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Participation in Post-Secondary Education: Recent Trends

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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.

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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).

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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)*

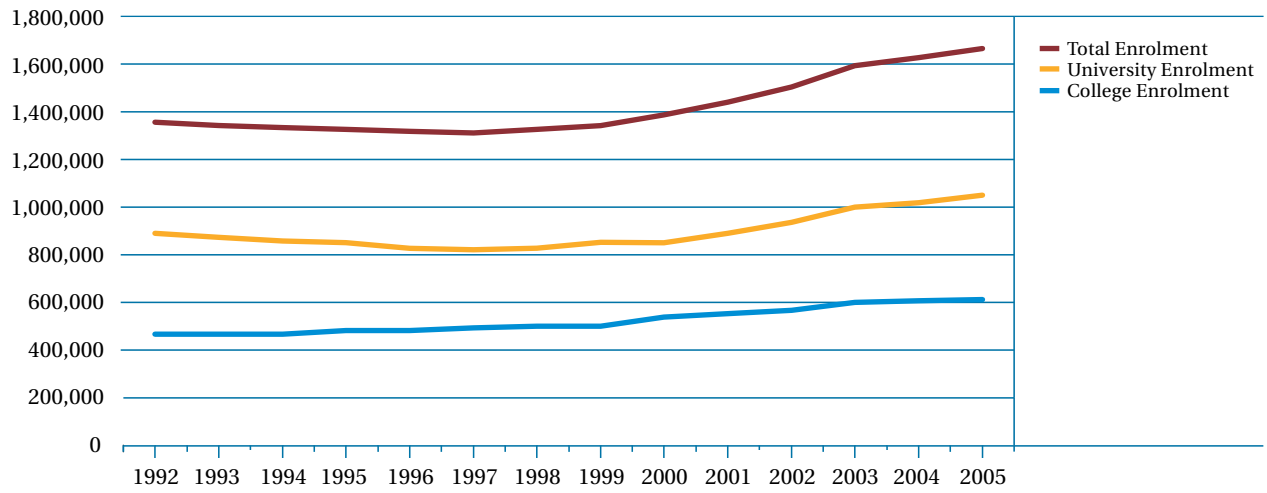
an opportunity for them to acquire job-related training through comparatively short courses which, while costly (average annual tuition is $14,364), can be completed without having to leave work for two or more years.

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.

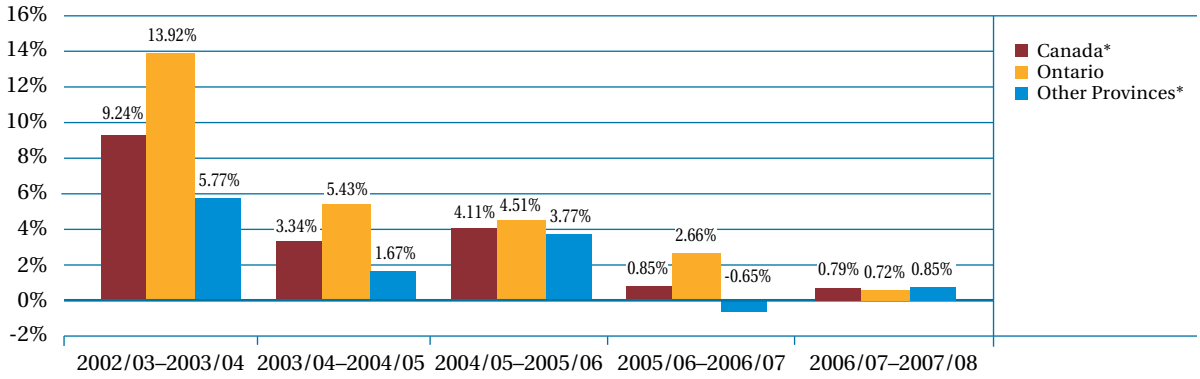
Figure 2.III.1 — University and College Enrolment in Canada, 1992 to 2005



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.

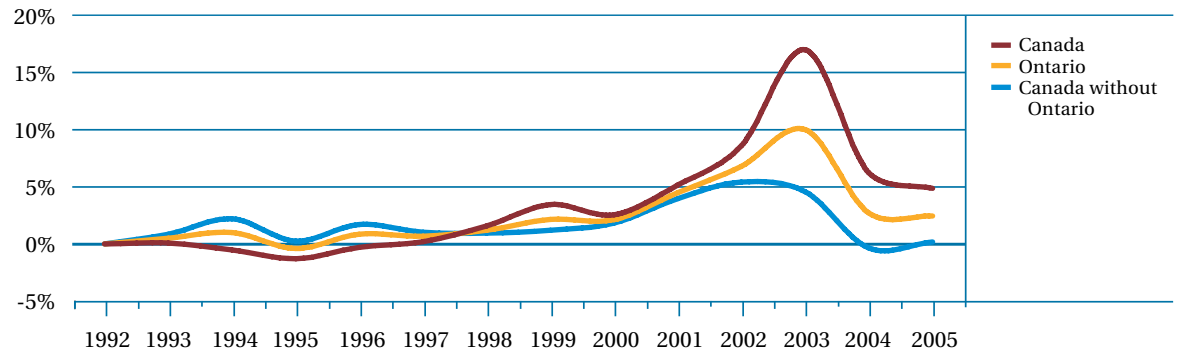
At the college level, enrolment has increased since 1992 in some regions, while remaining fairly constant in others. In the Atlantic, the expansion of the college systems in New Brunswick and Nova Scotia coincided with a tripling of enrolment between 1992–93 and 2005–06. That said, the

