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Queen's Economics Department Working Paper No. 1373

# Student Aid and the Distribution of Educational Attainment

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# Student Aid and the Distribution of Educational Attainment\*

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## Abstract

I examine the effect of student aid on the distribution of educational attainment in the context of a post-secondary funding program for Indigenous students in Canada. I show that student aid programs targeted at marginalized groups can increase average educational attainment; however, these benefits are driven by an increase in college training, not in the number of university degrees. For students living in remote communities that face above average costs to graduating high school, the elimination of post-secondary funding programs can have adverse effects on high school graduation rates, highlighting the importance of considering the effect of student aid on the entire distribution of educational attainment.

JEL Codes: I21, I22, I28, J15

Keywords: Education, post-secondary funding, student aid, education choice

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The increase in the wage premium for post-secondary programs relative to high school highlights the importance of policy aimed at raising post-secondary attainment (Boudarbat, Lemieux, and Riddell, 2010; Acemoglu, 2002; Krueger, 2002; Acemoglu and Autor, 2011; Oreopoulos and Petronijevic, 2013). Moreover, rising inequality across the United States, Canada and much of the developed world has triggered a policy response aimed at groups particularly disadvantaged by changes in the structure of the labour market. Merit-based scholarships often benefit those who are already likely to attend and graduate from post-secondary programs, so in an effort to increase the graduation rates and enrolment of those who are less likely to attend, a number of alternative options have been introduced. These policies include affirmative action on the part of university admissions committees, need-based scholarships, and financial loans.

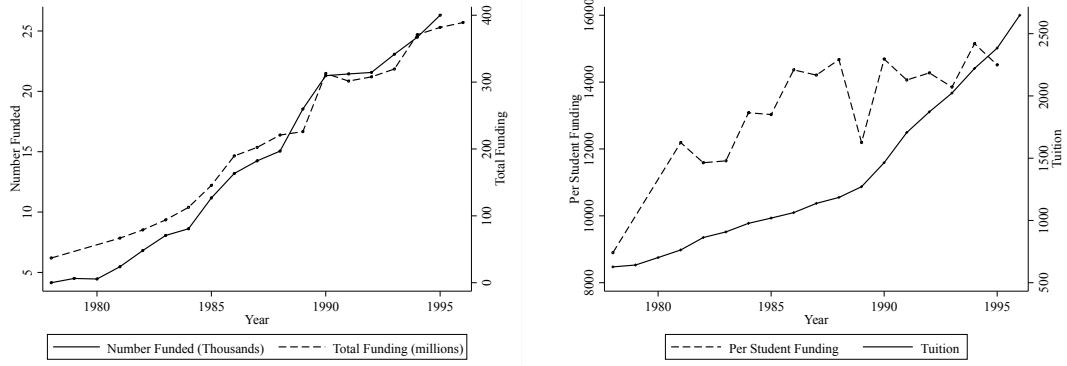
This paper exploits sharp changes in the guidelines governing a large post-secondary funding program for Indigenous students in Canada to examine how providing financial aid to disadvantaged groups affects their average educational attainment. In 1977, the government of Canada implemented the Post-Secondary Educational Assistance Program (PSEAP), a funding program for First Nations and Inuit students—two of the three Indigenous groups in Canada and the most socio-economically disadvantaged demographic in the country.<sup>1</sup> Despite the fact that this program was the largest direct source of post-secondary funding in Canadian history, it has received little attention from economists.

The program stands out because initially it was not means tested and was therefore available to every First Nation and Inuit student registered with the federal government, which at the time was approximately 1.4% of the entire Canadian population (Robinson, 1991).<sup>2</sup> Unlike other extensively studied programs, for example, the G.I. Bills in the United States, the PSEAP was designed to exclusively assist a traditionally marginalized popula-

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<sup>1</sup>Fewer Indigenous students graduate from high school than non-Indigenous students; in 2006 8% of Indigenous people had a bachelor's degree, compared to 22% of the non-Indigenous population; and in 2006 the median income among Indigenous people was approximately \$8,000 less than non-Indigenous people (Wilson and Macdonald, 2010).

<sup>2</sup>Some individuals self-identify as First Nations, but are not on the official Indian Register and as a result are not eligible for the social benefits traditionally provided to Registered Status Indians.



(a) Total Funding and Number of Registered Status and Inuit Funded

(b) Funding Per Student and Tuition

Figure 1: Number of students funded under the PSEAP and the PSSSP and the average amount of funding per student (in 2016 CAD). Data for the number of students funded from *DIAND: Basic Departmental Data, 2004*, and data for the total and per student funding from Stonechild (2006) (1977, 1978, 1981-1989), Annual Indian Affairs Reports (1990), Indian and Northern Affairs Canada 1996 Performance Report (1991-1995).

tion, there were initially no stipulations on the amount of funding available, and it provided funding for both men and women. At the onset, as long as students had been accepted by a recognized post-secondary program, they were provided with funding for tuition, living expenses, travel costs, and other expenses.

Unable to sustain the rising costs of the program, which were approaching \$250 million (2016 CAD) per year by 1989—displayed in Figure 1(a)—the government revised the guidelines governing the allocation of funding and limited per-student funding as shown in Figure 1(b). These changes increased the expected cost of schooling for Indigenous students in two ways. First, due to the rising cost of tuition over this time period, students had increasingly less funding to pay for other living expenses. Second, under the new guidelines, the government allocated block funding to each band, and in the event that there were more eligible students than funding available, students were placed on a deferment list. Thus, even if one was eligible for funding, it was no longer guaranteed that they would receive funding.

Using the implementation of the funding program in 1977 and the changes to the provision of aid in the late eighties as plausibly exogenous shocks to the cost of schooling, I

compare the effect of increasing the expected cost of schooling on average educational attainment to the effect of decreasing it. According to basic human capital theory, lowering the cost of schooling should increase educational attainment among those affected, and the reverse is true for an increase to the cost of schooling (Becker, 1964). To explore this notion, I begin by extending the model of human capital acquisition presented in Charles, Hurst, and Notowidigdo (2016) wherein students choose between no education, high school, trade school, college, and university, and the difficulty of each education level is ranked in this order.<sup>3</sup> The model predicts changes in the share of the population completing each level of education, where the size and magnitude of these changes are determined by the relative costs and benefits associated with each choice.

The predictions generated by the model are reflected in the empirical evidence. I use confidential micro data from the 2006 Census of Population to show that the share of the population with a college degree increased by approximately 2-3 percentage points relative to one period prior to the policy change, although there was no statistically significant increase in the share of the population completing trade programs. This finding is not dissimilar from other studies; for instance, Oreopoulos and Ford (2016) show that removing barriers to the post-secondary application process increased community college applications and participation, without substantially changing application and participation rates of other post-secondary programs. These results help to identify the marginal student who responds to changes in the cost of schooling.

Interestingly, the increase in college attainment was offset by a small decrease in university attainment, suggesting that some students responded to the policy by shifting from university into college. While this result may appear contradictory at first, it is in fact plausible in the context of the theoretical model if the return to college is also increasing relative to university. Further, the stipulations of the funding program were such that funding was

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<sup>3</sup>Table 8 of Appendix C explains the differences in detail, but in Canada, college generally refers to an institution that offers two or three year degrees below the bachelor level, whereas universities are 4-year bachelor degree granting institutions.

provided to attend the closest post-secondary institution that offered the program of study which the student had selected. If some programs are interchangeable between college and universities, then the decline in university participation could be attributed to the fact that colleges are, on average, located closer to Indigenous communities compared to universities.

In the year immediately following cutbacks to the funding program, college completion decreased by 1.3 percentage points. Five and six years after the policy change, college completion had declined by 4.3 and 3.7 percentage points, respectively, reflecting the fact that the expected cost of schooling was increasing over time. In addition, there were observed decreases in the share of the population with trade certifications, but no change in the share with university degrees. The absence of an effect on university completion rates might be a result of a higher number of alternative funding opportunities for Indigenous students at universities compared to colleges during this time period.

Due to the fact that many Indigenous students live in remote communities where the cost of graduating high school is often high and the return to schooling is low (George and Kuhn, 1994; Feir, 2013), I investigate the effect of the program on high school graduation in more detail, by using the non-eligible population as a control group in difference-in-differences regressions. I show that while high school graduation rates did not change relative to the control group in response to the implementation of the program, they did decline slightly after the program was cut back.

