

# **Canadian post-secondary graduates and further education: Who continues and why?**

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## **Executive summary**

In this report we examined patterns of participation in further education amongst post-secondary graduates from colleges and institutes, university colleges, and universities across Canada. Further education consists of formal (structured) education at the post-secondary level (e.g., degree and non-degree programs that lead to some formal recognition) and non-formal education and training offered by various providers (e.g., career-related training courses). We focused on the participation of three “citizenship groups”: Canadian-born Aboriginal, Canadian-born non-Aboriginal, and immigrant graduates, and we examined participation in relation to age and level of completed post-secondary education by year 2000.

### **Education profiles**

We began our study by documenting the education profiles of those who graduated in 2000 from Canadian post-secondary institutions. We found that there are significant differences in educational attainment among the citizenship groups, and that age and gender affect educational profiles. First, respondents in the Aboriginal group are more likely to have graduated in 2000 from non-university institutions, while immigrants and non-Aboriginal respondents from university level studies. Second, the age patterns show that non-Aboriginal participants are younger on average than others. Particularly at the bachelor’s and graduate levels, immigrant and Aboriginal respondents tend to be older. At the college level, Aboriginal and immigrant respondents tend to be older. Third, women represent about 60% of the post-secondary graduates. For the Aboriginal and immigrant groups in particular, female over-representation occurs at the college level.

### **Demand for further education**

In 2002, two years after graduation from Canadian colleges and universities, one in three graduates engaged in further education through post-secondary programs. By 2005, almost half of graduates participated in further post-secondary education. Although there is a clear decrease in participation by age, even the less active age group (45-64) continued to be involved in post-secondary program education: one in four respondents in this age group took post-secondary programs within 2 and 5 years since graduation.

Participation in degree and non-degree post-secondary programs by 2002 showed differences by age and citizenship groups. For instance, the older Aboriginal respondents the youngest non-Aboriginal and immigrant groups were the most likely to participate in university level degree programs. By comparison, participation in non-degree programs offered through any type of post-secondary education institution was much more homogenous. In addition, almost one quarter of respondents participated in career related courses by 2002; such courses were most frequently accessed by respondents in the 25 to 29-year age group.

### **Reasons for pursuing further studies**

Job related motives (e.g., get a job; get a better job; earn more; perform better on the current job) were the most frequently identified reasons for continuing education and training after completing post-secondary education in 2000. However, about one in three participants in further studies mentioned self-improvement reasons. Those in the Aboriginal group were more likely than respondents in other citizenship groups to identify education prerequisites as an important reason to take further education. This motive was the least important for the immigrant group.

### **Education finances**

We compared the main sources of funding for all post-secondary education that respondents attended by 2002. Large proportions of immigrant and non-Aboriginal respondents identified personal sources (i.e., earnings and savings) as a main source of funding and these proportions increased with age. In contrast to the other two citizenship groups, Aboriginal respondents benefited from substantial funding from other sources, mainly government funding programs. Loans, and especially student loans, were an important funding source of post-secondary education for respondents younger than 25 years of age. Among all citizenship groups, those in the 25 to 29-year age range were most likely to have ever had a student loan.

Employer support was three times higher for respondents enrolled in job-related courses compared to those enrolled in programs. Aboriginal post-secondary graduates were most likely to receive employer support for further education, especially for courses.

### **Economic benefits of further education**

The clear differences in income between holders of college, bachelor's and graduate credentials, from about \$35,000 to \$45,000 and to \$55,000, makes a strong economic argument that more education is beneficial. However, earning benefits appear to be delayed by involvement in further education especially for those who attained further university education between 2000 and 2005. The only respondents that obtained faster results, at least in terms of better earnings, were those who had college credentials in 2005 and thus were likely to have graduated from vocational programs.

When comparing other labour market outcomes for the three levels of education, it is interesting to note that about one quarter of all post-secondary graduates felt overqualified regardless of whether they had pursued more education between 2000 and 2005. However, there was a net increase in the proportion of those who believed that their education and job were closely related by level of education, suggesting that by increasing the level of post-secondary education, one can more easily find jobs that utilize the acquired skills and competencies.

### **Policy implications**

Lifelong learning can be accomplished through continuing (further) education. Since post-secondary institutions are major providers of education, it is important for administrators to recognize **student**

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**population diversity** that has implications on participation patterns, and specific financial sources and motivations of learners at different stages in the life course. For instance, the study shows that Aboriginal respondents, who were on average older than non-Aboriginal college graduates, were more likely to have college education in 2000. This suggests that college education that is more often available outside metropolitan areas, might be considered by students who have family obligations and/or cannot afford to move away from home. To encourage participation of all learners, including Aboriginal learners, in initial post-secondary education and advanced levels of further education, we should consider the importance of regional campus access. Research on immigrants shows their large participation in post-secondary education and the diverse range of educational goals (e.g., obtain recognition of foreign credentials, pursue advanced education and/or to engage in new educational pathways) as well as access barriers encountered. The current study confirms that participation in initial and further studies by immigrants is substantial, thus one policy implication for post-secondary institutions should be to expand services to address language and cultural barriers. Moreover, they should continue to attract adult learners and explicitly adopt lifelong learning ideals.

**Government funding programs** to fund post-secondary education should remain a support mechanism for all participants, especially for groups who lack access to various resources (e.g., young non-Aboriginal and immigrant respondents do not receive substantial government funding for their post-secondary education). If lifelong learning is adopted as a goal of post-secondary institutions, further education for all should be recognized and supported.

There is still a **disconnection between job and education** that is reported by post-secondary graduates. This should raise concerns about how well post-secondary institutions prepare their graduates for the labour market as well as expectations employers have about the job-readiness of those graduates.

Employers should recognize the importance of continued learning and become more openly supportive of workers who engage in lifelong learning activities, regardless of workers' demographic characteristics. For instance, only one quarter of program participants received employer support. Workers' involvement in lifelong learning has to be coordinated with **employer support** and employers' willingness to use workers' new gained skills and **reward** these skills accordingly through better salaries and work that is more related to education acquired.

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## **INTRODUCTION**

Continued learning over the life course is a key ingredient in sustaining the economic and social well-being of all Canadians. Technological advancements and an increasingly global economic landscape exert more pressure on workers to acquire higher level skills and to upgrade existing skills according to changing labour force needs. As Canada shifts further from resource-based local economies to knowledge-based global economy, it is expected that there will be greater demand for workers with post-secondary education.

The Canadian demographic landscape is also changing. Federal immigration policy has encouraged large numbers of well-educated and highly skilled migrants to enter Canada. Increasingly new arrivals to Canada are coming from non-Anglophone (or non-Francophone) countries and are less likely to be accustomed to the North-American culture or the characteristics of the Canadian labour market. Many immigrants seek further education as they establish themselves in their new country. Within Canada, retirement policies and labour market practices are aimed at mitigating the impact of an aging workforce that will be slowly replaced by younger workers. Given that the Aboriginal population is the fastest growing population in the country, many of these younger workers will be from Canada's First Nations populations.

Within this context, our interest in this study was to examine the further education<sup>1</sup> participation patterns amongst post-secondary graduates of colleges and institutes, university colleges, and universities across Canada. We focused on the participation of three "citizenship groups": Canadian-born Aboriginal, Canadian-born non-Aboriginal, and immigrant graduates. We asked three main questions: What was the demand for further education pursued between 2000 and 2005 and what were the participation trends by citizenship group and age? Why did post-secondary graduates pursue further education and how did they cope with funding their continued education? What were the economic outcomes of further post-secondary education participation?

## **BACKGROUND**

In a knowledge-based economy, the labour market is more favourable to skilled workers. As noted by Petit (2000), the 'skill bias' has an effect on the employment structure manifested by a drop in the proportion of unskilled work in the job supply, a drop in the relative pay rates, and more insecurity in employment conditions. To get higher earnings, better job opportunities, and more stable job conditions would require not only higher levels of education but continuous skills upgrading through lifelong learning that consists in "all learning endeavours over the lifespan" (Organization for Economic Cooperation and Development, 2004, p.1). Others claim that the demand for lifelong learning is largely due to structural changes in the Canadian labour market that relies increasingly on white-collar jobs, shifts in occupational structures that place emphasis on professional and senior management positions, and organizational changes that increase job complexity in many firms (Rubenson & Schuetze, 2000).

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<sup>1</sup> Further education consists of formal (structured) education at the post-secondary level (e.g., degree and non-degree programs that lead to some formal recognition) and non-formal education and training offered by various providers (e.g., career-related training courses).

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The trend toward workers' sustained learning is expected to bring individual benefits (e.g., job opportunities, higher earnings, job fulfillment), to contribute to the overall economic growth, and also to lead to social cohesion and a sense of stability within communities.

Participation in post-secondary education, either to obtain a first degree, diploma or certificate, or for further studies, has reached mass proportions in Canada, catering to a wide range of learners. However, they do not do so equally. Between 1990 and 2006 the percentage of the Canadian population with a bachelor's degree almost doubled and the percentage of the population aged 15 and older with a master's or doctoral degree increased from 3.3% to 6% (CCL, 2007). According to the most recent Canadian census data, six in ten adults (aged 25 to 64) have completed some form of post-secondary education (Statistics Canada, 2008); 25% have achieved a college diploma or certificate below a bachelor's degree and 23% have achieved at least a bachelor's degree.

However, there are clear differences in participation and attainment patterns among groups of learners. Census data (Statistics Canada, 2008) show that younger adults (aged 25 to 34) were more likely to obtain a university degree (29%) than older adults (aged 35 to 64; 18%). Immigrant respondents (aged 25 to 64) were most likely to have university degrees (32%) and recent immigrants (those who immigrated between 2001 and 2006) were even more likely to do so (51%). Census data also show that although the proportion of Aboriginal learners with a university degree has grown in Canada – from 6% in 2001 to 8% in 2006 – the gap between Aboriginal and non-Aboriginal degree holders is somewhat larger in 2006 than 2001.