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

Regional Trends in Enrolment *(continued)*

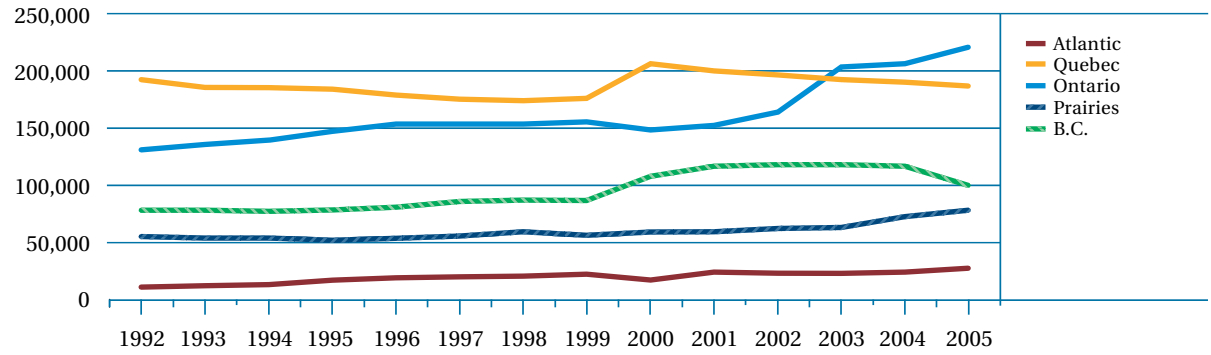
college sector remains relatively small in the region. The 28,293 Atlantic college students represented slightly more than one-fifth of the region's total student population in 2005–06. In the Prairie provinces of Manitoba, Saskatchewan and Alberta, college enrolment has increased by 23,000 students 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



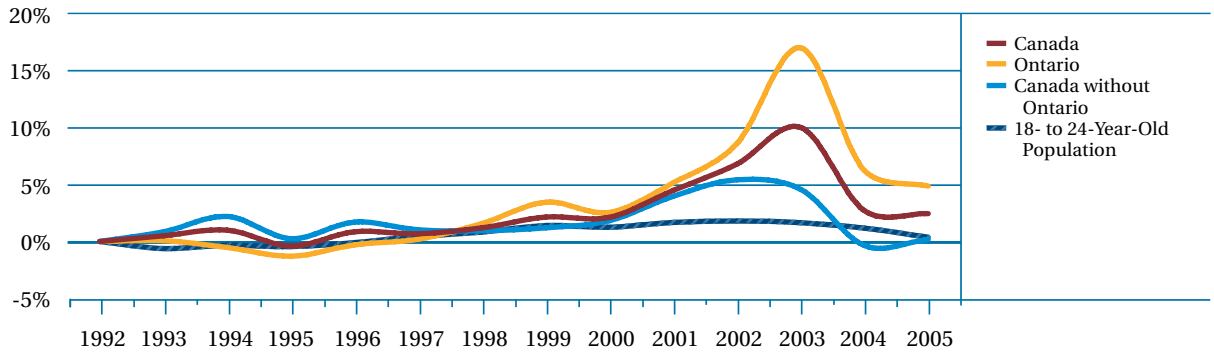
Source: Statistics Canada, PSIS, CANSIM Table 051-0001.

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.

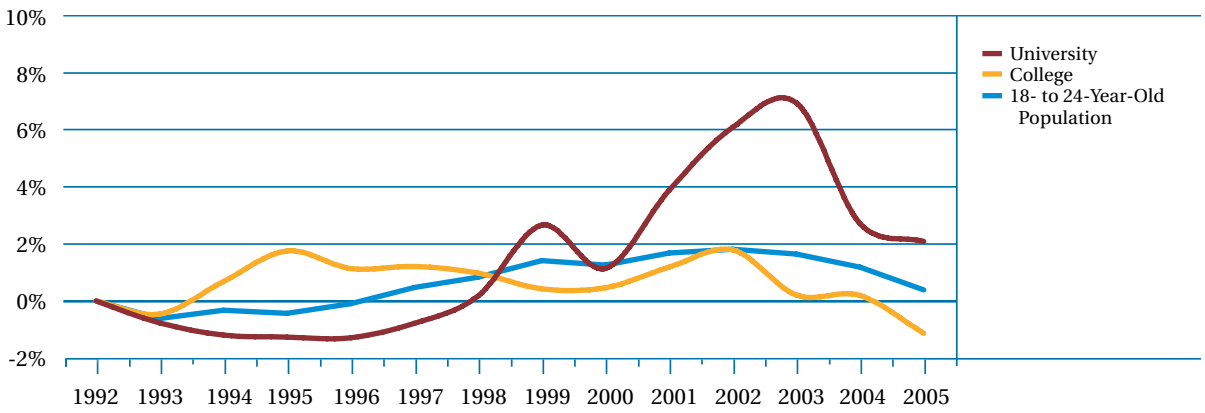
The link between enrolment and population growth is nonetheless important to acknowledge for two related reasons. First, it serves to underline the point that increases in enrolment do not necessarily reflect proportionate increases in the rate at which young people opt for post-secondary education. 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.

