

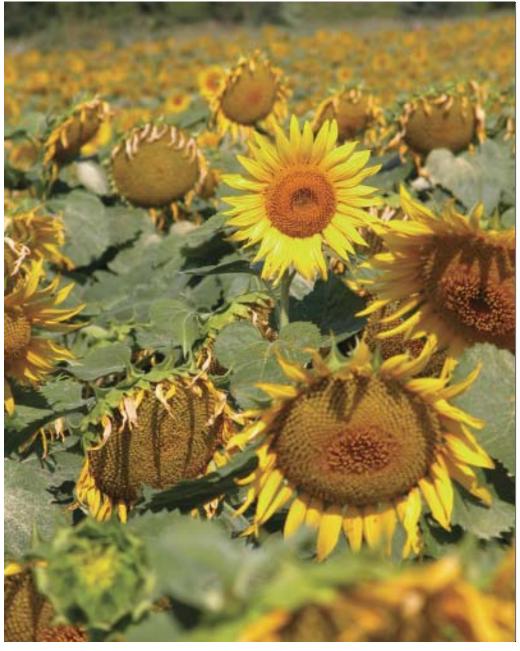
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PERSPECTIVES

ON LABOUR AND INCOME

MARCH 2006 Vol. 7, No. 3

- Does it pay to go back to school?
- WHO GETS STUDENT LOANS?





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Highlights

In this issue

Does it pay to go back to school?

- Workers who return to school as adult students tend to do so at the non-university postsecondary level. Close to 90% of postsecondary certificates obtained by adult students were from institutions such as community colleges, and trade or vocational schools.
- Workers who participated in adult education and obtained a postsecondary certificate generally registered higher earnings gains than their nonparticipating counterparts, even when factors such as initial wage, occupation, and firm size were taken into account.
- Although younger, better-educated workers had higher participation rates, older, less-educated participants were just as likely to reap the benefits of certification. However, gains for older participants were restricted to those who stayed with the same employer, while younger participants benefited more if they switched employers.

Who gets student loans?

- Over half (52%) of full-time postsecondary students aged 18 to 24 with parental income below \$40,000 received a loan from the Canada Student Loans Program (CSLP) in 2000, compared with 14% of students with parental income of \$80,000 or more.
- The average loan amount declines as parental income increases. In 2000, about two-thirds of the value of CSLP loans went to students with parental income below \$60,000—73% in the case of dependent students and 51% in the case of independent students.
- Female students had a higher CSLP take-up rate than their male counterparts (34% versus 29%). But they also had a higher full-time postsecondary participation rate (38% versus 30%).
- Students from families who came to Canada since 1980 had a much higher CSLP take-up rate than others (45% versus 31%). The difference is partly attributable to lower parental income: 58% of these immigrant students had parental income below \$40,000, compared with 29% of other students.

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Does it pay to go back to school?

Boris Palameta and Xuelin Zhang

umerous studies have documented the benefits of staying in school. But what about going back to school? The notion that formal education is something one completes before entering the labour market has become increasingly outdated. While rapid technological change drives the growth of a knowledge-based economy and creates the need for new job-related skills, an aging population means that fewer new workers are available. As a result, more adults are re-entering the educational system. The number of Canadians aged 25 to 64 who were fulltime students more than tripled from 1976 to 1996 (Gower 1997). Similar trends are reported in other countries. For example, whereas less than 10% of registered students in the U.S. were 35 or older in 1970, this percentage had increased to more than 19% by 2001 (Armour 2003).

Some adult students are already highly educated, but may nevertheless feel the need to upgrade their knowledge and skills. Others may have entered the labour market with less education in low-skilled jobs, and may now want to improve their prospects. In either case, adult students are likely to face more challenges than other students in terms of balancing work, education, and family responsibilities. For example, adult students are likely to be cutting back work hours and incurring greater costs in foregone earnings. On the other hand, going to school without cutting back work hours may result in family responsibilities being compromised.

These costs may be especially prohibitive for older workers, who have less time to make up foregone earnings, and less-educated workers, who are less likely to have their educational activities supported by

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employers. Indeed, these groups are less likely to participate in adult education than their younger, bettereducated counterparts (Peters 2004).

Going back to school is an investment that is expected to yield returns, yet the data on returns to adult education are sparse, particularly in Canada.¹ Who benefits and by how much? Are the groups most likely to participate—the younger and the more-educated—also most likely to benefit? Using the Survey of Labour and Income Dynamics (see *Data source and definitions*), this study looks at hourly and annual earnings before and after adult education, and compares the earnings gains of those who returned to school with those who did not.

