursary programs in most jurisdictions that set *de jure or de facto* caps on annual or cumulative student debt.

The phasing out of the millennium bursaries means that the main federally funded bursary program will no longer be targeted at curbing the accumulation of debt by high borrowers. Of course, overall federal funding for non-repayable aid will remain in place through the Canada Student Grants Program. The point here is simply that the purpose of these new grants, which are directed to borrowers with the lowest family incomes, will no longer be to reduce debt for high-need students.[21] The effect of this change on some high-need students will be muted in the short term due to the federal government's commitment to "grandfather" the final (2008–09) cohort of millennium bursary recipients by providing them with Transition Grants that will ensure they receive an equivalent level of grant funding for up to three subsequent years (as long as they continue to have financial need). For those high-need students entering the system in 2009–10 (or those who otherwise have high levels of need but did not receive a millennium bursary in 2008–09), no federally funded debt reduction grants will be available. This will put pressure on those provincial grant programs that cap or limit the accumulation of debt. This pressure may be accentuated by the effect of the recent economic downturn. While it is too early to know for certain how the economic situation will affect the number of students who take advantage of student aid programs, early indications in many jurisdictions

19. See Berger, Motte and Parkin, 2007, Chapter 5, as well as Canada Millennium Scholarship Foundation, 2006a, for a discussion of studies of the impact of bursaries conducted by Lori McElroy.

20. A review of the impact of the introduction of millennium bursaries conducted for Human Resources and Social Development Canada found that there was an 86 percent increase in non-repayable student financial aid between the pre- and post-Foundation periods. Fifty-six percent of this change was due to the millennium bursaries themselves, 27 percent to increases in provincial spending on grants and 17 percent to increases in federal spending on grants (Human Resources and Social Development Canada, 2007).

21. The Canada Student Grants will still reduce debt, but they will be delivered to students whose loans are not necessarily the largest, and those with the largest loans will not necessarily be eligible.

show that applications for student aid are up substantially in 2009–10.[22] This will likely affect debt accumulation, putting it on the rise sooner rather than later.

The access bursary programs introduced in 2005 and the new Canada Student Grants Program prioritize students who face financial barriers but who are not typically accumulating the most debt. Making the provision of non-repayable aid to students from low-income families a priority was an important and necessary improvement to the student financial assistance system in Canada. It should not, however, be made at the expense of other priorities, such as limiting the accumulation of debt by students with the highest levels of financial need. It is important to develop and maintain a comprehensive approach to student financial aid in Canada that is able to respond to the needs of different types of student.

22. See also the discussion of student summer employment income in Chapter 4.

Chapter 6

V. Conclusion

The suggestions above represent our current thinking about future directions in student aid. They are based as much as possible on the research conducted to date. As discussed above, they are designed to put the interests of students first. In the first place, the emphasis should be on those students less likely to make it to and through post-secondary education without some additional help—whether financial support or information and encouragement. Yet we should also not ignore the fact that post-secondary education is no less expensive for those students who already have a clear preference for it.

There are certain subjects that we have not covered here, the main one being education tax credits. We have discussed these at length above and in previous publications, and there is no need to add to the arguments we have made elsewhere. It is worth repeating, however, that despite the extensive spending on tax credits for post-secondary education in Canada and the new post-graduation tuition tax rebates introduced by several provinces, there remains no evidence that these measures have a positive impact on student behaviour. Moreover, as mentioned above and on other occasions, the benefits delivered through these measures are distributed inequitably and arrive too late to help students facing financial barriers make ends meet during the school year.

Additionally, as the country moves out of a recessionary period and governments inevitably begin to look for areas in which spending might be controlled, we should recall that expenditures on education-related tax measures exceed those on need-based aid. Expenditures on grants, which provide non-repayable assistance in a timely fashion to students who have financial need, represent only two-thirds of the expenditures on tax credits. At the very least, then, if difficult choices need to be made, surely universal tax expenditures will no longer be favoured. Policymakers and politicians should avoid further investments in education tax credits that superficially address the question of affordability in favour of need-based student aid measures that will actually contribute to the goal of increasing participation and success in higher education.

If the opportunity to pursue a post-secondary education is to be open to all Canadians who are prepared, qualified and motivated to pursue that path, we need a student aid system that is up to the challenge. This means making sure that the system puts students first; that it starts sending an early message to students that there will be support for them in meeting their goals; that it appropriately targets those who need student aid the most with the right kinds and amounts of aid; that it acknowledges that financial aid alone will not be enough for some students to reach their goals; and that it is flexible, accountable and transparent. By making smart choices and investments, student aid programs and policy can be a positive influence on the aspirations and success of students. We believe that by following the suggestions presented here, Canada's student aid system can play a critical role in shaping the future of our post-secondary education system in the next decade and help realize the promise of higher education for Canadians from all backgrounds.

Table 6.V.1 — Vision of Student Aid in Canada After Suggested Changes Have Been Adopted[23]

Type of Student/Period	Low-Income Students	All Students
Pre-secondary school	• Auto-enrolment in CLB and virtual account balance statements • Information about PSE, local access initiatives and student aid • RESP account opened	• Information about PSE and student aid • RESP account opened
Secondary school	• Auto-enrolled CLB virtual account balance statements • Early identification of eligibility for grants aimed at low-income students • Information about PSE, local access initiatives and student aid, including specific programs like CSGP • Application for federal and provincial student loans • Institutional outreach and targeted grants	• Information about PSE and student aid • Application for federal and provincial student loans • Institutional aid
Post-secondary studies	• Access to auto-enrolled CLB balance and RESP savings • Funding packages for full assessed need • Annual debt remission to a cap • Tailored institutional support and institutional aid • Unsubsidized public loans for extremely high borrowers • Tax credits	• Access to RESP savings • Funding packages for full assessed need • Annual debt remission to a cap • Unsubsidized public loans for extremely high borrowers • Institutional aid • Tax credits
Completed post-secondary	• RAP during periods of low income • Post-grad tax credits (some jurisdictions) • Collection of unsubsidized loan debts through tax system	• RAP during periods of low income • Post-grad tax credits (some jurisdictions) • Collection of unsubsidized loan debts through tax system

23. This should not be taken as an endorsement of all available programs or funding mentioned.

7

Student Debt in Canada

Joseph Berger

Chapter 7

I. Introduction

More than half of Canadian students graduate with debt. The latest figures suggest that six in ten university graduates and 45 percent of college graduates have amassed some student debt while in school. In 2009, university undergraduates who borrowed to pay for their studies graduated owing an average of $26,680; for college graduates, the figure was $13,600 (although as we will discuss below, debt levels vary significantly from one province to another). These students have decided that the long-term benefits of post-secondary education are worth the short-term financial sacrifices associated with having debt upon graduation.

Most students who borrow do so through government student aid programs: that is, governments lend students money to cover their educational and living costs. Government student loans are typically interest-free during the study period, and the first payment is not due until six months after studies end, although interest does accumulate during this six-month "grace period." Some students, out of either choice or necessity (e.g., if they are ineligible for publicly funded financial aid), opt for loans from banks, friends or family members.

This chapter chronicles student debt in Canada over the past decade. In it, we describe the impact of debt reduction measures introduced at the end of the 1990s on student debt, as well as assessing more recent trends. There are three main areas of focus:

- First, we examine the debt situation of university students. Using data from two sources, we demonstrate how debt has increased much more slowly in the current decade than it did in the 1990s. While student debt doubled in real terms during the 1990s, it only increased by nine percent between 2000 and 2009. This is partly because of the introduction of government-funded debt reduction programs such as the Canada Millennium Scholarship Foundation.
- Second, we examine the situation of college students. While the data are not as complete as those collected at the university level, it is apparent that college debt levels have followed a similar pattern. They declined during the early part of the decade and have been rising since then.
- Third, we examine debt repayment and management. We find that the $20 billion of outstanding student debt in Canada poses a serious challenge to many Canadian post-secondary graduates. Many graduates report difficulty repaying their debt, perhaps because their payments consume an unsustainable portion of their earnings. In recent years, governments have turned their attention toward improving programs that support borrowers during the repayment period, as we will describe.

The chapter will highlight both policy successes and new areas of concern. On the one hand, recent experience shows that improvements to student financial assistance programs can help control the accumulation of student debt. On the other hand, changes to student costs and resources can put pressure not only on student budgets, but on government program budgets as well: as tuition and other costs rise, or as student revenues from sources such as employment fall, controlling student debt becomes more expensive. Thus, while the 2000s have been very different from the 1990s in terms of the dynamics of student debt, there are no guarantees for what lies ahead in the 2010s.

The Government of Canada's decision to create the Canada Student Grants Program to take over from the Millennium Bursary Program after 2008–09 is a positive step, as it provides for a gradual increase in the amount of federally funded grants over a five-year period beginning in 2009–10. Any subsequent

changes to provincial tuition or student aid policies or federal transfer payments to provinces, however, will either reinforce or reduce that program's effect. Only time will tell, therefore, which of the two most recent decades—the 1990s or the 2000s—represents the norm and which the exception in terms of changes in student debt levels.

Chapter 7

II. University Student Debt in Canada

During the 1990s, Canadian undergraduate student debt doubled (in real terms). The 45 percent of students who completed an undergraduate degree in 1990 with some level of student debt—including government debt, bank debt and debt from family and friends—reported just over $8,000 in student debt, or $12,271 in 2009 dollars. By 2000, a majority of graduates (53 percent) reported accumulating student debt. The average debt level among the class of 2000 was $20,500, or $24,706 in 2009 dollars. (Please note that unless indicated otherwise, all subsequent dollar amounts reported in this section are given in 2009 dollars.)

Since 2000, a different portrait of student debt has emerged. As discussed in the previous edition of *The Price of Knowledge*, average student debt levels did not change substantially during the first half of this decade. According to Statistics Canada's National Graduates Survey (NGS), the incidence of debt among undergraduates who finished their studies in 2005 was only one percentage point higher than that of graduates from the class of 2000 (54 percent). Furthermore, the amount of debt, after controlling for inflation, had actually declined slightly, from $24,706 in 2000 to $24,548 in 2005.

A more or less similar pattern emerges from the results of the Canadian University Survey Consortium's triennial survey of students in their last year of undergraduate studies. In the early part of the decade, debt levels fell. In 2000, CUSC respondents who borrowed reported having accumulated $24,448 in debt. By 2003, that amount had declined to $22,541 (the incidence of student debt, however, increased slightly from 56 percent in 2000 to 59 percent in 2003).

The CUSC surveys not only corroborate the Statistics Canada findings, but, because they are more frequent, allow us to continue our examination of student debt in this decade. According to the CUSC, by 2006—one year after the most recent Statistics Canada data, which showed a decline between 2000 and 2005—debt levels had started rising again, reaching a level three percent higher than in 2000 ($25,275). The results of the 2009 survey reveal that debt has increased a further five percent since 2006, to $26,680.

In short, average student debt for university undergraduates dipped slightly in the early part of this decade before beginning to rise again at a relatively moderate pace. The bottom line is that while student debt doubled between 1990 and 2000, it has increased by only nine percent in the nine years since 2000 (Table 7.II.1).

There are a number of possible explanations for the substantial change in the dynamics of student

Table 7.II.1 — Undergraduate Student Debt at Graduation in Canada in 2000, 2003, 2005, 2006 and 2009

	2000 (NGS)	2000 (CUSC)	2003 (CUSC)	2005 (NGS)	2006 (CUSC)	2009 (CUSC)
Incidence of debt	53%	56%	59%	54%	59%	58%
Average amount of debt	$20,500	$20,286	$20,074	$22,800	$24,047	$26,680
Average amount of debt in 2009 dollars	$24,706	$24,448	$22,541	$24,548	$25,275	$26,680

Source: CUSC, Graduating Students Survey, 2000, 2003, 2006 and 2009; Statistics Canada, NGS.

debt in Canada before and after the year 2000. One is simply that for most of the decade after 2000, the Canadian economy—and thus its labour market—was performing well, which positively affected the financial resources available to students and their families. Other developments stemmed directly from government policy decisions.

- The first is the moderation of tuition increases. As discussed by Junor and Usher (2004), average Canadian university tuition doubled between 1989–90 and 1997–98, partly in response to government budget cuts in the mid-1990s. This contributed to the doubling of average student debt. As we discussed in detail in Chapter 4 of this volume, tuition has continued to increase since, although not quite as rapidly. Between 1997–98 and 2008–09, university tuition increased by 37 percent. The fact that the growth in tuition fees in the current decade has not been followed by a proportional increase in student debt brings us to the second factor.
- The second development concerns changes in student financial aid policy. Since most student debt is composed of government-provided loans, student debt levels are shaped directly by trends in both the amount of student financial aid provided and in the proportion of that aid that is repayable. As discussed in Chapter 6 of this volume and in detail in the third edition of *The Price of Knowledge* and Berger and Parkin (2008), student financial assistance in Canada underwent substantial changes over the course of the past two decades. The same mid-90s cuts that led to tuition increases also reduced the budgets of student aid programs across the country. After 2000, however, both federal and provincial governments began to reinvest in both loans and grants.

What follows is an analysis of changes in student debt levels since 2000 within the context of tuition prices and student aid policies. As the next section makes clear, government policies with regard to the cost of education and the level and type of financial aid subsidies have an important impact on student debt in Canada.