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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*.

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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).

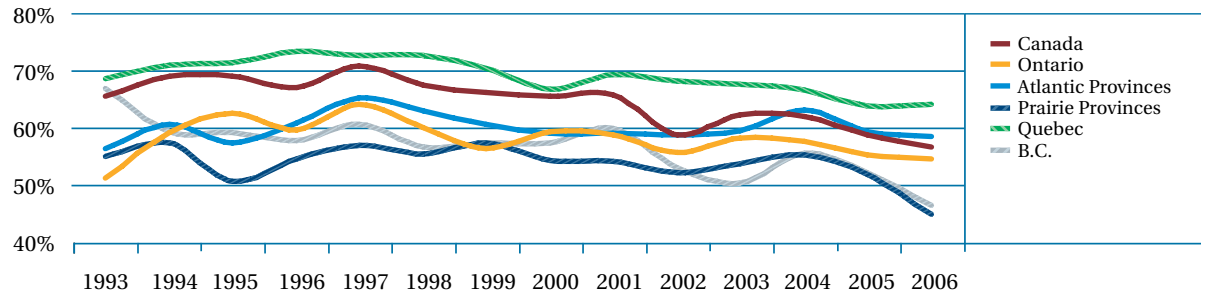
- In B.C., post-secondary participation has declined from a peak of 67 percent of the 18- to 24-year-old population in 1993 to 60 percent in 2001 to a low of 46 percent in 2006.
- In the Prairie region, comprising Alberta, Saskatchewan and Manitoba, participation has declined from a peak of 57 percent 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.

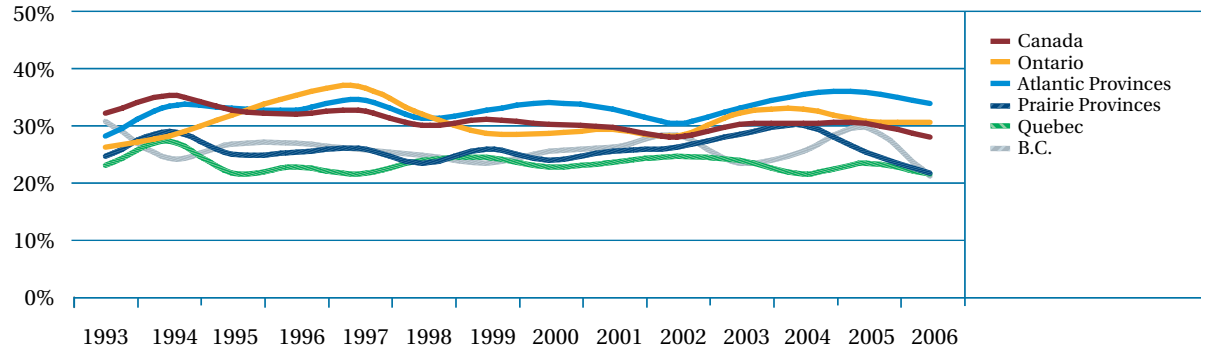
Looking specifically at the rate of participation in university, different regional patterns are clearly apparent. Nationally, university participation rates are somewhat lower today than in the mid-1990s, when they were close to 33 percent. In 2002 the rate dropped to 28 percent, before jumping to 30 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



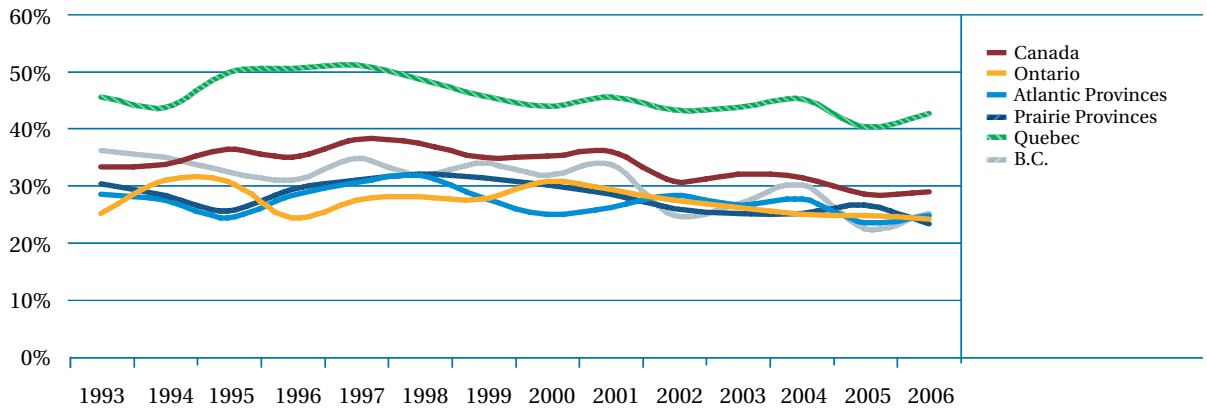
Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation .

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

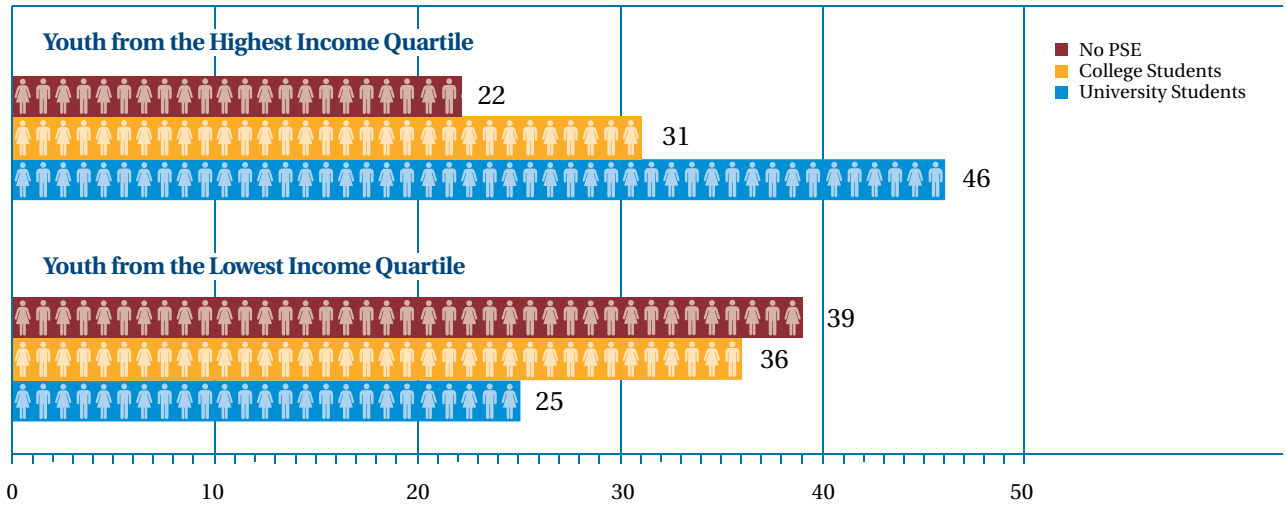
The question of whether youth from different backgrounds are equally likely to participate in post-secondary education in Canada is of central concern to policy-makers. Given the important role that education plays in opening doors to full participation in our economy and society, the restriction of 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.

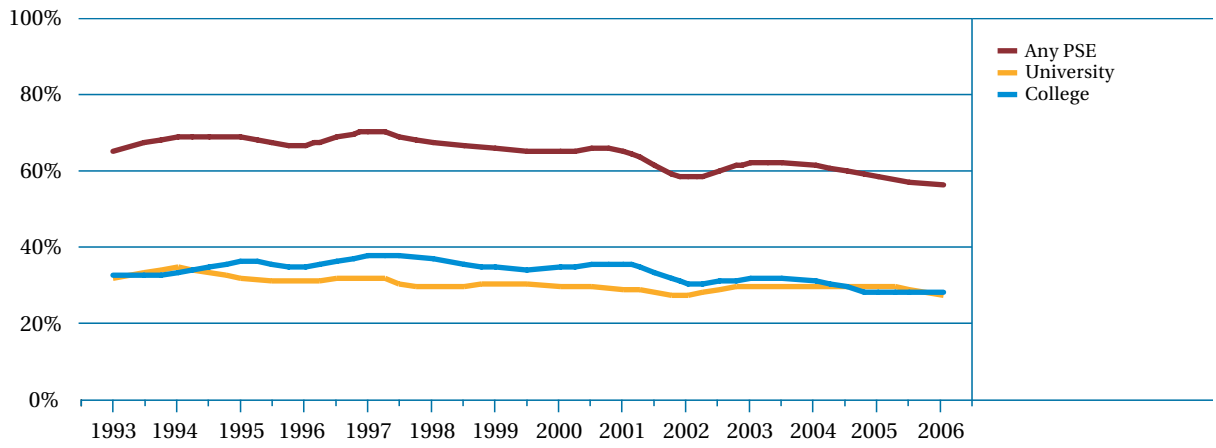
8. These figures are restricted to the YITS-A sample of individuals enrolled in high school at age 15 in 1999. Since low-income youth are more likely to drop out of high school than high-income students, the figures here somewhat overestimate the participation of low-income youth in post-secondary education.