Recent immigrants constitute an active group of adult learners. Findings from the Longitudinal Survey of Immigrants to Canada (LSIC) show that two-thirds of the immigrants who arrived in 2000-2001 and who were surveyed had plans to pursue education and training (Statistics Canada, 2005). Among those who planned to obtain a Canadian credential or pursue job training, 83% had already obtained post-secondary credentials (68% at university level) from their countries of origin. Among all immigrants 25 to 49 years of age at arrival to Canada, regardless of level of education completed in their countries, the participation rate in further education and training (i.e., offered by post-secondary institutions or other providers) was as high as 40% within two years of arrival (Adamuti-Trache & Sweet, 2007). On the one hand, adult immigrants' participation in further post-secondary education in Canada appears to be a significant dimension of the socio-economic integration process. On the other hand, immigrants also experience language barriers and lack familiarity with the Canadian culture and practices. In particular, adult immigrant learners are highly motivated to obtain Canadian post-secondary credentials in order to facilitate their socio-economic integration.

Aboriginal learners constitute a growing student group on Canadian campuses. Their post-secondary education participation is expected to close the gap between the educational attainment profiles of Aboriginal and non-Aboriginal populations – an equity issue that has been consistently raised at all levels of education (Carr Stewart, 2006). For instance, between 1996 and 2001, the share of Aboriginal people with post-secondary qualifications at the trade, college or university level increased from 33 to 39% (Statistics Canada, 2007). Younger cohorts of Aboriginal people are more likely to have post-secondary

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education compared to those aged 55 to 64. More Aboriginal people aged 35 to 54 had trade qualifications (about 17%) compared to the youngest age group (only 14%). However, more 45 to 54 year olds held a university degree (9%) compared to only 7% among those aged 35 to 44 years old, which is interpreted as a reflection of a significant amount of continuing education among the adult Aboriginal population after the age of 34. Higher levels of formal educational attainment are associated with lower unemployment rates. In 2005, the unemployment rate for Aboriginal people<sup>2</sup> with less than high school education was 21.5% compared to 3.7% for university graduates; and in 2006, the rates fluctuated to 16.7% and 5.9% for the two groups, respectively. In comparison, unemployment rates in 2005 were 12.6% and 4.6% for the entire working-age population with less than high school and university education, respectively. And in 2006, these rates fluctuated to 12.3% and 4% for the two groups.

About one-third of Canadian adults engage in some kind of education or training in order to advance formal education and career prospects, or for personal interest (Statistics Canada and Organization for Economic Cooperation and Development, 2005). However, learners who have already completed some form of post-secondary studies are more likely to pursue further education and training (de Broucker, 1997; Organization for Economic Cooperation and Development, 2003; Peters, 2004 ). De Broucker (1997) for example, found that over 41% of workers with a university degree engaged in work-related training compared to just under 33% of post-secondary certificate or diploma holders. High school graduates (21%) and those with only some secondary education (13%) were even less likely to participate in work-related training. In 2002, over half (52%) of workers with university degrees participated in formal, job-related training, but the participation rate was only 38% for workers with a diploma or certificate and those with some post-secondary education (Peters, 2004). The lowest rate (18%) occurred among the least educated workers, those with secondary school graduation or less. When looking at continuous vocational training, the OECD (2003) study shows that workers with less than upper secondary education (16%) were less likely to engage in training activities than were workers with tertiary education offered by post-secondary institutions (35%).

It is estimated that about two-thirds of new and replacement jobs between 2004 and 2013 will require some level of post-secondary education (CCL, 2007), and there will continue to be a need to periodically upgrade existing skills or learn new skills. Thus, the aim of this report is to present findings that compare participation in further post-secondary education among three groups of post-secondary graduates (Canadian-born non-Aboriginal, Aboriginal, immigrant) based on level of post-secondary education and age.

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<sup>2</sup> Findings are illustrated with the off-reserve Aboriginal labour force data for Manitoba, Saskatchewan, Alberta, and British Columbia.

## **STUDY DETAILS**

### ***Survey sample***

This report is based on the Statistics Canada *National Graduate Survey of Canadians* who graduated in 2000 from post-secondary institutions (i.e., colleges and institutes, university colleges, and universities). This cohort of graduates was surveyed in 2002 and again in 2005, two and five years after graduation. We eliminated respondents 65 years old or above in 2000 and those who did not live in Canada between 2000 and 2005. The longitudinal sample consisted of 22,790 respondents representing over 260,000 graduates of Canadian post-secondary institutions in 2000. Thirty-eight percent of respondents had non-university (mainly college) credentials (e.g., diploma, certificate), 48% obtained bachelor's degrees and 13% had graduate degrees.

### ***Data limitations and data presentation requirements***

1. Demand for further education and training is reported in detail (i.e., institutional providers and scope of education) for the 2002 follow-up survey only.
2. Data on financial support for post-secondary education refers to the cumulative effect of financial support to obtain the post-secondary credential in 2000 and to take further education between 2000 and 2002.
3. Reasons for taking further education and training are given only in the 2002 survey.
4. The 2005 follow-up did not contain detailed information on program providers or on courses taken so comparisons between the two years were limited to overall program participation. However, the reason for extending the study between 2002 and 2005 is to make a comparison regarding program participation and to examine labour market outcomes in 2005 after a longer period of time during which respondents were more likely to complete their further education.

In keeping with Statistics Canada reporting requirements, any cells with fewer than five respondents are not reported. For sub-samples with lower numbers of respondents (e.g., Aboriginal), data should be interpreted with caution. Results are presented according to Statistics Canada data requirements<sup>3</sup>.

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<sup>3</sup> Counts are rounded to the nearest tens and percents to the nearest unit. Since the analysis is based only on descriptive statistics, we use the survey weights to estimate proportions in the population.

## **Study variables**

### **Further education**

The focal variable in this study is participation in further education within two and five years after post-secondary graduation. Our definition of further education refers to two different types of education and training in which individuals who already completed a post-secondary program in 2000 engaged in further education between 2000 and 2005. One is participation in formal education programs lasting three months or longer offered by post-secondary institutions. Shaienks and Gluszynski (2007) used the term further post-secondary education to describe participation in further studies at the post-secondary level by those who already completed a first credential. The second is enrolment in career-related training courses requiring at least twenty hours of participation. Livingstone and Raykov (2005) used the term further education courses to describe participation in job-related courses and employer sponsored training. The term 'further education' is also used in the national Graduate Survey and it will be adopted in this study. More details on variable conceptualization are presented in Appendix B. Further education and its effect on educational attainment and labour market outcomes are contrasted by three design variables: (1) highest level of education in 2000; (2) a citizenship variable which differentiates the National Graduate Survey population by place of birth and/or self-reported cultural identity and (3) age. These variables are briefly described below and conceptualized in Appendix B.

### **Highest level of post-secondary educational attainment**

We classified the sample into three groups labelled College (i.e., diplomas and certificates from colleges and institutes, or university diplomas below a bachelor's degree), Bachelor, and Graduate (i.e., diploma above the bachelor's level, master's, and Ph.D. degrees).

### **Citizenship groups**

Our interest in this study was to compare participation in further education among three groups within the Canadian population that differ by place of birth and historical/cultural identity: Canadian-born Aboriginal, immigrant, and Canadian-born non-Aboriginal. We have called this classification scheme "citizenship group" to reflect the circumstances in which they acquired Canadian citizenship (i.e., landed immigrants) or how they distinguish themselves from the French and English founding nations and from more recent arrivals (Cairns, 2002). Rather than understanding citizenship as a juridical or legal term that describes individual rights and obligations, we refer to citizenship in terms of background factors and/or group identity (Isin & Wood, 1999). Although we recognize that the cultural, ethnic, and linguistic pluralism in Canada create a diverse collection of unique sub-populations, for the purposes of this study, we use a broad classification of the population in three groups: Canadian-born Aboriginals, Canadian-born non-Aboriginals, and immigrants. Canadian-born Aboriginals and Canadian-born non-Aboriginals are also referred to as Aboriginals and non-Aboriginals, respectively, in this report.

## Age

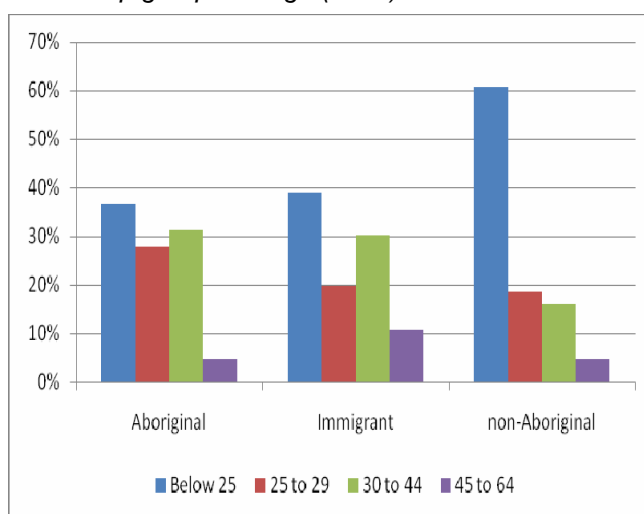
Age is the third design variable relevant to further education because it is indicative of patterns individuals would be expected to follow in terms of education and work activities. We delineate four broad age ranges which distinguish the social placement of individuals with respect to the post-secondary education system and the labour market. First, participants in post-secondary education are classified as traditional students (18 to 24 years of age) or non-traditional students (Schuetze, 2000). This first age range corresponds to what Arnett (2000) calls the 'emerging adult' period during which the basic school-to-work transition is completed. This stage is often extended to the later twenties or early thirties due to an increasing number of youth who continue in advanced education and follow complex pathways that combine work and learning.

The 25 to 44-year age range (non-traditional students) is defined as the prime working age. It is characterized by significant employment and continued learning participation. However, this is also the period when working parents struggle to balance the demands of job and family (Duxbury & Higgins, 1999). This group is broken out into the 25 to 29 year old group, which is most likely to prolong education while entering the labour market and to postpone the start of a family, and the 30 to 44 year old group. Age 45 is seen as an important demarcation point in the education-work nexus primarily because 'older workers' represent the most rapidly growing segment of the population, yet represent some of the most vulnerable workers due to rapid technological changes and adjustments required due to the changing nature of work (Marshall & Mueller, 2002).