In the theoretical framework, this result is possible if the high school graduation decision depends on the cost of post-secondary education. Many Indigenous students who live in remote communities—called reserves—face larger than average costs of attending high school. If post-secondary education is no longer an option for these students, graduating high school may no longer be worthwhile either. With this in mind, I re-estimate the difference-in-differences specifications separately for the on-reserve and off-reserve population. The results suggest that there are no differential effects of either policy change for the off-reserve population; however, the on-reserve population exhibits a large and sustained

decline in high-school graduation rates after post-secondary funding was cut back, which is consistent with the two groups facing different costs of high school.

In the last section of the paper, I rule out confounding factors, by conducting an online search of education-related keywords in leading Canadian newspapers. The search results point to tuition increases in the province of Quebec, and education grant cutbacks in the province of Alberta that also coincide with the timing of the cutbacks to funding in 1989. I re-estimate the results first with the exclusion of Quebec, and second with the exclusion of Alberta and show that the main results do not change as a result of excluding these two provinces. Finally, I show that the results are not driven by communities that received large settlements from the government or that signed large land claim agreements around the same time as the policy changes.

Other work examining the relationship between student aid and educational attainment typically find a positive correlation, but to the best of my knowledge, this the first paper to look at the effects of student aid on the distribution of educational attainment. Perhaps the most well-known papers in the student aid literature are those examining the midcentury G.I. bills in the United States and Canada. These studies demonstrate that the G.I. bills increased average educational attainment (Angrist, 1993; Lemieux and Card, 2001; Bound and Turner, 2002), though the effects were primarily concentrated among white men (Turner and Bound, 2003) and people of higher socioeconomic status (Stanley, 2003).<sup>4</sup> Many of the existing studies focus on the effect of providing post-secondary assistance to a subgroup of the population who did not have access to funding ex-ante. An exception is Arcidiacono

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<sup>4</sup>The G.I. bills were the largest source of financial aid for college attendance in the United States. Similar types of post-secondary funding for war veterans were implemented in Canada under alternative names. Studies examining other financial assistance programs have also documented the positive impacts of financial assistance on college attendance: Dynarski (2002) shows that the elimination of the Social Security Benefit Program in 1982 resulted in a decrease in college attendance rates and Dynarski (2003) also shows that the introduction of the Georgia HOPE Scholarship in 1993 resulted in an increase in college attendance. Abraham and Clark (2006) show that the District of Columbia Tuition Assistance Grant Program increased the likelihood that students applied to eligible post-secondary institutions and increased college enrolment rates among recent high school graduates. Nielsen, Sørensen, and Taber (2010) find that student aid increased college enrolment in Denmark, but their estimates are smaller than previous studies. A more complete overview of the literature examining financial aid and educational attainment can be found in Deming and Dynarski (2009).



(2005), who estimates a structural model of education decisions, showing that removing affirmative action-style policies decreases the number of black students at top-tier U.S. schools and removing advantages in financial aid decreases the number of black students who attend college. My analysis provides empirical evidence that is consistent with these studies on the effect of both the implementation of post-secondary assistance, but also a setting where funding for an existing program is reduced.

The results in this paper suggest that student aid programs targeted at marginalized groups can increase average education attainment within the group. However, these benefits are mainly driven by changes in college attainment, not in the number of university degrees. Further, this paper points to the importance of considering the distribution of schooling, as simply examining the effects of student aid on post-secondary completion masks some potentially important findings with respect to high school decisions for people in remote locations.

Through the remainder of the paper I make reference to “Aboriginal” people, which is a term that has been used to refer to the Indigenous people in Canada. I also discuss legislation referring to “Indians”, which is the term used in official government documentation referring to Indigenous people. For the purpose of this paper the terms “Aboriginal”, “Indigenous”, and “Indian” are used interchangeably.

## 2 The Evolution of Post-Secondary Support for Indigenous Students in Canada

Canada’s Indigenous population is comprised of three broad groups—First Nations (also known as North American Indians), Inuit, and Métis. Currently, the federal government has legal jurisdiction over First Nations and Inuit populations.<sup>5</sup> In this section, I outline how the relationship between the state and Canada’s First Nations and Inuit population has

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<sup>5</sup>In April, 2016, the Supreme Court of Canada passed a ruling that determined Métis are considered “Indian” within the meaning of the constitution. During the time period under study in this paper, the Métis population was not included in the legal definition of “Indian” as it pertains to government policy.

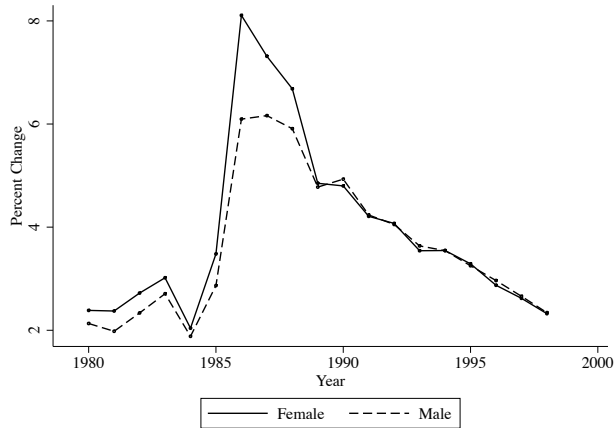


Figure 2: Growth in the Registered Status population in Canada between 1979 and 1998. Data from *Basic Departmental Data, 2004, DIAND*.

evolved to include the provision of post-secondary funding. A more comprehensive history of Indigenous education policy is found in Paquette and Fallon (2010) and Stonechild (2006).

The federal government was granted legislative jurisdiction over, “*Indians and lands reserved for Indians,*” in Article 91, Section 24 of the Canadian Constitution of 1867. At this time, “Indian” referred only to the First Nations population. Shortly afterwards the *Indian Act* of 1876 was passed, which effectively turned First Nations people into legal wards of the state. To this day, the Indian Act is still the primary statute that governs how the state interacts with the First Nations population. Between 1871 and 1921 westward expansion led to the negotiation of a series of *Numbered Treaties* between First Nations groups and the federal government. Both the Indian Act and the Numbered Treaties outline the obligations of the federal government with respect to certain social benefits and the provision of public goods, including education, to First Nations people.

The Inuit’s relation to the Indian Act is more complicated. Originally, the Inuit were not included as “Indians” under the Constitution Act of 1867 and were not included in the fiduciary obligations of the federal government. Between 1924 and 1966 a series of amendments were made to the Indian Act regarding the Inuit population and the question of whether Inuit should have the same status as First Nations was extensively debated.

Currently, First Nations and Inuit remain distinct with respect to their legal relationships with the federal government. The Inuit continue to be excluded from the Indian Act, although there exist specific federal programs for them regarding healthcare and education (Bonesteel, 2006).

Prior to 1970 very few Indigenous students attended post-secondary institutions and it was not until the late 1970s that the federal government implemented a formal post-secondary funding program for First Nation and Inuit students. The Post-Secondary Educational Assistance Program (PSEAP) was established in 1977 to,

*“Encourage Registered Canadian Indians and Inuit to acquire university and professional qualifications so that they may become economically self-sufficient and may realize their individual potentials for contributions to the Indian community and Canadian society.”* (Program Circular, E.12, page 2)

To qualify, students had to be registered with the federal government as Status Indians or Inuit and they must have been accepted into a program at a valid post-secondary institution (Program Circular, E.12, page 3). Funding under the program was comprehensive and included tuition, training, shelter, travel, equipment, books, and supplies. Table 6 of Appendix B summarizes these allowances as they are described in official government documentation. At the onset of the program, Status Indians and Inuit who had been accepted into programs at recognized post-secondary institutions applied for funding directly to the federal government and received compensation for the full cost of the post-secondary education of their choice.

After the PSEAP was implemented the number of Indigenous students who were provided funding for post-secondary education increased from 3,599 in the first year of the program to 14,242 in 1987 (Stonechild, 2006).<sup>6</sup> The federal government viewed the increasing number

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<sup>6</sup>A contributing factor to the large increase in the number of students funded was that in 1985 the Government of Canada passed Bill C-31, *A Bill to Amend the Indian Act*, which sought to eliminate gender-discriminatory sections from the Indian Act. Prior to 1985, Indian Status was inherited paternalistically. An Indigenous woman and her children were disenfranchised if the woman married a non-Indigenous man,

of students funded through the PSEAP as financially unsustainable and in May of 1987 Indigenous leaders and the Department of Indian Affairs met to discuss the most cost effective way to allocate funding for Indigenous students moving forward. A new funding program was to replace the PSEAP in the spring of 1989. This program was renamed the Post-Secondary Student Support Program (PSSSP) to reflect the differences from the PSEAP. Table 7 of Appendix B outlines the financial support available to students under the PSSSP.