Student Financial Aid Policy from 2000 to 2005: Controlling Student Debt

With the introduction of the Canada Millennium Scholarship Foundation in 1999–2000 (and related provincial investments in need-based student aid), student assistance in Canada became more generous.[1] The proportion of need-based aid that is repayable (i.e., the loan portion of a student's loan/grant package) decreased from 84 percent in 1996–97 to 70 percent in 2003–04. To put it another way, between the mid-1990s and the middle of the current decade, Canadian governments doubled the proportion of student aid that is non-repayable (i.e., grants and payments to reduce existing student debt—see Chapter 6 for more details). All else being equal, in the wake of this change, one would expect student debt to fall after 2000.

The 2000 and 2003 CUSC surveys of graduating students and the 2000 and 2005 Statistics Canada surveys of graduates allow us to compare undergraduate cohorts immediately before and after the introduction of the Millennium Bursary Program and the expansion of non-repayable student financial aid.[2] Despite a five percent overall increase in university tuition (over and above inflation)—including sharp increases of 14 percent or more in B.C., Saskatchewan, New Brunswick and Nova Scotia—student debt did in fact decrease between 2000 and 2003 by $1,907, from $24,448 to $22,541. Similarly, between 2000 and 2005, the NGS reported that the incidence of student debt grew by one percentage point, while the average amount declined by $157. This suggests that the debt reduction measures put in place in each jurisdiction by the Canada Millennium Scholarship Foundation did their job, as did similar provincial grant programs such as the

1. The Canada Millennium Scholarship Foundation was created with an endowment of $2.5 billion from the federal treasury and a ten-year mandate. In its early years, it dispensed about $285 million per year to more than 90,000 students across Canada. In its later years, its expenditures on need- and income-based bursaries increased to about $340 million per year.
2. The comparison is imperfect for a number of reasons. Most importantly, students graduating in 2000 would have had access to more generous financial aid in their last year of studies than in their first years of university.

Table 7.II.2 — Undergraduate Student Debt at Graduation in Canada in 2000, 2003 and 2005

	2000 (CUSC)	2003 (CUSC)	2000 (NGS)	2005 (NGS)	Difference (2000 to 2005)
Incidence of debt	56%	59%	53%	54%	+1 percentage point
Average amount of debt	$20,286	$20,074	$20,500	$22,800	- $2,300
Average amount of debt in 2009 dollars	$24,448	$22,541	$24,706	$24,548	- $158

Source: CUSC, Graduating Students Survey, 2000 and 2003; Statistics Canada, NGS.

Table 7.II.3 — Undergraduate Student Debt at Graduation in Canada in 2000, 2003, 2005 and 2006

	2000 (NGS)	2005 (NGS)	2000	2003	2006	Difference (2003 to 2006)
Incidence of debt	53%	54%	56%	59%	59%	0
Average amount of debt	$20,500	$22,800	$20,286	$20,074	$24,047	+ $3,973
Average amount of debt in 2009 dollars	$24,706	$24,548	$24,448	$22,541	$25,275	+ $2,734

Source: CUSC, Graduating Students Survey, 2000, 2003 and 2006; Statistics Canada, NGS.

Ontario Student Opportunities Grant (OSOG) and the grant portion of Quebec's student aid system (see below for more on the student debt situation in these two provinces).

Other factors, however, cannot be ignored. Some of these have already been mentioned—namely, a more moderate tuition increase rate and a more favourable job market. Also important was the fact that in the first part of this decade, the maximum amount of student aid that governments were willing to provide remained unchanged. This means that students with high levels of need could not have borrowed more from governments in successive years of their programs even if they had wanted to. While some of these students borrowed privately to make up their funding shortfall, others ended up coping with "unmet need" (i.e., the difference between their recognized costs and the aid they received). When aid maximums are frozen, rising costs lead to increases in unmet need more than debt.

Student Financial Aid Policy from 2005 to 2009: Expanding Need-Based Aid

As mentioned earlier, the next era of student financial assistance began in 2005–06, with a number of significant policy changes. As described by Berger and Parkin (2008), these include:

- increased student aid limits through the Canada Student Loans Program and many provincial student aid programs;
- reduced expected parental contribution amounts, providing expanded access to student aid for students from middle-income families considered dependent on parental support;

- the expansion of grant programs through the introduction of the Canada Access Grant, the millennium access bursaries and the Ontario Access Grant, all of which provided targeted support to students from low-income families and other under-represented groups (Aboriginal students, rural students, adult learners and students with disabilities).

Given these policy changes and trends in student borrowing, we might expect the following with respect to student financial assistance:

- Increased loan limits and lower expected parental contribution amounts might lead to higher debt levels, since more students would have access to more repayable public funds to keep up with rising educational and living costs.
- The expansion of grant programs might have the opposite effect of reducing overall indebtedness.

The policy changes, in other words, could be expected to produce counteracting effects on debt.

In addition, there are two other counteracting factors to take into account. The first is the effect of the provincial loan reduction programs already in place, such as OSOG. When aid limits rise, grant programs in provinces such as Ontario serve to replace the higher loans with more grants, nullifying any impact on debt levels. At the same time, in two of the country's biggest provinces, Quebec and B.C., provincial grant programs were actually cut in 2004–05; in Quebec the grant money that had been cut was fully reinstated by 2006–07, but in B.C. the cut was permanent. When

Unmet Need in Canada

An analysis of eight provincial student aid databases (all but Ontario and Quebec) conducted by Lori McElroy (2009) for the Council of Ministers of Education, Canada offers insight into the evolution of student financial need during the first part of this decade. McElroy examines changes in the level of assessed need (the costs-minus-resources calculus employed by provincial student aid programs), total award (the loan and grant combination that comprises a student's aid package) and unmet need (the amount of assessed need not funded through the total award). Between 2001–02 and 2004–05, after accounting for inflation, the average level of assessed need increased by no more than eight percent in all of the eight participating provinces. The actual amount of student aid distributed to students decreased in three provinces (B.C., Saskatchewan and Newfoundland and Labrador) between 2001–02 and 2004–05 and increased only slightly in the remaining five (only New Brunswick, at six percent, experienced an increase of more than two percent during the years in question).

With the exception of Alberta, the total amount of aid increased considerably between 2004–05 and 2005–06, likely due to the increase in student aid limits. In Manitoba, Nova Scotia and Newfoundland and Labrador, the total award increased by more than ten percent from one year to the next (increases of 15 percent, 12 percent and 14 percent, respectively). In P.E.I., the average total award increased by nine percent; in B.C., Saskatchewan and New Brunswick, the average total award increased by eight percent.

The policy of expanding the size of student aid packages to keep up with rising levels of student need appears to have worked as intended. Between 2004–05 and 2005–06, unmet need decreased in six provinces (by 15 to 63 percent).

looking at national averages, these cuts could be expected to result in higher levels of debt.

What actually happened to debt levels in the aftermath of all these changes? The 2006 CUSC survey provides a baseline for analysis of student debt in the most recent period. That year, 59 percent of those graduating from an undergraduate program had $25,275 in debt, somewhat higher than 2000 levels. As mentioned above, higher student aid limits did not always mean higher student loans for all borrowers, since certain provinces, like Ontario, covered high aid limits by expanding loan reduction programs. That said, across the country as a whole, the average loan (net of loan reduction) per recipient increased between 2004–05 and 2005–06 by $351, or six percent, contributing to the slight increase in debt.[3]

At the same time, the average grant per recipient increased by nearly 19 percent between 2004–05 and 2005–06 and then by another 15 percent by 2006–07. Thus, the expansion of grant programs mitigated the increase in loans. Of course, not all borrowers were affected in the same way. On the one hand, much of the additional grant funding stemming from the introduction of access grant programs flowed to students who had relatively low levels of financial need, even though they had low family incomes.[4] For these student aid recipients, the quality of their financial aid (i.e., the grant-to-loan ratio) improved. On the other hand, high-need students (at least in provinces without loan reduction programs with fixed loan maximums) who were receiving the maximum amount of student aid prior to 2004–05 were likely to receive larger student loans beginning in 2005–06, as the typical student aid limit increased from $9,650 to $11,900 per year (the amount varies from province to province).

As discussed in Chapter 4, the costs students face—including tuition, accommodation, transportation, food, etc.—tend to increase from year to year, often well above the rate of inflation. Tuition has not increased substantially since 2005–06; university students who studied between 2005–06 and 2008–09 (the most likely group of respondents to the CUSC's 2009 survey of graduating students) would have paid an average of $4,652 in tuition, or four percent more than those studying between 2002–03 and 2005–06. Given that student borrowers had greater access to higher government-funded student loans between 2006 and 2009, it follows that student debt would increase, which it did. As Table 7.II.4 demonstrates, among the 59 percent of students completing an undergraduate program in 2006 who had accumulated some education-related debt, the average was $25,275. In 2009, 58 percent of graduates reported an average debt of $26,680—5.56 percent more than in 2006. Given that, as mentioned, annual maximum student aid amounts had increased in most of the country by more than $2,000 in 2005–06, this increase in average debt upon graduation appears fairly moderate. This is likely the result of the factors already mentioned: the combination of the expansion of debt reduction programs in Ontario and Quebec and the introduction of income-based bursaries. Again, in the absence of these measures, it

Table 7.II.4 — Undergraduate Student Debt at Graduation in Canada in 2000, 2003, 2005, 2006 and 2009

	2000 (NGS)	2005 (NGS)	2000	2003	2006	2009	Difference (2006 to 2009)
Incidence of debt	53%	54%	56%	59%	59%	58%	- 1 percentage point
Average amount of debt	$20,500	$22,800	$20,286	$20,074	$24,047	$26,680	+ $2,633
Average amount of debt in 2009 dollars	$24,706	$24,548	$24,448	$22,541	$25,275	$26,680	+ $1,405

Source: CUSC, Graduating Students Survey, 2000, 2003, 2006 and 2009; Statistics Canada, NGS.

3. It should be noted, however, that the average loan fell by $240 in 2006–07.

4. See Berger (2008) for a more detailed discussion of why low-income students, the recipients of most of these new grants, would not have had high levels of financial need.

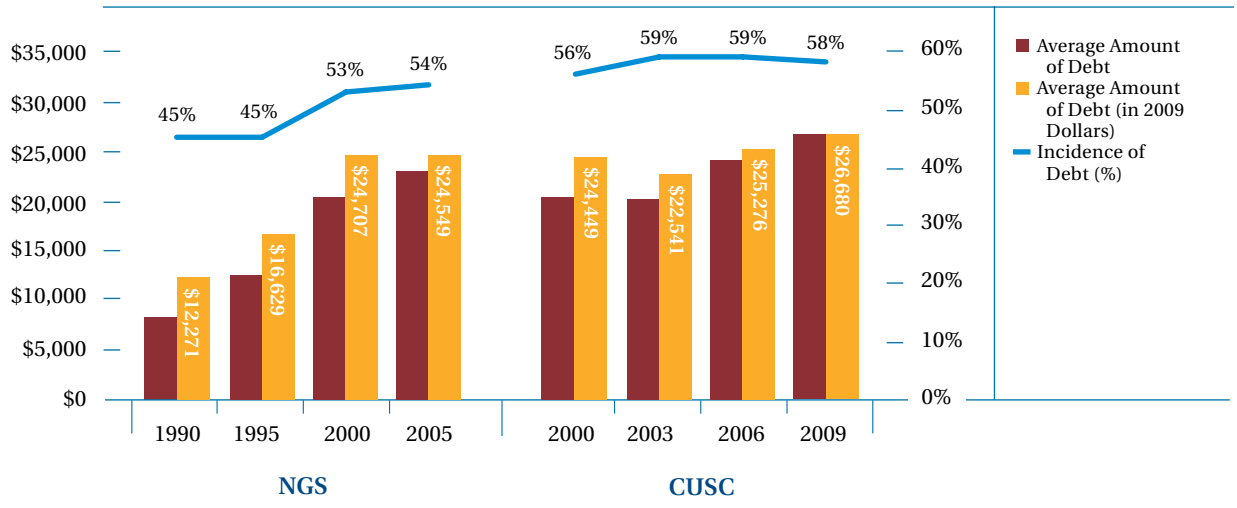
is likely that student debt levels in 2009 would have been considerably higher than in 2006.

In short, university student debt in Canada was somewhat more common at the end of the current decade than it was at the beginning. Students who completed an undergraduate program in 2009 owed an average of $26,680—which is $2,231, or nine percent, more than those who completed their studies in 2000. During a decade in which the average tuition increased by 14 percent, student debt grew at a slower pace. This contrasts with students' experience in the 1990s, when a doubling of university tuition fees led to a doubling of their debt. Although tuition and other costs may have continued to rise after 2000, and although aid limits increased after 2005, the public policies that were designed to keep student debt stable appear to have succeeded.

This portrait of university student debt in Canada offers insight into the sometimes conflicting priorities of student aid policy-makers. On the one hand, it is crucial that student aid levels be adjusted regularly to accommodate increasing costs, be they educational (tuition, books, supplies) or other (housing, transportation, etc.). On the other hand, if aid levels rise and grant levels do not, the result is not only more aid but also more debt. The experience of the 1990s is telling: when students' costs increase rapidly and the policy response is to allow student borrowing to rise correspondingly, student debt levels grow quickly (in this case, they doubled in less than eight years). The expansion of non-repayable student financial aid, beginning in 1999–2000 with the introduction of the Canada Millennium Scholarship Foundation's millennium bursaries, allowed students to keep up with rising costs without accumulating larger levels of debt.