## Research sample

The research sample used in this report contains 3% Canadian-born Aboriginals, 83% Canadian-born non-Aboriginals and 15% immigrants. The immigrant group is not homogeneous in terms of time since arrival to Canada (e.g., some landed in the 1970s), but about half of all immigrants arrived in the 1990s. The age distribution is uneven with 57%, 19%, 19%, and 6% of respondents below age 25, between 25-29, between 30-44, and between 45-64 years of age in 2000, respectively. Figure 1 shows the age distribution by citizenship groups. From an overall perspective, the Canadian born non-Aboriginal group is over-represented in the youngest (below 25) age group. The age profiles for the Aboriginal and immigrant groups, however, are comparable with a much more even distribution across all age categories except the oldest (ages 45 to 64). For all citizenship groups, the proportion of respondents in this age category is small but

Figure 1: Profile of post-secondary graduates by citizenship group and age (2000)



nonetheless significant. Additional information on sample demographics will be presented in Section 1 in relation to educational attainment profiles.

## **ORGANISATION OF THE REPORT FINDINGS**

In the pages that follow we present our findings from this study in six sections:

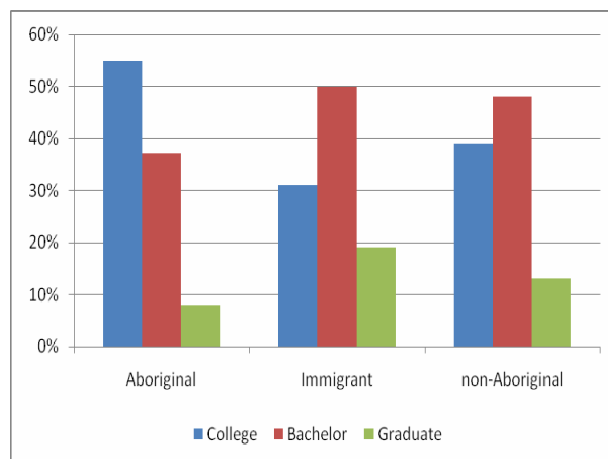
- In the first section, we present education attainment profiles of the study sample by citizenship group and age. We also include a snapshot of sample demographics in relation to educational attainment in 2000 to provide a context within which to situate the remainder of the study's findings.
- The second section is framed by questions about the role of age and citizenship group on further education participation. We describe the demand for further education in terms of type of further education pursued. In this section we also explore patterns of participation in further education over time (2000-2005).
- In section three we examine education finances to understand respondents' investment in post-secondary education for the purpose of obtaining a credential in 2000, as well as for taking further education until 2002. In particular, we examine whether employers supported program and course participation.
- The fourth section focuses on the reasons graduates pursued further education, highlighting the importance of job related motives for continuing learning.
- In section five, we explore how employment outcomes in 2005 were associated with participation in further post-secondary programs between 2000 and 2005. First, we show the change in educational attainment by 2005. Second, we examine the employment type (permanent or temporary) and median income in 2005 (five years after graduation). Finally, we analyze participants' perceptions of over-qualification and the relatedness of their current job to attained education. The analysis is presented by highest level of education attained in 2005.
- Section six concludes the report with a look at policy implications for post-secondary institutions, government, and employers.

## SECTION 1: Education Profiles in 2000

### **Educational attainment by citizenship group**

Our examination of the data indicates that there is a clear association between educational attainment and citizenship group. As shown in Figure 2 (and Appendix A, Table A1), the non-Aboriginal and immigrant groups have comparable proportions of respondents with bachelor and graduate levels of education, whereas the Aboriginal group shows a higher proportion of respondents with college level education. Graduate education is highest for the immigrant group -- about 1.5 and 2 times higher than for Canadian born non-Aboriginal and Aboriginal graduates, respectively.

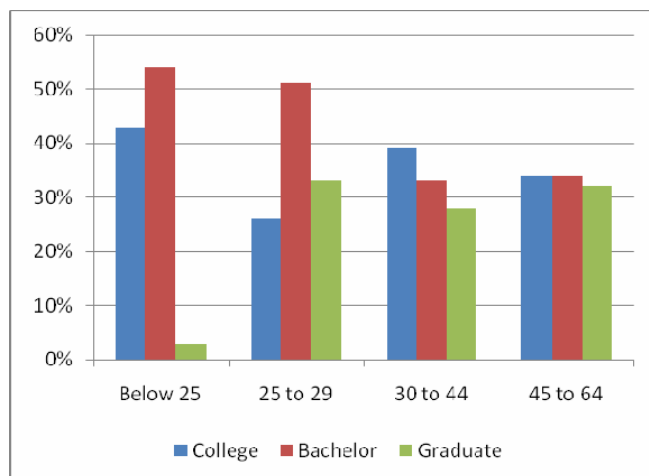
Figure 2: Profile of post-secondary graduates by citizenship group and educational attainment (2000)



### **Educational attainment and age**

When we look at the highest level of education in 2000 by age, further interesting patterns emerge. As expected, age is correlated with educational level but our data show that this relationship is not necessarily linear (Figure 3). The youngest age group (below 25 years) is almost entirely made up of respondents who completed a college diploma or certificate (43%) or a bachelor's degree (54%). In the next age group (25 to 29), college level attainment is much lower and graduate level attainment is dramatically increased. This age group is the most "university-educated" group with 74% of respondents having a bachelor's degree or higher. The education levels in the last two age groups, comprised of those between 30 and 64 years old, are much more evenly distributed, although the oldest group (45 to 64) has the highest percentage of graduate degree holders (32%).

Figure 3: Profile of post-secondary graduates by age and educational attainment (2000)



### **Educational attainment by age and citizenship groups**

Age and educational attainment produce different patterns by citizenship group (Appendix A, Table A2). Regardless of age, the Aboriginal group has the largest percentages of respondents who obtained



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college education, with 50% or more of respondents from all age groups within this education level. Although the percentage of Aboriginal respondents with graduate degrees increases with age (from 1% to 18%), within each age group these percentages are significantly lower when compared to the non-Aboriginal and immigrant groups. A similar pattern is seen for Canadian-born non-Aboriginals, for whom the proportion of holders of graduate degrees increases with age from 4% to 35%. For this group it is also interesting to note the large proportion of 30 to 44 year old respondents with college education (40%).

Different patterns are evident for immigrants who, regardless of age, have the lowest proportion of respondents with college education. The proportion of holders of graduate degrees increases with age, and reaches 35% for the 30-44 year old immigrants, and then drops to 26% for the oldest age group. The 25-29 year old immigrant group shows the largest proportion of university-educated respondents (77%), while all other immigrant age groups have 67% or more university graduates. This reflects the success of the Canadian immigration policy that emphasizes the recruitment of highly educated immigrants. However, these data also show the high level of participation by immigrants who engage in further post-secondary education in Canada to obtain advanced degrees.

Finally, the **average age** of non-Aboriginal respondents at all education levels is younger than the Aboriginal and immigrant groups (Table 1). Not surprisingly the oldest respondents are found at the graduate level, but it is interesting to note the relatively higher average age of Aboriginal and immigrant respondents at the college level.

*Table 1: Average age of respondents by educational attainment and citizenship group (2000)*

	College	Bachelor	Graduate	All
Aboriginal	28	29	35	30
Immigrant	30	28	35	30
non-Aboriginal	25	26	32	27

### **Educational attainment in 2000 and other demographic factors**

Overall the gender distribution shows that there are more women than men in the sample, with the Aboriginal group showing the highest percentage (Table 2a). While the proportion of Canadian-born non-Aboriginal women is similar across the three levels of education with a slight increase at university level, the opposite trend is observed for the Aboriginal and immigrant groups for whom the proportion of women is higher at the college level.

Very few (about 8%) of the Canadian-born non-Aboriginal respondents declared a visible minority status while about two thirds of the immigrant group self-identified as such (Table 2b). All Aboriginal respondents identified themselves as visible minority.

Since family background provides additional information on availability of resources (i.e., financial support for and guidance toward post-secondary education), parental education is introduced in this study as a social factor that informs of individual cultural capital (Bourdieu & Passeron, 1973) and can be related to educational aspirations and dispositions toward education.

*Table 2a: Percentage of female respondents by educational attainment and citizenship group (2000)*

	College	Bachelor	Graduate	All
Aboriginal	71	67	65	56
Immigrant	60	57	44	69
non-Aboriginal	57	62	60	60

*Table 2b: Percentage of visible minority respondents by educational attainment and citizenship group (2000)*

	College	Bachelor	Graduate	All
Aboriginal	100	100	100	100
Immigrant	66	66	64	66
non-Aboriginal	6	10	5	8

*Table 2c: Percentage respondents with university educated parents by educational attainment and citizenship group (2000)*

	College	Bachelor	Graduate	All
Aboriginal	16	24	27	20
Immigrant	29	37	50	37
non-Aboriginal	22	43	41	35

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Table 2c shows that for the Canadian-born non-Aboriginal group, the proportion of university graduates for whom at least one parent had university education is almost double (41% and 43%) the proportion of college graduates with university-educated parents (22%). Regardless of educational attainment, the lowest percentage of university-educated parents is seen for those in the Aboriginal group. The largest proportion of respondents with university-educated parents (50%) is for immigrants with graduate degrees. Overall, 20% of respondents in the Aboriginal group have at least one parent with university education, as compared to 35% and 37% of Canadian-born non-Aboriginal and immigrant groups, respectively. The most pronounced difference in parental education is evident between the college educated group and the two university groups.

## **SECTION 2: Demand for further education**

Graduation from a post-secondary institution in 2000 represented for many just one stage in their educational journeys. Within five years of graduation, a significant number of respondents continued learning while employed. Individual choices toward further education depend on educational aspirations and life course circumstances but also on the labour market context that offers uneven opportunities to workers. We do not differentiate further education by respondents' highest level of education completed in 2000 (i.e., college, bachelor, or graduate), although we expect that highest level of education in 2000 would affect participation. Whether further education leads to an increase in educational attainment (e.g., college to bachelor, bachelor to graduate) will be discussed in Section 5. First, we discuss participation in programs and courses between 2000 and 2002, and second, we compare demand for programs in 2005 and 2002. Although the research design is limited by data availability as previously discussed, the first analysis will provide information on various types of further education and training in demand by 2002, and the second analysis will inform on growth over time in the degree program demand, thus giving a fairly complete picture of further studies undertaken by Canadian post-secondary graduates.