The PSSSP changed the costs of schooling in two fundamental ways. First, it imposed a ceiling on the per-student funding. Figure 1(b) displays the per-student funding and the average university tuition in Canada in 2016 CAD. There was a large drop in per capita funding in 1989, which is due to an initial cap imposed on the PSSSP. The federal government responded by increasing total funding in the following year, allowing per-capita funding to return to its 1988 level, after which it remained relatively flat. Per student funding levelled-off at the same time that tuition rates began soaring. With rising tuition, it became increasingly challenging for Indigenous students to cover their entire schooling expenses with the funding they were allotted.

The new funding program also lowered the likelihood that an eligible student received funding. Under the PSSSP guidelines the application process was modified, so that the federal government allocated funding directly to each band and students applied to their band for funding, rather than to the federal government directly. In the event that there were more students eligible than funds available, applications could be deferred. Although the Department of Indian Affairs asked regional administration offices to keep deferred files, they did not require offices to submit any type of record regarding the number of eligible students denied funding. Anecdotal evidence suggests that the number of students who were denied funding or had their application deferred due to unavailable funds may have

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though the same consequences did not hold for an Indigenous man marrying a non-Indigenous woman. Under Bill C-31, Indian Status was reinstated for women and their children who had previously lost status as a result of the discriminatory sections. Figure 2 demonstrates the staggering increase in the total number of Registered Status Indians after Bill C-31 passed.

been quite large. For example, the Eskasoni band’s Director of Education reported that,

*“[Eskasoni] has funding for approximately eighty students per year. Routinely, they get applications of 120 to 150. They have to turn away forty to seventy students per year.”* (No Higher Priority, 1995)

In the following sections I interpret the changes to post-secondary funding for First Nation and Inuit students as changes to the cost of schooling. I outline a simple theoretical model that incorporates these costs that can be used to think about how the policy changes might affect student behaviour, and in turn how they might affect the distribution of educational attainment. I combine this insight with confidential micro data to test some of the predictions of the model and to better understand how financial aid contributes to the educational decisions of the Indigenous population in Canada.

### 3 A Model of the Acquisition of Schooling

Human capital theory predicts that students will choose the optimal level of schooling after considering the costs and benefits of each of their decisions. In this section, I motivate the empirical specification by introducing a simple human capital model of the optimal acquisition of schooling. The model is grounded in Becker (1964) and is derived from the setup in Charles, Hurst, and Notowidigdo (2016).

To begin, let us consider the case where a student residing in province  $p$  at time  $t$  chooses schooling level  $r$ , which may be either no schooling  $o$ , a high school diploma  $h$ , a trade or apprenticeship  $a$ , community college  $c$ , or university  $u$ . Table 8 of Appendix C defines these schooling levels explicitly, and in the Canadian context. Assume that there is an ordinal ranking in these choices, such that  $o < h < a < c < u$ . Students must graduate high school before pursuing a trade, college or bachelor’s, but I assume in what follows that the sequential decision is embedded in the discrete choices observed.

Students differ based on their ability  $\alpha_i$ , which is known to the student but not the econometrician, and is distributed according to some underlying distribution with p.d.f.

$\psi(x)$  and c.d.f.  $\Psi(x)$  along support  $(\underline{\alpha}, \bar{\alpha})$ . This distribution is assumed to be time invariant, so that changes in educational attainment arise from changes in the costs and benefits of schooling and not changes in the underlying distribution of ability.

When choosing their education level, students face three types of costs: fixed costs, psychic costs, and opportunity costs. The fixed costs of school include  $T_{pt}^r$ , tuition in province  $p$  at time  $t$ , and the cost of travelling to school,  $D_{pt}$ , which is assumed to be the same for schools of type  $h, a, c$  or  $u$ . If students choose to attend a post-secondary institution then with some probability  $\mu_t$  they do not have to pay the full fixed cost of schooling.

Psychic costs,  $\kappa^r(\alpha_i)$ , reflect the fact that students have to exert effort to complete school and are decreasing linearly in ability,  $\kappa^r(1 - \alpha_i)$ . I assume that  $\kappa^o = 0$  and that  $0 < \kappa^h < \kappa^a < \kappa^c < \kappa^u$  so that more effort is required for a bachelor's degree than for college, trade school or high school, and that this effect is dampened by the student's individual level of ability. Psychic costs are both time and location invariant.

Students in province  $p$  at time  $t$  face an outside option of wages  $w_{pt}^o$  if they do not graduate. All other levels of schooling lead to a wage premium of  $\pi_{pt}^r = w_{pt}^r - w_{pt}^o$ . Assuming students start working after a program of length  $l^r$ , live for  $T$  periods, and have a time  $t$  information set of  $\Omega_t$ , the indirect utility function of student  $i$  attending a school of type  $r$  in province  $p$  in year  $t$  is

$$U_{ipt}^r(\alpha_i) = \sum_{t=l^r}^T \mathbb{E} [\pi_{pt}^r | \Omega_t] - (1 - \mu_t) [T_{pt}^r + D_{pt}] - l^r \cdot w_{pt}^o - \kappa^r(1 - \alpha_i), \quad (1)$$

and the student's decision is to choose the level of schooling  $r \in \{o, h, a, c, u\}$  that yields the highest conditional indirect utility:  $\max\{0, U_{ipt}^h(\alpha_i), U_{ipt}^a(\alpha_i), U_{ipt}^r(\alpha_i), U_{ipt}^u(\alpha_i)\}$ .<sup>7</sup> The conditions

$$0 > U_{ipt}^h(\underline{\alpha}) > U_{ipt}^a(\underline{\alpha}) > U_{ipt}^r(\underline{\alpha}) > U_{ipt}^u(\underline{\alpha}) \quad (2)$$

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<sup>7</sup>Following Charles et al. (2016) I abstract from imposing more complicated assumptions on the model. In particular, I ignore discounting, assume students are risk neutral, and I assume that students who choose to pursue degree  $r$  receive a degree. In addition, students do not work and attend school simultaneously and there is no borrowing cost.

$$0 < U_{ipt}^h(\bar{\alpha}) < U_{ipt}^a(\bar{\alpha}) < U_{ipt}^r(\bar{\alpha}) < U_{ipt}^u(\bar{\alpha}) \quad (3)$$

ensure that there is a range of ability levels for which each action is the optimal decision. Since the indirect utility is increasing in ability, these conditions also guarantee that all indirect utility functions cross. Re-writing equation 1 in terms of the benefits less the costs yields an equation that satisfies the above conditions.

$$U_{ipt}^r(\alpha_i) = \Pi_{pt}^r + \kappa^r \alpha_i \quad (4)$$

where,

$$\begin{aligned} \Pi_{pt}^r &= B_{pt}^r - F_{pt}^r - \kappa^r \\ B_{pt}^r &= \sum_{t=l^r}^T \mathbb{E} [\pi_{pt}^r | \Omega_t] \\ F_{pt}^r &= (1 - \mu_t) [T_{pt}^r + D_{pt}] + l^r \cdot w_{pt}^o \end{aligned}$$

Figure 3 plots equation 4 for each level of education to display a candidate equilibrium in which equations 2 and 3 are satisfied. For all levels of ability lower than  $\alpha^h$ , the student chooses to drop out of high school. At  $\alpha_h$  the student is indifferent between graduating high school and not, whereas for  $\alpha_i \in (\alpha^h, \alpha^a)$  the student will prefer to complete high school. Between  $\alpha_i \in (\alpha^a, \alpha^c)$  the student will obtain a trade, between  $\alpha_i \in (\alpha^c, \alpha^u)$  the student will go to college, and for  $\alpha_i > \alpha_u$  students will go to university.

If we consider the policy environment in Canada in the late 1970s, where the federal government moved from providing almost no student aid for Aboriginal students pursuing post-secondary programs to fully funding post-secondary programs (including the cost of travel to the school) for First Nation and Inuit students, this would be represented by a change in  $\mu_t$  from 0 to 1, thus eliminating the entire fixed cost of schooling. When the program was cut back in the 1980s, the expected cost of schooling changed in two ways: (i) it became less likely that a student who was eligible for funding actually received funding; (ii) a student who received funding was not given enough funding to keep up with the rising

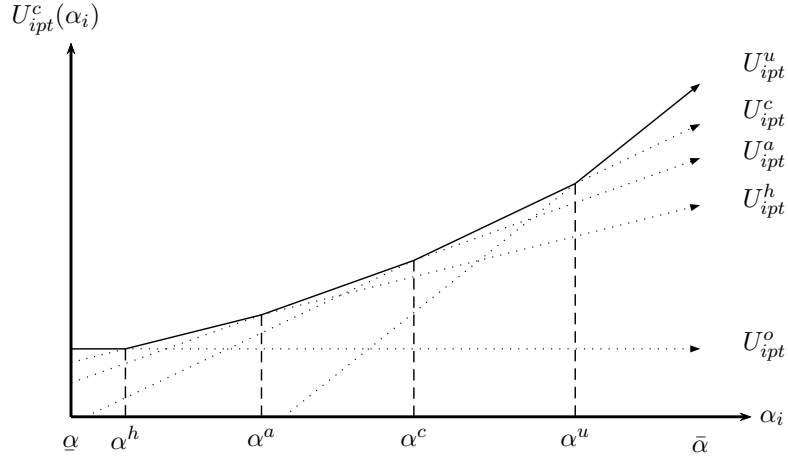


Figure 3: Optimal schooling choices conditional on ability

costs of tuition. Both of these situations lead to a decrease in  $\mu_t$  from 1 to  $\mu_t < 1$ . Since the cost of tuition was increasing over time, we can think of  $\mu_t$  as decreasing over time after the policy change in 1989.