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.

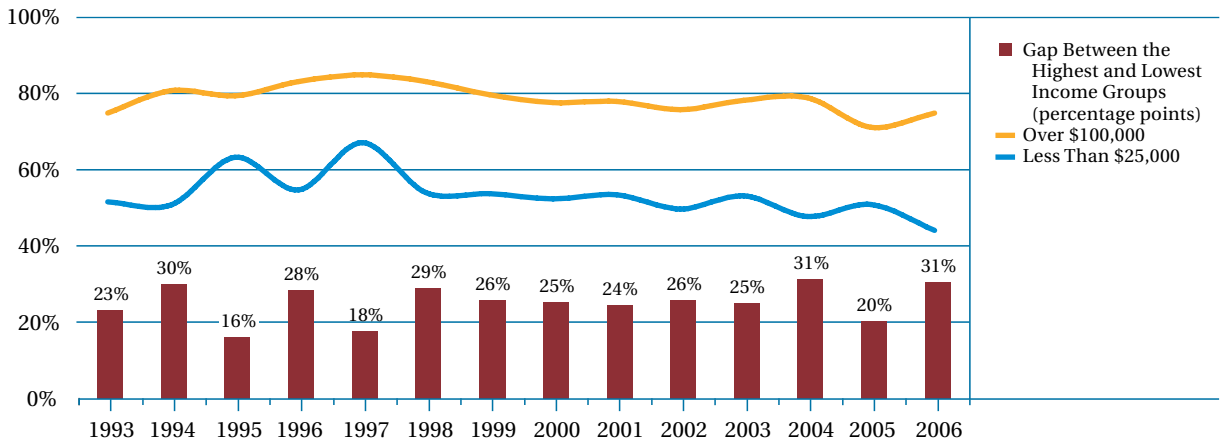
Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

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

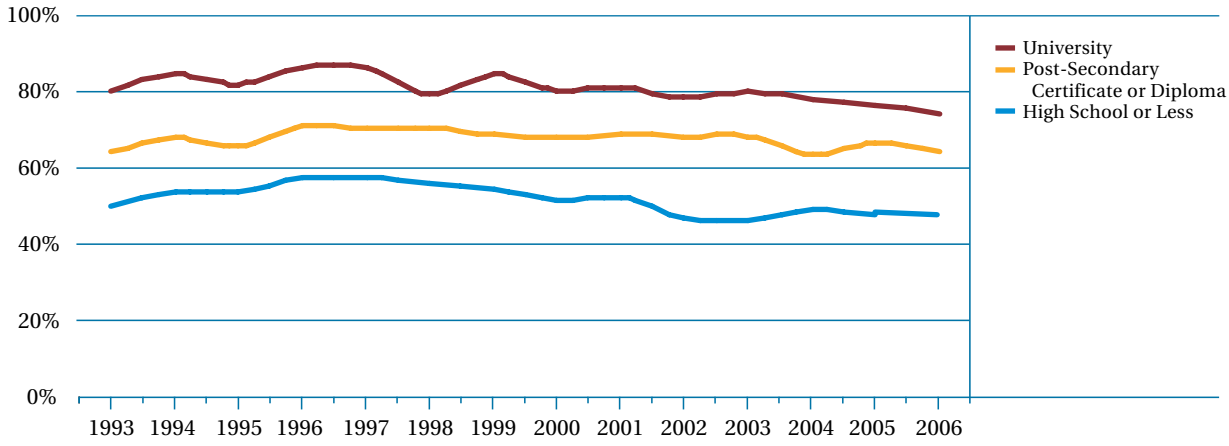
Figure 2.VI.3 — Post-Secondary Participation Rate by Select Family Income Levels among 18- to 24-Year-Olds, 1993–2006



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

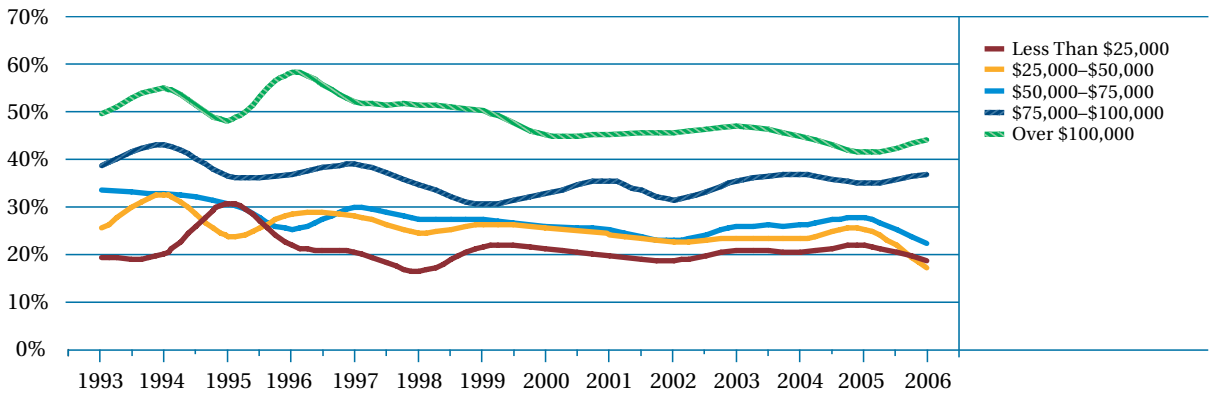


Source: Statistics Canada, Survey of Labour and Income Dynamics, custom tabulation.

