

MESA L-SLIS RESEARCH BRIEF #4

Funding Post-Secondary Education

Ross Finnie

The Graduate School of Public and International Affairs
University of Ottawa, rfinnie@uottawa.ca

Stephen Childs

The MESA Project, stephen.childs@uottawa.ca

Andrew Wismer

The MESA Project, awismer@uottawa.ca

THE MESA PROJECT

MEASURING THE EFFECTIVENESS OF STUDENT AID

MESURER L'EFFICACITÉ DE L'AIDE FINANCIÈRE AUX ÉTUDIANTS

www.mesa-project.org

CANADIAN EDUCATION PROJECT
QUEEN'S UNIVERSITY SCHOOL OF POLICY STUDIES
CANADA MILLENNIUM SCHOLARSHIP FOUNDATION

The MESA Project L-SLIS Research Briefs:

- 1) When Did You Decide?
- 2) First Generation Post-Secondary Education Students
- 3) Engagement, Attitudes and Support Networks
- 4) Funding Post-Secondary Education
- 5) Student Borrowing and Debt
- 6) Time Use In Post-Secondary Education
- 7) Gender and Post-Secondary Education
- 8) a) Immigrants and Visible Minorities:
Post-Secondary Education Experiences

b) Immigrants and Visible Minorities:
Funding Post-Secondary Education
- 9) Urban, Suburban and Rural Students
- 10) Aboriginals In Post-Secondary Education

The authors would like to thank Alex Usher for his input regarding the content of these briefs, Senning Luk for his help with formatting, Ryan Dunn for his assistance in creating the final L-SLIS data set and Miriam Kramer for her management of the project. Thanks also go to Acumen/Academica group for their work on the survey. Arthur Sweetman, Keith Banting and Garnett Picot provided insightful suggestions regarding the structure of the documents and David Binder of Statistics Canada helped in creating the sample weights. Gratitude is extended to Anne Motte and Andrew Parkin of the CMSF for their input and support on this and other aspects of the MESA Project. Finally, the authors also wish to gratefully acknowledge the provision of office space and other support from the University of Ottawa, without which the analysis of the L-SLIS would not have been possible.

Funding Post-Secondary Education

(Version 02-26-10)

Contents

- Part I: Introduction 2
 - Major Findings 2
 - Survey Data and Sample Selection 2
- Part II: The Analysis 3
 - Total Funding 3
 - Government Aid..... 4
 - What If Government Aid Was Not Available?..... 5
 - Savings From Summer Employment 6
 - School Year Employment Income 7
 - Family Financial Contributions..... 8
 - Family Gifts and Family Loans..... 9
 - Private Borrowing 10
 - Scholarships 10
 - Entrance Awards..... 11
- Part III: Conclusion..... 12

- Appendix I: Survey Data and Sample Selection..... 13
- Appendix II: Detailed Tables..... 14
 - Table A1: Funding Sources (College Students) 14
 - Table A2: Funding Sources as Percentages of Total Funding (College Students) ... 14
 - Table A3: Funding Sources (University Students) 15
 - Table A4: Funding Sources as Percentages of Total Funding (University Students)15
 - Table A5: What Students Would Do If Government Aid Was Not Available 16
(University Students) 16
 - Table A6: Loans and Gifts From Family Members (College and University Students)
..... 17
 - Table A7: Scholarship Types In Third Year (University Students) 17
 - Table A8: Entrance Awards (University Students) 17

Please cite as: Finnie, Ross, Stephen Childs and Andrew Wismer. (2010). *Funding Post-Secondary Education* (Version 02-26-10) A MESA Project L-SLIS Research Brief. Toronto, ON: Canadian Education Project.

Part I: Introduction

Major Findings

The Longitudinal Survey of Low Income Students (L-SLIS), created to measure the effects of the Canada Millennium Scholarship Foundation's Access Bursary, offers a unique combination of administrative data from provincial student aid programs and detailed survey data on how students finance their post-secondary education (PSE). In fact, the L-SLIS is the only national level data set (of which we are aware) which tracks student funding and related information on a year by year basis.

For the low income students represented in the L-SLIS data, the major findings of this brief are:

1. Forty-two percent of university students say that they would quit school entirely if government aid was not available to them.
2. Government aid accounts for over 60 percent of students' total funding in first year and over 55 percent in later years.
3. As students progress through PSE they appear to substitute employment income for government aid and scholarships, and report lower levels of total funding after their first year.
4. The proportion of students who receive scholarships decreases drastically after the first year of PSE.
5. Among university students who receive entrance awards, only 14.4 percent have their entrance award continue in their second year and only 9.4 percent have their award continue in their third year.

Note that the findings of this brief apply specifically to the low income students represented by the L-SLIS and we cannot say if our findings hold for other low income students or for the student population in general.

Survey Data and Sample Selection

The L-SLIS is constructed from administrative data and from surveys (carried out during the early months of 2007, 2008 and 2009) of students who entered PSE in fall 2006. The sample used for this report includes only students who entered PSE for their first time (the target group of the Millennium Scholarship Foundation's Access Bursary), and is further reduced to single dependant students, as defined by provincial student aid systems. Only students with parental incomes below the National Child Benefit (NCB) line have been included in this analysis in order to allow for consistent samples across provinces. Due to provincial differences in bursary programs, only students from Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Manitoba or British Columbia are included. Note that all respondents are recipients of government aid in their first year. For further sample details, see Appendix I.

