

MESA L-SLIS RESEARCH BRIEF #10

# Aboriginals In Post-Secondary Education

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# Aboriginals In Post-Secondary Education

(Version 11-18-10)

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# 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 information pertaining to students' preparations for, attitudes towards, and experiences in post-secondary education (PSE). This report uses the L-SLIS to focus on the experiences of Aboriginal students, a particularly interesting subset of respondents. The L-SLIS asks respondents to describe their ethnic background and those who report aboriginal heritage (North American Indian, Metis or Inuit) are considered aboriginal for the purposes of this brief.

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

1. Aboriginal students are substantially more likely than non-Aboriginal students to leave PSE without graduating in their first or second year.
2. Aboriginal students are more likely than non-Aboriginal students to be first generation PSE students.
3. Aboriginal students are less likely than non-Aboriginals to have savings for PSE.
4. Aboriginal students are more likely than non-Aboriginals to live away from home in their first year of PSE.
5. Aboriginal students in the sample receive greater amounts of government aid compared to non-Aboriginals.

Our sample includes only 61 Aboriginal students; due to this small sample size, our analysis is restricted and we must be careful not to overstate the significance of our findings. That said, the findings of this report do point towards further research. Also note, Aboriginals and non-Aboriginals have many different individual and family characteristics that could be driving the results of this report; for this reason one must be careful when imputing causality between any factors. Finally, 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 enter 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

For the following analysis, college and university students are pooled together since sample size does not permit two separate analyses. Aboriginal and non-Aboriginal students are about equally likely to be university students as opposed to college students. About 62.3 percent of the Aboriginal sample consists of university students while 63.8 percent of the non-Aboriginal sample consists of university students (Table A1).

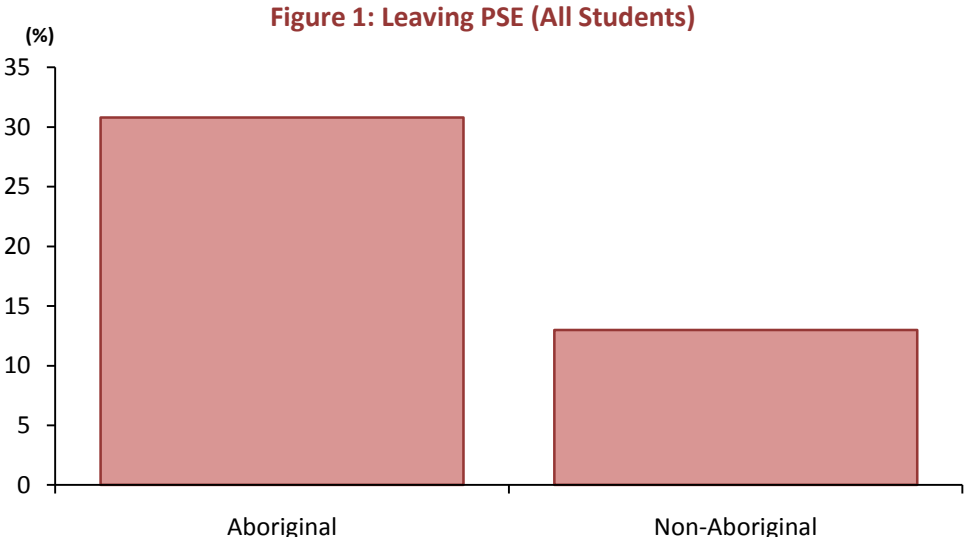
### Individual, Family and Other Characteristics

Aboriginal students of the sample are somewhat more likely to be female compared to non-Aboriginals (Table A1). Also, Aboriginals are much less likely to be from urban areas compared to non-Aboriginals; only 25.3 percent of Aboriginals come from communities larger than 100,000 while 47.1 percent of non-Aboriginals come from communities with populations that size.

Aboriginals are less likely to be from two parent households than non-Aboriginals (Table A1). Also, Aboriginals are considerably more likely than non-Aboriginals to be first generation PSE students. About 55 percent of Aboriginal students do not have a parent or guardian who attended PSE while about 38 percent of non-Aboriginal students do not have a parent or guardian who attended PSE. In this sample of low income students, Aboriginals' and non-Aboriginals' average parental incomes vary by only about \$600.

# Leaving PSE

About 30.8 percent of Aboriginal students leave PSE in first or second year without graduating while only about 13 percent of non-Aboriginal students do the same (Figure 1).