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

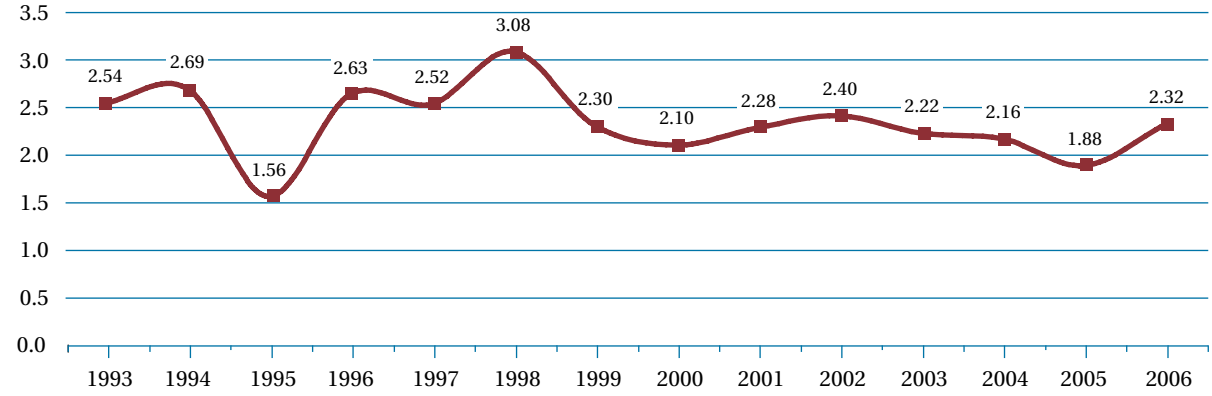
The gap between participation in post-secondary education for individuals of high and low socio-economic status is most strongly evident on the university side. As Figures 2.VI.5 and 2.VI.6 make clear, individuals from families earning more than $100,000 per year are more than twice as likely as those 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.

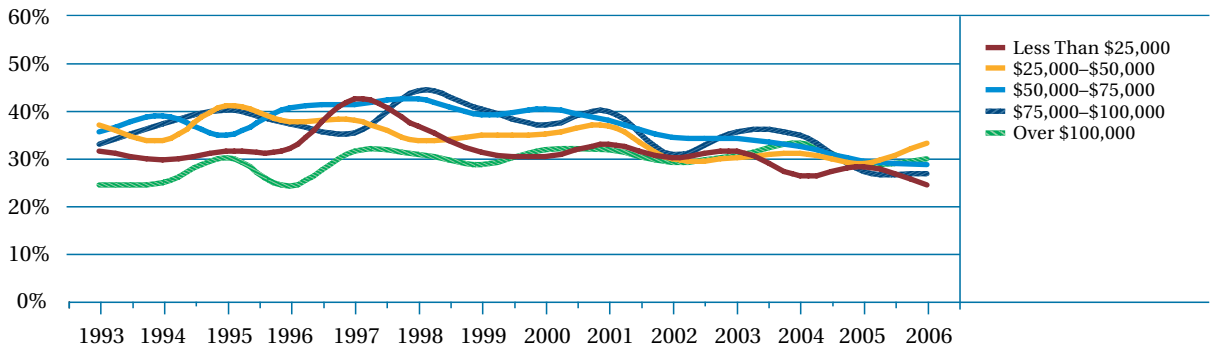
Figure 2.VI.6 — Ratio of University Participation among 18- to 24-Year-Olds from Families Earning More than $100,000 per Year to University Participation among Those from Families Earning Less Than $25,000 per Year, 1993–2006



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

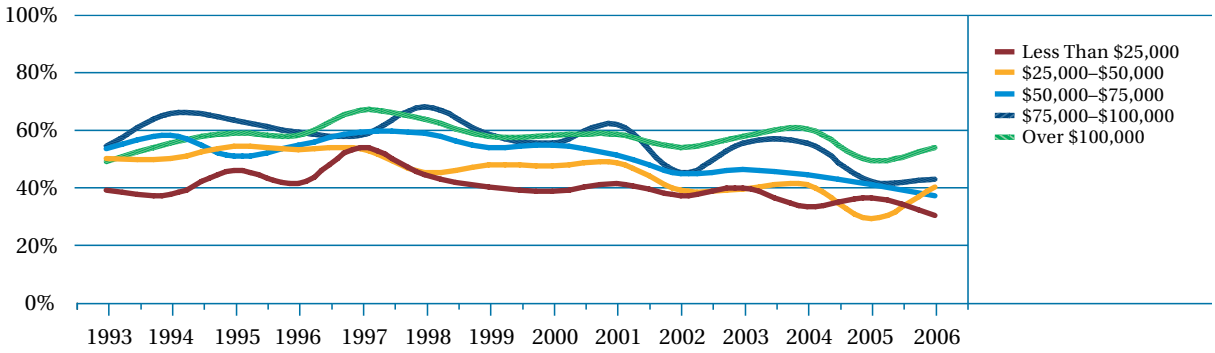
Participation in college studies, by comparison, is more evenly distributed. As Figure 2.VI.7 demonstrates, the likelihood of participation in college studies among Canadian youth is not greatly related to family income, and has been even less so in recent years than in the mid-1990s. It should be noted, 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)