Table 1 Adult education participation rates

	Overall	No certificate	Post- secondary certificate
		%	
Men	13.7	5.3	8.4
17 to 34	19.1	7.8	11.3
35 to 59	9.9	3.5	6.4
Less than high school	8.2	4.6	3.6
High school graduate	13.3	4.5	8.9
College	16.3	5.9	10.4
Bachelor's or above	14.0	5.6	8.4
Women	14.7	6.8	7.9
17 to 34	19.4	9.0	10.4
35 to 59	12.0	5.6	6.4
Less than high school	10.3	6.3	4.0
High school graduate	12.6	4.9	7.7
College	16.9	7.3	9.7
Bachelor's or above	15.8	9.8	6.0

Source: Survey of Labour and Income Dynamics, 1993-2001

Most adult students are young and have at least a high-school diploma

Over the study period, 14% of men and 15% of women were adult students. The majority of them obtained a postsecondary certificate. As in previous studies (Peters 2004), age and initial level of education were linked to participation in adult education. Young workers (17 to 34) had much higher participation and certification rates than their older counterparts (35 to 59); workers with less than high school education had the lowest rates. However, no simple relationship was seen between initial level of education and participation in adult schooling. For example, the

certification rates of high school graduates and holders of university degrees were practically the same (Table 1).⁵

Most adult education takes place in community colleges and other non-university institutions

Adult students most frequently attended non-university postsecondary institutions such as community colleges, and trade or vocational schools. The overwhelming majority of postsecondary certificates obtained—close to 90%—were at the non-university level (Table 2).

Data source and definitions

The **Survey of Labour and Income Dynamics** (SLID) covers roughly 97% of the Canadian population, excluding those who live in the territories, in institutions, on Indian reserves or on military bases. Each panel of respondents, comprising approximately 15,000 households and 30,000 adults, is surveyed twice a year—once on labour market experiences, educational activity and family relationships and once on income—for a period of six consecutive years, so two panels always overlap. Presently, two complete panels are available (1993-1998 and 1996-2001), from which the sample for this study is drawn.

Each respondent's level of education is established during the first interview, including all postsecondary certificates the respondent has obtained. Subsequent educational activity is reported each year, including school attendance and new postsecondary certificates received. Changes in earnings over the six years can therefore be compared for those who attended school in the intervening years and those who did not. The study is limited in that information on job-related training activities is available only from 2002 on, so training activities are covered only if they were part of a credit program in a formal educational institution.

Adult students are defined as persons who had previously left school and worked for at least a year before going back to school. To facilitate the analysis, a sample was selected according to the following criteria:

- Only persons aged 17 to 59 in the first year of observation who responded for all six years were included. In addition, those between 50 and 59 in the first year who received pension benefits at any time during the six-year period were excluded.
- 2. Those who were full-time or part-time students or who received a postsecondary certificate in the first or last year were excluded. Excluding those who attended school in year one ensures the selection of workers who returned to school, not continuing students. Because school attendance may affect earnings, excluding those who were students in year six ensures a more consistent assessment of gains in earnings over the six years.

- 3. Because the decision to work part time is likely to influence earnings, only those who wanted to work full time in years one and six—that is, those who worked full time for at least part of the year, or whose main job was either full-time or involuntary part-time—were included.³ Voluntary part-time workers may have turned down a better-paying full-time job because they preferred to work part time, and were thus excluded from the analysis.
- Because the focus is on the impact of adult education on income from paid employment, people with any selfemployment earnings in any year were excluded.
- Finally, those with an unknown initial level of education were also excluded.

The final sample consisted of 10,999 individuals—5,326 from panel one and 5,673 from panel two.

Hourly earnings are from the main job—the one with the most scheduled hours—at the end of the reference year, or at the end of the job if it ended during the year. Tips, bonuses, and commissions are included. For respondents who reported their wage or salary as an hourly amount, the value is taken directly. For those who reported on some other basis, the amount is converted to an implicit hourly rate, based on number of weeks or months worked and number of hours per week usually worked.

Annual earnings refer to total wages and salaries from all paid jobs during the reference year.

Changes in hourly and annual earnings over the six years were compared for three groups:

- those who did not attend school in the six-year period (non-participants)
- those who attended at some point between years two and five but did not receive a postsecondary certificate (adult students, no certificate)⁴
- those who received a postsecondary certificate between years two and five (adult students, certificate)

Table 2 Educational institutions attended by adult students

	No certificate ¹	Post- secondary certificate ²
High school	19.4	%
Non-university post- secondary institutions Community college/	58.5	88.3
applied arts and technology	27.9	36.5
Trade or vocational school	13.1	31.0
Business or commercial school	5.7	16.7
CEGEP	4.8	4.1
Multiple	7.0	•••
University	22.2	11.7

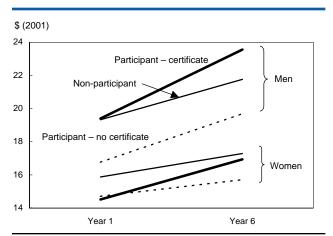
¹ Highest level of schooling obtained.

Adult education pays, but only for those who get a postsecondary certificate

Earnings growth over the six-year period of observation was assessed in terms of both hourly and annual earnings. Those who obtained a postsecondary certificate at some point in the second to fifth years realized the largest gains. For example, hourly and annual earnings of women who obtained a certificate grew at roughly double the rate of women who did not participate in adult education. Women who went back to school without obtaining a certificate, on the other hand, had smaller gains than women who did not participate (Chart).

Of course, these results may stem from factors other than adult education. For instance, young workers' earnings typically grow at faster rates than those of their older counterparts, and young workers are also more likely to go back to school and obtain a certificate. So the above results could reflect age differences between the groups being compared rather than differences in adult education. In order to isolate the association between earnings gains and adult education, other variables associated with earnings gains need to be taken into account. A common way to do this is with a regression model (see Regression model).

Chart Workers obtaining a postsecondary certificate had the greatest gains in hourly earnings.