Figure 4 demonstrates the effects of changing  $\mu_t$  from 0 to 1 on the cutoff values of  $\alpha_i$  for a situation where the fixed costs of attending post-secondary school are increasing in their level of difficulty ( $F^a < F^c < F^u$ ). In this situation, an increase in student aid causes  $U_{ipt}^u$  to shift upwards by more than  $U_{ipt}^c$ , and similarly the change in  $U_{ipt}^c$  will be more than the change in  $U_{ipt}^a$ . This results in a decrease in the ability cutoff for trades, college and university. The interesting question at hand is how changes to student aid affect the share of people choosing each level of education, but the answer is not immediately clear.

Using the simplified indirect utility function in equation 4, we can solve for each ability level  $\alpha_r$  for which a student is indifferent between education level  $r$  and education level  $r-1$ .

$$\alpha_{pt}^r = \frac{\Pi_{pt}^r - \Pi_{pt}^{r-1}}{\kappa^{r-1} - \kappa^r} \quad (5)$$

Integrating over the distribution of ability yields the share of people choosing each education



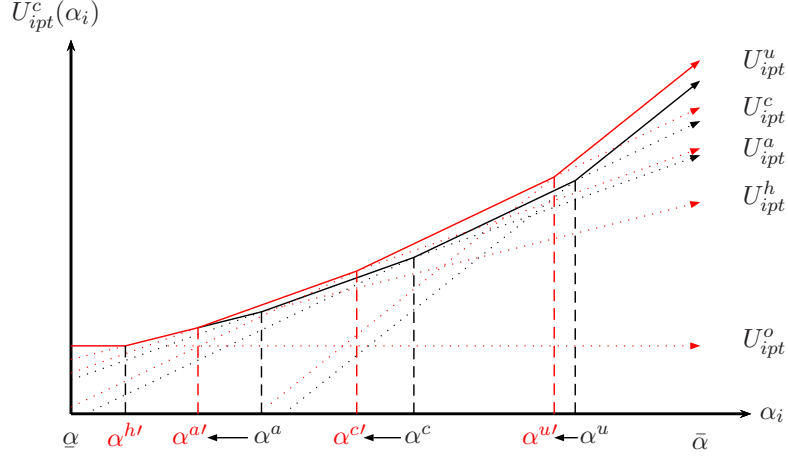


Figure 4: Optimal schooling choices after an increase in student aid for the case where  $F^a < F^c < F^u$

level in each province at each point in time,

$$\begin{aligned}
 s_{pt}^r &= \int_{\alpha_{pt}^r}^{\alpha_{pt}^{r+1}} \psi(x) dx \\
 s_{pt}^r &= \int_{\underline{\alpha}}^{\alpha_{pt}^{r+1}} \psi(x) dx - \int_{\underline{\alpha}}^{\alpha_{pt}^r} \psi(x) dx \\
 s_{pt}^r &= \Psi(\alpha_{pt}^{r+1}) - \Psi(\alpha_{pt}^r)
 \end{aligned}$$

To obtain an analytical solution to the share equations and to calculate the relevant comparative statics, I assume that  $\alpha \sim U[0, 1]$ . In this case the share of the population choosing education level  $r$  in province  $p$  at time  $t$  is

$$s_{pt}^r = \alpha_{pt}^{r+1} - \alpha_{pt}^r \quad (6)$$

Substituting equation 5 for each cutoff  $\alpha_{pt}^r$  yields the following expression for the change in the share of the population choosing education level  $r$

$$\Delta s_p^r = \left[ \frac{(\Delta B_p^{r+1} - \Delta B_p^r) - (\Delta F_p^{r+1} - \Delta F_p^r)}{\kappa^r - \kappa^{r+1}} \right] - \left[ \frac{(\Delta B_p^r - \Delta B_p^{r-1}) - (\Delta F_p^r - \Delta F_p^{r-1})}{\kappa^{r-1} - \kappa^r} \right] \quad (7)$$

Some properties of  $\Delta s_p^r$  are as follows:

1. The change in the share of the population choosing education level  $r$  is increasing in

the change in the benefits associated with this education level  $\Delta B_p^r$ , the change in the cost of the next level of education level  $\Delta F_p^{r+1}$ , and the change in the cost of the lower education level  $\Delta F_p^{r-1}$ .

$$(i) \frac{\partial \Delta s_p^r}{\partial \Delta B_p^r} > 0 \quad (ii) \frac{\partial \Delta s_p^r}{\partial \Delta F_p^{r+1}} > 0 \quad (iii) \frac{\partial \Delta s_p^r}{\partial \Delta F_p^{r-1}} > 0$$

2. The change in the share of the population choosing education level  $r$  is decreasing in the change in the costs associated with this education level  $\Delta F_p^r$ , the change in the benefits of the next level of education level  $\Delta B_p^{r+1}$ , and the change in the benefit of the lower education level  $\Delta B_p^{r-1}$ .

$$(i) \frac{\partial \Delta s_p^r}{\partial \Delta F_p^r} < 0 \quad (ii) \frac{\partial \Delta s_p^r}{\partial \Delta B_p^{r+1}} < 0 \quad (iii) \frac{\partial \Delta s_p^r}{\partial \Delta B_p^{r-1}} < 0$$

The comparative statics associated with the model are intuitive. More people will choose education level  $r$  if the benefits associated with  $r$  increase. This would be the case if there was an increase in the wage paid to graduates from program  $r$ , for instance. Likewise, more people choose education level  $r$  if the costs associated with the next highest education level increase. For example, if university tuition suddenly increases relative to college tuition, then we expect to see a switch from bachelor's programs to college programs. Similarly, if the cost of the education level just below  $r$  increases, we should see more students choosing  $r$  in subsequent periods. On the other hand, we should observe a decrease in the share of the population choosing education  $r$  if the cost of  $r$  increases, or if the benefits associated with the next highest or lowest education levels increase.

Relating equation 7 to the policy changes that occurred in Canada, we can begin to think about how the shares of the population choosing each level of education will change if the financial aid landscape switches from a situation with no post-secondary assistance (pre-1977) to full post-secondary assistance (post-1977) when the cost of each level of schooling differs. Similarly, we can use equation 7 to think about how funding cutbacks will affect the distribution of educational attainment in the population.

Based on equation 7, holding all else constant, we should only expect to see a change in the number of people with no degree if students face unusually high costs of graduating high

school, such that the cost of graduating high school is only worthwhile if post-secondary financing is available. For the remainder of the education levels, the change in the share of the population whose highest degrees are high school, trade school, college and university depend on the relative costs and benefits associated with each type of educational program, in addition to the differences between the psychic costs of attending each type of post-secondary program. Aside from the change in tuition costs, it is difficult to pinpoint the rest of these values, and especially so for the value of the psychic costs of schooling.

The model in this section predicts that high school graduation rates (the inverse of the share of the population with no degree) should respond to changes in funding in locations where the costs of high school are high, and that changes in the share of people choosing each level of post-secondary schooling depends on the relative cost of these programs. I explore these predictions in the empirical section using the theoretical model to guide my interpretations of the results.

## 4 Data and Empirical Methodology

I use date of birth from the 2006 census of population combined with provincial school attendance rules at each point in time to calculate the year in which each student should have graduated high school. A summary of these entry and exit rules is located in Table 5 in Appendix A. I then estimate how the share of the eligible population choosing each level of education changed after the implementation of each of the post-secondary funding policies. Figure 5 plots these shares for no schooling, high school, trade, college and university for cohorts graduating high school between 1970 and 1995.