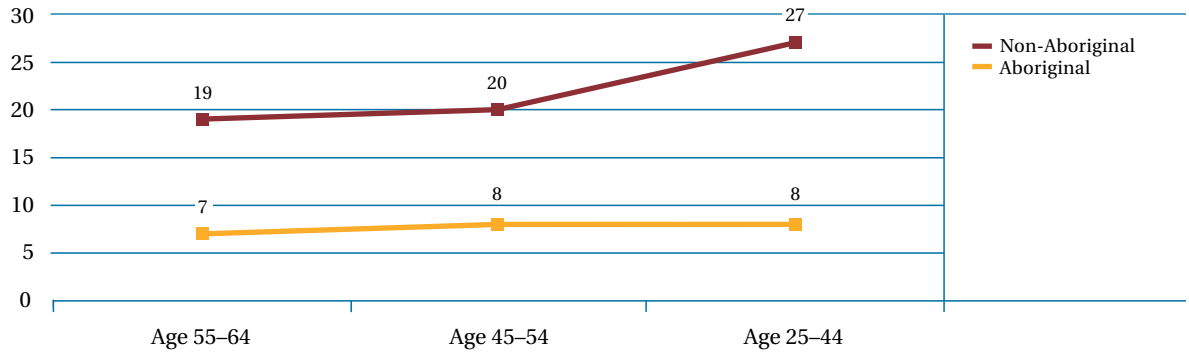
	Non-Aboriginal	Aboriginal (All Groups)	First Nations (All Groups)	First Nations, On-Reserve	First Nations, Off-Reserve	Métis	Inuit
Less than high school	15	34	38	50	30	26	51
High school diploma	24	21	20	15	24	24	13
Post-secondary qualification — all types	61	44	42	35	46	50	36
Trades certificate	12	14	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).

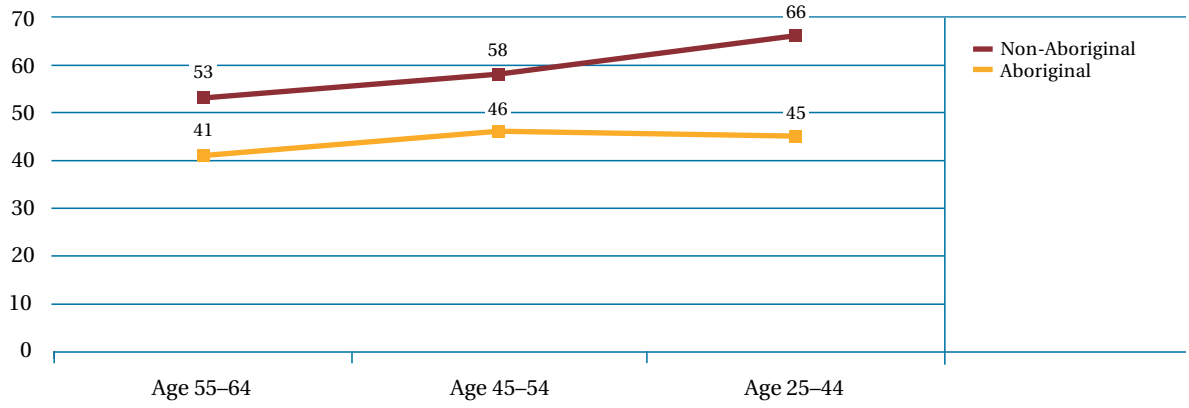
To be clear, the fact that educational attainment is rising at a faster rate among young non-Aboriginal Canadians does not mean that there has been no improvement in the proportion of Aboriginal peoples finishing high school and undertaking post-secondary studies. It does mean, however, that the education 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