Source: Survey of Labour and Income Dynamics, 1993-2001

Getting a postsecondary certificate pays, regardless of initial level of education

In non-technical terms, the regression estimates the average returns to adult education—that is, the difference between earnings gains registered by participants and non-participants, once factors such as age, initial level of education, firm size, union status, province, and occupation have been taken into account.

Regression models were estimated for younger (17 to 34) and older (35 to 59) men and women, as well as men and women with lower (high school and below) and higher (at least some college) initial levels of education.⁷

The results reinforce the previous observation that the returns to adult schooling for those who do not obtain a postsecondary certificate are not significantly different from 0. In fact, they can be negative for older men and women, at least in the short period examined (Table 3). Those who obtain a certificate, on the other hand, enjoy significant gains.⁸

All groups of men who obtained a postsecondary certificate—young and older, more and less educated—had a significantly higher growth in their hourly earnings than those who did not participate in adult schooling. The returns ranged from 6% for men

² For persons who obtained more than one postsecondary certificate, only their most recent certificate is counted. Source: Survey of Labour and Income Dynamics, 1993-2001

Regression model

To estimate the returns to adult schooling, an equation similar to the one commonly used in studies of earnings growth (such as Podgursky and Swaim 1987) was specified,

$$\ln(W_{6i}) = \alpha + \delta \ln(W_{1i}) + \beta_1 \frac{C}{i} + \beta_2 \frac{NC}{i} + \theta \frac{X}{1i} + \varepsilon_i$$

where $\ln W_1$ and $\ln W_6$ represent the natural logarithm of annual or hourly earnings in the first and last years of observation, respectively. C and NC represent adult students who did and did not obtain a postsecondary certificate, and X is a set of other variables reflecting characteristics in year 1: age, age squared, level of education, marital status, union status, firm size, full- or part-time employment status, industry, occupation, province, urban or rural residency, sex, and panel.

The equation can be reformulated as follows,

$$1 \ln \left(\frac{W_{i}}{6i} \right) = \alpha + \left(\delta - 1 \right) \ln \left(\frac{W_{i}}{1i} \right) + \beta C_{i} + \beta NC_{i} + \theta X_{i} + \varepsilon_{i}$$

to estimate the growth in earnings from year one to year six, where β_1 and β_2 are approximately equal to the percentage earnings growth associated with the two types of adult education, over and above the growth registered by non-participants.

In other words, β_1 and β_2 represent the average returns to the two types of adult education (certificate and no certificate).

A nice feature of this model is that it controls for initial wages, which allows some control for unobserved characteristics such as motivation and ability that might influence both participation in adult education and earnings growth.

In order to take into consideration the complex survey design of SLID, the regression analysis was carried out using bootstrap weights and SUDAAN version 9.0.

whose initial level of education was college or higher to 10% for those with high school or less.⁹ In addition, most groups of men (with the exception of those aged 35 to 59) received substantial gains in their annual earnings.

Table 3 Earnings returns to adult education for different groups

	Men		Won	nen
	Hourly	Annual	Hourly	Annual
			%	
17 to 34				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	6.9**	8.9**	10.6**	14.7*
35 to 59				
No certificate	-7.0*	-27.2**	n.s.	-40.2**
Certificate	7.6**	n.s.	n.s.	n.s.
High school or les	is			
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	10.1**	8.9*	9.7**	n.s.
College or more				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	5.8**	6.0*	n.s.	n.s.

^{*} significant at P<.10 (estimates are less precise than **, should be interpreted with caution).

n.s. not significantly different from 0.

Source: Survey of Labour and Income Dynamics, 1993-2001

Benefits to women, on the other hand, seem relatively limited. Only women aged 17 to 34 enjoyed high returns in both hourly and annual earnings—11% and 15% respectively—upon obtaining a postsecondary certificate. In addition, women with high school or less who obtained a postsecondary certificate received significant returns in hourly, but not annual, earnings. Perhaps obtaining a postsecondary certificate allows previously less-educated women to reduce their hours worked at several different jobs and focus on one better-paying job.

For both men and women, those with a low initial level of education profited at least as much or more from getting a postsecondary certificate as those with higher levels of education.

Different pathways for younger and older adult students

Adult students who get a postsecondary certificate may benefit in two different ways: They could receive a raise or promotion within their firm, or alternatively they might get a better-paying job with another employer. These scenarios were investigated using separate models for job-stayers (same main job all six years¹⁰) and job-switchers (main job changed at least once).

Returns were substantial for men who got a postsecondary certificate while keeping the same job, regardless of age and education. In fact, hourly

^{**} significant at P<.05.

Table 4 Earnings returns to adult education for those who kept the same job

	Men		Won	nen
	Hourly	Annual	Hourly	Annual
			%	
17 to 34				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	6.3*	9.4*	n.s.	n.s.
35 to 59				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	13.3**	8.6**	7.3*	9.5**
High school or less	3			
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	15.3*	12.7*	n.s.	n.s.
College or more				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	7.6**	8.4**	n.s.	7.7**

significant at P<.10 (estimates are less precise than **, should be interpreted with caution). significant at P<.05.

n.s. not significantly different from 0.

Source: Survey of Labour and Income Dynamics, 1993-2001

earnings returns were higher for older men and men with high school or less (13% and 15% respectively) than for their younger and better-educated counterparts (6% and 8% respectively). For women who kept the same job, gains associated with certification were confined to those aged 35 to 59 and those whose initial level of education was college or higher (Table 4).