Part II: The Analysis

The following sections contain the results of a longitudinal analysis of students' funding sources. We must caution that the college and university samples used in the analysis are not directly comparable. The college sample is restricted to only students who continue through at least two years of PSE (the normal length of an average college program) so that there is a consistent sample for tracking funding across years. The university sample has a similar but stronger restriction than that of college students; only university students who continue through three years of PSE are included because we add a third year of analysis for these students. Amounts are not greatly changed when these restrictions are relaxed.

Total Funding

For college and university students, average total funding (the sum of government aid, savings from summer employment income, school year employment income, family financial contributions, private borrowing and scholarships) is \$12,940 and \$16,100 respectively, in the first year (the 2006-2007 school year) (Figure 1 and Figure 2). These amounts decrease substantially in year two to \$11,050 and \$12,690, respectively. University students see a further decrease to \$12,370 in year three.

The observed drop in funding is mostly explained by decreases in government aid and scholarships. Note that information regarding government aid (discussed further in the following section) is taken from administrative data in year one and from survey data in years two and three. We cannot say to what extent differences in government aid amounts over these years are attributable to differences in data sources.

For both college and university students, over 60 percent of students' total funding comes from government aid in year one (Table A2 and Table A4). In later years, that percentage decreases for both types of students but remains over 55 percent for both.

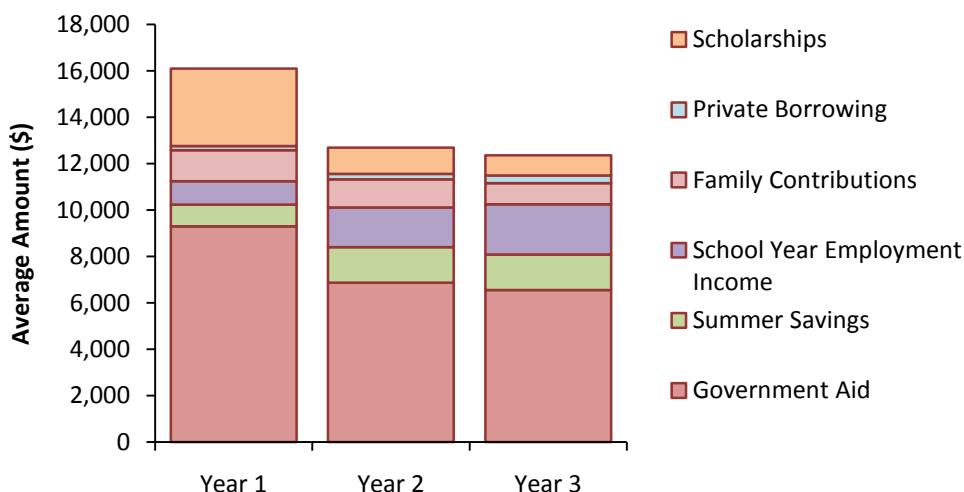
Further discussions of the fluctuations in specific funding sources are included in the following sections.

Figure 1: Total Funding (College Students)



Source: Table A1. Only students who continue through two years of PSE are included.

Figure 2: Total Funding (University Students)



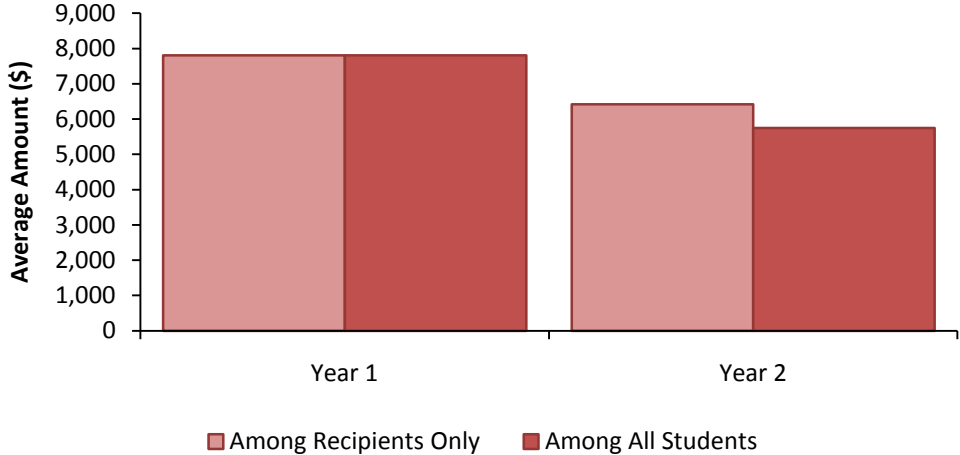
Source: Table A3. Only students who continue through three years of PSE are included.

Government Aid

In year one, all students in the sample are recipients of government aid in the form of loans and grants (Table A1 and Table A3). In year two, about 90 percent of respondents continue to receive government aid in one form or the other. College students who continue to receive government aid in year two have their average amount of aid decrease from \$7,810 to \$6,420 while their university counterparts experience a drop from \$9,300 to \$7,430. In summary, most students continue to receive government aid in second year and among those that do, the average amount they receive in second year is less than in first year.