Not all students experienced the current decade in the same way, however. The national averages reviewed above disguise significant regional differences. As discussed in more detail in the next section, student debt levels follow a geographical pattern: they are highest in the East, lowest in Quebec, Ontario and Manitoba, and in between these two extremes in the West.

Figure 7.II.1 — University Student Debt in Canada from 1990 to 2009 in Nominal and Real 2009 Dollars



Note: The NGS measures undergraduate student debt at graduation every five years; the CUSC's graduating students survey measures undergraduate student debt every three years.

Source: Allen and Vaillancourt, 2004; Bayard and Greenlee, 2009; CUSC, Graduating Students Survey, 2000, 2003, 2006 and 2009.

Chapter 7

III. University Student Debt by Region

As discussed in Chapter 4, the costs students face and the resources available to them vary considerably from one region of the country to another.[5] The federal government provides direct support to students through the Canada Student Loans Program and indirect support through transfers to provincial governments for post-secondary education. Yet Canada's post-secondary system differs considerably from province to province. Provincial governments establish their own frameworks for tuition and fees and offer their own student aid programs. Employment opportunities, wages and family savings also differ from one jurisdiction to the next. As a result, the financial situation of students at graduation is hardly uniform across the country. As we described in Chapter 1, the wage premium associated with higher education is higher in certain parts of Canada than in others. In Chapter 2, we explored how participation in post-secondary education varies from region to region. It should come as no surprise, then, that student debt levels follow a similar course.

Atlantic Canada

According to the CUSC survey of undergraduates in their final year of study, the proportion of university students who graduate with debt is greater in Atlantic Canada than in other parts of the country, and the average debt among those who borrow is also the highest nationwide. In 2009, 62 percent of undergraduates completing their studies in New Brunswick and 64 percent doing so in Nova Scotia reported accumulating student debt. These individuals owed an average of $28,904 (New Brunswick) and $30,128 (Nova Scotia).[6]

Even after adjusting for inflation, the average amount of student debt in the Maritimes has increased faster than the national average since 2000. While undergraduate student debt in Canada grew by nine percent between 2000 and 2009, it grew by 12 percent in New Brunswick and 13 percent in Nova Scotia.

The increase in debt is likely a function of three factors. First, student employment (during the school year and the summer) was lower in Atlantic Canada than in the rest of the country during the early part of this decade. Second, tuition increased in the three Maritime provinces during this decade (particularly in New Brunswick). Third, as Berger and Parkin (2008) note and as discussed in Chapter 6, the share of financial aid composed of non-repayable grants and loan reduction remained below 20 percent in the four Atlantic provinces throughout this period, whereas the Canadian average in 2004–05 was 25 percent. In short, costs tend to be higher and students tend to have fewer resources at their disposal in the Atlantic region—a formula that naturally adds up to more debt.

Quebec

Quebec has the lowest incidence of student debt and the lowest average debt amount in the country. In 2009, 45 percent of respondents to the CUSC Graduating Students Survey reported owing an average of $15,102 in student debt. The incidence of debt actually declined from 48 percent in 2006 (it was at 47 percent in 2000 and 2003), although the average amount of debt grew by one percent between 2000 and 2009.

5. See Chapter 4 for a discussion of student costs by province and Chapter 6 for a discussion of trends in student aid by province.
6. Data are not available for students in P.E.I. and Newfoundland and Labrador in 2009.

There are three reasons why student debt in Quebec has been consistently lower than in other provinces during the past decade. First, undergraduate university programs are typically shorter in Quebec than elsewhere (i.e., three years instead of four): Quebec students finish high school in Grade 11 and must complete a two-year pre-university CEGEP program (the province's public CEGEPs do not charge tuition) before they can enrol in their first year of university, which corresponds to second year of university outside of Quebec.[7] Second, Quebec's university tuition was frozen at about $1,800 between 1994 and 2007, at which point regular increases of approximately $50 per semester (planned until 2011–12) were introduced. Even in 2008–09, after the freeze was lifted, Quebec's tuition fees were the lowest in the country. Third, Quebec's student aid program has typically offered the most generous financial aid in the country, with students receiving between one-third and one-half of their financial aid in the form of non-repayable assistance since 2000. A Quebec university student borrowing the maximum amount during each of the past three years would have accumulated $7,320 in publicly funded student debt upon graduation. Of course, Quebec students can borrow from non-government sources too, and they do not necessarily complete their studies in three years.

It should be noted that the average student debt dropped after 2000, as shown in Figure 7.III.1. With the introduction of the Millennium Bursary Program, the maximum annual loan in Quebec was reduced by about one-quarter in 1999–2000, from $3,200 to $2,440, where it has remained ever since, aside from 2004–05 and 2005–06.[8]

Ontario

Undergraduate student debt in Ontario declined by $2,515 between 2000 and 2003, before increasing by $781 in 2006 and finally surpassing 2000 levels in 2009. Students graduating with debt in 2009 owed an average of $25,778, only four percent higher than the 2000 average of $24,869. The initial decline and subsequent slow increase in Ontario university student debt mirrors the national portrait. In both cases, the reasons underlying the trend are largely the same: tuition fees rose above the level of inflation (although a tuition freeze was in place for undergraduate programs for part of the decade) and financial aid became increasingly non-repayable, as grants and remission grew from about one-fifth to one-third of all student aid. It is also important to acknowledge the effect of the OSOG program, as discussed previously: OSOG grants reduce borrowing to $7,000 per year. As long as this cap on annual debt is maintained, increases in total debt upon graduation in Ontario will be moderated, even if costs rise.

While the average amount of student debt did not increase dramatically, debt became a more common occurrence in the province during this decade. In 2000, 56 percent of respondents in the CUSC Graduating Students Survey reported having accumulated debt. The rate grew to 57 percent in 2003, 58 percent in 2006 and 64 percent in 2009.

The Prairies

Undergraduate student debt in the Prairie provinces of Alberta, Saskatchewan and Manitoba grew faster than the national average between 2000 and 2009, although debt levels in these jurisdictions still remain below the Canadian mean. In 2000, 56 percent of Prairie graduates reported an average debt of $21,666. That amount increased to $24,116 in 2009. The increase in debt can be explained in part by rising tuition in Alberta and Saskatchewan. In Alberta, tuition increased steadily by 16 percent (after inflation) between 1999–2000 and 2008–09. In Saskatchewan, tuition increased faster, rising by 33 percent between 1999–2000 and 2004–05; it was then reduced by ten percent by 2008–09. In Manitoba, the province reduced and then froze tuition in 2000–01. In 2008–09, tuition in Manitoba was 24 percent cheaper than in 1999–2000.

7. It should be noted that students who move to study at CEGEP and university must undertake at least five years of study, which may be funded through student financial aid.

8. Prior to the 2004–05 academic year, the Quebec government cut its bursary program by $103 million by significantly increasing the maximum amount a student could borrow (which saved the government money because students qualify for a bursary only after the amount they borrow has surpassed the maximum loan threshold). Following considerable public pressure, chiefly demonstrated through a large-scale student strike, the government reinstated the $103 million on a gradual basis. The province restored $70 million of the funding in 2005–06 and the full $103 million in 2006–07 and beyond.

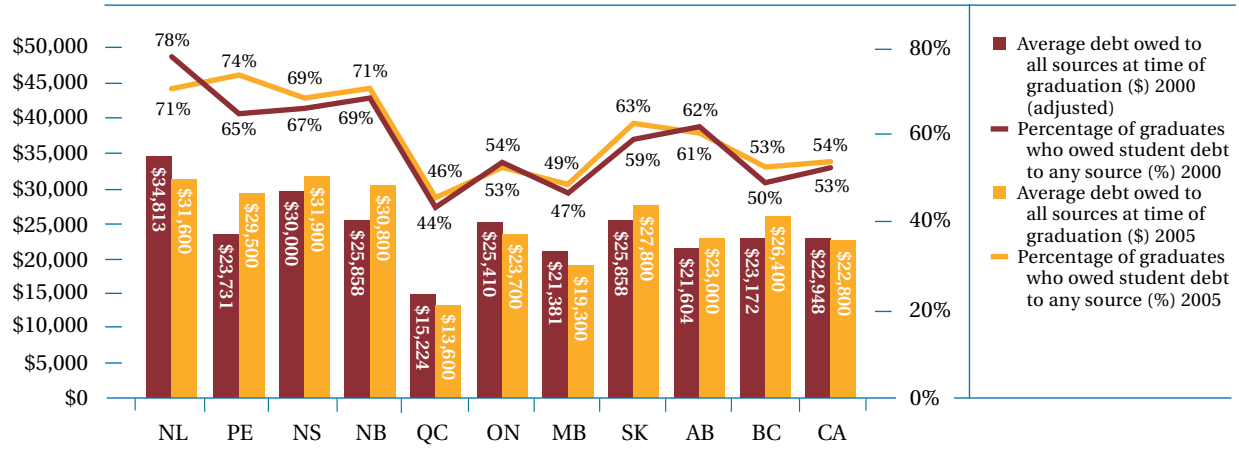
Student financial aid became more generous in most of the Prairies during this decade. In Alberta, tuition increases were offset by a moderate increase in non-repayable assistance, with the share of need-based aid made up of grants and loan remission increasing from 28 percent in 1999–2000 to 32 percent in 2006–07. In Saskatchewan, the share of non-repayable aid fluctuated around 29 percent throughout most of the decade, while it doubled in Manitoba, from 24 percent in 2000–01 to 48 percent in 2006–07.[9]

British Columbia

In 2000 and 2003, university graduates in B.C. had debt levels that were slightly below the national average. According to the CUSC Graduating Students Survey, 43 percent of B.C. graduates in 2000 had an average debt of $23,522. While the incidence of debt increased to 57 percent in 2003, the average amount declined by $1,156. In 2006, the incidence of debt increased to 58 percent, while the average debt load jumped by $3,986, to $26,351. By 2009, it had increased by just under $400, with 54 percent of graduates reporting an average debt of $26,738. Between 2000 and 2009, undergraduate student debt in B.C. grew by 14 percent, more than anywhere else in Canada.

The considerable decline and then spike in debt (student debt dropped five percent between 2000 and 2003 before increasing by 18 percent in 2006) can be explained by significant changes to university tuition in B.C. and to the province's student financial aid policy. At the start of the decade, B.C. students paid the second-lowest tuition in the country, trailing only Quebec and nearly $1,000 less expensive than in the next cheapest province, New Brunswick. B.C. had the second most generous financial aid program in the country that year as well, again following only Quebec in the share of non-repayable financial aid provided to students. By 2006–07, following a jump of 69 percent over five years, tuition in B.C. was $350 higher than the national average. At the same time, B.C. significantly reduced the scale of its grant program in 2004. As a result of these two changes, B.C. financial aid recipients have the country's biggest student loans—almost $1,200 more per year than in the runner-up province, New Brunswick.

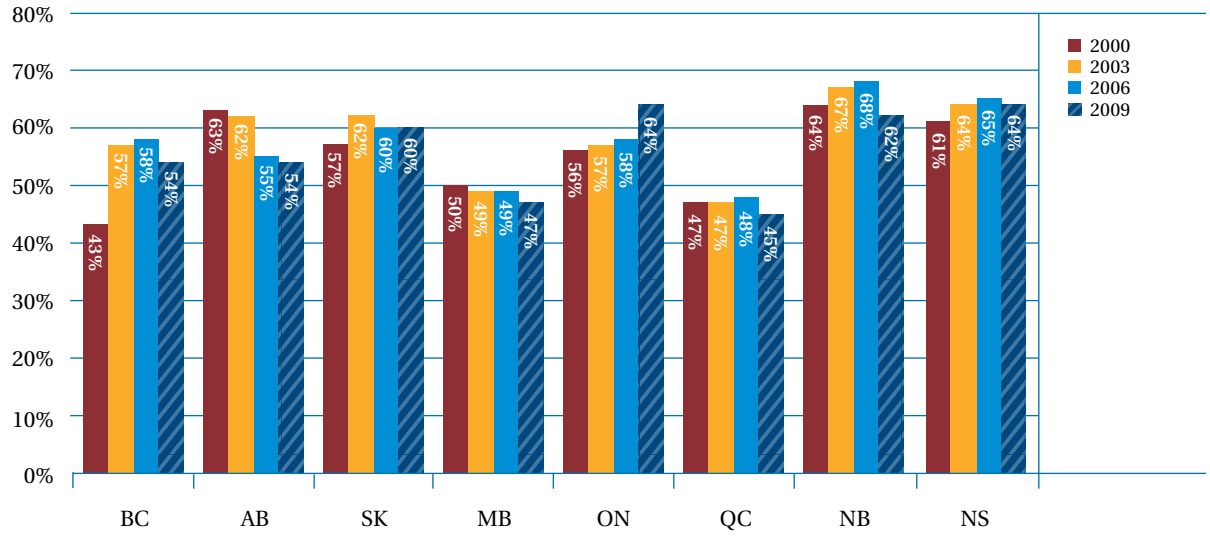
Figure 7.III.1 — Incidence and Amount of Student Debt in Canada among Bachelor's Degree Graduates with Debt from 2000 to 2005 in Real 2005 Dollars, by Province



Source: Allen and Vaillancourt, 2004; Bayard and Greenlee, 2009; Statistics Canada, NGS (custom tabulations).