Among job-switchers, obtaining a postsecondary certificate resulted in significant wage returns only for young men and women, and women with high school or less (Table 5). Older workers did not appear to benefit. In fact, older certificate-obtaining women who switched jobs registered some wage loss compared with their non-participant counterparts. Older jobswitchers who went back to school without obtaining a certificate also registered substantial losses—women in annual earnings and men in both hourly and annual earnings (see Older job switchers).

Dividing the sample into job-stayers and switchers reveals the different ways that younger and older adult students benefit from certification. Older students used their certificate to progress within their firm while younger students moved to a better-paying job.

The different outcomes for younger and older workers may reflect changes in general human capital and firm-specific human capital. General human capital refers to knowledge and skills acquired through formal education, which can be applied to any job. Firmspecific human capital is more limited.

Because younger workers generally have shorter tenure at a given firm, their firm-specific human capital tends to be lower. Therefore, younger workers who switch jobs can benefit from certification because they have increased their general human capital while incurring little loss of firm-specific capital. Older workers who switch jobs, on the other hand, may be less likely to reap immediate benefits from certification because their increase in general human capital may be outweighed by their loss in firm-specific capital.

Summary

The benefits of adult education are widespread, but only for those who get a postsecondary certificate. Those who completed a postsecondary certificate generally registered higher gains in earnings than those who

Table 5 Earnings returns to adult education for those who switched jobs

	Men		Won	nen
	Hourly	Annual	Hourly	Annual
			%	
17 to 34				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	8.4*	n.s.	15.0**	n.s.
35 to 59				
No certificate	-13.9*	-50.0**	n.s.	-49.3*
Certificate	n.s.	n.s.	-11.4**	n.s.
High school or les	s			
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	n.s.	n.s.	10.9*	n.s.
College or more				
No certificate	n.s.	n.s.	n.s.	n.s.
Certificate	n.s.	n.s.	n.s.	n.s.

significant at P<.10 (estimates are less precise than **, should be interpreted with caution).

n.s. not significantly different from 0.

Source: Survey of Labour and Income Dynamics, 1993-2001

significant at P<.05.

Older job switchers

Why did older workers who returned to school, especially those not earning a postsecondary certificate, often experience such marked earnings losses relative to other older job switchers? One reason may be that older adult students who did not receive certificates were much more likely to experience long layoffs. Almost a quarter of the older men and more than half of the older women who went back to school but did not receive a certificate experienced an unemployment spell lasting at least a year, compared with only 3% and 7% respectively of older men and women who did not participate in adult education.

Job switchers,		of unemployment ear or more
age 35 to 59	Men	Women
		%
Non-participants	3.3	6.6
Participants, no certifica	te 23.0	52.0
Participants, certificate	7.0	18.0

Those who experienced long layoffs were more likely to go back to school, but a smaller proportion of them completed a postsecondary certificate. For example, 51% of older women who were unemployed for at least a year went back to school, but just over a quarter got a certificate. In contrast, among older women who were never unemployed for a year or more, only 12% went back to school, but almost two-thirds obtained a certificate. A similar trend is found for men. The long-term unemployed may feel a greater need for adult education, but have fewer resources to complete it.

		Participated in adult education		
Job switchers, age 35 to 59	Non- participants	No certificate	Certificate	
Men Unemployed 1 year + Other	63.3 88.2	% 24.5 3.9	12.3 7.9	
Women Unemployed 1 year + Other	49.3 87.8	36.9 4.3	13.8 7.9	

did not participate, even when factors such as firm size, occupation, industry, union status, and province were taken into account.

Although older workers (35 to 59) and workers with high school or less participated in adult education less often than their younger, more-educated counterparts, those who did participate often benefited just as much or more. However, gains for older workers were restricted to those who stayed with the same employer, while gains for young workers were larger for those who switched employers.

Older men and women who stayed with the same employer while obtaining a postsecondary certificate registered gains in hourly earnings that were 13% and 7% higher respectively than their counterparts who did not go back to school. Their gains in annual earnings were 9% and 10% higher respectively.

However, the earnings of older men and women who obtained a postsecondary certificate and switched employers did not increase at a higher rate than those of their non-participating counterparts.

For young workers, especially young women, obtaining a postsecondary certificate was associated more with getting a new, better-paying job than with getting higher pay at their old job. Among young women who switched jobs, those who obtained a postsecondary certificate registered average hourly earnings gains 15% higher than those who did not participate in adult education.

Perspectives

■ Notes

- 1 Statistics Canada's Adult Education and Training Survey (AETS) generates a number of studies on adult education and training in Canada. However, being cross-sectional and designed primarily to measure the incidence and variation in types of adult education and training, the AETS is not well suited to examining the earnings impact of adult schooling (Hui and Smith 2003).
- 2 As of 2004, the labour and income interviews were combined so that each respondent is surveyed once a year.
- 3 If a person has more than one job, the main job is defined as the one with the most scheduled hours in the year. The main job is considered to be involuntary part-time if the reason given for being part-time is "could only find part-time work."
- 4 Persons who received a high-school diploma are included in this group because they were too few to warrant a separate group. Also, a high-school diploma is unlikely to have the earnings impact of a postsecondary certificate.
- 5 Other factors associated with the decision to become an adult student are detailed in Zhang and Palameta (2006).