### ***Program and course demand in 2002***

In this section we explore the effect of age and citizenship group on further education attainment two years following graduation. We differentiate between *programs* that require study lasting three months or longer, and career *courses* that require 20 hours or more to complete. Within the programs category we further differentiate between degree programs (offered by universities) and non-degree programs offered by (universities and colleges). Courses, on the other hand, are offered by any provider, including, for example, employers and professional associations.

By 2002, 34% of all respondents were engaged in post-secondary *programs* but participation varied considerably depending on age and citizenship group (Table 3a). The highest participation rates are found for the younger Canadian-born non-Aboriginal (41%) and immigrant (44%) groups. For Aboriginals, the highest participation rate (36%) is seen in the 45 to 64-year age range. Conversely, Canadian-born non-Aboriginals in this age group show the lowest participation rate (19%).

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Table 3a shows that for the non-Aboriginal group, program participation decreased clearly with age (from 41% to 19%) whereas for the Aboriginal group, it increased (28% to 36%). Immigrants have higher participation rates compared to non-Aboriginals, but are clearly surpassed by Aboriginals who are 25 years of age and older. Only for non-Aboriginals, participation rate patterns are similar when we look at degree and non-degree programs separately, showing a clear decrease with age.

Participation in degree programs (Table 3b) is comparable for Canadian-born non-Aboriginal and immigrant respondents. Participation decreases with age from 23-25% to 8-9%, except for a jump to 16% noted for the older immigrant group. In contrast, participation by Aboriginal respondents is very low for those younger than 25 years old (12%) and is up to 20% for those 45 years of age or older.

Non-degree programs are also very appealing and about 16% of survey participants are enrolled (Table 3c). Participation in these programs is more homogeneous by age and citizenship group, ranging between 11% and 19%. These programs attract respondents younger than 25 years of age, who have attained only college education (see Figure 3) and who might need to fulfill university pre-requisites, as well as older respondents (i.e., immigrant and Aboriginal respondents) in search of skills upgrading.

About 23% of all respondents participated in career related courses but such courses were most popular among respondents in the 25 to 29 year age group (Table 3d). As shown in Table 3d, 25% of Canadian-born non-Aboriginal participants compared to 28% each for Aboriginal and immigrant participants undertook career related courses. Lower participation was evident for Aboriginal respondents aged 30 to 44, and for immigrants

*Table 3a: Participation rate in degree and non-degree programs by citizenship group and age (2002)*

	Aboriginal	Immigrant	non-Aboriginal
Below 25	28	44	41
25 to 29	34	27	25
30 to 44	31	26	21
45 to 64	36	31	19

*Table 3b: Participation rate in degree programs by citizenship group and age (2002)*

	Aboriginal	Immigrant	non-Aboriginal
Below 25	12	25	23
25 to 29	17	14	13
30 to 44	16	8	9
45 to 64	20	16	8

*Table 3c: Participation rate in non-degree programs by citizenship group and age (2002)*

	Aboriginal	Immigrant	non-Aboriginal
Below 25	19	18	18
25 to 29	18	14	13
30 to 44	16	19	12
45 to 64	16	15	11

45 years of age or older. (Further details are

*Table 3d: Participation rate in career-related courses by citizenship group and age (2002)*

	Aboriginal	Immigrant	non-Aboriginal
Below 25	23	24	21
25 to 29	28	28	25
30 to 44	19	26	26
45 to 64	21	18	23

given in Appendix A, Table A3)

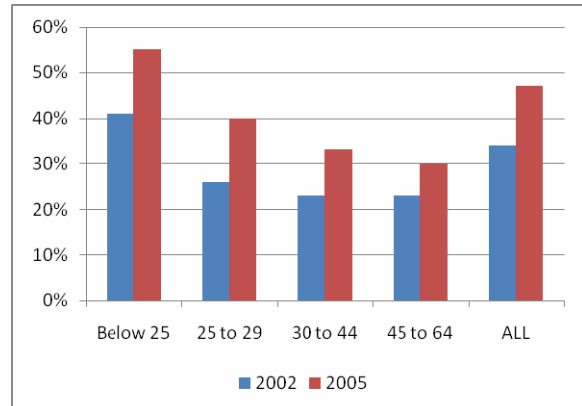
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**Participation in programs over time**

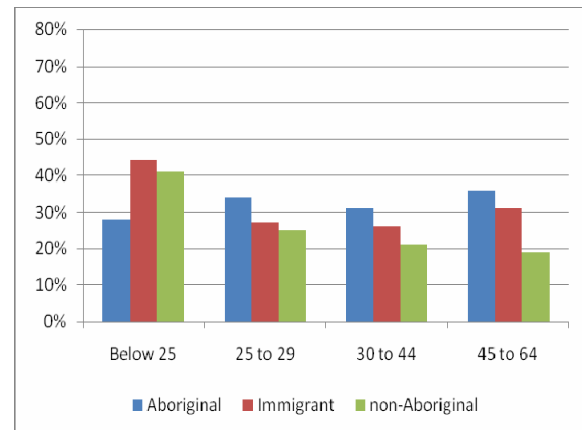
In this section we describe patterns of participation in post-secondary programs between 2000 and 2005 by citizenship and age group. Figure 4a compares participation rates in post-secondary programs in 2002 and 2005 by age. Overall, participation increased from 34% by 2002 to 47% by 2005. The youngest age group is the most actively involved in further education, showing participation rates as high as 41% and 55% in 2002 and 2005, respectively. Although there is a clear decrease by age, even the oldest age group shows rates as high as 23% and 30% within 2 and 5 years since graduation.

Differences are, however, more evident by citizenship group. Figure 4b illustrates post-secondary education participation between 2000 and 2002, and Figure 4c shows cumulative enrolment between 2000 and 2005. Regardless of age, participation by immigrants is consistently higher compared to Canadian-born non-Aboriginals. Immigrants younger than 25 years of age reached the highest level of post-secondary participation (62%) by 2005. In contrast, among all groups older than 25 years of age, those in the Aboriginal group show the highest participation rates at both survey times (except Aboriginals and Immigrants 30 to 44 years of age who show the same participation rates by 2005). (Further details are in Appendix A, Table A4)

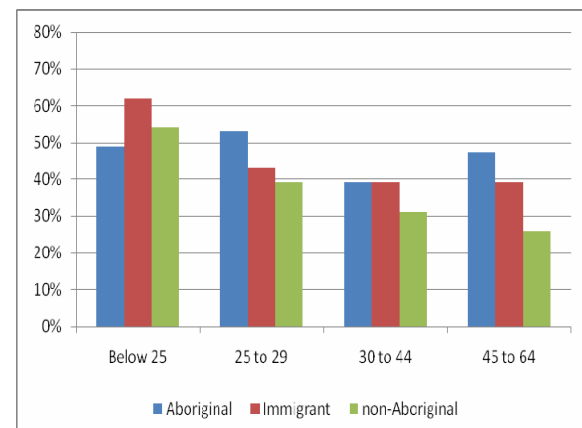
*Figure 4a: Participation rate in post-secondary programs by 2002 and 2005*



*Figure 4b: Participation rate in post-secondary programs by 2002*



*Figure 4c: Participation rate in post-secondary programs by 2005*



### SECTION 3: How do graduates finance their education?

Financial resources available for pursuing post-secondary education are a crucial determinant of participation. Examining the two main sources of funding that respondents have used over time to support their education indicates who is likely to forego pursuing further education due to financial barriers. In this section, we present the main post-secondary funding sources which respondents declared in 2002 to cover all their post-secondary participation so far.

#### **Funding Sources**

We compare the proportions of respondents who declared various funding sources by age and citizenship group. Respondents chose two main sources of funding from a list. The detailed composition of each funding source category is presented in Appendix Table A5a. We distinguish between personal and family sources, various loans and awards, as well as other funding which includes employer and government sources. With the exception of loans, all other funding is usually non-repayable. We look separately at government student loans.

There are many similarities between the Canadian-born non-Aboriginal and immigrant groups in terms of post-secondary funding (Tables 4b and 4c). Large proportions of non-Aboriginal and immigrant respondents indicated personal finances as the main source of post-secondary funding, with these proportions increasing with age. About two-thirds of those in the non-Aboriginal and more than half of respondents in the immigrant groups declared their reliance on personal funding. Both groups indicated significant family support which largely diminishes with age from 49% for the younger group to 15-18% for the older group.

Reliance on loans is significant especially for the prime working-age groups. For instance, 57% of those 25-29 years of age, both non-Aboriginal and immigrant respondents, indicated loans as a main source of post-secondary funding. Loans become more important than family support for all those over 25 years of age. Awards and other funding types are not particularly significant as a main source of funding for the Canadian-born non-Aboriginal and immigrant groups, although there is an increase in the

*Table 4a: Percentage of Aboriginal graduates using various PSE funding sources by age*

	Below 25	25 to 29	30 to 44	45 to 64
Personal	46	33	27	39
Family	27	7	15	13
Loans	46	44	25	18
Awards	16	11	21	18
Others	24	41	52	48

*Table 4b: Percentage of Immigrant graduates using various PSE funding sources by age*

	Below 25	25 to 29	30 to 44	45 to 64
Personal	51	53	53	57
Family	49	30	21	18
Loans	50	57	48	27
Awards	10	12	11	14
Others	2	3	12	25

*Table 4c: Percentage of non-Aboriginal graduates using various PSE funding sources by age*

	Below 25	25 to 29	30 to 44	45 to 64
Personal	63	64	66	73
Family	49	32	22	15
Loans	43	57	41	18
Awards	10	12	11	11
Others	2	5	16	22

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proportions reporting 'other funding' sources (e.g., workers' compensation, employment insurance, or employer and government support) for those more than 30 years of age who are perhaps more active in the labour force.