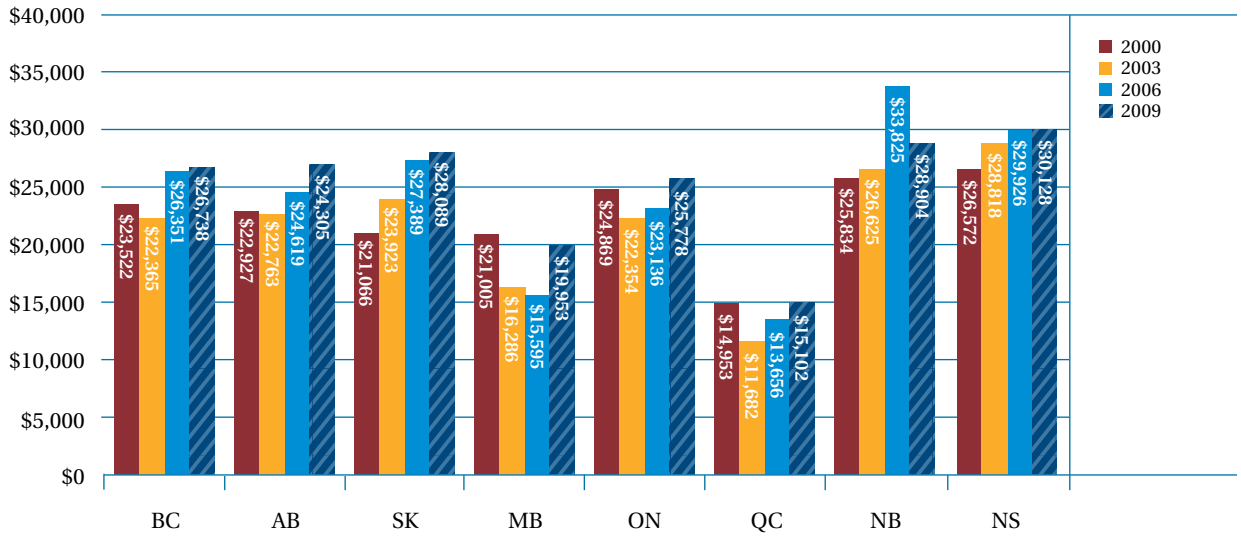
9. It is worth noting that the share of non-repayable aid in the 2000s was considerably higher than in the 1990s in these three provinces; it doubled in Alberta, increased by 50 percent in Saskatchewan and tripled in Manitoba.

Figure 7.III.2 — Incidence of Student Debt in Canada among Bachelor's Degree Graduates from 2000 to 2009, by Province



Source: CUSC, Graduating Students Survey, 2000, 2003, 2006, 2009.

Figure 7.III.3 — Average Amount of Student Debt in Canada among Bachelor's Degree Graduates with Debt from 2000 to 2009, by Province



Source: CUSC, Graduating Students Survey, 2000, 2003, 2006, 2009.

Chapter 7

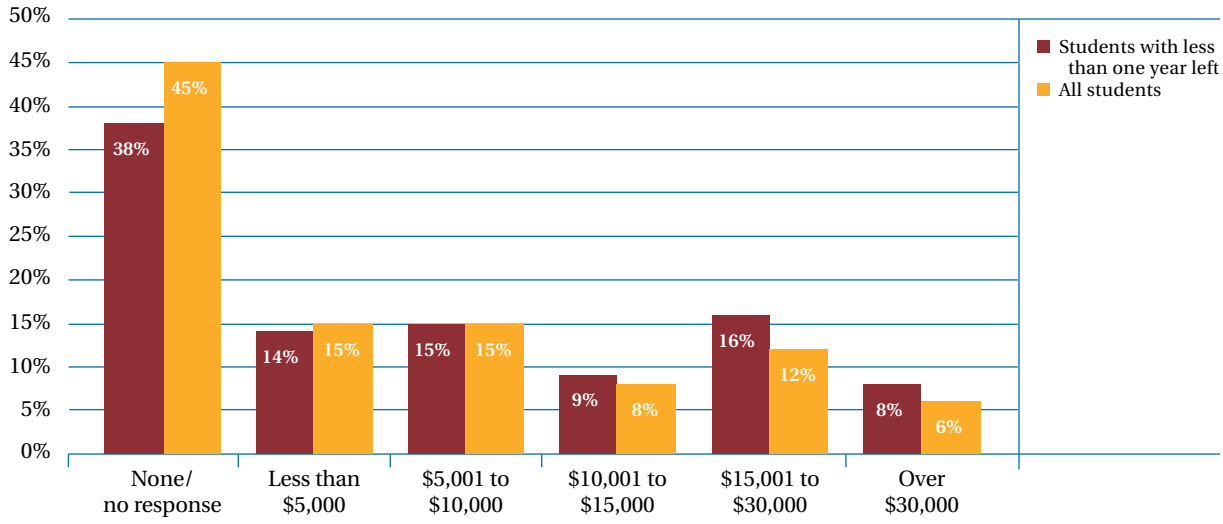
IV. College Student Debt in Canada

In 2005, 45 percent of college graduates reported owing an average of $14,510 in student debt. Both the incidence and the amount of debt were lower than in 2000, when 49 percent of graduates reported owing an average of $15,168.

As we reported in the last edition of *The Price of Knowledge*, despite the fact that average debt among graduates fell between 2000 and 2005, the proportion of current students with very large debt loads has been edging upwards since 2003. According to the Canadian College Student Survey Consortium (CCSSC), the proportion of students (not graduates, but students at all levels of study) reporting already having more than $15,000 of debt increased from six percent in 2003 to eight percent in 2004 and 13 percent in 2005.

The 2009 College Student Survey reveals that this trend is continuing: 55 percent of college students have debt, and 18 percent of them owe more than $15,000.[10] Among those who had less than one year of study left in 2009, 62 percent reported expecting to accumulate some debt, with 24 percent expecting to owe more than $15,000 (Figure 7.IV.1). Since 2003, therefore, the proportion of students with more than $15,000 of debt has tripled, rising from six percent to 18 percent.

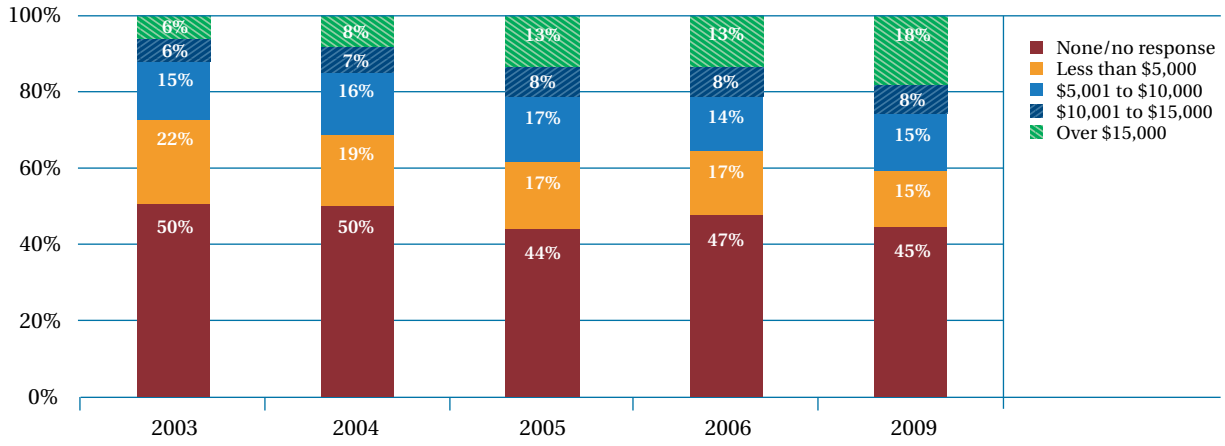
Figure 7.IV.1 — College Student Debt in Canada in 2009



Source: CCSSC, College Student Survey, 2009.

10. The 2009 survey is restricted to a sample of students from ten colleges, six of which participated in previous waves of the survey. The sample of institutions is down from 19 in 2006; it was highest in 2003, at 27. In analyzing the survey responses, efforts have been made to compare the 2009 results to both the entire samples from previous years and samples from previous years composed only of colleges participating in 2009. While the survey is not comprehensive enough to describe the entire college sector or offer a regional analysis, in the absence of a large-scale representative survey of college students, it provides useful insight into their financial situation.

Figure 7.IV.2 — College Student Debt in Canada in 2003–2006 and 2009



Source: CCSSC, College Student Survey.

Provincial Variation

Outside of Quebec, where college (CEGEP) education is offered for free, student debt among college graduates is fairly uniform. While college tuition varies considerably from province to province (in 2006–07, college tuition outside Quebec ranged from an average of $1,362 in Newfoundland and Labrador to $3,425 in P.E.I.), debt levels do not. Some trends in college debt levels, however, appear to have a regional angle.

According to the National Graduates Survey, college student debt in the Maritimes, Quebec and Ontario declined between 2000 and 2005. In the Atlantic region, debt declined from $15,194 among graduates in 2000 to $14,198 among those who completed their studies in 2005. In Quebec, debt declined by 12 percent, from $9,554 to $8,429, during the same time period. In Ontario, it dropped by nine percent, from $17,676 to $16,004.

Meanwhile, in the Prairies, debt increased by 13 percent, from $13,041 to $14,770, and in B.C. it increased by 38 percent, from $13,018 to $17,925, during the same years. These increases are likely due to significant college tuition hikes in B.C. (nearly $1,300 between 1999–2000 and 2004–05) and Alberta (nearly $750).

Public and Private Debt in Canada

The main source of student debt in Canada is government-funded student loans. This is the case because, generally speaking, government-funded student loans are more accessible and more affordable than those offered by private banks. First, public student financial aid does not require borrowers to offer collateral. Since most students have little in the way of assets, they face considerable obstacles to securing a private loan or line of credit, often requiring a parent or guardian to co-sign. Second, public student financial aid is heavily subsidized, as interest does not accumulate while the student is in school. Furthermore, student loans are increasingly subject to repayment assistance measures like interest relief and debt reduction in repayment schemes.

Of course, not all students are eligible for government loans, especially if they are considered dependent on parental income whose level exceeds government aid cut-offs. Other students might find that banks offer more flexible loan options. Thus, whether they are crowded out of the student aid market by choice or eligibility criteria, many students finance their education in part through non-government loans.

The 2009 CUSC Graduating Students Survey provides information about the incidence of private borrowing among university students. In 2006 and 2009, approximately 20 percent of students in their last year of undergraduate studies reported accumulating debt from financial institutions.[11] The average debt load among those who reported debt from financial institutions was $13,227 in 2006; by 2009, it had increased to $14,862.

The incidence of debt from family members has remained stable in recent years. In 2006, 17 percent of graduates reported borrowing an average of $15,126 from family members. In 2009, the proportion had increased to 18 percent, but the average decreased to $14,435. Only seven percent of students reported debt from other sources in both years. The average amount increased from $6,992 in 2006 to $8,500 in 2009.

Private borrowing also occurs at the college level. Among students surveyed in 2009, 26 percent reported having borrowed an average of $11,870 from financial institutions, up from 19 percent in 2006 (an average amount for 2006 is not available). Twenty-seven percent of students in 2009 reported an average of $5,384 in debt from family, while 19 percent reported owing an average of $5,644 to other sources.

As noted earlier, changes to government student financial aid programs in 2005-06 were in part designed to make more students from middle-income families eligible for student loans. One might expect that university students graduating in 2009 would, therefore, be less likely than those who graduated in 2006 to rely on non-public student loans. It appears, however, that the market for loans provided by banks or family members remained stable, suggesting that certain students might simply prefer to borrow from non-government sources, despite the implicitly higher costs.

11. The figure for 2003 was 26 percent, although in that year the proportion of students not responding to the question or reporting not knowing the answer was several times higher than in 2006 and 2009, raising concerns about the validity of comparisons; the question was not included in the 2000 survey.

Chapter 7

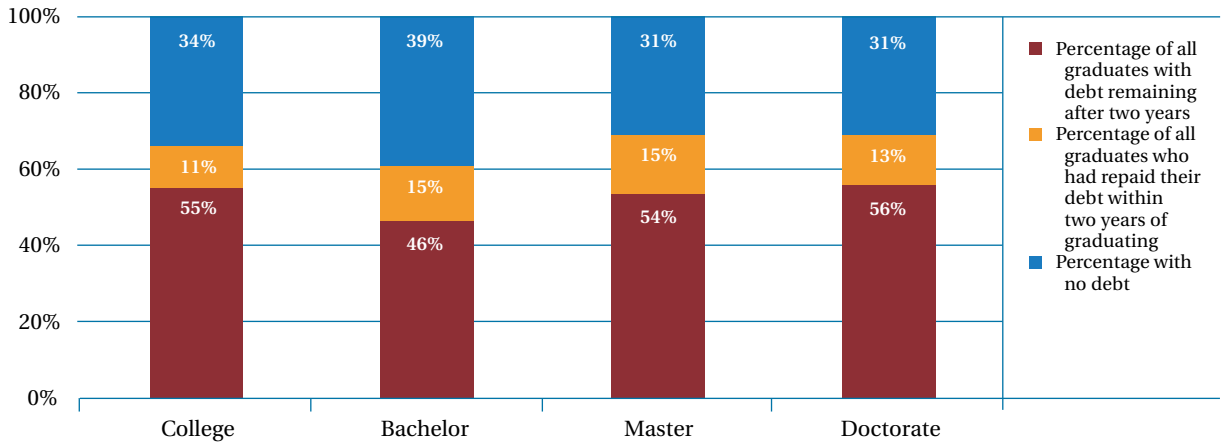
V. Life After School: Student Debt Beyond Post-Secondary Education

While it may be called "student" debt, those doing the repayment are usually not themselves students. Student debt is typically amortized over ten years, although many individuals repay their debt sooner, just as many borrowers extend the terms of their repayment by several years. For many individuals, then, student debt is present throughout major life-cycle events—such as marriage, buying a home and childbirth. It is thus worth examining how student debt in Canada fits within the context of the country's larger financial portrait.