- 6 The exact percentage change in earnings is given by e^{β} -1, but β is a good approximation when it has a relatively small value.
- 7 Insufficient sample sizes precluded non-overlapping regression models—for example, younger men with lower education and younger men with higher education.
- 8 The certificate per se may not be associated with greater gains in earnings, but rather time spent in school. People who get certificates may spend a longer time in school and thus accumulate more human capital, which might have translated to higher returns even if they had not obtained a certificate. On the other hand, a certificate may act as a signal to employers, simplifying credential recognition and leading to preferential hiring and promotion. Unfortunately, it is difficult to distinguish between these two explanations because detailed information on time spent in school is not available from SLID prior to 2002.
- 9 Because SLID did not have information on on-the-job training prior to 2002, some of the people classified as non-participants may actually have undergone such training. Thus the returns to adult education may be higher than those estimated here.
- 10 Only job-stayers who were never laid off are included in the sub-sample. Just over a hundred job-stayers whose employment in their main job was interrupted by a period of layoff or whose layoff history was uncertain were omitted from the analysis.

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Who gets student loans?

Costa Kapsalis

anada places a high degree of importance on postsecondary education. Every year the Canada Student Loans Program (CSLP) provides approximately \$1.5 billion in loans and \$80 million in grants to students with a demonstrated financial need. However, rising tuition fees and increased student debt loads in recent years have raised concerns about the affordability of a postsecondary education. A recent report concluded that "Canada has a problem when it comes to ensuring equal access to the knowledge economy for all its citizens. Despite years of attempting to change the situation, a serious gap in postsecondary participation remains between children from upper- and lower-income backgrounds." (Junor and Usher 2004).

This study looks at the role of the CSLP. While it is difficult to estimate the extent to which the CSLP has made it possible for low-income students to obtain a postsecondary education, the study addresses certain questions: How well are student loans targeted to low-income youth? To what extent does the amount of the loan reflect the level of financial need? What are the consequences of taking parental income into account for students considered dependent on their parents?

The study uses a database created by linking the Statistics Canada Longitudinal Administrative Database (LAD) to CSLP administrative records (see *Data sources and definitions*). The analysis concentrates on persons aged 18 to 24. Quebec, the Northwest Territories, and Nunavut do not participate in the CSLP and were therefore excluded. Yukon was also excluded because of sample size limitations.

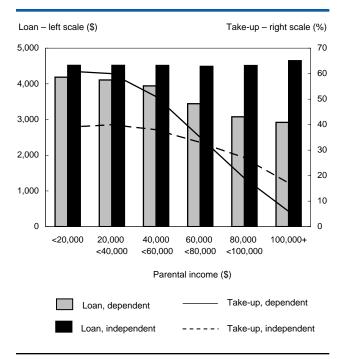
Student loans targeted to low-income families

The CSLP is intended to help students from lowerand middle-income families meet the costs of postsecondary education. The program distinguishes

Costa Kapsalis is with Data Probe Economic Consulting Inc. He can be reached at (613) 726-6597 or perspectives@statcan.ca. between 'dependent' and 'independent' students. Married individuals, single parents, those who have been employed in the last 24 months, and those who left high school more than four years ago are considered independent; the rest are considered dependent.

In the case of dependent students, parental income is taken into account in assessing financial need. It is therefore not surprising that their CSLP take-up rate declines rapidly at higher parental income—from 61% in 2000 for those with parental income below \$20,000 to 6% for those with parental income of \$100,000 and over (Chart A). Even among

Chart A CSLP take-up declines as parental income increases.



Sources: Longitudinal Administrative Database, 2000, Canada Student Loans Program, 1999-2000 independent students, however, the take-up rate declines as parental income increases, although less precipitously.

The average loan amount also declines for dependent students as parental income goes up; for independent students, it remains virtually unchanged. In 2000, about two-thirds of loan amounts went to students with parental income below \$60,000—73% in the case of dependent students and 51% in the case of independent students (Table 1).

Youth from low-income families still less likely to enrol in full-time postsecondary education

Despite the targeting of student loans to those from low-income families, full-time postsecondary enrolment rates for this group remain well below those of high-income families (Chart B). Among dependent youth, the enrolment rate for the top family income bracket in 2000 was almost twice as high as the bottom bracket (51% versus 29%). The gap was even wider in the case of independent youth (46% versus 17%).

Table 1 Postsecondary enrolment and CSLP take-up by dependent status

		Enrolled	Borrowers	
Parental income	Youths 18-24	full- time	Total	Average Ioan
	'000	%	%	\$
All youth	2,034.9	33.4	32.0	4,073
Dependent < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	1,047.9 116.3 193.1 199.1 188.7 137.8 212.8	38.9 28.6 32.6 36.1 38.5 42.2 50.9	33.6 60.6 59.5 50.7 35.2 18.8 5.5	3,817 4,186 4,108 3,943 3,442 3,077 2,921
Independent < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	987.0 135.1 196.6 189.1 173.2 118.6 174.3	27.7 16.8 19.6 23.4 27.6 33.7 45.8	29.6 39.4 40.0 37.7 32.6 26.8 17.0	4,531 4,516 4,518 4,514 4,490 4,513 4,649

Sources: Longitudinal Administrative Database, 2000; Canada Student Loans Program, 1999-2000

Data sources and definitions

The LAD/CSLP database was created by linking the Statistics Canada Longitudinal Administrative Database (LAD) with the Canada Student Loans Program (CSLP) database. The LAD consists of the income tax records of approximately 20% of taxfilers. The CSLP database consists of the administrative records of all borrowers. The sample used includes all taxpayers, regardless of whether they have a CSLP loan.