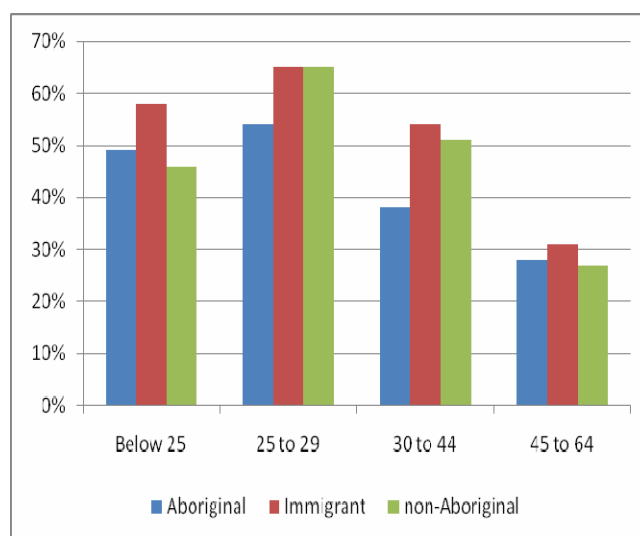
A different pattern is noticeable for Aboriginal respondents (Table 4a). Personal funding is also one of the main source for all age groups, but less significant than was reported by Canadian-born non-Aboriginals and immigrants. Only 46%, 33%, 27% and 39% of respondents in the four age groups indicated personal sources. Another difference between those in the Aboriginal group and the other two citizenship groups is the relatively low reliance on family sources. Indeed, 27%, 7%, 15% and 13% of Aboriginal respondents in the four age groups indicated family support as a main source of post-secondary funding. However, loans appear to be important for those younger than 25 and those 25-29 years of age (44-46%). For all age groups except the 25-29 year olds, the proportions of Aboriginal respondents who relied on awards surpassed the corresponding proportions by the other two citizenship groups. In addition, Aboriginal respondents benefited from substantial funding from other sources, mainly government funding programs.

### **Student loans**

Figure 5 shows that the proportions of respondents who received student loans to fund their post-secondary education are relatively high among the prime working age groups. Overall, about 50% of all post-secondary graduates accumulated student loans over time.

Although overall there is less reliance on student loans as a main source of support with increasing age, loans are an important supplemental source of funding for many students. Among all citizenship groups, those in the 25 to 29 year age range are most likely to have ever had a student loan (54% of Aboriginal and 65% of Immigrant and non-Aboriginal respondents). Lower proportions of Aboriginal respondents reported having student loans, especially those in the prime working age group (25-44). (Further details are in Appendix A, Table A5b.)

*Figure 5: Percentage of respondents who received student loans by age and citizenship group*



### **Employer support for further education**

Since employers support many career-related courses, one's work situation is likely to be a significant factor controlling access to course education and training. Overall, 72% of those who enrolled in career-related courses received some employer support (e.g., organizing the course, contributing towards course expenses, providing paid or unpaid time-off). In contrast, program support by employers is three times lower (See Appendix A, Table A5c).

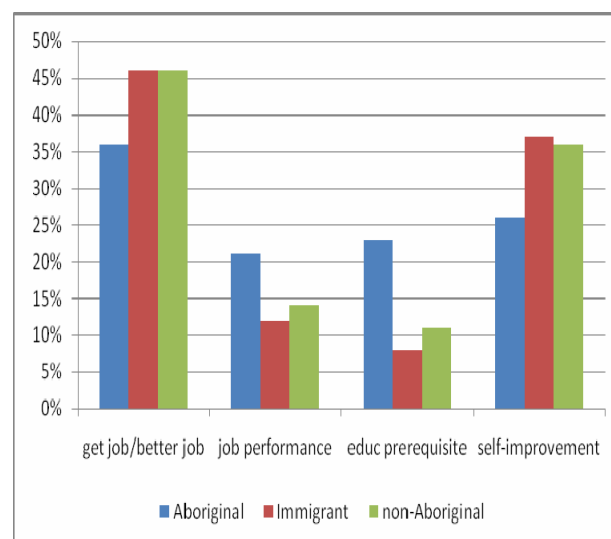
However, employers' course-level support was unequal for the three citizenship groups, the highest rate of support being indicated for the Aboriginal group (81%), followed by Canadian-born non-Aboriginal (74%) and immigrant groups (61%). In contrast, the data show that 30% of those in the immigrant and Aboriginal groups as compared to 24% of those in the non-Aboriginal group benefited from employers' support for program-level participation.

## **SECTION 4: Why do graduates pursue further education?**

The 2002 follow-up survey of graduates contains data which indicate respondents' main reasons for enrolling in further education after post-secondary graduation. Job-related motives for further education were clearly dominant (Figure 6). About 46% of all program participants declared that getting a job or finding a better job was the motive to continue their education. Another 14% maintain that keeping the current job, performing better on the job, or earning more was the reason to continue. About 11% and 34% of program participants identified educational prerequisites and general self-improvement as the main reasons for participation.

Differences in reasons identified are not as visible between Canadian-born non-Aboriginal and immigrant groups, although the latter slightly favours self-improvement (37 vs. 33%) rather than job performance (12 vs. 14%) and education-related reasons (8 vs. 11%). This tendency perhaps reflects the age and level of education differences between the two groups. Very clear differences are visible for participants in the Aboriginal group. Thirty-six percent of Aboriginal participants pursue education in order to get a job or a better job, while 21% are motivated to improve outcomes in their current job. By contrast, 46% of non-Aboriginal and 48% of immigrant participants pursue education to get a new job, and 14% of non-Aboriginal and 12% of immigrants are motivated by current job performance and

*Figure 6: Percentage of respondents who gave various reasons for further education by citizenship group (2002)*





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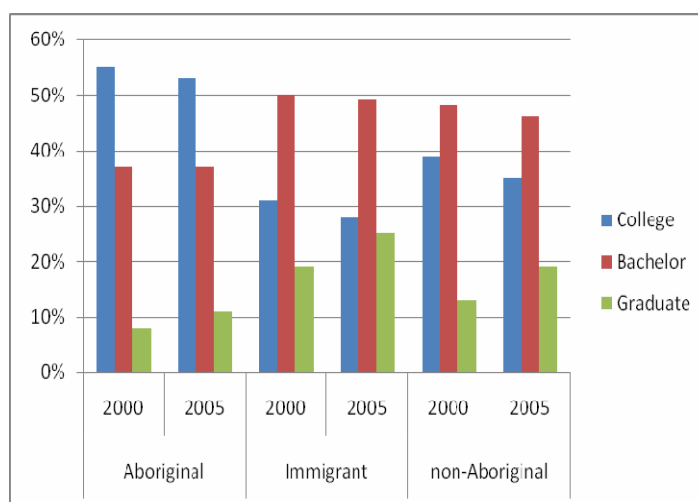
outcomes. About 23% of those in the Aboriginal group identify the need to fulfill prerequisites for further education, as compared to non-Aboriginal (11%) and immigrants (8%). Meanwhile, 26% of Aboriginal, 33% of non-Aboriginal and 37% of immigrant participants identify self-improvement as the reason to continue their studies. (Further details are in Appendix A, Table A6).

## **SECTION 5: What are the benefits to pursuing further studies?**

### ***Educational attainment change by 2005***

As indicated in Section 4 above, about 60% of respondents viewed further education and acquiring higher levels of post-secondary education as a means to access better employment opportunities. As illustrated in Figure 7, five years after obtaining their post-secondary credentials, respondents slightly improved their level of education by taking further education. For all citizenship groups, there is a decrease in the proportion of respondents with college credentials and bachelor's degrees, and an increase in graduate level attainment. One exception is the proportion of holders of bachelor's degrees in the Aboriginal group which remained constant over time at 37%, because the increase in the proportion of respondents with graduate degrees is only 3%. In contrast, the move toward more respondents with graduate degrees is especially visible for the Canadian-born non-Aboriginal and immigrant groups for whom the increase in the proportion of holders of graduate degrees is 6%. Since education is expected to correlate with labour market outcomes, the higher level of education is likely to translate into improved employment prospects.

*Figure 7: Profile of respondents who changed their credentials by citizenship group and educational attainment (2005 vs. 2002)*



### **Employment characteristics in 2005**

The scope of this section is to provide a comparative analysis of the employment situation in 2005 by citizenship groups and participation in further post-secondary education programs. Since separate analyses are performed for each of the highest level of education attained by 2005 (college, bachelor, and graduate), we compare respondents who maintained the level of education achieved in 2000 (non-participants) with those who were in a more transient phase being involved in further studies (participants) between 2000 and 2005. One can expect that participants in further education have more complex pathways because they are often engaged in both work and learning activities in contrast to non-participants who can focus on work activities. As a result, it is not surprising that participants may remain behind non-participants in terms of labour force integration. Certainly, there are other reasons to delay workforce integration that could affect all respondents (e.g., parenthood, health problems). However, considering the age distribution of the graduate sample (e.g., average age above 25 years at graduation), one can expect that five years later, in 2005, the majority of respondents would be at least to some extent involved in the labour market. In this section, those who are not involved in the labour market in 2005 are excluded from the analysis.

The analysis will focus on job characteristics (permanent or temporary job), median income for full-time employed, and respondents' perceptions of the extent to which their current job and education were related, and whether they felt overqualified in their jobs (Tables 5 to 7). All labour market indicators are based on the 2005 survey data.

### **Job permanency by 2005**

Regardless of educational attainment in 2005, respondents engaging in further education had a clear disadvantage with respect to getting permanent jobs due to their more transient workforce situation between 2000 and 2005. At least for some periods of time within this interval, they were not in the labour force, being either in 'school' or combining work and learning activities. Dividing attention between both education and employment may have delayed their job attainment. First, Table 5 (further details are given in the Appendix A, Tables A7a-c) shows that, for all respondents, there is a decrease in the proportion of workers with permanent employment by increasing the level of education. Second, the proportions of workers with permanent employment are consistently higher for non-participants than for participants. Third, differences between non-participants and participants increase with level of completed education. For instance, among respondents with college diplomas or certificates, 87% of non-participants compared to 83% of participants had permanent jobs in 2005, while these proportions are 85% and 79% for respondents with bachelor's degrees, and 82% and 73% for those with graduate degrees. These trends show that jobs that require more education are in short supply. Participants in further education seem to be more affected by this shortage, although differences by citizenship group are visible within each level of educational attainment.