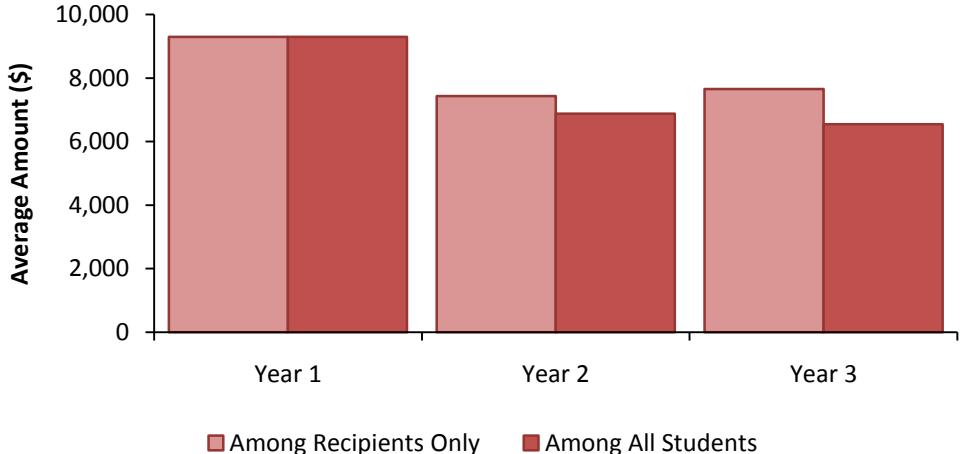
Among university students in year three, 85.5 percent continue to receive government aid (Figure 5). The average amount of aid that recipients receive in year three is \$7,660, a slight increase from year two.

Figure 3: Average Amount of Government Aid (College Students)



Source: Table A1. Only students who continue through two years of PSE are included.

Figure 4: Average Amount of Government Aid (University Students)



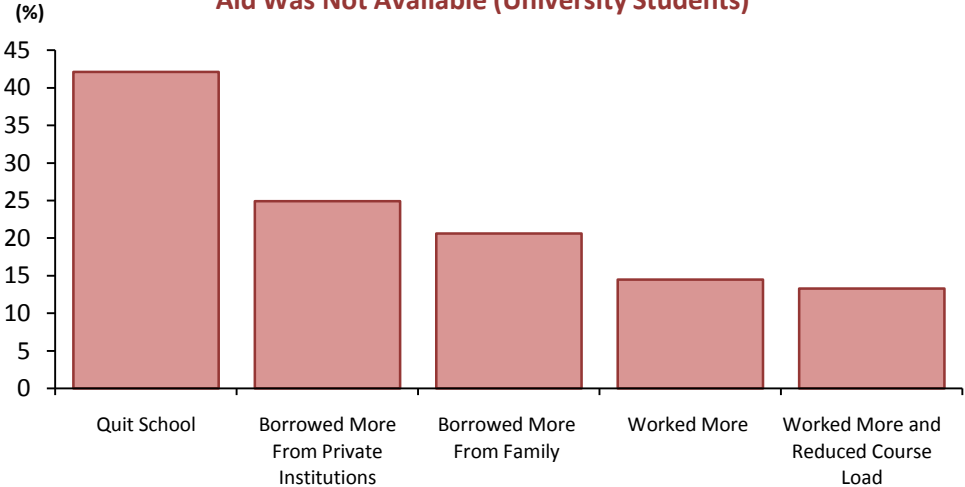
Source: Table A3. Only students who continue through three years of PSE are included.

What If Government Aid Was Not Available?

In the third year of the survey, students are asked, ‘what would you have done without government aid?’ Students are given a list of possible responses and are permitted to choose more than one response. Quitting school is students’ most popular choice; 42 percent of university students say that they would have quit school entirely if government aid was not available (Figure 5). Over 25 percent of university students say they would have

borrowed more from private institutions while about 20 percent say they would have borrowed more from family members. Around 14 percent say they would have worked more; 13 percent say they would have worked more and reduced their course load.

Figure 5: What Students Would Have Done If Government Aid Was Not Available (University Students)



Source: Table A5. Students are only surveyed about their alternative courses of action in their third year of PSE. Only students who continue through three years of PSE are included.