Repayment

The NGS offers information on debt repayment among student borrowers. According to the first follow-up survey of graduates of the class of 2005, conducted in 2007, about one in seven graduates repaid their entire student debt within two years of graduating (Figure 7.V.1). A little less than half were still in repayment two years after graduation.

Figure 7.V.1 — Student Debt Repayment among the Class of 2005



Source: Statistics Canada, NGS.

Among college graduates who were still in repayment two years after graduation, the average balance on their loan was $11,800. For those who completed undergraduate studies in 2005, the average balance two years later was $20,400. Students who completed graduate programs were more likely to have paid off their loans within two years. Among those with a master's degree who had debt, 32 percent had repaid their entire loan within two years, while 30 percent of Ph.D.s who graduated with debt had done so as well.

Among college graduates, those in Quebec, B.C. and the Prairies were most likely to have entirely repaid their loans within two years of graduation; among bachelor's degree graduates, this was true for those in Quebec, Ontario, Alberta and Manitoba. For both college and university graduates, those in the Atlantic region were least likely to have repaid their loans within two years of graduation. Students in the four Atlantic provinces faced a double whammy of sorts: they tended to report above-average levels of debt and below-average earnings.

An analysis of both the 2006 and 2009 Graduating Students Surveys reveals a relationship between accumulated debt and plans to immediately pursue additional education. In 2009, students who reported planning on pursuing education immediately after completing their bachelor's degree program had an average debt of $15,036; those who were not planning on returning to school had an average debt of $16,457 (in 2006 these amounts were $11,530 and $14,707, respectively; these figures are unadjusted for inflation and include students without debt). There does not appear to be a statistically significant relationship between the amount of debt a student has incurred and either his or her employment plans or expected earnings, suggesting that post-secondary students do not appear to link their decisions about whether and how much to borrow with their immediate post-study plans. By the time they assess their labour market prospects, their debt has already been incurred.

Student Debt in Context

According to Statistics Canada (2006a), the aggregate amount of student debt among all Canadian families (and not just graduating students) increased by 15.8 percent between 1999 and 2005. By 2005, Canadian families collectively owed more than $20 billion in student debt, up from $17 billion in 1999. Among the 12 percent of families reporting student debt (the incidence did not change between 1999 and 2006), the average amount increased from $12,000 to $12,700. Twenty-eight percent of families whose main income earner was under 35 reported owing student debt; in comparison, less than ten percent of families whose main income earner was over 45 reported owing student debt. Among the various kinds of debt, aggregate student debt grew the least during the six years in question. Mortgage debt grew by 43 percent, line of credit debt by 133 percent, credit card debt by 59 percent, car loans by 41 percent and other debt by 32 percent. As a result, the student debt share of all debt declined from 3.3 percent to 2.6 percent. In total, the debt load of Canadian families grew by 48 percent in six years, from $515 billion to $760 billion.

Debt-to-Income Ratios and Repayment Assistance

As noted by Kapsalis (2006), the ability to repay student debt on time is more closely linked to post-study income than debt size. His ten-year overview of student loans consolidated in 1994–95 found that after controlling for debt size, the likelihood of a loan going into default within three years of consolidation fell by 1.2 percentage points for every $1,000 of an individual's income. As Schwartz and Baum (2006) discuss in detail, as graduates' income increases, so does their ability to repay student loans. As a result, they argue, policy-makers should consider restricting loan repayment amounts to manageable proportions of a graduate's income.[12] Evidence from the 2005 NGS

12. Schwartz and Baum suggest a payment-to-income ratio of no more than 18 to 20 percent of an individual's discretionary income; the amount would slide downward for those with relatively low levels of income.

suggests that a number of Canadian post-secondary graduates had debt servicing ratios (i.e., the ratio of debt payments to income) that ran the risk of placing them in financial jeopardy. Using the NGS data, Bayard and Greenlee (2009) ranked borrowers by the size of their government debt servicing ratios. Among college and bachelor's degree graduates with large student loans (i.e., debt of $25,000 or more), those at the 75th percentile had debt servicing ratios of 14 and 15 percent, respectively. In other words, after they had made their debt payments, these individuals had about 85 percent of their gross income left over.

The NGS also asks graduates whether they had difficulty repaying their student loans within the first two years after graduation (as Kapsalis notes, the majority of student loan defaults occur within the first three years after graduation). Twenty-nine percent of college graduates, 26 percent of bachelor's degree graduates, 23 percent of master's degree graduates and 25 percent of doctoral graduates who owed money on government student loans reported difficulty repaying their debt. As one would expect, graduates with larger loans were more likely to report difficulty making their payments. Statistics Canada divided borrowers into three categories: those with small (less than $10,000), medium ($10,000 to $24,999) and large ($25,000 or more) levels of debt. At the college level, 17 percent of graduates with small debt loads reported difficulty repaying their loans, compared to 34 percent of those with medium-sized debt loads and 59 percent of those with large debt loads. At the bachelor's level, graduates were less likely to report difficulty with repayment at all levels: 12 percent of those with small debt loads, 22 percent of those with medium-sized debt loads and 43 percent of those with large debt loads. Graduates in 2005 were slightly more likely than those in 2000 to report difficulty repaying their loans. Given that university graduates typically earn more than college graduates and that loan defaults tend to be associated more with income levels than size of debt, it follows that college graduates would be more likely than university graduates to report difficulty making their payments.[13]

A number of jurisdictions have recently introduced public policies to assist those having difficulty repaying their student loans. The federal Repayment Assistance Plan (RAP), introduced in August 2009 to replace the existing Interest Relief and Debt Reduction in Repayment programs, establishes a repayment framework similar to that promoted by Schwartz and Baum. First, it restricts the repayment period to 15 years (ten years for borrowers with permanent disabilities). Second, it establishes payments on the basis of a borrower's income and family size. And third, it limits payments to a maximum of 20 percent of a borrower's income. Individuals participating in the RAP will have the payments they are able to make directed to reduce their loan principal (the interest will be covered by the federal government) for a period of up to five years. Individuals who need assistance beyond five years or have been in repayment for more than ten years will make affordable payments based on income and family size; the federal government will cover interest charges as well as a portion of the principal amount, such that the loan is paid off within 15 years of the borrower leaving school.[14] In Nova Scotia, the Enhanced Repayment Assistance Plan (which applies only to provincial loans) offers borrowers up to 54 months of assistance, during which payments will not exceed seven percent of the borrower's gross family income. Versions of the RAP have also been implemented in New Brunswick and Saskatchewan.

Rather than introduce a version of the RAP, the government of Newfoundland and Labrador announced in its 2009 budget the elimination of interest on provincial student loans. Beginning in August 2009, all provincial residents who have student loans no longer pay interest on the provincial portion of their loan. The interest-free status applies to all provincial student loans, regardless of the borrower's financial circumstances or current province of residence.

13. College graduates were also less likely to have medium or large debt loads. Forty-six percent of college graduates who borrowed reported less than $10,000 in debt, compared to 28 percent of bachelor's degree graduates.

14. During the second phase of the RAP, the federal government pays both the interest amount and the portion of the loan payment not covered by the borrower.

Chapter 7

VI. Conclusion

The story of student debt in Canada between 2000 and 2009 is as much the story of government policies to fund post-secondary education and support students as it is the story of borrowing. Particularly at the university level, student debt is influenced substantially by two factors: tuition policy and student financial aid. For most students, tuition is the single largest expenditure they make during the academic year, representing roughly one-third of their costs. As we saw in the 1990s, dramatic increases in tuition can easily lead to significant increases in both the incidence and amount of student debt. During that decade, university tuition and average student debt both doubled.

Student debt, however, does not necessarily increase in step with tuition. Between 1999–2000 and 2008–09, undergraduate tuition in Canada increased by 14 percent over and above inflation. Students who graduated in 2009 had only nine percent more debt than did graduates from the class of 2000. In fact, between 1999–2000 and 2004–05, despite tuition increasing by ten percent, the debt load of graduates in those two years declined by one percent. This did not occur by accident. At the end of the 1990s, governments significantly increased the amount of non-repayable financial aid, establishing and expanding programs designed specifically to reduce student debt loads. The introduction of the Canada Millennium Scholarship Foundation in 1999–2000 and the corresponding increases in need-based grants and loan remission offered by provincial governments allowed students to meet their growing costs without increasing their loan burden. During the second half of the decade, university student debt began to rise again, although the presence of debt reduction programs like those of the Foundation have allowed for a more moderate increase than that which occurred during the 1990s. Clearly, governments have the tools at their disposal to control—or even reduce—student debt.

Analysis of debt among college graduates is hampered by a lack of comprehensive data, but the trend appears to be similar to that of university graduates. Debt declined during the early part of this decade, and appears to have been increasing since. College graduates are significantly more likely than university graduates to report difficulty repaying their loans in the initial years after graduation. Given that loan defaults appear to be tightly linked to income levels and that college graduates earn less than university graduates, this comes as little surprise.

Governments in recent years have increasingly oriented their student debt policy toward the issue of debt manageability. The introduction of programs like the federal Repayment Assistance Plan streamlines existing measures like interest relief and debt reduction in repayment. Graduates who earn less than they expected—or not enough to make their loan payments—can reduce their payments to a manageable level without extending their "debt sentence" beyond 15 years. Although debt levels did not increase dramatically during this decade, they are not insignificant. For graduates entering a tight labour market, programs like the RAP may become popular rather quickly.

After Millennium?

The introduction of the Canada Millennium Scholarship Foundation resulted in a significant increase in the portion of student aid that is non-repayable and, as we have seen, contributed to the moderation of student debt levels after 2000. How will the end of the Millennium Bursary Program in 2008–09 affect students and the debt loads they carry?

In the first instance, average student debt should be unaffected, because the federal government introduced the Canada Student Grants Program to take over from the Millennium Bursary Program in 2009–10. While the Foundation's annual $335 million in need-based bursaries will disappear, $350 million in federal grants will take their place. In fact, since the funds provided through the new federal grants program are scheduled to rise each year—reaching $430 million by 2012–13—the new program may serve to reduce average student debt levels rather than simply maintaining them at present levels. This is, of course, good news for Canadian students who have to borrow to pay for their post-secondary education.

Secondly, the change in program will affect which students receive grants. The Foundation paid the majority ($285 million annually) of its need-based grants to students with high levels of need. The purpose was to help reduce the loans of those students who faced the steepest borrowing requirements. Beginning in 2005–06, the Foundation provided a further $50 million per year to students from low-income, rural and Aboriginal families who faced financial barriers to pursuing their studies, even though they might not have the highest levels of need (see Berger, 2008b, for a discussion of the difference between the two programs and types of recipients). The new Canada Student Grants Program, by contrast, will direct all of its funds to students from low- and moderate-income families, regardless of the size of their loans. This means that students with low incomes will see their debt go down, while other students whose incomes may be above the grant eligibility cut-offs but who have large loans will see their debt go up.

Third, the new program is designed to reach a greater number of students, although it will do this by lowering the value of the grant provided. The Millennium Bursary Program provided grants averaging $3,000 to approximately 90,000 students per year, while its access bursary program provided grants averaging $2,000 to approximately 25,000 students. The Canada Student Grants Program hopes to serve 245,000 students per year, but will do so with grants of either $2,000 or $800, depending on whether they are from families with low or moderate incomes. In short, then, more students will benefit from federally funded debt reduction, but the average benefit per student will be less—which means that some types of students will end up with less debt than would previously have been the case, while others will end up with more.

The final point concerns the interaction of federal and provincial student aid programs. When both levels of government provide similar benefits to the same clients, there is always a danger that, in the absence of coordination, spending increases by one level will be met by spending reductions by the other, leaving the clients no better off. This danger existed when the Canada Millennium Scholarship Foundation was created by the federal government without prior consultation with provinces and territories. The Foundation dealt with this problem through its bilateral negotiations with each jurisdiction that preceded the delivery of the first millennium bursaries. These negotiations led to commitments from provinces and territories to ensure that students would benefit fully from the injection of the new funds. By the time the Foundation introduced its access bursary program in 2005–06, its practice had evolved further to the point of coordinating the

After Millennium? *(continued)*

design of the program in advance with individual jurisdictions, to the point where in some cases joint Foundation-provincial programs were developed that provided even greater certainty that there would be no "displacement" of millennium funds. This concern to avoid the displacement of new spending is far from typical in federal-provincial relations; in fact, a review of recent federal spending initiatives showed that the Millennium Bursary Program was one of only a few cases where the issue was addressed (Lazar, 2008).