## **College**

Immigrant workers appear to have the best rate of job permanency and the lowest difference between those who did not participate (89%) and those who did participate (88%) in further education. Although lower, the proportions of Aboriginal workers with permanent jobs are also relatively close for non-participants (86%) and participants (83%). The largest discrepancy is observed for non-Aboriginal respondents (87% and 82% for non-participants and participants, respectively). A possible explanation for the relatively high job permanency rates for immigrants could be related to this group being older and perhaps better established in the labour force.

## **Bachelor**

As shown in Table 5, the employment and further education relationship pattern for respondents with bachelor degrees is similar to that of respondents with college diplomas or certificates. As with their college counterparts, bachelor graduates who have participated in further education are less likely to have a permanent job. The difference is minor for immigrants, but very pronounced for non-Aboriginal and especially for Aboriginal respondents (85% vs. 78% and 90% vs. 79% for non-participants and participants, respectively). In particular, 90% of the Aboriginal respondents who did not continue further education reported holding permanent jobs – the highest proportion across all groups.

## **Graduate**

Differences noted above are even more pronounced at the graduate level. Data do not allow a similar assessment for Aboriginal respondents (i.e., there are low numbers of Aboriginal graduates in one of the job categories). For immigrants, 80% of non-participants and 75% of participants hold permanent jobs. However, the difference in job permanency rate is more pronounced for non-Aboriginal respondents (82% vs. 73%). Aboriginal respondents who continued further education are situated relatively better in terms of job permanency compared to the other 2 groups. Among the graduate level group, those enrolled in further post-secondary education also remain behind in finding permanent employment and these differences are more pronounced compared to college and bachelor graduates. This may be due to having been enrolled in longer and more demanding programs which did not permit respondents to advance within the labour force at the same rate as non-participants. However, it is also possible that respondents with graduate degrees obtained in 2000 who could not secure good jobs, continued education by taking training programs at non-university institutions, university non-degree programs, or pursuing studies in new fields of study at any level.

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*Table 5: Employment type by further education participation in 2005 and citizenship group*

<b>College</b>									
	<b>Aboriginal</b>		<b>Immigrant</b>		<b>non-Aboriginal</b>		<b>All</b>		
<b>Further education participation</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	
Permanent job	86	83	89	88	87	82	87	83	
Temporary job	14	17	11	12	13	18	13	17	
<b>Bachelor</b>									
	<b>Aboriginal</b>		<b>Immigrant</b>		<b>non-Aboriginal</b>		<b>All</b>		
<b>Further education participation</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	
Permanent job	90	79	86	85	85	78	85	79	
Temporary job	10	21	14	15	15	22	15	21	
<b>Graduate</b>									
	<b>Aboriginal</b>		<b>Immigrant</b>		<b>non-Aboriginal</b>		<b>All</b>		
<b>Further education participation</b>	<b>No*</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	
Permanent job	msk	79	80	75	82	73	82	73	
Temporary job	msk	21	20	25	18	27	18	27	

\*Data masked due to small number of respondents in one sub-group of the unweighted sample.

### **Median income, 2005**

There is a clear effect of educational attainment on median income regardless citizenship group and participation in further education (Table 6; further details Appendix A, Tables A7a-c). However, the median income of all respondents was slightly higher for those who had not participated in further education (\$45,000) than for those who had (\$44,000). This trend is due to university graduates' earnings because college graduates who were involved in further education had higher median incomes (\$38,100) than those who did not (\$35,000). In contrast, holders of bachelor's degrees who were involved in further education remain behind in terms of income compared to those who did not take any more education (\$44,500 vs. \$48,000). The most pronounced difference is noticed at the graduate level, with those who were involved in further education earning only \$50,000 as compared to \$63,000 earned by those who did not pursue any further education. Differences in median incomes for the graduate group are likely a reflection of the employment status that shows large proportions of participants in further education in temporary jobs or not employed.

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At the college level, for all citizenship groups there is a positive return to further education in terms of median income, although it is less pronounced for non-Aboriginal participants. Those in the immigrant citizenship group who participated in further education have the highest median income (\$40,400). Amongst those who did not participate in further education, non-Aboriginals obtain the best income (\$36,000). The greatest difference between participants and non-participants is found within the Aboriginal group with \$35,500 compared to \$28,800 respectively.

*Table 6: Median income by further education participation and citizenship group  
(\$ thousands)*

Further education participation	Aboriginal		Immigrant		non-Aboriginal		All	
	No	Yes	No	Yes	No	Yes	No	Yes
Median income 2005 *								
College	28.8	35.5	33.8	40.4	36.0	38.1	35.0	38.1
Bachelor	43.0	48.0	50.0	46.0	48.0	44.0	48.0	44.5
Graduate	60.0	63.0	65.0	52.0	63.0	50.0	63.0	50.0
ALL	37.0	41.7	46.8	46.0	45.0	44.0	45.0	44.0

\*only respondents who are employed full-time

At the bachelor and graduate levels, this relationship between higher median income and further education participation does not hold across all groups. In fact, for those in the non-Aboriginal and immigrant groups, non-participants earned more (as measured by median income) than participants. For instance, the highest median income was found for the immigrant group at both the bachelor (\$50,000) and graduate (\$65,000) levels. In the case of participants in further education, the highest median income was found for the Aboriginal group at both the bachelor (\$48,000) and graduate (\$63,000) levels and these incomes were higher than for Aboriginal non-participants. Clearly, at both bachelor and graduate levels, only the Aboriginal participants obtained a better return to further education.

### ***Respondents' perceptions of job and education by 2005***

Respondents were asked whether they felt over-qualified in their current job considering their level of education. Table 7 shows the proportions of respondents who agreed and strongly agreed (%Yes) with the statement. They were then asked whether the job was closely, somewhat, or not related to their education. Table 7 reports the proportions of respondents who thought their job was closely related to their education (%Yes). For each level of educational attainment, percentages are reported by citizenship group and further education participation.

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## College

Table 7 (further details Appendix A, Tables A7a-c) shows that among college graduates, there is an overall tendency towards feelings of job over-qualification. It may be that they have increased their qualifications, but were not employed in jobs that they believed reflected their new educational status. The difference is very pronounced for those in the Aboriginal group (i.e., 24% of non-participants vs. 40% of participants) but is absent for immigrants.

Regarding whether respondents' jobs were related to their education, the effect of further studies is relatively low in the case of immigrants and Aboriginals (i.e., 58% vs. 55% of immigrants and 53% vs. 50% of Aboriginals, participants and non-participants, respectively, believe that current job and education were closely related). In contrast, a lower proportion of non-Aboriginal participants (56%) than non-participants (62%) perceived there was a close connection between their education and job.

<i>Table 7: Proportion of respondents who agreed with each statement (%Yes) on job-education relation by citizenship group and further education participation</i>								
<b>College</b>								
	<b>Aboriginal</b>		<b>Immigrant</b>		<b>non-Aboriginal</b>		<b>All</b>	
<b>Further education participation</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
Feel overqualified*	24	40	26	26	21	28	22	28
Job closely related to education*	50	53	55	58	62	56	61	56
<b>Bachelor</b>								
	<b>Aboriginal</b>		<b>Immigrant</b>		<b>non-Aboriginal</b>		<b>All</b>	
<b>Further education participation</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
Feel overqualified*	33	21	28	32	21	28	22	28
Job closely related to education*	51	62	52	43	67	62	64	59
<b>Graduate</b>								
	<b>Aboriginal</b>		<b>Immigrant</b>		<b>non-Aboriginal</b>		<b>All</b>	
<b>Further education participation</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
Feel overqualified*	18	31	34	33	20	25	23	27
Job closely related to education*	55	60	74	64	72	66	72	66
*only respondents who are employed								

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## **Bachelor**

Within the bachelor's level category, citizenship group differences are evident in terms of perceptions of over-qualification and job-education relatedness. For the Aboriginal group, participants in further education are less likely than non-participants to feel they are overqualified for their job (i.e., 21% vs. 33%), in contrast to both the immigrant (i.e., 32% vs. 28%) and non-Aboriginal respondents (i.e., 28% vs. 21%). The Aboriginal respondents who participated in further education are also more likely than non-participants to indicate that there is a close relationship between their job and education (i.e., 62% vs. 51%) compared to the other two groups (i.e., 43% vs. 52% for immigrant and 62% vs. 67% for non-Aboriginal respondents).

## **Graduate**

Within the graduate category, citizenship group differences are also evident in terms of perceptions of over-qualification and job-education relatedness. For the Aboriginal group, participants reported a much higher over-qualification rate (i.e., 31% vs. 18%). Although the Aboriginal group had the lowest proportions of respondents who believed job and education were related, more participants than non-participants perceive this to be the case (i.e., 60% vs. 55%). In contrast, differences between participants and non-participants are quite pronounced for immigrant respondents. About one-third of participants and non-participants feel overqualified in their jobs. This group shows some of the highest percentages of respondents who believe there is a close relationship between job and education (i.e., 74% of non-participants and 64% of participants). In the case of non-Aboriginals, 20% of non-participants and 25% of continuing education participants feel over-qualified. And 72% of non-participants as compared to 66% of participants perceived that their current job was closely related to their education.

## **SECTION 6: Summary and policy implications**

### **Summary**

This study focuses on comparing the work and further education journeys of Canadian-born Aboriginal, immigrant, and Canadian-born non-Aboriginal post-secondary students who graduated in 2000. We inquired to what extent the Aboriginal and immigrant groups differed from the mainstream group and we demonstrated that 1) these two groups constitute a significant number of post-secondary students, 2) they have specific reasons to participate in further education and specific means to support their participation, and 3) age and citizenship factors shape different profiles of educational attainment, participation in further education, and returns to education. Some results have direct policy and practice implications.

**Educational attainment** – this study clearly illustrates that educational attainment differs significantly for the three citizenship groups. Immigrants have the largest proportions of respondents with university education and the lowest with college education, reflecting a Canadian immigration policy that has recruited highly educated immigrants who are also willing to obtain further education in Canada. By comparison, Aboriginal learners are more likely to have earned college credentials and least likely to have a university degree. Overall, graduates in the 25 to 29-year age group, are most likely to have university credentials. The age-citizenship educational attainment profiles of post-secondary graduates in 2000 are a clear evidence of the diversity of the student population in Canadian post-secondary institutions. These profiles are certainly related to availability of resources to finance post-secondary education. Study findings show that **financing patterns** for non-Aboriginal and immigrant groups were similar with a substantial reliance on personal sources, but also family support for the younger groups. By comparison, Aboriginals were somewhat less reliant on personal sources, and very little reliant on family support, and relied more heavily on loans and government support.