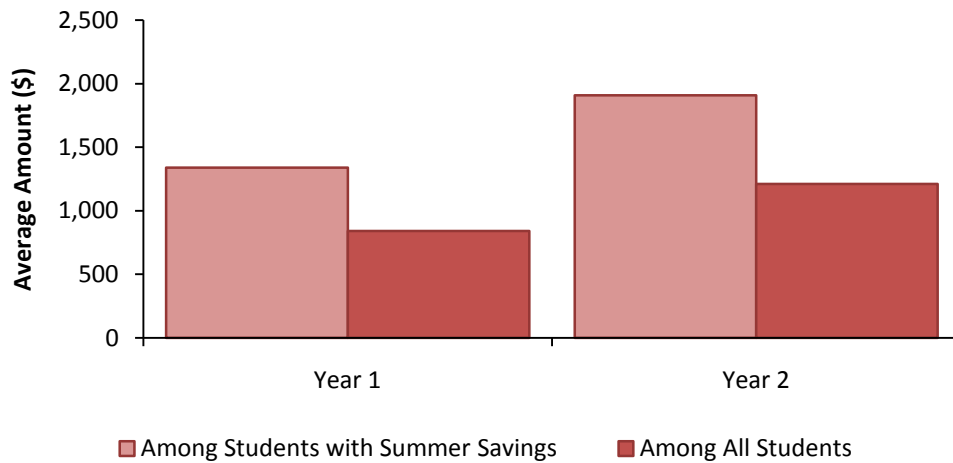
Savings From Summer Employment

The percentage of college students with savings from summer employment increases slightly from 62.5 percent in year one to 63.4 percent in year two (Table A1). The percentage of university students with savings from summer employment also increases, from 59.2 percent in first year to 65.3 percent in second year.

Among students who have savings from summer employment, the average amount increases over the first two years of PSE from \$1,340 to \$1,910 for college students and from \$1,580 to \$2,320 for university students (Figure 7 and Figure 8). For most students who transition into PSE from high school, there are only two months for summer employment before first year and there are four months for summer employment between first and second year of PSE. The comparatively longer summer break between first year and second year may help explain students' greater summer savings amounts in second year.

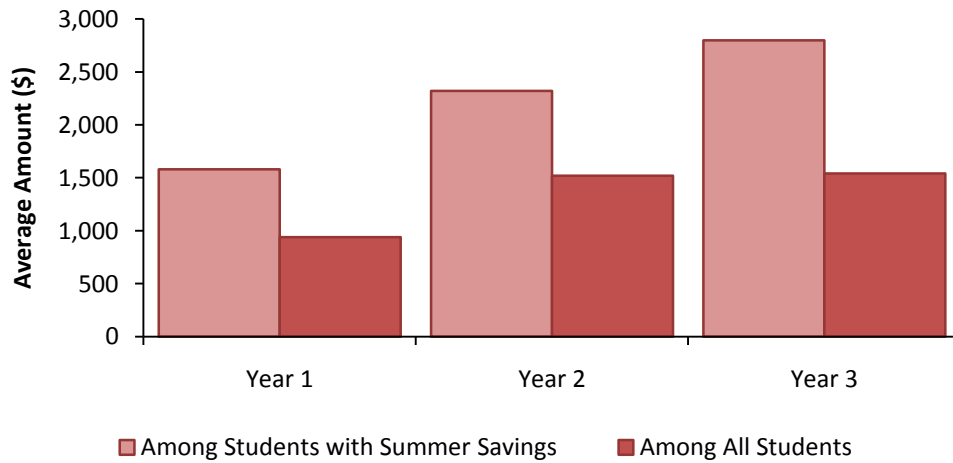
From year two to year three, the proportion of university students who have savings from summer employment decreases from 65.3 percent to 55.1 percent (Table A3). However, among university students who do have savings from summer employment, the average amount increases substantially, from \$2,320 in year two to \$2,800 in year three (Figure 8).

Figure 7: Average Amount of Savings From Summer Employment Income(College Students)



Source: Table A1. Only students who continue through two years of PSE are included.

Figure 8: Average Amount of Savings From Summer Employment Income(University Students)



Source: Table A3. Only students who continue through three years of PSE are included.

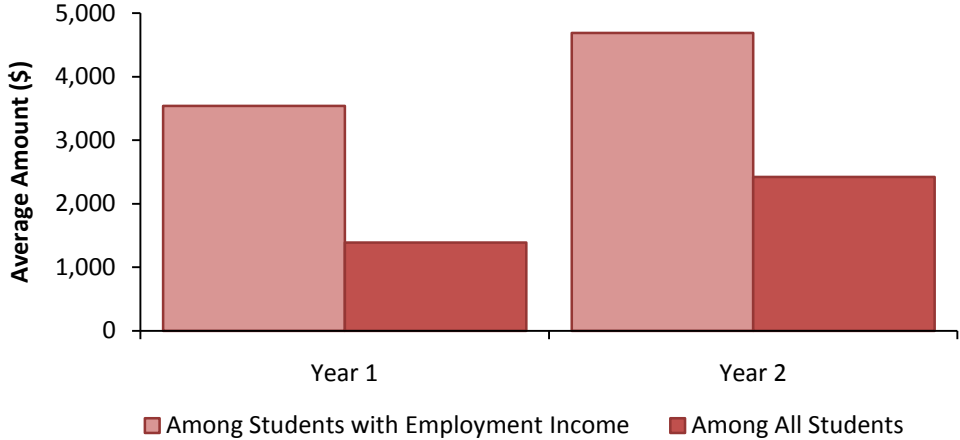
School Year Employment Income

The proportion of college students with school year employment income increases from 39.3 percent in year one to 51.6 percent in year two (Table A1 and Table A3). The proportion of university students with school year employment income increases even more, from 29.4 percent in year one to 43.2 percent in year two.

Among those students who do earn income while they are in school, average employment income also rises from year one to year two, from \$3,540 to \$4,690 for college students and from \$3,420 to \$3,990 for university students (Figure 9 and Figure 10).