Source: Table A2. Figure represents the percentage of students who leave PSE during first or second year without graduating.

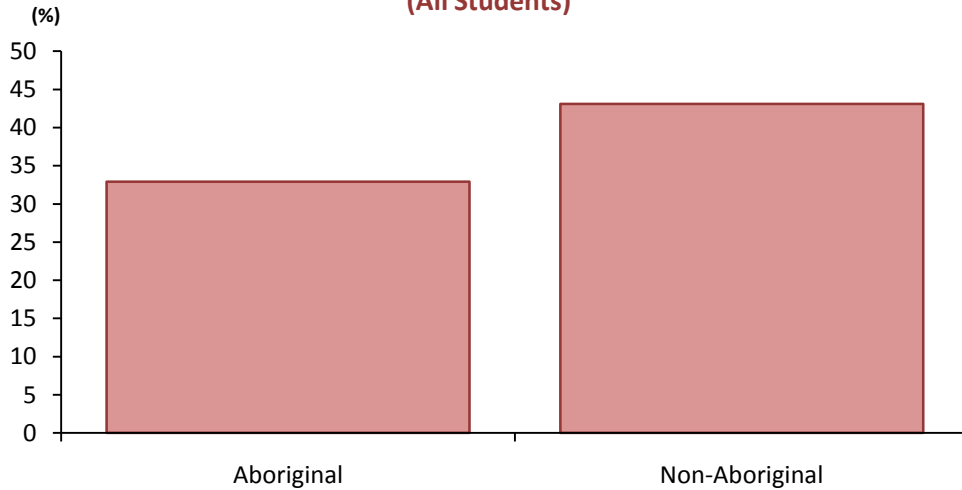
Regression analysis has also been used to measure likelihoods of leaving PSE. Table A3 shows the differences in leaving rates for Aboriginal and non-Aboriginal students, with and without controlling for other factors (gender, province, community size, family structure, parental education, parental income and high school grades) that affect leaving rates and that may also be correlated with students' Aboriginal status.

Our results show that the additional variables do explain some of the differences in leaving rates between Aboriginals and non-Aboriginals, but significant gaps still remain even after taking these other influences into account (Table A3).

# Preparing For PSE

There is no great difference between Aboriginals and non-Aboriginals in terms of when students make their decision to attend PSE (Table A2). Given this, it is interesting that Aboriginal students are considerably less likely than non-Aboriginal students to have family savings when they enter PSE (Figure 2). Aboriginal students are also less likely than non-Aboriginal students to have personally saved for their PSE but the difference is not as great (Table A2).

**Figure 2: Students Whose Family Members Saved  
(All Students)**



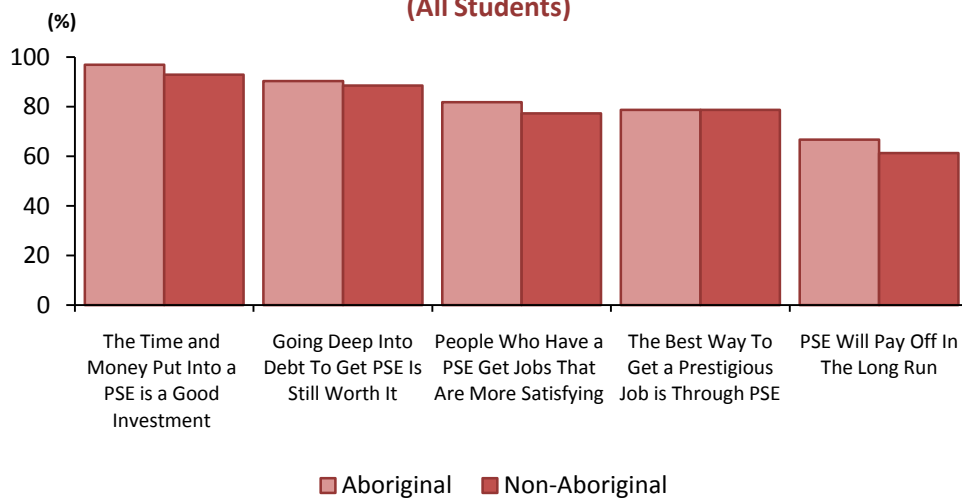
Source: Table A2.

## Attitudes Towards PSE

There is evidence to suggest that low income Aboriginal students may actually have somewhat more positive attitudes towards PSE than non-Aboriginals. Aboriginal students are only slightly, but consistently, more likely than non-Aboriginals to agree with positive statements about PSE as an investment and its benefits for future career opportunities (Figure 3).