While the new Canada Student Grants Program continues the non-repayable funding previously provided by the Foundation, it does not continue the Foundation's model of coordinating the interaction of federal and provincial spending in advance with each jurisdiction. This will be of no consequence if provinces do not reduce the benefits they provide to students themselves in the period of adjustment that follows the introduction of the new federal program. If some provinces instead decide that they can no longer afford the reinvestments they had introduced in conjunction with the Millennium Bursary Program,[15] or more generally that the new federal spending gives them "room" to redirect their own spending away from non-repayable assistance, then the question of the displacement of funds will arise once again and, most importantly, student debt may increase. One of the biggest test cases will be Quebec, which has opted out of the Canada Student Loans Program. Quebec's share of the funding for the new federal grants program will be delivered as an "alternative payment" to the government rather than directly to students in the context of an agreement addressing the issue of displacement, as was the case with the Foundation. If the Quebec government chooses not to pass the federal funds on to students in the form of grants, then the federal program will not have produced an incremental benefit to students and debt will rise.

Only time will tell, therefore, whether the way in which federal funding for non-repayable aid is delivered—and not simply the amount—matters in terms of the objective of controlling student debt.

15. Millennium bursaries replaced provincial student loans and, in some cases, grants, creating savings for provinces which the latter, in the context of their bilateral agreements with the Foundation, committed to reinvesting in student aid or related programs. The new federal grants program pays down federal loans and so does not produce comparable savings for provinces. In the period following the switch from one program to the other, provinces will have to decide whether they can continue to fund the programs that originated from the savings produced by the interaction of their programs with the Millennium Bursary Program once these savings are no longer realized.

Conclusion: From Research to Action

Conclusion

From Research to Action

The Canada Millennium Scholarship Foundation was created in 1998 with a $2.5 billion fund and a mandate to "improve access to post-secondary education so that Canadians can acquire the knowledge and skills needed to participate in a changing economy and society." It was directed to achieve this mandate by granting scholarships "to students who are in financial need and who demonstrate merit." This led to the establishment of two flagship programs: a bursary program, which by and large helped reduce the amounts of money students with high levels of financial need had to borrow, and a merit scholarship program, which recognized academic achievement, community engagement, leadership and social innovation. By the time its ten years of providing bursaries and scholarships is completed at the end of 2009, it will have delivered $3.2 billion in awards to post-secondary students across Canada.

As instruments of public policy, however, foundations such as the Canada Millennium Scholarship Foundation were intended to do more than deliver funds to clients. They were expected to innovate, to harness the insight of experts and to focus it on specific policy issues (KPMG, 2007, 19). This—and concern that access-related policy was being made in the absence of comprehensive data and research about who was and was not participating in post-secondary education and why—prompted the Foundation to create the Millennium Research Program in 2001. By the time its work is done, the Program will have commissioned dozens of studies and published over 80 reports, including this volume—the fourth and final edition of *The Price of Knowledge*.

In the early days of the Program, a number of questions were identified for investigation. These included questions about who does and does not attend post-secondary education and why, about the amounts provided to students through student financial assistance programs, about the effectiveness of these programs, about the importance of financial barriers relative to other types of barriers to post-secondary education and about the situations of different types of student, including the different ways they pay for their college or university studies (Canada Millennium Scholarship Foundation, 2001 and 2003). Subsequently, through the development of the Millennium Pilot Projects, a number of questions were asked and investigations conducted to determine whether specific interventions could be demonstrated to have a positive and cost-effective impact on access or persistence. More recently, the Program has sought to deepen our understanding of the behaviour of particular groups of students (notably students from low-income families and Aboriginal students), of the various pathways that young people follow after high school and of the impacts of different types of financial aid programs. It has also highlighted how the country's changing demographics mean that efforts to increase the post-secondary participation of under-represented groups of students are more important than ever.

It would be reassuring to think that each of the research questions noted above had been answered definitively. Unfortunately, social science is rarely able to solve policy puzzles the way mathematicians can solve equations. Questions are seldom answered definitively. Each study adds to our knowledge but raises new issues for exploration that were previously overlooked. The more we learn, the more we wish we knew.

Despite this, it is important to acknowledge the progress that has been made. There is no doubt—as is hopefully evident from the material presented in the preceding chapters—that we know more about post-secondary students, the factors affecting access and persistence and the workings and effects of student support policies than we did a decade ago. We know more about who accesses post-secondary education and who doesn't, and we even know quite a lot more about why. We know how much the

14 governments involved in delivering student financial assistance in Canada spend on different programs and how these programs interact to the benefit or detriment of their clients. We know more about the goals and needs of different groups of students and are better able to appreciate what distinguishes college students from university students, older students from younger students, Aboriginal students from non-Aboriginal students, students from lower-income families from students from higher-income families, and so on. When the final results of the Millennium Pilot Projects become available, we will know more about which policies are likely to result in greater participation and success in post-secondary studies and which ones are not.

No one would ever pretend that this progress has stemmed uniquely from the Foundation's own efforts. Many others have been active in the field, including those who were researching access long before the Foundation was created. In particular, the development of new data sources by Statistics Canada over the course of this decade has underpinned important advances in our understanding of young Canadians' pathways into and out of the education system. The Foundation's contribution has been not only to commission research studies to complement those conducted by others, but to collect and organize findings from a variety of sources with the goal of better informing policy discussions related to participation in post-secondary studies. What's more, the Foundation's own research activities were only possible because it was able to work with a wide range of partners, whether other researchers or research agencies, provinces, schools, colleges or universities.

So where have these efforts brought us? As mentioned, most of the research questions remain open for continued exploration. At the same time, partly on the basis of the research the Foundation and others have conducted in recent years and partly on the basis of the Foundation's first-hand experience as an agency interacting with students, post-secondary institutions and governments, a number of important lessons have been learned. The inescapable need to continue research must not pre-empt us from drawing conclusions that can inform action.

First and foremost, it has become clear that access is not an issue that arises at a single moment in time, such as the moment following high school graduation when young people decide whether they will continue their studies or not. Access is an issue that must be addressed long before high school is complete and long after the first day of college or university classes has begun.

In short, all the work we have done to date has led us to conclude that an effective access policy must have three pillars:

- Better outreach to and preparation of students well before they reach post-secondary education;
- More effective student financial assistance programs;
- Improved support programs for students once they have enrolled in post-secondary education.

To some, this observation is but common sense, yet it is important to acknowledge that most policy discussions around access still deal only with the financial element and do not seriously engage with the questions of how to ensure more youth from under-represented backgrounds can be readied for the academic and social challenges of campus life and how they can be supported to succeed and excel once their classes start. Even discussions about the financial element do not always focus in a serious way on which types of financial support are likely to be most effective in improving access and persistence.

Beyond these three pillars, a number of specific lessons can be identified that help to define what an effective access policy should look like.

- Since students from segments of the population currently under-represented at the post-secondary level face a complex set of interacting barriers, policy responses must be comprehensive, which means they must include financial assistance as well as academic and other forms of student support.

- Support programs should take effect long before the student has completed high school. Many students could benefit from being recruited into outreach programs as early as elementary school or the first years of high school.
- Student financial assistance programs should be modernized to ensure not only that they reach students early enough to influence their educational aspirations and planning, but also that they are easy to access and navigate, that they deliver the best types of aid to the students who need it most, that they adequately covers costs and that they keep debt levels in check.
- Strategies to improve access to post-secondary education should include career development initiatives. Career development can provide students, including those from under-represented groups, with the information, skills and strategies they need to help them navigate the transitions from secondary to post-secondary education to the labour market.
- Institutional outreach initiatives must go hand-in-hand with "in-reach." This means that colleges and universities must go beyond the question of access to address the question of how best to support different types of learners during their studies to ensure success. Most importantly, post-secondary institutions must recognize that better education outcomes require changes to the institutions themselves—in terms of the way they relate to students at every stage of their journey through the education system—and not just changes to the students.
- Governments should seek to maximize value for money by directing their financial support for students to programs that are likely to have a positive impact on the objective of improving access and student success (such as grants for students facing financial barriers). Since public resources are limited, such programs should be given priority over expensive programs that do little to improve education outcomes, such as universal tax credits or rebates.
- Appropriate government programs are the backbone of any access strategy, but governments acting alone cannot achieve the progress that is required. Community organizations, businesses and post-secondary institutions all must play their parts in reaching out to young Canadians to encourage them to raise their aspirations and to equip them with the skills and resources they need to succeed in higher education.
- "One size fits all" approaches are rarely appropriate. Students (or prospective students) from different parts of the country or from different groups face different challenges and are likely to respond differently to particular programs. Moreover, it is not only young people finishing high school who stand to benefit from programs to facilitate transitions into higher education and the labour market; access strategies should focus on adult learners as well. Program design and delivery must be flexible enough to respond to these realities.
- Programs must be evaluated to ensure they are having the intended impact. In practice, too few policies to improve access and student success programs are properly evaluated. Governments and non-governmental organizations must embrace a "culture of evidence" that leads them to collect and analyze the data needed to reach conclusions about whether their programs are achieving the expected results.
- The country's diversity should be used to its advantage. Rather than lament the lack of a federal ministry of education, Canada should take full advantage of the learning and partnership opportunities that stem from having 13 different education systems within one country.

As the Foundation closes, then, it leaves behind these observations, along with the many other findings summarized in this volume, in the hope that they can form a coherent starting point for subsequent policy-making to improve access to post-secondary education—a starting point of the type that was lacking when the Foundation itself opened its doors. Clearly, this list is hardly a detailed "how to" manual, one that is easy to implement and that can guarantee success. Rather, it is a general guiding framework that

can point policy-makers and practitioners in the right direction to ensure that gradual progress can be made.

Meanwhile, the research itself should continue. As mentioned above, it is possible to celebrate the advances in knowledge that have been made while being conscious of how much we still do not know. It would be a mistake to think that all the questions have been answered. At the very least, changing economic conditions and the continuing evolution of government programs make it necessary to stay on top of trends in post-secondary participation and persistence. Equally important is the dissemination of research in a manner that makes it accessible and useful to practitioners. Research on access must continue, but it must not continue simply for the benefit of researchers.

At the same time, while new data should continue to be collected, there is also the need to make better use of the data that already exist. These include not only national survey data such as those collected by Statistics Canada, but also provincial and institutional administrative data which might hold many lessons about how programs affect particular students in particular circumstances, if only they could be accessed for this purpose. Thinking about how to broaden the range of data that is collected is important, but so is asking the right questions of the information that is already at hand.

This book ends, therefore, with two messages that hopefully appear complementary and not contradictory. First, research must continue in order to inform action. Second, we do not need to wait for more research in order to act intelligently. We hope that the research conducted by the Foundation has not only established the rationale for action—the connection between the country's future economic prosperity and quality of life and its ability to improve access to and success in post-secondary education—but that it has also succeeded in establishing the general directions that policy needs to take.

At the end of the day, however, research on its own does not solve problems. Progress is made through the actions of dedicated individuals in all sectors who seek to provide opportunities in higher education to Canadians from all backgrounds. These individuals work in a variety of settings: in legislatures; in government departments and offices; in schools, colleges and universities; in community organizations; and in businesses. We wish all of them the best of luck, for Canada needs them to succeed.

Andrew Parkin
Montreal
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Bibliography

Allard, Real, Rodrigue Landry and Kenneth Deveau. 2009. *And After High School? A Pan-Canadian Study of Grade 12 Students in French-Language Schools in Minority Settings — Executive Summary*. Montreal: Canada Millennium Scholarship Foundation.

Allen, Mary, and Chantal Vaillancourt. 2004. *Class of 2000: Profile of Post-Secondary Graduates and Student Debt*. Ottawa: Statistics Canada.

Asher, Lauren. *2007 Going to the Source: A Practical Way to Simplify the FAFSA*. Berkeley: The Institute for College Access and Success.

Association of Universities and Colleges of Canada. 2007. *Trends in Higher Education: Volume 1—Enrolment*. Ottawa: AUCC.

Association of Universities and College of Canada. 2009. "Universities Matter: How Canada's Universities Contribute to Economic Recovery and Long-Term Prosperity." Pre-budget Submission to the House of Commons Standing Committee on Finance, August 14, 2009 (www.aucc.ca/_pdf/english/reports/2009/prebudget_08_14_e.pdf).

Baldwin, Noel. Forthcoming. *The Limits and Opportunities for Simplifying Student Aid in Canada*. Montreal: Canada Millennium Scholarship Foundation.

Baldwin, Noel, and Andrew Parkin. 2007. "The Case for Modernizing Student Financial Assistance in Canada." *Policy Options*. 28(10): p.47-53.

Baum, Sandy and Saul Schwartz. Forthcoming. *Toward a Realistic Concept of Post-secondary Affordability*. Montreal: Canada Millennium Scholarship Foundation.

Bayard, Justin, and Edith-Elizabeth Greenlee. 2009. *Graduating in Canada: Profile, Labour Market Outcomes and Student Debt of the Class of 2005*. Ottawa: Statistics Canada.

Beatty, Perrin, and Claire M. Morris. 2008. "The Key to Meeting Canada's Crucial Skills Challenge." Web-only commentary published by *The Globe and Mail* (www.aucc.ca/publications/media/2008/oped_globe_02_26_e.html).