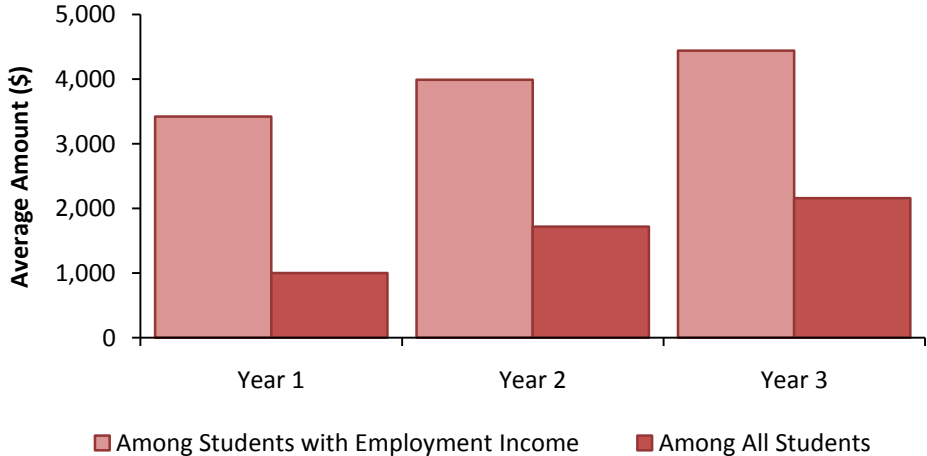
In year 3, the proportion of university students who have school year employment income increases further, to 49 percent, while the average amount earned by employed students also increases to \$4,440 (Figure 10).

Figure 9: Average Amount of School Year Employment Income (College Students)



Source: Table A1. Only students who continue through two years of PSE are included.

Figure 10: Average Amount of School Year Employment Income (University Students)



Source: Table A3. Only students who continue through three years of PSE are included.

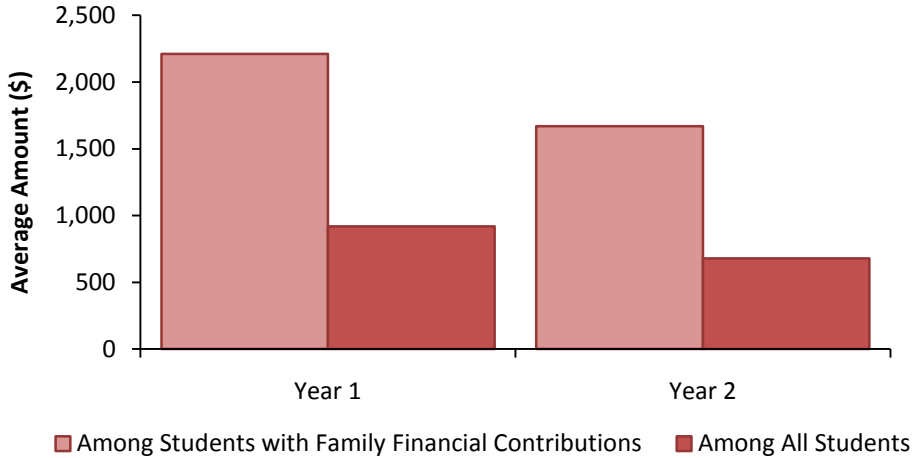
Family Financial Contributions

The percentage of college students who receive family contributions drops slightly from 41.7 percent in year one to 40.6 percent in year two; the percentage of university students who receive family contributions drops from 52.3 percent in year one to 48 percent in year two (Table A1 and Table A3).

Among college students whose family members provide contributions, the average amount provided also decreases from year one to year two, from \$2,210 to \$1,670 (Figure 11). Among university students, the average amount drops only very slightly, from \$2,560 in year one to \$2,530 in year two (Figure 12).

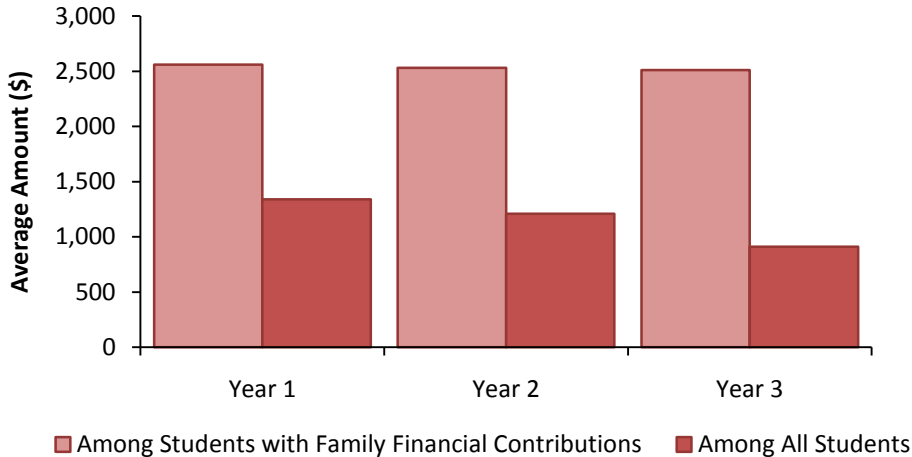
The proportion of university students who receive family contributions decreases further in year three, to 36.3 percent. The average amount that recipients get stays fairly constant (about \$2,510) (Figure 12).