An especially large proportion of Aboriginals agree that the time and money put into PSE is a good investment. Aboriginals are significantly more likely than non-Aboriginals to agree and this remains the case even after controlling for students' background characteristics in a regression framework (Table A3).

**Figure 3: Students Who Agree That...  
(All Students)**



Source: Table A3.

## Government Aid

On average, Aboriginal students receive greater amounts of government aid in their first year of PSE compared to non-Aboriginal students. According to administrative

data from provincial student aid systems, Aboriginal recipients receive an average amount of \$10,140 in total government aid in their first year while non-Aboriginal students receive about \$8,910, on average.

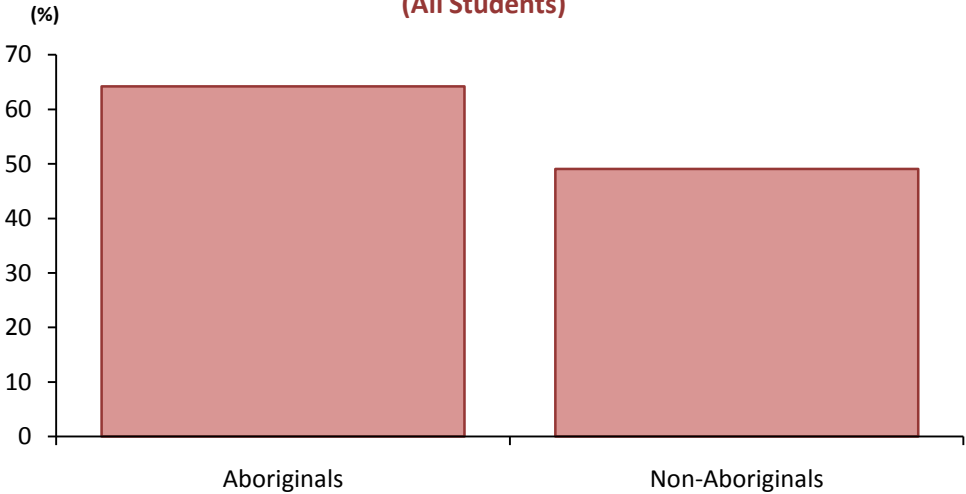
Note that all students of our sample are recipients of government aid in their first year of PSE. This government aid is in the form of government loans and grants. Our analysis does not cover money received from band organizations.

Even when using regression analysis to control for individual, family and other characteristics, Aboriginals are found to receive significantly greater amounts of government aid in their first year of PSE compared to non-Aboriginals. Being Aboriginal is associated with about \$1,050 more in government aid in first year of PSE. Sample sizes are not large enough to permit analysis regarding Aboriginal students' government aid in second or third years of PSE.

### Living Arrangement in First Year of PSE

Aboriginal students are much more likely to live away from home in their first year of PSE compared to non-Aboriginals (Figure 4). This finding is very likely related to the fact that many Aboriginals are from smaller, rural communities and most PSE institutions in Canada are located in urban areas. Also, the higher costs associated with living away from home may partially explain why Aboriginals receive greater amounts of government aid compared to non-Aboriginals.

**Figure 4: Students Who Live Away From Home In First Year of PSE (All Students)**



Source: Table A2.

### Other PSE Experiences

Aboriginal students are not found to be greatly different from non-Aboriginal students with regards to many aspects of their first year PSE experiences. Aboriginal students are somewhat more likely than non-Aboriginals to have paid jobs while they are in school (Table A2). Aboriginal and non-Aboriginal students spend roughly the same amount of time in class and the same amount of time studying outside of class.

Aboriginal and non-Aboriginal students are about equally as likely to agree that their faculty is helpful and sympathetic (Table A2). Aboriginals' overall grade averages in



first year of PSE are slightly higher than non-Aboriginals', by about two percentage points.

## Part III: Conclusion

Note that our sample contains only students who have made it into PSE. Many Aboriginal students of our sample would have overcome significant hurdles in order to reach PSE; our sample thus includes a group of Aboriginal 'achievers.' In particular they have positive attitudes towards PSE, as mentioned above. One could speculate that those attitudes were instrumental in getting these Aboriginal students into PSE, but our data cannot confirm such conjectures.

Despite the lack of evidence of any consistent set of disadvantages with respect to attitudes to PSE, grades, or other attributes, Aboriginal students are substantially more likely than non-Aboriginal students to leave PSE in first or second year. Of important note is that this finding is only partially explained by observable characteristics. Further research is needed to properly explain why Aboriginal students are particularly apt to leave PSE.