Other studies that use current data to examine historical trends pool multiple waves of data, controlling for differences between surveys using dummy variables (Goldin and Katz, 2008; Charles, Hurst, and Notowidigdo, 2016). I choose to focus only on the 2006 census because out of the 1991, 1996, 2001 and 2006 censuses it has the highest number of completely enumerated Indian reserves, which directly affects the composition of the treatment group in

my analysis.<sup>8</sup> The likelihood that an individual with Indigenous ethnic origins self-identifies on the census has also increased over time. This phenomenon, known as ethnic mobility, has been well documented for the Canadian Aboriginal population (Guimond, 1999, 2009; Caron-Malenfant, Coulombe, Guimond, Grondin, and Lebel, 2014).<sup>9</sup> The prevalence of ethnic mobility would be particularly problematic for this analysis if willingness to self-report is in some way correlated with the uptake of the policy. This would be the case if, for example, those most likely to take advantage of the funding program after its implementation in 1977 were also less likely to report Aboriginal origins on the census. A final concern with pooling multiple waves of data for this study is that the nature of the census questions on ethnic identity have changed over time in a way that directly affects the Aboriginal population (Saku, 1999).<sup>10</sup>

I begin by restricting the sample to only those eligible for student aid—First Nations and Inuit—and only those who live in the same province that they were born.<sup>11</sup> I impose the mobility restriction so that I can assign students to the correct graduation cohort based on their provincial school attendance rules and so that the geographic fixed effects I include in the regressions are more likely to match the individual’s true place of residence when they made their schooling decisions. Results without the mobility restriction do not alter the conclusions and can be found in Appendix G,

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<sup>8</sup>In 2006, 22 reserves were incompletely enumerated, down from 30 in 2001 and 77 in 1996: <https://www.aadnc-aandc.gc.ca/eng/1100100020284/1100100020288>.

<sup>9</sup>Other studies have documented inconsistencies in reporting ethnic origins among Native Americans (Antman and Duncan, 2015a) and African Americans (Antman and Duncan, 2015b; Nix and Qian, 2015) in the United States.

<sup>10</sup>The 2001 question was phrased as “*To which ethnic or cultural group(s) did this persons ancestors belong?*” and the 2006 question was “*What were the ethnic or cultural origins of this persons ancestors?*”. The 2006 census did, however, contain additional changes to the preamble to the ethnic origin question and it contained a definition of “ancestor” directly on the questionnaire, to minimize any confusion.

<sup>11</sup>It is important to note that not all First Nations are eligible for the program due to the fact that you have to be registered with the federal government as a Status Indian to be eligible for support under the program guidelines. There are several inconsistencies between the Registered Status population reported on the census and the number of Status Indians recorded in the Indian Register, which is an administrative database used to collect data on vital statistics of all First Nations registered with the government as Status Indians. For the main analysis, I use the First Nation and Inuit population as the “eligible” group, rather than the Registered Status and Indian population, to bypass these inconsistencies. I include the main results using only the Registered Status population in Appendix F.

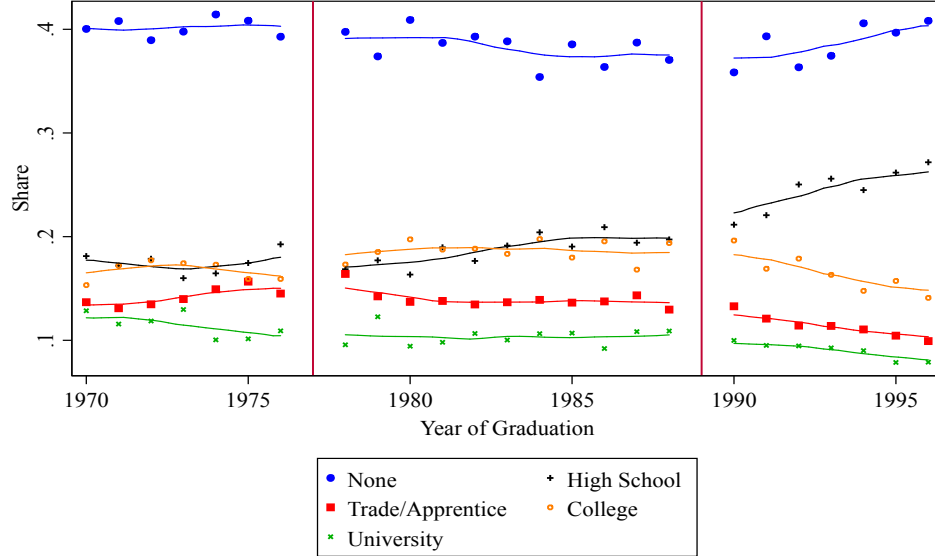


Figure 5: Distribution of educational attainment for the eligible population by expected high school graduation year. Lines of fit are from local polynomial regressions of degree 1. Data from 2006 Census of Population.

In an ideal experiment, there exists a control group, comparable along many dimensions to the eligible group, who, prior to the policy change, followed the same linear trend in educational attainment as the eligible group, but did not gain access to the post-secondary funding program. The outcomes of these two groups are then compared over time in difference-in-differences regressions. Since the funding program was only available to First Nations and Inuit students, a natural control group would be the Métis population. Unfortunately, there are substantial inconsistencies between the census counts and official Métis registries (Feir and Hancock, 2016; Thomas, 2015), rendering this group a problematic control group for the study. Another option is to use all those in the census who do not report as First Nation or Inuit as a control group; however, the non-eligible population follows a non-linear pre-treatment trend, violating the parallel trends assumption, which is fundamental for interpreting difference-in-differences estimates as the causal effect of treatment.

When there is no available control group that satisfies the parallel trends assumption, economists often resort to propensity score matching to adjust the sample by the conditional

probability of assignment to treatment to remove the bias due to differences between the two groups. The problem with applying propensity score matching to my analysis is that it requires a list of covariates that can be used to calculate the probability of being assigned treatment. Since I am using recent data to look back in time, the covariates I observe are 2006 outcomes rather than baseline characteristics, so I do not have a list of relevant covariates upon which to match. For example, income is a typical variable used in propensity score matching; however, the individual’s income in 2006 is a direct result of their education decision, which is the outcome we are trying to examine.

Thus, my empirical strategy is similar to an event study, in that it quantifies the changes in completion rates over time by estimating the change in the share of the eligible population completing each level of schooling compared to one year prior to the policy change, controlling for a number of observable characteristics. Specifically, for each level of schooling  $r \in \{o, h, a, c, u\}$ , I estimate

$$r_{i,\tau} = \alpha + \sum_{\tau=-6, \tau \neq -1}^6 D_{i,\tau} + \beta_g + \mathbf{X}_{i,\tau}\boldsymbol{\theta} + \text{cohort}_{\tau} + \epsilon_{i,\tau}, \quad (8)$$

where,  $r_{i,\tau}$  is an indicator equal to 1 if  $r$  is the highest level of schooling for individual  $i$  in graduation cohort  $\tau$ . I include control variables  $\mathbf{X}_{i,\tau}$  for individual characteristics like gender, province of residence, and whether someone is registered with the federal government as a Status Indian. I also include fixed effects for the Aboriginal group to which individual  $i$  belongs (First Nations, Inuit, Métis, or none),  $\beta_g$ . To control for underlying trends in each level of educational attainment I include a linear time trend in year of graduation,  $\text{cohort}_{\tau}$ . Summary statistics for the Aboriginal and non-Aboriginal samples can be found in Table 1.

All specifications include census metropolitan area (CMA) and tribe fixed effects. If an individual does not live in a CMA, the census codes them with one of four degrees of rurality. For individuals living outside of CMAs I could include the rurality code as their CMA fixed effect; however, it would mean that someone living in a rural area of the Northwest Territories would have the same fixed effect as someone living in a rural area of

Table 1: Summary Statistics

	Overall (1)	Non-Aboriginal (2)	Aboriginal (3)
Belong to a Tribe	2.55	0.08	52.58
Male	49.79	49.93	47.10
Never Moved	77.09	76.87	81.61
On Reserve	1.24	0.10	24.40
Registered	2.57	0.08	53.11
Inuit	0.22	0.00	4.76
Metis	1.66	0.00	35.27
North American Indian	2.85	0.00	60.59
Aboriginal	4.70	0.00	100.00
Eligible	3.07	0.00	65.28
No School	11.46	10.42	32.58
High School	23.35	23.20	26.46
Trade/Apprenticeship	11.35	11.32	11.79
College	23.92	24.19	18.39
University	29.92	30.87	10.79

Newfoundland and Labrador. Because there are many reasons to believe that these people would differ along many dimensions, I replace CMA fixed effects with a CMA-province fixed effect. This does not change the grouping of people who actually live in a CMA, but adds a more reliable grouping for those living in rural areas. The specifications also contain a combination of province-year fixed effects. In addition, all regression results are weighted by the composite sample weights included in the census files.