Belzil, Christian, and Jorgen Hansen. 2006. *Educational Attainment in Canada: Effects of Individual Attributes and Expected Outcomes*. HISSRI Working Paper 2006 C-11.

Berger, Joseph. 2007. *A New Kind of Student Aid: Creating, Implementing and Assessing the Millennium Access Bursaries*. Montreal: Canada Millennium Scholarship Foundation.

Berger, Joseph. 2008a. *"Why Access Matters Revisited": A Review of the Latest Research*. Millennium Research Note #6. Montreal: Canada Millennium Scholarship Foundation.

Berger, Joseph. 2008b. *A New Kind of Student Aid: Creating, Implementing and Assessing the Millennium Access Bursaries*. Millennium Research Note #7. Montreal: Canada Millennium Scholarship Foundation.

Berger, Joseph, Anne Motte, and Andrew Parkin. 2007. *The Price of Knowledge: Access and Student Finance in Canada*. 3rd ed. Montreal: Canada Millennium Scholarship Foundation.

Berger, Joseph, and Andrew Parkin. 2008. *Ten Things You Need to Know about Financial Support for Post-Secondar Students in Canada*. Millennium Research Note #5. Montreal: Canada Millennium Scholarship Foundation.

Boarini, Romina, and Hubert Strauss. 2007. *The Private Internal Rates of Return to Tertiary Education: New Estimates for 21 OECD Countries*. OECD Economics Department Working Paper No. 591.

Boggs, Andrew Michael. 2009. "Ontario's University Tuition Framework: A History and Current Policy Issues." *Canadian Journal of Higher Education* 39(1): 73–87.

Boothby, Daniel, and Torben Drewes. 2006. "Returns to University, College and Trades Education." *Canadian Public Policy* 32(1): p. 1–21.

Brooks, Bradley. 2005. *Chronic Unemployment: A Statistical Profile*. Ottawa: Statistics Canada.

Canada. 2008. *Canada Education Savings Program: Annual Statistical Review*. Ottawa: Human Resources and Social Development Canada.

_____. 2009. *Canada Student Loans Program Annual Report 2006-2007*. Ottawa: Human Resources and Social Development Canada.

Canada Millennium Scholarship Foundation. 2001. *Does Money Matter?* Montreal: Canada Millennium Scholarship Foundation.

Canada Millennium Scholarship Foundation. 2003. *Does Money Matter? II (2003-2004)*. Montreal: Canada Millennium Scholarship Foundation.

Canada Millennium Scholarship Foundation. 2006a. *The Impact of Bursaries: Debt and Student Persistence in Post-Secondary Education*. Millennium Research Note #4. Montreal: Canada Millennium Scholarship Foundation.

Canada Millennium Scholarship Foundation. 2006b. *Closing the Access Gap: Does Information Matter?* Montreal: Canada Millennium Scholarship Foundation.

Canadian Career Development Foundation. 2007. *Applying the Construct of Resilience to Career Development: Lessons from Curriculum Development*. Montreal: Canada Millennium Scholarship Foundation.

Canadian Council on Learning. 2007. "Canada's PSE Performance: File under 'M' for Missing" (www.ccl-cca.ca/CCL/Newsroom/Releases/20070920ReleaseCanadasPSEperformance.htm).

CanLearn. 2009. "Repayment Assistance Plan." (www.canlearn.ca/eng/after/repaymentassistance/rpp.shtml).

Carmichael, Lorne, and Ross Finnie. 2008. "Family Income, Access to Post-Secondary Education and Student Grants: Why Equal Access Requires More Than Loans." In *Who Goes? Who Stays? What Matters?: Accessing and Persisting in Post-Secondary Education in Canada*. Eds. R. Finnie, R.E. Mueller, A. Sweetman, and A. Usher. Montreal and Kingston: McGill-Queen's University Press.

CBC.ca. 2009. *Universities seek students, private contracts amid funding crunch*. CBC.ca News, April 17.

Certified General Accountants Association of Canada. 2007. *Where Does the Money Go: The Increasing Reliance on Household Debt in Canada*. Burnaby: Certified General Accountants Association of Canada.

Chambers, Tony, Mahadeo Sukai, & Melissa Bolton. Forthcoming. *Assessment of Debt Load and Financial Barriers Affecting Students with Disabilities in Canadian Post-Secondary Education*. Montreal: Canada Millennium Scholarship Foundation.

Charbonneau, Léo. 2007. "Busting the Myth of an Enrolment Bust," *University Affairs*, April 10, 2007.

Charron, Jocelyn. Forthcoming. *The Genesis of the Millennium Pilot Projects Program*. Montreal: Canada Millennium Scholarship Foundation.

Chawla, Raj K. and Ted Wannell. 2005. "Spenders and Savers." *Perspectives on Labour and Income* (March): 5-13.

Chemin, Matthieu (2009). *Does Student Financial Aid Cause More Participation In and Graduation From University? Evidence from the Quebec Student Aid reform.* A MESA Project Research Paper. Toronto, ON: Educational Policy Institute.

Chung, Lucy. 2006. "Education and Earnings," *Perspectives on Labour and Income* 7(6): p. 5–12.

Church, Elizabeth. 2008. "Students Chart Zigzag Routes, Study Finds." *The Globe and Mail*, July 14.

College Board. 2008. *Fulfilling the Commitment: Recommendations for Reforming Federal Student Aid*. New York: The College Board.

Côté, James E., and Anton L. Allahar. 2007. *Ivory Tower Blues*. Toronto: University of Toronto Press.

Day, Kathleen. 2008. "A Tangled Web: The Relationship between Persistence and Financial Aid." In *Who Goes? Who Stays? What Matters?: Accessing and Persisting in Post-Secondary Education in Canada*. Eds. R. Finnie, R.E. Mueller, A. Sweetman, and A. Usher. Montreal and Kingston: McGill-Queen's University Press.

Dehaas, Josh. 2009. "Let's Make University Elite Again," *Macleans OnCampus*, March 19 (oncampus.macleans.ca/education/2009/03/19/lets-make-university-elite-again/).

Demers, Marius. 2008. *Rate of Return on a Bachelor's Degree: For Individuals and for the State*. Education Statistics Bulletin No. 38. Quebec City: Government of Quebec.

Doray, Pierre, France Picard, Claude Trottier, and Amélie Groleau. 2009. *Transitions—Educational Pathways: Some Key Concepts*. Montreal: Canada Millennium Scholarship Foundation.

Drewes, Torben (2009). *The University Gender Gap: The Role of High School Grades*. MESA Project Research Paper. Toronto, ON: Educational Policy Institute.

Drolet, Marie. 2005. *Participation in Post-Secondary Education in Canada: Has the Role Changed over the 1990s?* Ottawa: Statistics Canada.

Dubois, Julie. 2008. Outcomes for Alternate Pathways. Strategic Policy and Research Report SP-784-05-07E. Gatineau, Human Resources and Social Development Canada.

Dynarski, Susan and Judith Scott-Clayton. 2007. *College Grants on a Postcard: A Proposal for Simple and Predictable Federal Student Aid*. Washington, D.C.: The Brookings Institution.

Educational Policy Institute. Forthcoming. *MESA Annual Report 2008*. Montreal: Canada Millennium Scholarship Foundation.

EKOS. 2009. *An Examination of Barriers to Pursuing PSE and Potential Solutions*. Montreal: Canada Millennium Scholarship Foundation and Toronto: Council of Ministers of Education, Canada.

Emery, Herb. 2005. "Total and Private Returns to University Education in Canada: 1960–2030 and in Comparison to Other Post-Secondary Training," in Charles M. Beach, Robin W. Boadway and R. Marvin McInnis (eds.), *Higher Education in Canada*, John Deutsch Institute, p. 77–112.

Fédération étudiante universitaire du Québec. 2008. *Student Financial Assistance (SFA) Kit*. Ed. Daniel Pierre-Roy and Benjamin Laplatte. Montreal: FEUQ.

Ferrer, Ana M., and Alicia Menendez. 2009. *The Returns to Flexible Postsecondary Education: The Effect of Delaying School*. Canadian Labour Market and Skills Researcher Network Working Paper No. 17. Ottawa: Human Resources and Social Development Canada.

Ferrer, Ana M., and W. Craig Riddell. 2002. "The Role of Credentials in the Canadian Labour Market," *Canadian Journal of Economics* 35(4): p. 879–905.

Finnie, Ross and David Johnson. Forthcoming. *Taking a Gap Year: Evidence from YITS-A*. MESA Project Research Paper. Toronto, ON: Educational Policy Institute.

Finnie, Ross, and Richard E. Mueller. 2009. *Access to Post-Secondary Education in Canada Among the Children of Canadian Immigrants*. MESA Project Research Paper. Toronto: Educational Policy Institute.

Finnie, Ross and Richard E. Mueller. Forthcoming. *Access to Post-Secondary Education in Canada: Differences Between Provinces*. MESA Project Research Paper. Toronto: Educational Policy Institute.

Finnie, Ross, and Hanqing Theresa Qiu. 2008. "Is the Glass (or Classroom) Half-Empty or Nearly Full? New Evidence on Persistence in Post-Secondary Education in Canada" In Ross Finnie *et al.*, eds., *Who Stays? Who Goes? What Matters? Accessing and Persisting in Post-Secondary Education in Canada*. Kingston: McGill-Queen's University Press.

Finnie, Ross and Hanqing Theresa Qiu. 2009. *Moving Through, Moving On: Persistence in Post-secondary Education in Atlantic Canada—Evidence from the PSIS*. Ottawa: Statistics Canada, Centre for Education Statistics.

Finnie, Ross and Hanqing (Theresa) Qiu. Forthcoming. "Persistence in Post-Secondary Education in Canada: Background Effects." Unpublished manuscript.

Frenette, Marc. 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.

_____. 2008. "Why Are Lower-Income Students Less Likely to Attend University?: Evidence from Academic Abilities, Parental Influences, and Financial Constraints." *In Who Goes? Who Stays? What Matters?: Accessing and Persisting in Post-Secondary Education in Canada*. Eds. R. Finnie, R.E. Mueller, A. Sweetman, and A. Usher. Montreal and Kingston: McGill-Queen's University Press.

_____. Forthcoming. *What Explains the Educational Attainment Gap between Aboriginal and Non-Aboriginal Youth?* Unpublished manuscript.

Frenette, Marc, and Klarka Zeman. 2008. "Understanding the Gender Gap in University Attendance: Evidence Based on Academic Performance, Study Habits, and Parental Influences." In *Who Goes? Who Stays? What Matters?: Accessing and Persisting in Post-Secondary Education in Canada*. Eds. R. Finnie, R.E. Mueller, A. Sweetman, and A. Usher. Montreal and Kingston: McGill-Queen's University Press.

Globe and Mail. 2005. "Why Quebec Should Let Its Tuition Fees Rise," *The Globe and Mail*, February 14, A12.

Grayson, J. Paul, and Kyle Grayson. 2003. *Research on Retention and Attrition*. Montreal: Canada Millennium Scholarship Foundation.

Groux, David. 2007. *Portrait statistique de la participation aux études postsecondaires des jeunes Canadiens en 2004-2005*. Unpublished manuscript.

Hango, Darcy, and Patrice de Broucker. 2007a. *Postsecondary Enrolment Trends to 2031: Three Scenarios*. Ottawa: Statistics Canada.

_____. 2007b. *Education-to-Labour-Market Pathways of Canadian Youth: Findings from the Youth in Transition Survey*. Ottawa: Statistics Canada.

Hansen, Jorgen. 2007. *Education and Early Labour Market Outcomes*. Ottawa: Human Resources and Social Development Canada.

Heisz, Andrew. 2007. *Income Inequality and Redistribution in Canada: 1976 to 2004* Ottawa: Statistics Canada.

Hossler, Don, Mary Ziskin, Sooyeon Kim, Osman Cekic, and Jacob P.K. Gross. 2008. "Student Aid and Its Role in Encouraging Persistence." In Sandy Baum, Michael Macpherson and Patricia Steele, eds., *The Effectiveness of Student Aid Policies: What the Research Tells Us*. New York: The College Board.

Human Resources and Social Development Canada, 2007. *The Review of Canada Millennium Scholarship Foundation Bursaries: A Macro Study*. Ottawa: Human Resources and Social Development Canada.

Institute for Higher Education Policy. 1998. *Reaping the Benefits: Defining the Public and Private Value of Going to College*. Washington, DC: Institute for Higher Education Policy.

Junor, Sean, and Alex Usher. 2004. *The Price of Knowledge: Access and Student Finance in Canada*. 2nd ed. Montreal: Canada Millennium Scholarship Foundation.

Kapsalis, Constantine. 2006. *Factors Affecting the Repayment of Student Loans*. Ottawa: Statistics Canada.

KPMG Advisory Services. 2007. *Final Report: Evaluation of Foundations*. Ottawa: Treasury Board Secretariat.

Kroes, Geneviève. 2008. *Aboriginal Youth in Canada: Emerging Issues, Research Priorities, and Policy Implications*. Ottawa: Policy Research Initiative.

Labrie, Normand, Sylvie Lamoureux and Denise Wilson. 2009. *L'accès des francophones aux études postsecondaires en Ontario : le choix des jeunes*. Toronto : Centre de recherche en éducation franco-ontarienne.