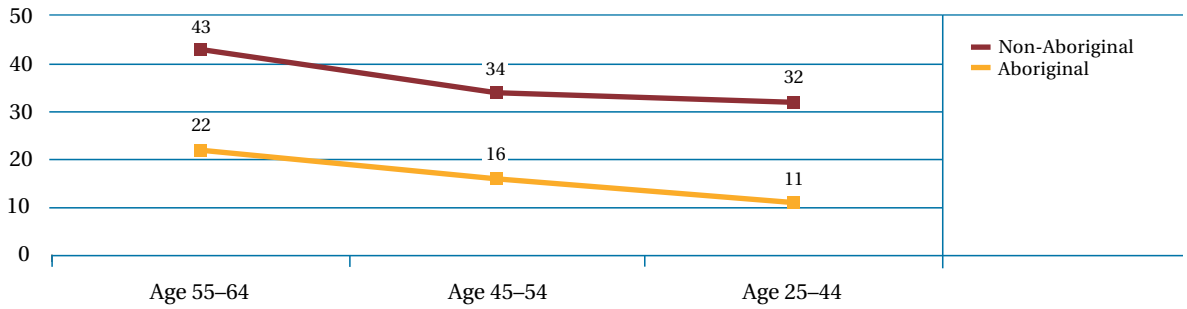
Source: 2006 census.

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



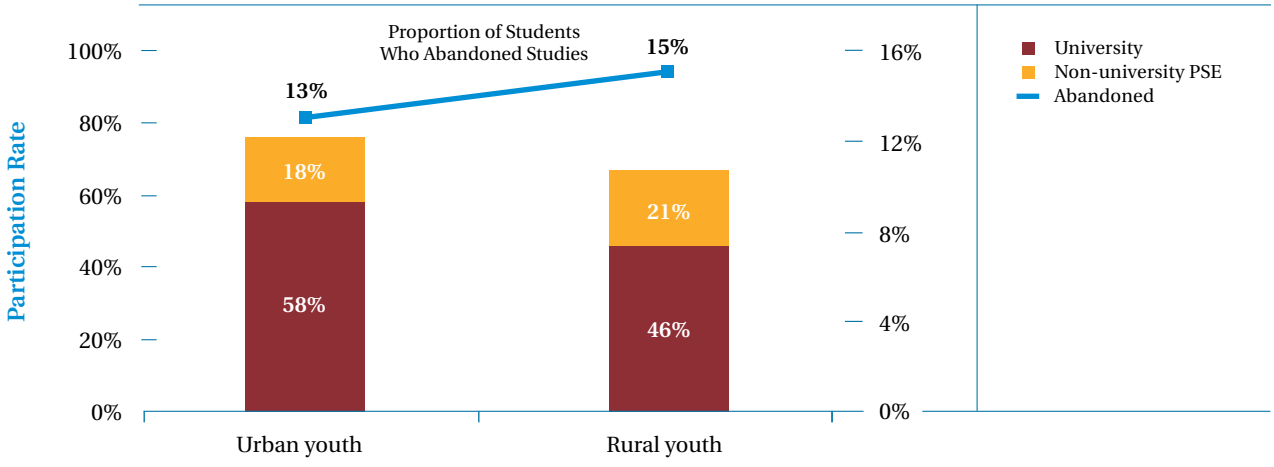
Source: 2006 census.

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.

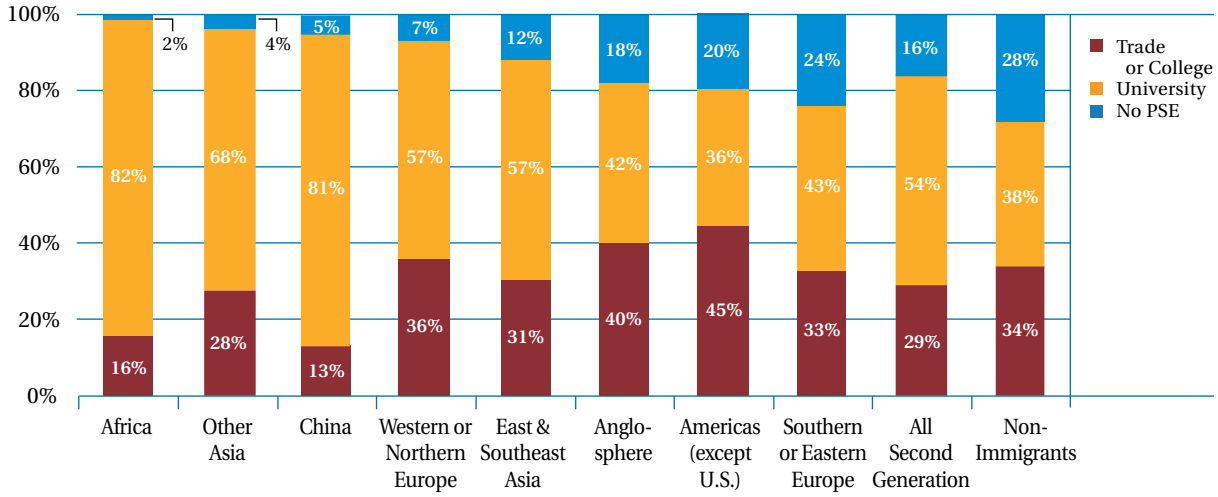
The problem with these data is that they group all immigrants together. Immigrants, however, are by no means a homogeneous group, and while some types may do exceptionally well in terms of accessing higher education, others may not.

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.