The matrix  $\mathbf{X}_{i,\tau}$  also includes an estimate of the cost of each type of post-secondary education in province  $p$  at time  $t$ . I set the cost of school to be equal to 0 for the outside option (no school) and for high school. The average cost of university tuition is available for each province for the duration of my analysis through the Tuition and Living Accommodations Cost (TLAC) Survey implemented by Statistics Canada, however this survey does not include the average cost of community colleges, nor the price of trade school and apprenticeships, and to the best of my knowledge this information is not available through other sources. I therefore construct an estimate of the cost of college tuition by dividing total government expenditures on colleges obtained from student fees by total college enrol-

ment.<sup>12</sup> For provinces and territories that do not have college expenditure and enrolment data, I replace their tuition costs by the national average in that year.<sup>13</sup> I construct the same estimate for university tuition and verify the estimates against the true values of university tuition from the TLAC survey. The results of this verification exercise are found in Figure 9 of Appendix D and show a remarkably close match. I am not able to locate the same expenditure and enrolment data for trade school and apprenticeship programs so I set the cost of these programs equal to a fixed fraction of the cost of university. The university, college and trade school cost estimates can be found in Figure 10 of Appendix D.

In the theoretical specification, students choose the level of education that yields the highest indirect utility conditional on their individual level of ability. This type of utility maximization behaviour typically implies the use of a Logit or Probit model, depending on the structure of the error terms, in estimating the share equations; however, the majority of the right hand side variables in equation 8, in addition to the CMA-province and tribe fixed effects, are binary, which introduces an incidental parameter problem when using Logit or Probit. To avoid the potential bias introduced by this issue, I treat the share equations as linear probability models and I estimate them jointly in a Seemingly Unrelated Regression model to account for the correlation between the error terms of each of the equations.<sup>14</sup>

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<sup>12</sup>Total expenditures on education is obtained from Statistics Canada CANSIM table 478-0001 and total enrolment figures are from CANSIM table 477-0006 for 1976-1996 and from the print catalogues for 1970-1976.

<sup>13</sup>It is predominantly the territories for which this data is unavailable, due to the fact that in some years the territories did not have any post-secondary institutions, so students had to travel to one of the provinces if they wanted to pursue a post-secondary degree.

<sup>14</sup>I also estimate each equation individually using OLS, Logit and Probit, which all yield similar marginal effects. These results are reported in Appendix E. For these specifications, I cluster standard errors at the CMA-province level, and the results do not change when clustering by province alone (unreported, but available upon request).



## 5 The Effect of Student Aid on the Distribution of Educational Attainment

### 5.1 The Distribution of Educational Attainment

Due to the aforementioned identification challenges, I rely on the predictions of the theoretical model to interpret the results. Table 2 presents the results from the estimation of equation 8 for the program implementation in 1977. The coefficients measure the changes in the share of the population with education level  $r$  relative to one year prior to the policy change. Each column represents a different level of educational attainment, so the results should be considered as a whole and not equation by equation.

After the post-secondary funding program was implemented college completion increased by 1.2-3.4 percentage points compared to one year prior to the change. This result is statistically significant at the 1% level in every year, except one year after the policy change. Interestingly, the increase in college completion seems to arise from a modest decrease in the share of the population completing university and a more substantial increase in the share of the population whose highest degree is high school. At this time, there appears to be almost no change in the share of the population completing trade programs as all coefficients are small in magnitude and, with the exception of one year after the policy change, not statistically different from zero.

In the context of the theoretical model, a large reduction in the cost of college relative to trade, high school, or university could lead to fewer people choosing any of these levels of schooling and an increase in the share of people choosing college.<sup>15</sup> Since the program effectively decreased the fixed cost of attending university, too, it is unusual to see a decline in university participation after the program was implemented, unless the return to college compared to university was changing at the same time. Alternatively, if colleges are

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<sup>15</sup>The same can be said for a large increase in the net benefit of college relative to other levels of schooling.

Table 2: SUR Estimates of Education Choice Surrounding 1977 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02678** (0.01043)	-0.02136*** (0.00828)	-0.01635** (0.00765)	0.00504 (0.00834)	0.00843 (0.00675)
$\tau = -5$	0.00221 (0.01032)	-0.01277 (0.00819)	-0.01410* (0.00758)	0.01331 (0.00825)	0.01338** (0.00670)
$\tau = -4$	0.00767 (0.01028)	-0.03208*** (0.00816)	-0.00921 (0.00753)	0.01513* (0.00822)	0.02001*** (0.00665)
$\tau = -3$	0.02247** (0.01019)	-0.02622*** (0.00809)	0.00084 (0.00746)	0.01115 (0.00814)	-0.00722 (0.00659)
$\tau = -2$	0.01889* (0.00998)	-0.01512* (0.00792)	0.00773 (0.00731)	-0.00584 (0.00798)	-0.00516 (0.00646)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.00909 (0.00981)	-0.01580** (0.00779)	0.00218 (0.00725)	0.02822*** (0.00785)	-0.00602 (0.00642)
$\tau = 1$	0.00493 (0.00970)	-0.02290*** (0.00770)	0.01973*** (0.00726)	0.01244 (0.00776)	-0.01521** (0.00645)
$\tau = 2$	-0.02065** (0.00974)	-0.01333* (0.00773)	-0.00500 (0.00734)	0.02458*** (0.00779)	0.01287** (0.00653)
$\tau = 3$	0.01629* (0.00963)	-0.02711*** (0.00764)	-0.00684 (0.00755)	0.03370*** (0.00770)	-0.01807*** (0.00679)
$\tau = 4$	-0.01336 (0.00959)	0.00158 (0.00761)	-0.00279 (0.00802)	0.02682*** (0.00767)	-0.01478** (0.00731)
$\tau = 5$	-0.00282 (0.00959)	-0.01399* (0.00761)	-0.00012 (0.00887)	0.02530*** (0.00767)	-0.01141 (0.00823)
$\tau = 6$	-0.01269 (0.00973)	0.00451 (0.00772)	0.00323 (0.00959)	0.02240*** (0.00778)	-0.02100** (0.00899)
$N$	60,340	60,340	60,340	60,340	60,340
$R^2$	0.081	0.043	0.042	0.043	0.040

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. A Breusch-Pagan test of independence among the error terms strongly rejects the null hypothesis that the errors are independent:  $\chi^2(6) = 21924.856$ ,  $P\text{-value} = 0.0000$ . I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3: SUR Estimates of Education Choice Surrounding 1989 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02228** (0.00911)	-0.00546 (0.00807)	0.01133 (0.00779)	-0.01219 (0.00741)	-0.01344* (0.00721)
$\tau = -5$	-0.01202 (0.00900)	0.00505 (0.00797)	0.01516** (0.00715)	0.00262 (0.00733)	-0.00879 (0.00653)
$\tau = -4$	0.01342 (0.00917)	-0.00700 (0.00812)	0.00952 (0.00692)	-0.01162 (0.00746)	-0.00282 (0.00625)
$\tau = -3$	-0.00678 (0.00911)	0.01242 (0.00806)	0.00942 (0.00672)	0.00529 (0.00741)	-0.01934*** (0.00604)
$\tau = -2$	0.00741 (0.00910)	-0.00093 (0.00805)	0.01666** (0.00653)	-0.02531*** (0.00740)	0.00267 (0.00583)
$\tau = -1$	· ·	· ·	· ·	· ·	· ·
$\tau = 0$	0.00920 (0.00913)	0.02059** (0.00808)	-0.00929 (0.00660)	-0.01260* (0.00743)	-0.00841 (0.00591)
$\tau = 1$	-0.01402 (0.00919)	0.01561* (0.00814)	-0.00106 (0.00711)	0.00463 (0.00748)	-0.00617 (0.00646)
$\tau = 2$	0.02225** (0.00919)	0.02311*** (0.00814)	-0.01769** (0.00814)	-0.02304*** (0.00748)	-0.00613 (0.00757)
$\tau = 3$	-0.00236 (0.00916)	0.04909*** (0.00811)	-0.02366** (0.00950)	-0.01800** (0.00746)	-0.00707 (0.00903)
$\tau = 4$	0.00348 (0.00920)	0.05752*** (0.00814)	-0.02988*** (0.01108)	-0.02919*** (0.00749)	-0.00445 (0.01068)
$\tau = 5$	0.03380*** (0.00926)	0.04732*** (0.00819)	-0.03576*** (0.01291)	-0.04338*** (0.00753)	-0.00500 (0.01256)
$\tau = 6$	0.02558*** (0.00920)	0.06387*** (0.00815)	-0.04288*** (0.01457)	-0.03695*** (0.00749)	-0.01314 (0.01426)
$N$	65,750	65,750	65,750	65,750	65,750
$R^2$	0.109	0.040	0.044	0.053	0.052

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. A Breusch-Pagan test of independence among the error terms strongly rejects the null hypothesis that the errors are independent:  $\chi^2(6) = 24430.399$ ,  $P$ -value = 0.0000. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

located closer to Indigenous communities than universities, we may observe a shift in students enrolled in university programs to college programs due to the fact that the program guidelines stipulated that funding would be provided to attend the closest institution with the program of study specified by the student.