**Demand for further education** – post-secondary graduates engaged in both degree and non-degree university programs, and further education options offered by other post-secondary institutions (e.g., colleges, institutes). There is a high demand for degree program options by Aboriginal and immigrant students in the 45 to 64 age group which may have implications for adult education practices within a university. However, participation in career-related courses which is better supported by employers and can lead to immediate employment benefits, is less frequently undertaken by these two groups as compared to prime working-age groups. Looking at **participation over time** reveals that younger immigrants below the age of 25 and Aboriginals above the age of 25 were the most active program participants among their specific age groups at both survey times. There was also a higher participation by immigrants compared to Canadian-born non-Aboriginals for all age groups and at both survey times.

**Reasons for taking further studies** – the majority of graduates identified job-related motivations for further education, although there are different patterns for Aboriginals which may reflect the different age-participation pattern for this group. Corroborating this result with study findings that show that no



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more than two thirds of respondents believe their education and job are closely related should raise concerns about how well post-secondary institutions prepare their graduates for the labour market.

**Economic benefits** appear to be delayed by participating in further education especially for those with university education. However, the clear differences in income between holders of college, bachelor's, and graduate credentials from about \$35,000 to \$45,000 and to \$55,000 make a strong economic argument that more education is beneficial. The only group that obtains faster results are those who had college credentials and who were likely enrolled in vocational programs. When comparing labour market outcomes for the three levels of education, it is interesting to note that about one quarter of all post-secondary graduates feel overqualified regardless of whether they had pursued more education. However, the higher the level of education the larger the proportion of those who believe that education and job are closely related -- a positive result that shows that more involvement with education may open new horizons in bridging the work and learning components of one's life.

### ***Further research and policy implications***

Based on our study findings we propose a number of policy recommendations from the perspective of participation in further studies of Canadians who already completed post-secondary education, support for continuing education, and labour market outcomes. We also identify areas that require further research.

### **Participation and life long learning**

Diversity is one of the key themes from this study. Post-secondary education systems in Canada are major providers of continuing education and also service many who are avid consumers of continued learning. But as shown, different citizenship groups have different participation patterns and, within those groups, different participation patterns based on age. If we are to continue to encourage further education among post-secondary graduates, regardless of age, the specific motivation for education and availability of resources (e.g., finances, time, or location) of learners at different stages in the life course should be taken into account. For example, large proportions of older Aboriginal learners participated in degree and non-degree programs. Understanding the reasons why Aboriginal students delay post-secondary and further education and the supports needed to ensure the success of older students in general is warranted.

Regional institutions play an important role in further post-secondary education activities for all citizenship groups, but their importance is most pronounced for the Aboriginal learners who may decide not to live in large cities. We know that geographical proximity to a post-secondary institution is correlated with enrolment in a course or program of studies. Our findings suggest that for Aboriginal participants in particular, access to initial and further studies is linked with regional colleges and institutes. For instance, the study shows that Aboriginal respondents, who were on average older than non-Aboriginal college graduates, were more likely to have college education in 2000. This suggests that

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college education that is more often available outside metropolitan areas might be considered by students who have family obligations and/or cannot afford to move away from home. Young Aboriginal students are also more likely to enrol in non-degree programs, some provided by colleges. To encourage participation of all learners, including Aboriginal learners, in initial post-secondary education and advanced levels of further education, we should consider not only the importance of geographic distribution of colleges but also increasing participation by opening university regional campuses.

Immigrants constitute an increasingly large group of learners. Many recent immigrants already possess higher education credentials at arrival to Canada and most of them engage in more education and training sooner or later. Some immigrants are in need of skills upgrading in order to obtain recognition of their foreign credentials. Others may decide to pursue advanced education and/or to engage in new educational pathways that better reflect their current career aspirations. Many may be in need of language training or learning about Canadian culture. Since it is likely that immigrants, regardless age, may increasingly become consumers of post-secondary education in Canada, institutions should, at minimum, be aware of the presence of this demographic group on campuses.

#### **Sources of support for further studies**

Investment by employers in the continuing education and training of younger participants is encouraging, but begs the question of whether employers view their investment in younger workers as leading to a longer, more profitable return on their investment. Understanding why older workers are not more represented among those who receive employer support for continued learning is a first step to ensuring that such support is not unduly biased against older workers.

Compared to Canadian-born non-Aboriginal and immigrant learners, Aboriginal learners show significant reliance on government funding programs to fund their initial post-secondary and further education participation. Clearly it is an important support mechanism that should be continued.

#### **Labour market related implications**

Our study showed that no more than two-thirds of respondents believe their education and job are closely related. This should raise concerns about how well post-secondary institutions prepare their graduates for the labour market, as well as the expectations employers have about the job-readiness of those graduates. Further, it is important to find ways to ensure an equitable relationship between employment and wage growth (i.e., economic benefits) and individual effort to improve one's level of knowledge and skills (i.e., further studies). If the Canadian workforce adopted a 'learner-worker' model to advance the knowledge economy, workers' involvement in lifelong learning would need to be coordinated with employer response to using their new gained skills and rewarding these skills accordingly.

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**Appendix A: Tables**

**Table A1**

<i>Research sample profile by level of education and citizenship groups (row %)</i>							
		College		Bachelor		Graduate	
	<b>Total</b>	N	%	N	%	N	%
non-Aboriginal	<b>216,500</b>	84,590	39	104,880	48	27,030	13
Aboriginal	<b>7,030</b>	3890	55	2600	37	540	8
Immigrant	<b>38,210</b>	11,660	31	19,250	50	7,290	19

**Table A2**

<i>Research sample profile by level of education, age and citizenship group</i>									
		College		Bachelor		Graduate		All	
		N	%	N	%	N	%	N	%
< 25	non-Aboriginal	57,390	44	69,360	53	4,730	4	<b>131,470</b>	100
	Aboriginal	1,500	58	10,40	41	30	1	<b>2,570</b>	100
	Immigrant	4,700	32	9,870	66	370	3	<b>14,940</b>	100
	<b>All</b>	<b>63,590</b>	<b>43</b>	<b>80,270</b>	<b>54</b>	<b>5,130</b>	<b>3</b>	<b>148,990</b>	100
25-29	non-Aboriginal	9,950	25	20,960	52	9,390	23	<b>40,290</b>	100
	Aboriginal	1,130	58	680	35	130	7	<b>1,950</b>	100
	Immigrant	1,740	23	3,980	53	1,840	24	<b>7,550</b>	100
	<b>All</b>	<b>12,810</b>	<b>26</b>	<b>25,610</b>	<b>51</b>	<b>11,360</b>	<b>23</b>	<b>49,790</b>	100
30-44	non-Aboriginal	13,860	40	11,500	33	9,380	27	<b>34,740</b>	100
	Aboriginal	1,090	50	780	36	320	15	<b>2,190</b>	100
	Immigrant	3,840	33	3,730	32	4,020	35	<b>11,590</b>	100
	<b>All</b>	<b>18,790</b>	<b>39</b>	<b>16,000</b>	<b>33</b>	<b>13,720</b>	<b>28</b>	<b>48,510</b>	100
45-64	non-Aboriginal	3,390	34	3,070	31	3,530	35	<b>10,000</b>	100
	Aboriginal	170	52	90	30	60	18	<b>320</b>	100
	Immigrant	1,380	34	1,680	41	1,070	26	<b>4,130</b>	100
	<b>All</b>	<b>4,940</b>	<b>34</b>	<b>4,840</b>	<b>34</b>	<b>4,660</b>	<b>32</b>	<b>14,440</b>	100
<b>TOTAL by level of education</b>		<b>100,140</b>	<b>38</b>	<b>126,730</b>	<b>48</b>	<b>34,870</b>	<b>13</b>	<b>261,730</b>	

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**Table A3**

<i>Number and percent of respondents enrolled in further education between 2000 and 2002</i>												
	Age below 25						Age 25-29					
	non-Aboriginal		Aboriginal		Immigrant		non-Aboriginal		Aboriginal		Immigrant	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Programs</b>	<b>53,400</b>	<b>41</b>	<b>710</b>	<b>28</b>	<b>6,430</b>	<b>44</b>	<b>10,190</b>	<b>25</b>	<b>660</b>	<b>34</b>	<b>2,030</b>	<b>27</b>
Degree programs	30,520	23	300	12	3,740	25	5,270	13	330	17	1,010	14
Non-degree programs	24,020	18	490	19	2,730	18	5,060	13	350	18	1,030	14
Courses	27,480	21	590	23	3,540	24	10,030	25	550	28	2,100	28

<i>Continued...</i>												
	Age 30-44						Age 45-64					
	non-Aboriginal		Aboriginal		Immigrant		non-Aboriginal		Aboriginal		Immigrant	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Programs</b>	<b>7,350</b>	<b>21</b>	<b>670</b>	<b>31</b>	<b>2,980</b>	<b>26</b>	<b>1,860</b>	<b>19</b>	<b>120</b>	<b>36</b>	<b>1,260</b>	<b>31</b>
Degree programs	3,220	9	350	16	890	8	830	8	60	20	660	16
Non-degree programs	4,130	12	350	16	2,150	19	1,070	11	50	16	610	15
Courses	9,050	26	410	19	3,020	26	2,270	23	70	21	740	18

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**Table A4**

Number and percentage of respondents enrolled in programs between 2000-2002 and 2000-2005												
	Age below 25						Age 25-29					
	non-Aboriginal		Aboriginal		Immigrant		non-Aboriginal		Aboriginal		Immigrant	
	N	%	N	%	N	%	N	%	N	%	N	%
Programs taken 2000-2002	53,400	41	710	28	6,430	44	10,190	25	660	34	2,030	27
Programs taken 2000-2005	70,830	54	1,250	49	9,080	62	15,460	39	1,030	53	3,200	43

Continued...