Figure 11: Average Amount of Family Financial Contributions (College Students)



Source: Table A1. Only students who continue through two years of PSE are included.

Figure 12: Average Amount of Family Financial Contributions (University Students)



Source: Table A3. Only students who continue through three years of PSE are included.

Family Gifts and Family Loans

While the above analysis considers family contributions of any kind, in the L-SLIS these family contributions have also been broken down into two detailed

classifications: gifts and loans. Of course, some 'loans' may never be repaid or expected to be. Nevertheless, in both year one and year two, about 30 percent of college students report family gifts; on average, these family gifts are around \$1,500 in each year (Table A6). The proportion of university students who receive family gifts decreases with each year of PSE (Table A6). In year one, 46.7 percent of university students receive family gifts and by year three only 30.4 percent receive family gifts. Among university students who receive gifts, the average gift amount they receive is around \$2,180 in each year.

Family loans are much less common than family gifts. In year one and year two, about 15 percent of college students receive family loans (Table A6). The average family loan these college students receive decreases from \$2,590 in year one to \$1,450 in year two. University students receive family loans at around the same rate as college students but their average loan amount is fairly constant across years, roughly \$2,540 (Table A6).

Private Borrowing

Few students of this sample borrow money from private sources. Of college students, 6 percent borrow from private sources in year 1 and 8.9 percent borrow from private sources in year two (Table A1). Among university students, only 3.7 percent borrow from private sources in year one and 4.1 percent borrow from private sources in year two (Table A3). Among those students who do borrow privately, the average amounts are considerable. College borrowers borrow average amounts of \$6,030 and \$5,060 in years one and two, respectively; university borrowers have average loan amounts of \$4,980 and \$5,980 in years one and two, respectively.

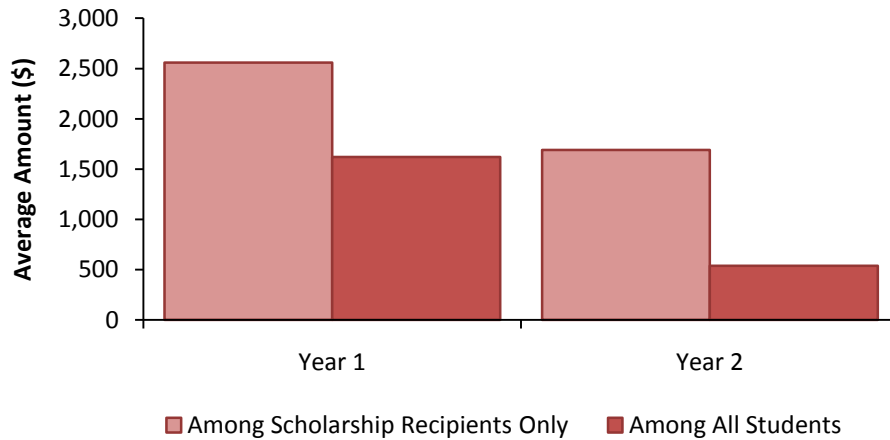
Scholarships

After their first year of PSE, students experience drastic changes with regards to their scholarships. The proportion of college students who receive scholarships drops from 63.2 percent in year one to 32.1 percent in year two (Table A1). Among university students the drop is even greater, from 79.7 percent in year one to 42.1 percent in year two (Table A3).

The average amount that scholarship recipients get also decreases in year two. For college students, the average amount decreases from \$2,560 in year one to \$1,690 in year two (Figure 13); for university students it decreases from \$4,180 to \$2,660 (Figure 14).

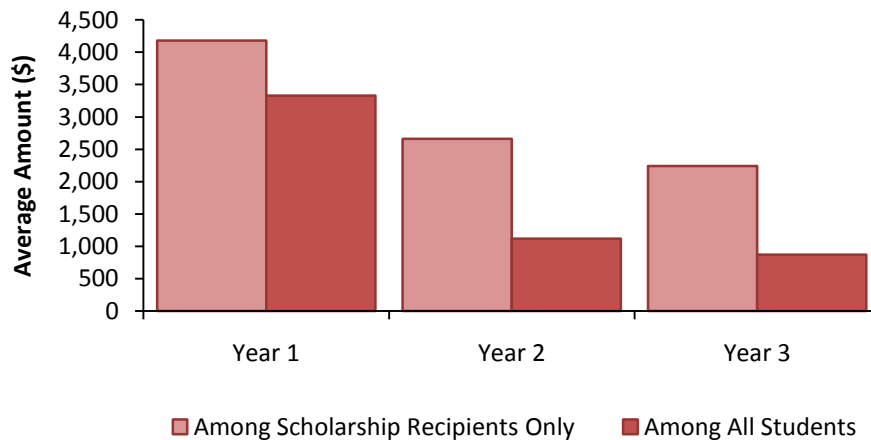
In year three, university students experience a further decrease in the proportion who receive scholarships, and a further decrease in the average amount they receive (Figure 14).

**Figure 13: Average Scholarship Amount
(College Students)**



Source: Table A1. Only students who continue through two years of PSE are included.