The model also predicts a level shift in college graduation rates. The introduction of the funding program is represented by a change in the probability of paying the fixed costs of school from  $\mu_t = 1$  to  $\mu_t = 0$ , and  $\mu_t$  remains at this level in each period after the program is implemented. Thus, it would be surprising to see any sort of yearly trend in the treatment effect. The fact that college graduation rates increase by approximately 2.8 percentage points in the year of the policy change and are still 2.2 percentage points higher 6 years after the change is consistent with the change in  $\mu_t$  from 1 to 0.

Table 3 displays the results from estimating equation 8 for the cutbacks to funding imposed in 1989. After the new guidelines of the PSSSP came into effect, we observe a large decline in the share of the population completing college and trade programs. The decline in post-secondary completion is offset by an increase in the share of the population whose highest degree is high school. The share of the population with a college degree declined between 0 and 4.3 percentage points compared to one year prior to the policy change, while the share of the population with a trade decline by between 0 and 4.2 percentage points. Changes among the share of the population with a university degree were marginal and not statistically significant. Mechanically, the decrease in trade and college participation must be matched by increases in other shares. Indeed, the share of the population whose highest level of schooling is a high school degree increased by between 1.5 and 6.4 percentage points.

A striking feature of the treatment effects following the 1989 policy change is that they are changing over time. For instance, the share of the population with a college degree is 1.2 percentage points lower for those graduating in the year of the policy change and marginally significant. By 5 and 6 years after the policy change, college graduation rates are 4.3 and 3.7 percentage points lower than they were in the year prior to the policy change, and both

coefficients are statistically significant at the one percent level. A similar gradual decline in trade completion is observed and the increase in the share of the population whose highest degree is high school increases from approximately 2.1 percentage points higher in the year of the policy change to 6.5 percentage points higher 6 years after the policy change.

These trends are consistent with the predictions of the theoretical model where the likelihood of having funding that covers the entire post-secondary degree is decreasing over time. Essentially,  $\frac{\partial \mu_t}{\partial t} < 0$  which implies that the expected cost of schooling is increasing over time. In contrast to the 1977 policy change, where we observe a level shift in the share of people completing college, this slow change in  $\mu_t$  results in a gradual change in the share of the population completing each level of schooling.

## 5.2 High School Graduation Rates

The post-secondary funding program did not change the cost of graduating high school, so in the context of the human capital model presented in Section 3, we should only observe changes in the high school graduation rate if the cost of high school is so large and the return to high school so low that it is not a worthwhile education choice unless post-secondary education is a viable option. In this section, I examine this prediction more carefully using difference-in-differences regressions to estimate the effect of the policy on high school graduation rates. The first difference is between cohorts who, based on their age and provincial or territorial education mandates, should have graduated prior to the policy change and those who should have graduated after to the policy change. The second difference is between those who are eligible for post-secondary funding (First Nations and Inuit) and those who are not eligible (Métis and non-Aboriginal people).<sup>16</sup> The results of the difference-in-differences estimation can be interpreted as the causal effect of student aid (for post-secondary schooling) on the high school graduation rates of First Nations and Inuit students in Canada.

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<sup>16</sup>Results using the Registered Status Population as the eligible group yield similar results and are reported in Appendix F.

Figure 7 shows the trends in high school graduation rates over time for both the control and treatment groups. High school graduation rates among the eligible population seem to be increasing moderately after student aid was implemented in 1977; however, in comparison to the control group it appears that this effect is not limited to the treatment group. After cutbacks were made to the funding program in 1989, graduation rates among the eligible population do seem to decline slightly relative to the control group. The difference-in-differences strategy quantifies these changes over time and between groups in the following way

$$\text{HS}_{igc} = \alpha + \delta \cdot \mathbf{1}\{c > x\} \times \text{eligible}_{igc} + \beta_g + \gamma_c + \mathbf{X}_i \boldsymbol{\theta} + \epsilon_{igc}, \quad (9)$$

where  $\text{HS}_{igc}$  is an indicator equal to 1 if individual  $i$  from eligibility group  $g$  belonging to graduation cohort  $c$  has a high school degree.<sup>17</sup> The indicator  $\mathbf{1}\{c > x\}$  is equal to 1 if individual  $i$  from cohort  $c$  should have graduated in any year after  $x$ , where  $x \in \{1977, 1989\}$  depending on the policy under examination. The matrix  $\mathbf{X}_i$  controls for individual characteristics like gender, province of residence, tuition estimates of each level of education in province  $p$  at time  $t$ , and whether the individual is registered with the federal government as a Status Indian. Aboriginal group dummies,  $\beta_g$ , where  $g \in \{\text{First Nations, M\u00e9tis, Inuit, non-Aboriginal}\}$ , control for the fact that First Nations and Inuit are the only people eligible to apply for the post-secondary funding program. The main treatment effect is  $\delta$ , the coefficient on the interaction between “eligibility” and  $\mathbf{1}\{c > x\}$ . Since I do not observe whether students actually obtained post-secondary funding,  $\delta$  can be interpreted as an estimate of the *intent-to-treat* (ITT). All regressions include CMA-province, graduation year, and tribe fixed effects. Standard errors are clustered at the CMA-province level.

Identification in equation 9 relies on the assumption that, in the absence of treatment, graduation rates among the treatment and control groups would have followed parallel trends. Before I present the results from equation 9, I test this assumption, known collo-

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<sup>17</sup>In each specification  $c \in \{0, \pm 6\}$  years from the policy change so that all regressions consider cohorts spanning a 13 year period surrounding the policy change. Using a wider or narrower time frame does not change the results qualitatively.

quially as the “parallel trends assumption”, by interacting treatment with each year before and after the policy change in the spirit of Wang (2013) and Jacobson et al. (1993). The specification is

$$\text{HS}_{ig\tau} = \alpha + \sum_{\tau=-6, \tau \neq -1}^6 \delta_{\tau} \cdot D_{ig\tau} + \beta_g + \mathbf{X}_i \boldsymbol{\theta} + \epsilon_{i\tau}, \quad (10)$$

where  $\text{HS}_{ig\tau}$  is an indicator equal to 1 if individual  $i$  from eligibility group  $g$  and graduation cohort  $\tau$  graduated from high school and  $\mathbf{X}_i$  is a matrix of controls for individual characteristics including gender, province of residence and in some specifications a time trend. Eligibility dummies  $\beta_g$  are also included, where  $g \in \{\text{First Nations, M\u00e9tis, Inuit, non-Aboriginal}\}$ . In contrast to the difference-in-differences regressions, I use the notation  $\tau$  to indicate years before or after the policy change. The set of dummies,  $\{D_{\tau}\}_{\tau=\{-6, \dots, -2, 0, \dots, 6\}}$  controls for the change in graduation rates between eligible and non-eligible groups for cohorts who are born  $\pm 6$  years from the policy change, excluding  $\tau = -1$ , so that the coefficient estimates are measured with respect to one graduation cohort prior to the policy change. All specifications are estimated using linear probability models. In the case of difference-in-differences estimation, identification relies on the assumptions of a linear model. Since other binary choice models (Logit and Probit) are inherently non-linear, difference-in-differences estimation cannot be interpreted as the causal effect of treatment under these specifications.