Full-time postsecondary students receive a full-time educational deduction. Individuals were classified as full-time students in 2000 if they had a full-time deduction that year. It is not possible, however, to distinguish whether they attended university, college, or a private institution.

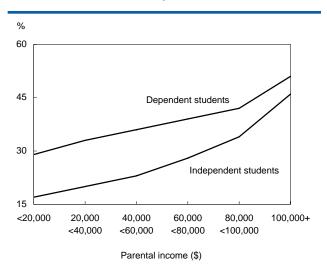
CSLP borrowers received funds in a loan year (August to July). To be consistent with LAD, this was converted to two calendar years. For example, an individual receiving a loan in 1999-2000 appears as a borrower in 1999 and 2000.

For youths who lived with their parents in 2000, **parental income** refers to 2000. For others, it refers to the most recent year in which they were classified as children. Parental income from previous years was converted to 2000 dollars using the consumer price index. For 14% of full-time students and 28% of other youths, it was not possible to identify parental income. The weights were adjusted to account for the youth with missing parental income.

Of course, the entire difference in enrolment rates cannot be attributed to family income. Parental education is at least as important (Drolet 2005; Lambert et al. 2004). Additional estimates based on the 2001 Census confirm that full-time enrolments are sensitive to parental income, but even more to parental education. Moreover, parental income has a stronger effect on university enrolment than on college enrolment, and virtually no effect on part-time enrolment (see *Postsecondary enrolment by parental education*).¹ Nevertheless, parental income is important. And, although equality in postsecondary education participation cannot be achieved simply by financial means, student loans and grants remain the main public policy instrument.

Independent youths, primarily because the former tend to be older and postsecondary enrolment declines with age. However, the enrolment rates of the independent group increase more sharply with parental income. It would seem that higher-income families are more likely to support their children's education for a longer time, and that the exclusion of parental income in assessing a student's financial need makes it easier for those from high-income families to become eligible for student loans.

Chart B Postsecondary enrolment rates increase with parental income.



Distance is an important barrier to postsecondary enrolment

Financial considerations are often compounded by other factors. One important concern is distance from college or university (Frenette 2003). At the bottom parental income bracket, young people living within

commuting distance (70km) of a university were more than twice as likely as those who lived farther away to attend postsecondary education (Chart C).

Living farther away is particularly significant when combined with low parental income. Among young people who did not live near a university or college, those in the top parental income bracket were almost four times as likely to enrol as those in the bottom bracket (41% versus 11%).

However, although distance can be an important barrier for some, it has a limited effect on overall enrolment rates. The reason is that most young people (81%) live within commuting distance of a university. (Virtually all those living near a university also live near a college.) An additional 15% are within commuting distance of a college only. This leaves just 5% living farther away (Table 2).

CSLP take-up rate is greatest for those living near a college only

The CSLP take-up rate is 11 percentage points higher for those who live near a college only (41%) than for those who live near a university (30%) (Table 2). The take-up rate for those living beyond commuting distance of either type of institution is 38%. So CSLP take-up does seem to be somewhat sensitive to distance issues, particularly as concerns the proximity to a university. These proximity effects are strongest among low-income students, who are most likely to make use of the CSLP.

About the CSLP

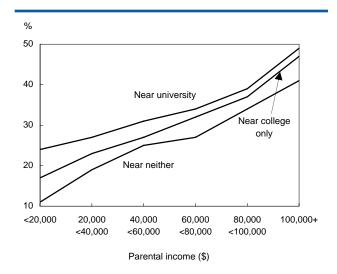
The Canada Student Loans Program (CSLP) is jointly administered by the federal government, nine participating provinces, and Yukon. Quebec, the Northwest Territories and Nunavut receive other payments from the federal government to compensate them for providing comparable assistance through their own student assistance programs. Most loans go to full-time students, less than 1% to part-time students.

The principal objective of the program is to help students from lower- and middle-income families meet the costs of postsecondary education. The level of assistance is based on financial need. This takes into account educational costs (tuition fees, books and supplies, and basic living expenses) and available resources (expected student and family income, if applicable). In 2000, the ceiling for the federal portion was \$165 per week of study or about \$5,610 for a typical 34-week school year.

Under CSLP rules, parental income is taken into account only in the case of dependent students. Students are classified as independent if they are married, are single parents, have been in the labour force in the last 24 months, or left high school more than four years ago. For example, for a family of four, the annual parental contribution for dependent students is considered zero if the combined gross parental income is under \$50,000, about \$3,000 if it is \$75,000, and about \$11,000 if it is \$100,000. Non-borrowers were approximately classified based on information available for all youth in the Longitudinal Administrative Database.

Students must begin to repay their loan six months after completing or ceasing full-time postsecondary studies. Interest on the loan accrues from the time they stop being a full-time student. The actual rates and conditions for repayment are set when they begin repaying.