**Figure 14: Average Scholarship Amount
(University Students)**



Source: Table A3. Only students who continue through three years of PSE are included.

Year three of the survey provides a more detailed description of students' scholarships. In this year we find that 16.6 percent of university students receive merit-based scholarships and 24 percent receive need-based scholarships (Table A7). About six percent of university students report scholarships of other kinds.

Entrance Awards

In the third year of the survey, students are asked about their history with entrance awards, which would presumably be classified as scholarships in the preceding data. About 60 percent of third year university students say they received an entrance award in their first year of PSE; their average award was \$1,840 (Table A8). Of those that say they received an entrance award in first

year, only 14.4 percent say they had their entrance award continue in their second year and only 9.4 percent say they had their award continue in their third year.

Part III: Conclusion

Government aid appears to be a critical source of funding for the low income students of this survey. Government aid is the greatest source of funding for these students and there is indication that many students would have left PSE completely if it was not available. While funds from government aid and scholarships become somewhat less abundant in later years of PSE, we find that students' labour market earnings increase significantly.

There is also evidence that few students have their entrance awards continue past first year. This could be important information for students when budgeting for their PSE careers.

It would be interesting to relate students' funding sources to their in-school employment status', grades and drop-out rates, as well as their debt levels. This is planned for future work.

Appendix I: Survey Data and Sample Selection

Conducted as part of the Measuring the Effectiveness of Student Aid (MESA) project, the L-SLIS represents a longitudinal survey of recipients of the Canada Millennium Scholarship Foundation (CMSF) Access Bursaries¹. The L-SLIS consists of a sample of students who entered PSE for the first time in the fall of 2006. Surveys were conducted, by telephone, in the early winter months of 2007, and then again in 2008 and 2009. Survey data have been linked to government aid administrative data. It is important to note that the eligibility requirements for the CMSF Access Bursaries were determined provincially and vary from province to province. The L-SLIS therefore represents somewhat different populations in different provinces.

Restrictions have therefore been made to the L-SLIS in order to create a consistent national sample. Due to the unique nature of the programs in Quebec, Saskatchewan and Alberta, students from these provinces are not included in this analysis. Prince Edward Island is omitted due to the absence of any administrative data. The following restrictions have been made in order to provide a consistent sample across the remaining provinces, which include Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Manitoba and British Columbia:

1. The sample is restricted to only students who enter PSE for their first time and are single dependant students, as defined by student aid systems.
2. Only students with parental incomes below the National Child Benefit (NCB) line are included.

Only low income students who apply for and receive government aid are included in the L-SLIS, therefore this is not a sample of all low income students in Canada. The sample used in this particular brief includes 718 college students who continue through two years of PSE and 1,118 university students who continue through three years of PSE. Roughly 69 percent of the students in the sample are from Ontario and roughly 14 percent are from British Columbia. The remaining four provinces together make up 17 percent of the sample and each have shares of around three to five percent. Due to small sample size, college students from Nova Scotia are not well represented in the data. Samples are weighted to take account of non-response and to scale up to the underlying populations of lower income students they represent.

¹ For some provinces, certain non-recipient low-income students are also included in the L-SLIS but they are not included in this analysis due to the income restriction placed on the sample (see below).

Appendix II: Detailed Tables

Table A1: Funding Sources (College Students)

| | Percentage Who has Type of Funding | | Among Recipients, Average Amount (\$) | | Among All Students, Average Amount (\$) | |
|--|------------------------------------|--------|---------------------------------------|--------|---|--------|
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Government Aid | 100.0 | 89.5 | 7,810 | 6,420 | 7,810 | 5,750 |
| Summer Employment | 62.5 | 63.4 | 1,340 | 1,910 | 840 | 1,210 |
| School Employment | 39.3 | 51.6 | 3,540 | 4,690 | 1,390 | 2,420 |
| Family Contribution | 41.7 | 40.6 | 2,210 | 1,670 | 920 | 680 |
| Private Borrowing | 6.0 | 8.9 | 6,030 | 5,060 | 360 | 450 |
| Scholarships | 63.2 | 32.1 | 2,560 | 1,690 | 1,620 | 540 |
| Total: Sum of Means Shown | | | | | 12,940 | 11,050 |
| Total: Mean of Individual Observations | | | | | 12,960 | 11,290 |

Source: Longitudinal Survey of Low Income Students. Only students who continue through two years of PSE are included.

Table A2: Funding Sources as Percentages of Total Funding (College Students)

| | Year 1 | Year 2 |
|-------------------------------|--------|--------|
| Government Aid | 65.0 | 55.0 |
| Summer Savings | 6.0 | 11.0 |
| School Employment | 10.0 | 19.0 |
| Family Financial Contribution | 6.0 | 7.0 |
| Private Borrowing | 2.0 | 3.0 |
| Scholarships | 11.0 | 5.0 |
| Total | 100 | 100 |

Source: Longitudinal Survey of Low Income Students. Only students who continue through two years of PSE are included.