	Age 30-44						Age 45-64					
	non-Aboriginal		Aboriginal		Immigrant		non-Aboriginal		Aboriginal		Immigrant	
	N	%	N	%	N	%	N	%	N	%	N	%
Programs taken 2000-2002	7,350	21	670	31	2,980	26	1,860	19	120	36	1,260	31
Programs taken 2000-2005	10,800	31	860	39	4,450	39	2,600	26	150	47	1,580	39

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**Table A5a**

<i>PSE funding sources reported in 2002 (percents of total respondents by age and citizenship group)</i>						
	Age below 25			Age 25-29		
Two main sources	non- Aboriginal	Aboriginal	Immigrant	non- Aboriginal	Aboriginal	Immigrant
<b>Total</b>	<b>131,360</b>	<b>2,570</b>	<b>14,420</b>	<b>40,270</b>	<b>1,950</b>	<b>7,430</b>
Personal	63	46	51	64	33	53
Family	49	27	49	32	7	30
Loans	43	46	50	57	44	57
Awards	10	16	10	12	11	12
Others	2	24	2	5	41	3

<i>Continued...</i>						
	Age 30-44			Age 45-64		
Two main sources	non- Aboriginal	Aboriginal	Immigrant	non- Aboriginal	Aboriginal	Immigrant
<b>Total</b>	<b>34,730</b>	<b>2,190</b>	<b>11,500</b>	<b>9,950</b>	<b>320</b>	<b>4,100</b>
Personal	66	27	53	73	39	57
Family	22	15	21	15	13	18
Loans	41	25	48	18	18	27
Awards	11	21	11	11	18	14
Others	16	52	12	22	48	25



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**Table A5b**

<i>Number and percent of respondents who had any student loans by 2002</i>						
	Age below 25			Age 25-29		
	non-Aboriginal	Aboriginal	Immigrant	non-Aboriginal	Aboriginal	Immigrant
<b>Total</b>	<b>131,360</b>	<b>2,570</b>	<b>14,480</b>	<b>40,230</b>	<b>1,950</b>	<b>7,430</b>
Student loans	46	49	58	65	54	65

<i>Continued...</i>						
	Age 30-44			Age 45-64		
	non-Aboriginal	Aboriginal	Immigrant	non-Aboriginal	Aboriginal	Immigrant
<b>Total</b>	<b>34,710</b>	<b>2,190</b>	<b>11,500</b>	<b>9,970</b>	<b>320</b>	<b>4,100</b>
Student loans	51	38	54	27	28	31

**Table A5c**

<i>Number and percent of participants who received employer support course and program participation</i>								
	non-Aboriginal		Aboriginal		Immigrant		All	
	N	%	N	%	N	%	N	%
Programs	16,350	24	590	30	3,260	30	20,200	24
Courses	36,230	74	1,320	81	5,740	61	43,290	72

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**Table A6**

<i>Number and percent of respondents who indicated specific reasons for participation in further education</i>								
	non-Aboriginal		Aboriginal		Immigrant		All	
	N	%	N	%	N	%	N	%
Get job/better job	33,430	46	780	36	5,850	48	40,050	46
Keep job/perform better	10,210	14	440	21	1,500	12	12,150	14
Education prerequisites	7,730	11	500	23	980	8	9,200	11
Self improvement	24,080	33	560	26	4,690	37	29,340	34

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**Table A7a**

College																
<b>Table 7a1: Employment status (number and percent) of respondents by CE participation and group citizenship status</b>																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No	Yes		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Employment <sup>a</sup>																
Permanent	39,980	87	19,160	82	1,650	86	1,140	83	5,280	89	3,100	88	46,920	87	23,400	83
Temporary	6,040	13	4,200	18	270	14	230	17	630	11	430	12	6,940	13	4,860	17
<b>Table 7a2: Median income and number of FT employed respondents by CE participation and group citizenship status (\$ thousands=M)</b>																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No	Yes		
	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M		
Median income 2005 <sup>b</sup>	37,590	36.0	19,150	38.1	1,300	28.8	1,150	35.5	4,750	33.8	2,750	40.4	43,640	35.0	23,040	38.1
<b>Table 7a3: Number and percent of employed respondents who feel overqualified by CE participation and group citizenship status</b>																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No	Yes		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Feel overqualified <sup>a</sup>	9,100	21	6,100	28	420	24	540	40	1,410	26	870	26	10,940	22	7,500	28
Job closely related to education <sup>a</sup>	26,830	62	12,210	56	880	50	710	53	3,010	55	1,920	58	30,710	61	14,840	56

<sup>a</sup> Includes only respondents who are employed

<sup>b</sup> Includes only respondents who are employed and have full-time jobs

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**Table A7b**

Bachelor																
<b>Table 7b1: Employment status (number and percent) of respondents by CE participation and group citizenship status</b>																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No		Yes	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Employment <sup>a</sup>																
Permanent	39,710	85	34,220	78	910	90	960	79	6,960	86	6,890	85	47,580	85	42,070	79
Temporary	7,060	15	9,820	22	100	10	260	21	1,110	14	1,220	15	8,270	15	11,300	21
<b>Table 7b2: Median income and number of FT employed respondents by CE participation and group citizenship status (\$ thousands=M)</b>																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No		Yes	
	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M
Median income 2005 <sup>b</sup>	39,150	48.0	35,740	44.0	870	43.0	940	48.0	6,240	50.0	6,820	46.0	46,250	48.0	43,510	44.5
<b>Table 7b3: Number and percent of employed respondents who feel overqualified by CE participation and group citizenship status</b>																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No		Yes	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Feel overqualified <sup>a</sup>	9,010	21	11,440	28	330	33	240	21	2,120	28	2,320	32	11,460	22	13,990	28
Job closely related to education <sup>a</sup>	29,150	67	25,660	62	500	51	700	62	3,870	52	3,140	43	33,510	64	29,500	59

<sup>a</sup> Includes only respondents who are employed

<sup>b</sup> Includes only respondents who are employed and have full-time jobs

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**Table A7c**

Graduate																
Table 7c1: Employment status (number and percent) of respondents by CE participation and group citizenship status																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No <sup>c</sup>		Yes		No		Yes		No <sup>c</sup>		Yes	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Employment <sup>a</sup>																
Permanent	13,630	82	15,490	73	msk	msk	300	79	3,370	80	3,120	75	msk	82	18,900	73
Temporary	2,920	18	5,880	27	msk	msk	80	21	840	20	1,040	25	msk	18	6,990	27
Table 7c2: Median income and number of FT employed respondents by CE participation and group citizenship status (\$ thousands=M)																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No		Yes	
	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M	N	\$M
Median income 2005 <sup>b</sup>	13,780	63.0	17,380	50.0	240	60.0	330	63.0	3,340	65.0	3,320	52.0	17,360	63.0	20,730	50.0
Table 7c3: Number and percent of employed respondents who feel overqualified by CE participation and group citizenship status																
Further education participation	non-Aboriginal				Aboriginal				Immigrant				All			
	No		Yes		No		Yes		No		Yes		No		Yes	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Feel overqualified <sup>a</sup>	2,930	20	4,970	25	50	18	110	31	1,290	34	1,210	33	4,270	23	6,290	27
Job closely related to education <sup>a</sup>	10,740	72	13,020	66	140	55	210	60	2,820	74	2,320	64	13,700	72	15,550	66

<sup>a</sup> Includes only respondents who are employed

<sup>b</sup> Includes only respondents who are employed and have full-time jobs

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<sup>c</sup> All information that could disclose counts and proportions was masked because the unweighted working sample had less than 5 respondents in one subgroup.

## **Appendix B: Variables**

### ***Participation in further education***

Two-category (No/Yes) variables that describe whether respondents participated in events offered by public and private post-secondary institutions:

- Formal education programs 3 months or longer taken by 2002 or by 2005.
- Type of program differentiates by institutional provider (i.e., university and non-university) and, in the case of university programs, by scope (i.e., second degree and non-degree). We will distinguish between 'Degree programs' offered by university and 'Non-degree programs' offered by university or non-university institutions (e.g., colleges, institutes) by 2002.
- Career-related training courses that required at least 20 hours of participation and were offered by various providers (e.g., employer, post-secondary institutions) by 2002.

### ***Design variables***

Highest educational attainment in 2000 and 2005:

- College group includes graduates of public and private colleges and institutes, as well as university diploma below bachelor's degree.
- Bachelor's group includes holders of bachelor's degrees.
- Graduate group includes holders of advanced education above a bachelor's degree, such as university diploma above bachelor's degree, Master's, and Ph.D.'s.

Citizenship groups:

- Canadian-born non-Aboriginal group includes those born in Canada who did not declare Aboriginal ancestry.
- Canadian –born Aboriginal group
- Immigrant group includes those not born in Canada.

Age, 4 groups: below 25, between 25-29, between 30-44, and between 45-64.

### ***Other variables***

Parental education (as a measure of cultural capital, educational aspirations, dispositions toward education) is a 2-category (No/Yes) variable that indicates whether (1) no parent had university education or (2) at least one parent had university education.

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Reason to participate in post-secondary education programs between 2000 and 2002 is described by several 2-category (No/Yes) variables that indicate the scope of education:

- Get job or find a better job
- Better perform on the current job, keep the job, earn more
- Fulfill prerequisites for further education
- General self-improvement.

Main financial support for all post-secondary education is described by several 2-category (No/Yes) variables that indicate whether the funding source was used:

- Personal sources (employment earnings and personal savings)
- Family source (parents, spouse/partner, other people)
- Loans (government student loans, bank loans, credit cards, line of credit)
- Awards (awards, scholarships, fellowships, prizes, bursaries, grants)
- Other sources (worker's compensation, employment insurance, employer, government funding, other financial assistance).

Student loans are described by a 2-category (No/Yes) variable that indicates whether respondents ever had student assistance for any of their post-secondary education leading to completion of a degree or diploma by 2000 and to take further education between 2000 and 2002.

Job permanency describes placement in the labour market and job stability. The variable has 2 categories:

- Employed, permanent job (full-time or part-time).
- Employed, temporary job (full-time or part-time).

Relation between job and education is described by 2 measures:

- Feel overqualified in current job (Yes=agree/strongly agree; No=disagree/strongly disagree)
- Job is closely related to education (Yes=closely; No=somewhat/not related).