Chart C Proximity to a postsecondary institution has more impact on enrolment rates at lower incomes.



Proximity to university or college has little influence on loan amounts

Students whose families live beyond commuting distance to postsecondary institutions are far more likely to leave home to study. This implies greater costs. Previous research has shown that "the median annual non-educational expenditure of full-time students living with their parents was \$3,800 compared with just over \$8,000 for those who did not live with their parents" (Barr-Telford et al. 2003).

The take-up rate of CSLP loans appears to reflect the difference in financial need of students. For example, it is higher for those who live near a college (41%) than for those who live near a university (30%). On the other hand, the average level of CSLP loan varied by only about \$400 across the three proximity groups (Table 2). Several reasons are possible. For example, youth who live beyond commuting distance of a university are more likely to attend a nearby college. Another factor may be that the same loan limit applies for all students.

Table 2 Postsecondary enrolment and CSLP take-up by proximity to institution

		Enrolled	Borr	owers
Parental income	Youths 18-24	full- time	Total	Average loan
	'000	%	%	\$
Near university ¹	1,644.1	34.6	30.3	4,023
< \$20,000	195.0	24.4	50.8	4,223
\$20,000 < \$40,000	303.2	27.2	50.8	4,142
\$40,000 < \$60,000	308.7	30.8	43.9	4,026
\$60,000 < \$80,000	292.5	33.7	32.6	3,759
\$80,000 < \$100,000	210.1	38.6	20.6	3,750
\$100,000 and over	334.6	49.1	9.7	4,181
Near college only	297.8	29.8	41.2	4,349
< \$20,000	38.0	16.7	61.6	4,605
\$20,000 < \$40,000	65.0	23.0	59.5	4,561
\$40,000 < \$60,000	61.2	26.7	56.0	4,463
\$60,000 < \$80,000	54.6	32.5	42.0	4,096
\$80,000 < \$100,000	36.6	37.3	29.5	3,911
\$100,000 and over	42.5	46.7	15.8	4,156
Near neither	93.0	23.9	37.9	3,924
< \$20,000	18.4	10.9	50.0	4,555
\$20,000 < \$40,000	21.6	19.4	51.5	4,445
\$40,000 < \$60,000	18.3	24.7	49.0	4,378
\$60,000 < \$80,000	14.9	27.3	39.2	4,090
\$80,000 < \$100,000	9.7	33.8	26.7	3,935
\$100,000 and over	10.0	40.9	13.7	2,661

¹ Virtually all youth who live within commuting distance (70 km) of a university also live within commuting distance of a college. Sources: Longitudinal Administrative Database, 2000; Canada Student Loans Program, 1999-2000

Young women have higher CSLP take-up and postsecondary enrolment

In 2000, young women had both a higher full-time postsecondary participation rate and a higher CSLP take-up rate than young men. On average, the enrolment gap was 8 percentage points (38% versus 30%), while the CSLP take-up rate gap was 5 points (34% versus 29%) (Table 3).

Loans in Ontario are well targeted to low-income families

The Atlantic region had the highest CSLP take-up rate (45% versus 31% or less elsewhere). Nevertheless, its average postsecondary enrolment rate (30%) was similar to the other regions except Ontario (36%) (Table 4).

Table 3 Postsecondary enrolment and CSLP take-up by sex

		Enrolled	Borr	owers
Parental income	Youths 18-24	full- time	Total	Average loan
	'000	%	%	\$
Men < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	1,072.0 135.9 205.8 204.6 189.7 134.3 201.7	29.5 19.0 22.0 25.9 29.6 34.3 44.8	29.2 47.8 48.1 43.5 30.8 20.4 9.6	4,025 4,241 4,177 4,041 3,770 3,675 4,125
Women < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	963.0 115.6 183.9 183.7 172.1 122.1 185.4	37.8 26.0 30.6 34.4 37.4 42.6 52.7	34.4 55.6 55.3 47.7 37.1 23.7 11.2	4,107 4,307 4,266 4,182 3,877 3,866 3,877

Of all the regions, Ontario stands out as having the most targeted loans and the most evenly distributed enrolment rates. Its average CSLP take-up rate was similar to other regions except the Atlantic, but the gap in take-up rates between low and high parental incomes was the greatest.

Ontario also had one of the narrowest gaps in enrolment rates between low and high parental income youth. While it is tempting to conclude that the more targeted CSLP loans are a factor, the differences between Ontario and other regions need further investigation.

Immigrant youth have higher CSLP take-up and postsecondary enrolment rates

Finally, students from families that came to Canada since 1980 had a much higher CSLP take-up rate than others (45% versus 31%). The difference was concentrated mostly in the \$40,000 to \$100,000 parental income range (a gap of about 7 percentage points). The remaining gap was attributable to lower parental incomes (for example, 58% of immigrant students had parental income below \$40,000, compared with 29% of other students) (Table 5).