Table A3: Funding Sources (University Students)

| | Percentage Who Has Type of Funding | | | Among Recipients, Average Amount (\$) | | | Among All Students, Average Amount (\$) | | |
|--|------------------------------------|--------|--------|---------------------------------------|--------|--------|---|--------|--------|
| | Year 1 | Year 2 | Year 3 | Year 1 | Year 2 | Year 3 | Year 1 | Year 2 | Year 3 |
| Government Aid | 100.0 | 92.6 | 85.5 | 9,300 | 7,430 | 7,660 | 9,300 | 6,880 | 6,550 |
| Summer Savings | 59.2 | 65.3 | 55.1 | 1,580 | 2,320 | 2,800 | 940 | 1,520 | 1,540 |
| School Employment | 29.4 | 43.2 | 49.0 | 3,420 | 3,990 | 4,440 | 1,000 | 1,720 | 2,160 |
| Family Contribution | 52.2 | 48.0 | 36.3 | 2,560 | 2,530 | 2,510 | 1,340 | 1,210 | 910 |
| Private Borrowing | 3.7 | 4.1 | 4.6 | 4,980 | 5,980 | 7,440 | 190 | 240 | 340 |
| Scholarships | 79.7 | 42.1 | 39.4 | 4,180 | 2,660 | 2,240 | 3,330 | 1,120 | 870 |
| Total: Sum of Means Shown | | | | | | | 16,100 | 12,690 | 12,370 |
| Total: Mean of Individual Observations | | | | | | | 16,050 | 13,090 | 12,510 |

Source: Longitudinal Survey of Low Income Students. Only students who continue through three years of PSE are included.

Table A4: Funding Sources as Percentages of Total Funding (University Students)

| | Year 1 | Year 2 | Year 3 |
|---------------------|--------|--------|--------|
| Government Aid | 62.0 | 57.0 | 57.0 |
| Summer Employment | 6.0 | 12.0 | 13.0 |
| School Employment | 6.0 | 12.0 | 14.0 |
| Family Contribution | 7.0 | 9.0 | 8.0 |
| Private Borrowing | 1.0 | 1.0 | 2.0 |
| Scholarships | 19.0 | 9.0 | 6.0 |
| Total | 100 | 100 | 100 |

Source: Longitudinal Survey of Low Income Student. Only students who continue through three years of PSE are included.

**Table A5: What Students Would Do If Government Aid Was Not Available
(University Students)**

| Action | Percentage Who Selected Given Action |
|---|--------------------------------------|
| Quit School Entirely | 42.1 |
| Borrow More Money From Bank Loans/Lines of Credit/Credit Card | 24.9 |
| Borrow More From Parents or Other Family | 20.6 |
| Work More, While Maintaining Same Course Load | 14.5 |
| Reduce Course Load and Work More | 13.3 |
| Get More Money From Parents, Other Family Members | 6.5 |
| Change Living Arrangements | 3.5 |
| Switch Schools | 3.1 |
| Switch Programs | 0.7 |
| Don't Know | 2.7 |
| Other | 10.4 |

Source: Longitudinal Survey of Low Income Students. Survey question is asked in third year of the survey. Only students who continue through three years of PSE are included.

Table A6: Loans and Gifts From Family Members (College and University Students)

| | Has Type of Funding | | | Among Recipients, Average Amount (\$) | | | Among All Students, Average Amount (\$) | | |
|----------------------------|---------------------|--------|--------|---------------------------------------|--------|--------|---|--------|--------|
| | Year 1 | Year 2 | Year 3 | Year 1 | Year 2 | Year 3 | Year 1 | Year 2 | Year 3 |
| College Students | | | | | | | | | |
| Family Gift | 30.6 | 29.8 | NA | 2,590 | 1,450 | NA | 410 | 200 | NA |
| Family Loan | 15.9 | 14.1 | NA | 1,590 | 1,450 | NA | 490 | 430 | NA |
| University Students | | | | | | | | | |
| Family Gift | 46.7 | 42.6 | 30.4 | 2,190 | 2,140 | 2,210 | 1,020 | 910 | 670 |
| Family Loan | 13.5 | 14.4 | 10.5 | 2,520 | 2,490 | 2,620 | 340 | 360 | 280 |

Source: Longitudinal Survey of Low Income Students. Only students who continue through three years of PSE are included.

Table A7: Scholarship Types In Third Year (University Students)

| | Has Type of Funding | Among Recipients, Average Amount (\$) | Among All Students, Average Amount (\$) |
|-------------------------|---------------------|---------------------------------------|---|
| Merit-Based Scholarship | 16.6 | 2,330 | 390 |
| Need-Based Scholarship | 24 | 1,510 | 360 |
| Other Scholarship | 6.4 | 1,710 | 110 |

Source: Longitudinal Survey of Low Income Students.

Table A8: Entrance Awards (University Students)

| Percent Who Received First Year Entrance Award | Among Recipients, Average Amount (\$) | Among All Students, Average Amount (\$) | Among First Year Entrance Award Recipients, Percent Whose Entrance Award Continued in Their Second Year | Among First Year Entrance Award Recipients, Percent Whose Entrance Award Continued in Their Third Year. |
|--|---------------------------------------|---|---|---|
| 60.7 | 1,840 | 1,110 | 14.4 | 9.4 |

Source: Longitudinal Survey of Low Income Students. Only students who continue through three years of PSE are included.