## 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 Bursaries<sup>1</sup>. 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 resulting sample has 4027 observations. Only 61 of those observations are of Aboriginal students. Roughly 64 percent of the students in the sample are from Ontario and roughly 15 percent are from British Columbia. The remaining four provinces together make up 20 percent of the sample and each have shares of around 2.5 to 10 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.

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<sup>1</sup> 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: Individual and Family Background Characteristics (All Students)**

	Aboriginal Students	Non-Aboriginal Students
<b>Gender (% male)</b>	35.6	40.4
<b>Size of Community Where High School was Attended (%)</b>		
Rural (pop. < 10 000)	41.8	28.6
Suburban (pop. = 10 000 to 100 000)	32.8	24.3
Urban (pop. > 100000)	25.3	47.1
Total	100.0	100.0
<b>Family Structure (%)</b>		
Two Parents	52.3	60.4
Mother Only	36.9	33.3
Other	10.9	6.3
Total	100.0	100.0
<b>Highest Level Of Parental Education (%)</b>		
High School or Less	54.6	37.6
At Least Some PSE	45.4	62.4
Total	100.0	100.0
<b>Mean Parental Income (\$)</b>	\$20,990.0	\$21,590.0
<b>Institution Type (%)</b>		
College	37.7	36.2
University	62.3	63.8

Source: Longitudinal Survey of Low Income Students.

**Table A2: PSE Experiences (All Students)**

	Aboriginal Students	Non-Aboriginal Students
<b>Leaving PSE</b> Percentage Who Leave PSE in First or Second Year Without Graduating*	30.8	13.0
<b>Preparing for PSE</b> Time of Decision To Attend PSE:		
Before High School (%)	44.9	48.3
During or After High School (%)	55.1	51.7
Total (%)	100.0	100.0
Percentage Who Personally Saved For Their PSE	44.3	46.2
Percentage With Family Members Who Saved For Their PSE	32.9	43.1
<b>Attitudes Towards The Value of PSE</b> Percentage Who Agree That:		
The Time and Money Put Into a PSE is a Good Investment	96.9	92.9
Going Deep Into Debt To Get PSE Is Still Worth It	90.3	88.5
People Who Have a PSE Get Jobs That Are More Satisfying	81.9	77.3
The Best Way To Get a Prestigious Job is Through PSE	78.8	78.7
PSE Will Pay Off In The Long Run	66.7	61.3
The Time and Money Put Into a PSE is a Good Investment	96.9	92.9
<b>Government Aid, Time Use, Opinions of Faculty and Grades</b> Average Amount of Government Aid in first year (Loans and Grants)	\$10,140.0	\$8,910.0
Percentage Who Live Away From Home In Their First Year of PSE	64.2	49.1
Percentage With Paid Jobs In First Year	40.8	36.0
Average Hours Per Week Spent In Classes, Labs And Tutorials	21.1	20.7
Average Hours Per Week Spent Studying	13.6	14.7
Percentage Who Agree Their Faculty Is Helpful and Sympathetic	71.0	70.4
Average Grade In First Year of PSE	77.9	76.2

Source: Longitudinal Survey of Low Income Students. \*Students are counted as leavers if they left PSE prior to their second interview, which took place in the winter of 2008, during their second year.

**Table A3: Regression Results (All Students)**

	Aboriginal Students	Non-Aboriginal Students	Difference	Regression Estimate of Difference Without Controls	Regression Estimate of Difference With Controls
Percentage Who Leave PSE in First or Second Year †	30.8	13.0	17.8	17.7**	14.0**
Percentage Who Agree PSE is a Good Investment	96.9	92.9	4.0	4.0*	3.5**
Average Amount of Government Aid in First Year	\$10,145.4	\$8,915.7	\$1,229.7	\$1,229.7***	\$1,053.8***

Source: Longitudinal Survey of Low Income Students. † Students are counted as leavers if they leave PSE prior to their second interview, which took place in the winter of 2008, during their second year.

\*/\*\*/\*\* indicates statistical significance at the 10/5/1% level.

Control variables were used to account for gender, province, family structure, community size, parental education, parental income and high school grades.

Non-Aboriginal students were used as the base line group. An Aboriginal student indicator was entered in regressions as a dummy variable. Marginal effects report the differences between the dummy variable group and the base line group.