Table 4 Postsecondary enrolment and CSLP take-up by region

		Enrolled	Borr	Borrowers	
Parental income	Youths 18-24	full- time	Total	Average Ioan	
	'000	%	%	\$	
Atlantic	234.6	30.3	45.4	4,680	
< \$20,000	36.2	16.5	66.5	4,866	
\$20,000 < \$40,000	58.0	22.3	65.9	4,838	
\$40,000 < \$60,000	54.3	28.6	59.6	4,696	
\$60,000 < \$80,000 \$80,000 < \$100,000	38.8 22.4	35.3 43.8	42.2 26.4	4,271 4,389	
\$100,000 and over	25.0	52.4	16.5	5,037	
Ontario	982.4	35.9	31.0	3,896	
< \$20,000	108.1	25.7	56.0	4,141	
\$20,000 < \$40,000	172.7	28.6	54.6	4,062	
\$40,000 < \$60,000 \$60,000 < \$80,000	177.1 177.0	31.9 34.1	46.9 34.5	3,966 3,603	
\$80,000 < \$100,000	130.7	39.0	20.9	3,467	
\$100,000 and over	216.8	49.6	8.3	3,898	
Manitoba and					
Saskatchewan	215.9	31.0	29.7	4,079	
< \$20,000 \$20,000 < \$40,000	30.4 47.7	14.9 23.9	46.9 47.4	4,327 4,182	
\$40,000 < \$60,000	46.7	28.7	41.0	4,102	
\$60,000 < \$80,000	39.6	33.9	26.8	3,920	
\$80,000 < \$100,000	24.2	40.9	18.6	4,219	
\$100,000 and over	27.2	52.5	10.1	3,556	
Alberta	284.6	30.7	30.9	3,753	
< \$20,000 \$20,000 < \$40,000	30.0 52.5	17.8 22.5	50.3 50.5	3,896 3,735	
\$40,000 < \$60,000	53.2	22.3 25.9	43.1	3,735	
\$60,000 < \$80,000	50.1	30.6	36.5	3,660	
\$80,000 < \$100,000	38.0	35.6	24.2	3,726	
\$100,000 and over	60.8	45.1	12.7	3,978	
British Columbia	316.6	32.3	28.2	4,279	
< \$20,000	46.7	26.2	38.1	4,299	
\$20,000 < \$40,000 \$40,000 < \$60,000	58.7 57.0	27.3 29.5	37.5 35.4	4,390 4,204	
\$60,000 < \$80,000	56.2	31.4	30.3	4,204	
\$80,000 < \$100,000	41.1	34.1	24.1	4,160	
\$100,000 and over	56.9	44.9	13.8	4,415	

Sources: Longitudinal Administrative Database, 2000; Canada Student Loans Program, 1999-2000

Immigrant youth also had slightly higher full-time enrolment rates. The difference was more pronounced within similar parental income groups. The reason is that immigrant parental incomes are lower. As a result, the overall differential in enrolment rates is smaller than that observed within specific income brackets.

Table 5 Postsecondary enrolment and CSLP take-up by immigration status

		Enrolled	Borr	Borrowers	
Parental income	Youths 18-24	full- time	Total	Average loan	
	'000	%	%	\$	
Recent immigrants ¹ < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	181.1 52.8 51.9 32.6 20.5 10.9 12.4	34.7 29.2 32.1 35.1 38.8 44.3 52.8	44.8 50.5 54.4 52.3 40.4 28.4 11.5	3,857 4,196 3,868 3,721 3,406 3,528 3,709	
Others < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	1,853.4 198.5 337.9 355.5 341.3 245.5 374.7	33.3 20.4 25.2 29.4 32.9 38.0 48.5	30.7 52.6 51.6 45.0 33.7 21.8 10.4	4,077 4,343 4,284 4,168 3,859 3,807 3,787	

^{1 1980} or later

Summary

The CSLP is well targeted by level of parental income. Ignoring the distinction between dependent and independent students, 52% of all full-time postsecondary students with parental income below \$40,000 received a loan in 2000, compared with 14% of students with parental income of \$80,000 and over. However, wide discrepancies in enrolment rates by level of parental income still remain. For example, the enrolment rate for the group with parental income of \$80,000 or more was almost double that of the group under \$40,000 (44% versus 25%).

Of course, differences by parental income are not entirely due to financial factors. Parental education, although highly correlated with income, is an even stronger factor. Nevertheless, low parental income remains a significant barrier to postsecondary education.

Perspectives

Postsecondary enrolment by parental education						
Parental education and income	Full- time univer- sity	Full- time college	Part- time either			
		%				
All youth	19.2	12.7	10.8			
University < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over College only < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	32.9 27.5 27.4 27.5 29.6 33.0 39.4 15.8 12.1 13.2 14.5 15.7 18.0 20.3	9.8 11.0 11.3 11.9 12.1 10.7 16.1 13.6 14.1 15.9 16.6 17.2 18.2	10.8 12.1 10.2 11.9 11.5 10.9 9.9 11.4 10.6 11.2 11.0 11.5 12.2			
No postsecondary < \$20,000 \$20,000 < \$40,000 \$40,000 < \$60,000 \$60,000 < \$80,000 \$80,000 < \$100,000 \$100,000 and over	11.0 8.8 10.2 11.2 11.6 12.9 14.5	9.3 10.4 11.6 13.6 13.5 15.1	10.4 9.4 10.1 10.6 10.9 10.9			

Note: Excludes Quebec, Northwest Territories and Nunavut Source: 2001 Census of Population

Note

1 Additional evidence in the literature shows that the proportion of those going to college is more evenly distributed across family-income levels (De Broucker 2005). Moreover, the majority of young people from low-income families went to college, whereas those who came from high-income families went to university (Lavallée, Pereboom and Grignon 2001).

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