Lachance, Marie, Pierre Beaudoin and Jean Robitaille. 2006. "Quebec young adults' use of and knowledge of credit." *International Journal of Consumer Studies*, 30, 4 July, pp347–359.

Lambert, Mylène, Klarka Zeman, Mary Allen, and Patrick Bussière. 2004. *Who Pursues Postsecondary Education, Who Leaves and Why: Results from the Youth in Transition Survey*. Ottawa: Statistics Canada.

Lazar, Harvey. 2008. *Displacement in Federal Transfer Payments: Exploring Concept and Practice with Special Reference to the Canada Millennium Scholarship Foundation*. Montreal: Canada Millennium Scholarship Foundation.

Lefebvre, Pierre and Philip Merrigan. Forthcoming. *Gender Gap in Dropping out of High School: Evidence from the Canadian NLSCY Youth*. Montreal: Canada Millennium Scholarship Foundation.

Lero, D., T. Smit Quosai, T. van Rhijn. 2007. *Access to Post-Secondary Education for Student Parents: Final Report*. Report prepared for Human Resources and Social Development Canada..

Levin, Ben. 2009. Commission on Tuition Fees and Accessibility to Post-Secondary Education in Manitoba: Report to the Minister of Manitoba Advanced Education and Literacy. Winnipeg: Government of Manitoba.

Lleras-Muney, Adriana. 2005. "The Relationship between Education and Adult Mortality in the United States," Review of Economic Studies 72 (January): p. 189–221.

Lleras-Muney, Adriana, and Frank R. Lichtenberg. 2002. "The Effect of Education on Medical Technology Adoption: Are the More Educated More Likely to Use New Drugs?" National Bureau of Economic Research Working Paper No. 9185.

Looker, E. Dianne. 2009. *Regional Differences in Canadian Rural-Urban Participation Rates in Post-Secondary Education*. A MESA Project Research Paper. Toronto, ON: Educational Policy Institute

Looker, E. Dianne and Victor Thiessen. 2008. *The Second Chance System: Results from the Three Cycles of the Youth in Transition Survey*. Ottawa: Human Resources and Social Development.

Ma, Xin and George Frempong. 2008. *Reasons for Non-Completion of Postsecondary Education and Profile of Postsecondary Dropouts*. Ottawa: Human Resources and Social Development Canada.

Malatest, R.A. & Associates Ltd. 2004. *Aboriginal Peoples and Post-Secondary Education: What Educators Have Learned*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2007. *The Class of 2003 High School Follow-Up Survey*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2008. *Survey of Canadian Career College Students*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2009a. *Foundations for Success: Early Implementation Report*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2009b. *Foundations for Success: Early Implementation Report—Executive Summary*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2009c. *Foundations for Success: Short-Term Impacts Report*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2009d. *Survey of Canadian Career College Students, Phase III: Graduate Survey*. Montreal: Canada Millennium Scholarship Foundation.

Malatest, R.A. & Associates Ltd. and Blair Stonechild. 2008. *Factors Affecting the Use of Student Financial Assistance by First Nations Youth*. Montreal: Canada Millennium Scholarship Foundation.

Malick, Heather. 2009. "Time to Shrink the University," CBCNews.ca, February 27 (www.cbc.ca/canada/story/2009/02/27/f-vp-mallick.html).

Maritime Provinces Higher Education Commission. 2009. *University Participation: Measures of Student Progress and Outcomes* (www.mphec.ca/en/research/participation.aspx).

Marshall, Jim. 2007. "Returns to Education: International and National Evidence," *SIPP Briefing Note* 19 (March).

Martinello, Felice. 2008. "Transitions and Adjustments in Students' Post-Secondary Education." In Ross Finnie *et al.*, eds., *Who Stays? Who Goes? What Matters? Accessing and Persisting in Post-Secondary Education in Canada*. Kingston: McGill-Queen's University Press.

Martinello, Felice. 2009. "Effects of University Characteristics and Academic Regulations on Student Persistence, Degree Completion, and Time to Degree Completion." A MESA Project Research Paper. Toronto, ON: Educational Policy Institute

McElroy, Lori. 2004. *The Millennium Bursary in B.C.: Exploring Its Impact*. Montreal: Canada Millennium Scholarship Foundation.

_____. 2005a. *Student Aid and University Persistence: Does Debt Matter?* Montreal: Canada Millennium Scholarship Foundation.

_____. 2005b. *The Millennium Bursary in Manitoba: Exploring Its Impact.* Montreal: Canada Millennium Scholarship Foundation.

_____. 2008a. *The Millennium Bursary in New Brunswick: Impact on Debt and Persistence.* Montreal: Canada Millennium Scholarship Foundation.

_____. 2008b. *In Pursuit of PSE: Whether and When to Go On.* Montreal: Canada Millennium Scholarship Foundation.

_____. 2009. *Examination of the Impact of the Provincial Need Assessment Process.* Toronto: Council of Ministers of Education, Canada.

Mendelson, Michael. 2006. *Aboriginal Peoples and Post-Secondary Education*. Ottawa: Caledon Institute of Social Policy.

Ministère de l'Éducation, du Loisir et du Sport (MELS). 2008. Statistiques de l'éducation: Enseignement primaire, secondaire, collégial et universitaire. Quebec: MELS.

Morissette, René, and Feng Hou. 2006. "Unemployment Since 1971," *Perspectives on Labour and Income* 7(5): p. 11–16.

Morissette, René, and Xuelin Zhang. 2006. "Revisiting Wealth Inequality," *Perspectives on Labour and Income* 7(12): p. 5–16.

Motte, Anne, and Saul Schwartz. 2009. *Are Student Employment and Academic Success Linked?* Millennium Research Note #9. Montreal: Canada Millennium Scholarship Foundation.

Munroe-Blum, Heather, and Peter MacKinnon. 2009. "Canada's Innovation Deficit." *Policy Options* 30(5): p. 8–10.

Neill, Christine. 2007. *Canada's Tuition and Education Tax Credits*. Montreal: Canada Millennium Scholarship Foundation.

Nova Scotia. 2009. "Department of Education: Student Assistance: Managing and Repaying your Loan" (studentloans.ednet.ns.ca/repayment_options01.shtml).

Organisation for Economic Cooperation and Development. 2008. *Education at a Glance 2008*. Paris: OECD.

Ouellette, S. (2006). *How Students Fund their Post-Secondary Education: Findings from the Post-Secondary Education Participation Survey*. Ottawa: Statistics Canada.

Parkin, Andrew, and Noel Baldwin. 2009. *Persistence in Post-Secondary Education in Canada: The Latest Research*. Montreal: Canada Millennium Scholarship Foundation.

Polytechnics Canada. 2009. "Submission to the House of Commons Standing Committee on Finance's 2009 Pre-Budget Consultations." (www.polytechnicscanada.ca/pdf/publications/publications/pc_fina2009.pdf).

Prairie Research Associates. 2007a. First-Year University Student Survey prepared for the Canadian Survey University Consortium.

Prairie Research Associates. 2007b. *Report on Student Debt.* Montreal: Canada Millennium Scholarship Foundation.

Prairie Research Associates. 2009a. *Graduating Students Survey* (unpublished).

Prairie Research Associates. 2009b. *Canadian College Student Survey* (unpublished).

Rae, Bob. 2005. *Ontario: A Leader in Learning—Report and Recommendations*. Toronto: Ontario Ministry of Training, Colleges and Universities.

Raymond, Mélanie. 2008. *High School Dropouts Returning to School*. Ottawa: Statistics Canada.

Richards, John. 2008. *Closing the Aboriginal/Non-Aboriginal Education Gaps*. Ottawa: C.D. Howe Institute.

Riddell, W. Craig. 2006. *The Impact of Education on Economic and Social Outcomes: An Overview of Recent Advances in Economics*. Ottawa: Canadian Policy Research Networks.

Santiago, Paulo, Karine Tremblay, Ester Basri and Elena Arnal. 2008. *Tertiary Education for the Knowledge Society*, Volume 2. Paris: OECD.

Schwartz, Saul, and Sandy Baum. 2006. *How Much Debt Is Too Much?: Defining Benchmarks for Manageable Student Debt*. New York: The College Board.

Shaienks, Danielle, Eisl-Culkin, Judy, and Bussière, Patrick. 2006. *Follow-Up on Education and Labour Market Pathways of Young Canadians Aged 18 to 20—Results from YITS Cycle 3.* Ottawa: Statistics Canada.

Shaienks, Danielle, and Gluszynski, Tomasz. 2007. *Participation in Postsecondary Education: Graduates, Continuers and Drop Outs—Results from YITS Cycle 4*. Ottawa: Statistics Canada.

Shaienks, Danielle and Gluszynski, Tomasz. 2009. *Education and Labour Market Transitions in Young Adulthood*. Ottawa: Statistics Canada.

Shaienks, Danielle, Gluszynski, Tomasz, and Bayard, Justin. 2008. *Postsecondary Education: Participation and Dropping Out: Differences Across University, College and Other Types of Postsecondary Institutions*. Ottawa: Statistics Canada.

Sharpe, Andrew, Jean-François Arsenault, and Simon Lapointe. 2007. *The Potential Contribution of Aboriginal Canadians to Labour Force, Employment, Productivity and Output Growth in Canada, 2001–2017*. Ottawa: Centre for the Study of Living Standards.

Sharpe, Andrew, Jean-François Arsenault, Simon Lapointe and Fraser Cowan. 2009. *The Effect of Increasing Aboriginal Educational Attainment on the Labour Force, Output and the Fiscal Balance*. Ottawa: Centre for the Study of Living Standards.

Social Research and Demonstration Corporation (SRDC). 2009. *Future to Discover: Interim Impacts Report*. Montreal: Canada Millennium Scholarship Foundation.

Stapleton, J. 2007. *Why is it So Tough to Get Ahead? How Our Tangled Social Programs Pathologize the Transition to Self-Reliance*. Toronto: Metcalf Foundation.

Statistics Canada. Ongoing. Post-Secondary Student Information System. Ottawa: Statistics Canada.

_____. Ongoing. Survey of Labour and Income Dynamics. Ottawa: Statistics Canada.

_____. Ongoing. *Estimates of Population, by Age Group and Sex for July 1, 2008, Canada, Provinces and Territories, Annual (Persons Unless Otherwise Noted)*. CANSIM (database) Table 051-0001. Ottawa: Statistics Canada.

Statistics Canada. 2004. "Distance as a Postsecondary Access Issue." *Education Matters* April (1).

_____. 2006a. *The Wealth of Canadians: An Overview of the Results of the Survey of Financial Security 2005*. Ottawa: Statistics Canada.

_____. 2006b. Census of Population. Ottawa: Statistics Canada.

_____. 2007. "Personal Debt," *Perspectives on Labour and Income* (January): 28–34.

_____. 2008a. *Earnings and Incomes of Canadians Over the Past Quarter Century, 2006 Census*. Ottawa: Statistics Canada.

_____. 2008b. *Educational Portrait of Canada, 2006 Census*. Ottawa: Statistics Canada.

_____. 2008c. *Immigration in Canada: A Portrait of the Foreign-Born Population, 2006 Census*. Ottawa: Statistics Canada.

_____. 2009a. *2006 Census of Population*. Ottawa: Statistics Canada.

_____. 2009b. "Labour Force Survey." *The Daily*, May 8, 2009.

_____. 2009c. *Income in Canada: 2007*. Ottawa: Statistics Canada.

Statistics Canada, 2009d. Household Spending on Education – Catalogue no. 81-599-X — Issue no. 001 Retrieved, June 3rd 2009: http://www.cmec.ca/Publications/Lists/Publications/Attachments/195/81-599-x2009001-eng.pdf

Thiessen, Victor. 2009. *The Pursuit of Post-Secondary Education: A Comparison of First Nations, African, Asian and European Canadian Youth*. Working Paper No. 19. Vancouver: Canadian Labour Market and Skills Researcher Network.

Torjman, Sherri. 2009. *Student Aid Meets Social Assistance*. Ottawa: Caledon Institute of Social Policy.

University of Victoria. 2008. *LE,NONET Project: A Pilot Project to Support the Success of Aboriginal Post-Secondary Students*. Montreal: Canada Millennium Scholarship Foundation.

U.S. Department of Education. 2009. "Obama Administration Announces Streamlined College Aid Application." Press release, June 24. Accessed October 5: www.ed.gov/news/pressreleases/2009/06/06242009.html

Usalcas, J. & Bowlby, G. (2006). "Students in the labour market." *Education Matters*. 3(1).

Usher, Alex. 2006. *Beyond the Sticker Price — A Closer Look at Canadian Tuition Fees*. Toronto: Educational Policy Institute.

Usher, Alex, and Patrick Duncan. 2008. *Beyond the Sticker Shock 2008: A Closer Look at Canadian Tuition Fees*. Toronto: Educational Policy Institute.

Usher, Alex, and Ryan Dunn. 2009. *On the Brink: How the Recession of 2009 Will Affect Post-Secondary Education*. Toronto: Educational Policy Institute.

Wente, Margaret. 2008. "Who Needs University Anyway?: It's Not That Too Few Kids Go, But Too Many—We Are Setting Them Up for Failure," *The Globe and Mail*, May 24, A23.

Zeman, Klarka. 2008. "A first look at provincial differences in educational pathways from high school to college and university." *Education Matters* 4(2).

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