Figure 6 graphs the annual coefficients from the estimation of equation 10 with 95% confidence intervals. Each point on the graph can be interpreted as the difference between graduation rates among the treatment and control groups relative to the year prior to the policy change. The fact that the coefficient estimates prior to each of the policy changes are not statistically different from zero implies that high school graduation rates among the eligible population and the non-eligible population followed parallel trends before each of the policy changes. This result is crucial for the causal interpretation of the coefficients after each policy change. In addition, most of the coefficient estimates after the policy changes are not statistically different from zero, implying that both the implementation of the post-secondary funding program in 1977 and the funding cutbacks in 1989 did not change high

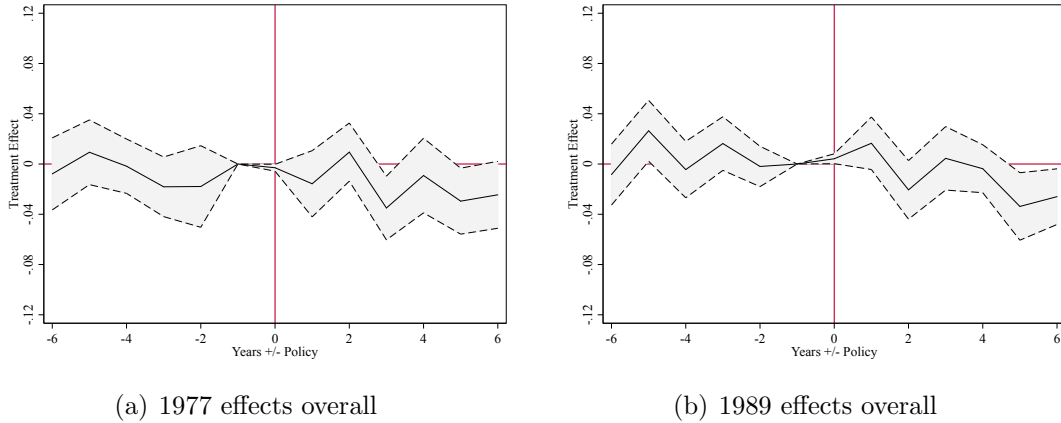


Figure 6: Coefficient estimates (solid black lines) and 95% confidence intervals (dotted black lines) from the study in equation 10 for the full sample. Regressions control for census metropolitan area fixed effects, aboriginal group, specific tribe and a time trend.

school graduation rates in a meaningful way relative to the control group. Finally, five years after funding was cut back, high school graduation rates among the eligible population decreased relative to the control group.

In addition to the parallel trends assumption, the validity of the difference-in-differences estimates would be threatened if there were any additional factors causing people to select into treatment that might also be correlated with the outcome variable. This would be true if, for example, people who were already strong students were the only ones to apply for funding, in which case the treatment estimate would be biased upwards. In this paper treatment is defined as being *eligible* for post-secondary funding rather than *receiving* funding under the PSEAP or the PSSSP, so the estimates do not suffer from this endogeneity problem. Furthermore, eligibility itself is contingent on being a Registered Status Indian or Inuit and only First Nation and Inuit people meet this criteria. Therefore, based on the way that I have defined treatment, selection into the treatment group is not possible, as it is based entirely on ancestral origins. Finally, to the extent that some individuals who dropped out of high school prior to 1977 could have been incentivized by the program to complete a high school equivalency program, then the results of this analysis will underestimate the effects of the 1977 policy on high school graduation rates.



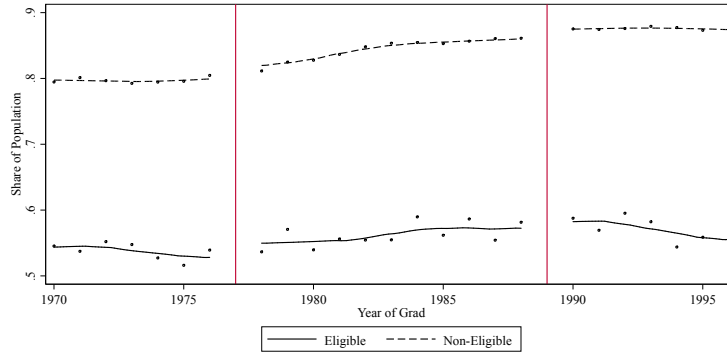


Figure 7: The share of the population with a high school degree by expected graduation year and eligibility for the PSEAP/PSSSP. Lines of fit are from local polynomial regressions of degree 1. Data from 2006 Census of Population.

Panel A of Table 4 presents the results from estimating the difference-in-differences specification in equation 9 for the implementation of the policy in 1977. All of the estimates of the treatment effect are negative, small in magnitude, and not statistically different from zero. In column (1) I control for the cost of tuition at each level of education, CMA-province fixed effects, and year dummies. The treatment effect is estimated to be  $-0.011$ , which would imply a decline in graduation rates (relative to the control group) of 1.1 percentage points. This result is not statistically different from zero. In each of the subsequent columns as I control for additional fixed effects, the treatment effect decreases further in magnitude, dropping to  $-0.00324$  in column (4) with a full set of controls. This implies a 0.3 percentage point decline in graduation rates after the implementation of the policy, although this effect is again not statistically different from zero. In each of the specifications the treatment effect is small in magnitude and imprecisely estimated, thus we cannot say that graduation rates changed differentially between the treatment and control groups in response to the implementation of post-secondary funding in 1977.

The difference-in-differences results from estimating equation 9 for the cutbacks to funding in 1989 are presented in Panel B of Table 4. Column (1) controls for the cost of tuition at each level of education, CMA-province fixed effects, and year dummies. The estimated treatment effects suggest that high school graduation rates decreased by approximately 1.9

Table 4: Difference-in-differences results

Dependent Variable:	High School Graduation			
	(1)	(2)	(3)	(4)
Panel A: Program Implementation PSEAP (1977)				
Treatment	-0.01079 (0.00874)	-0.01119 (0.00876)	-0.00460 (0.00896)	-0.00324 (0.00870)
$N$	958,435	958,435	958,435	958,435
Adj. $R^2$	0.042	0.043	0.043	0.044
Panel B: Program Cutbacks PSSSP (1989)				
Treatment	-0.01945*** (0.00546)	-0.01961*** (0.00549)	-0.01925*** (0.00579)	-0.01650*** (0.00570)
$N$	817,235	817,235	817,235	817,235
Adj. $R^2$	0.050	0.051	0.051	0.052
Aboriginal group		✓	✓	✓
CMA	✓	✓	✓	✓
Tribe				✓
Year	✓	✓		
Province-Year			✓	✓
Tuition	✓	✓	✓	✓

Notes: Standard errors in parentheses, clustered by CMA-province. All regressions control for gender and the estimated cost of tuition for college and university in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

percentage points relative to the control group after the funding program was cut back. This result holds through columns (2)-(4) as I add additional controls. The fact that the high school graduation rate decreased relative to the control group after the policy reform in 1989 is consistent with the theoretical model if students face large costs to completing high school, which tends to be the case for many Indigenous students who live on reserves or in remote communities. I highlight one particular example discussing the educational challenges faced by Indigenous students in remote communities from the Standing Committee on Aboriginal Affairs and Northern Development (2007):

*“If our students struggle through their childhood to get to the point where they can go on to advanced training, advanced education, and then find that the resources*

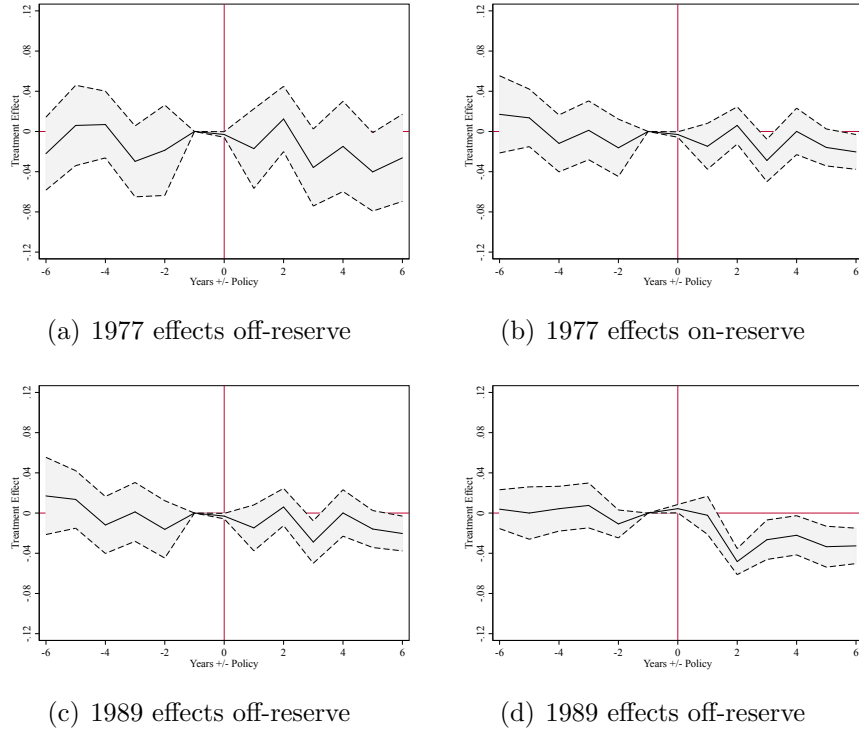


Figure 8: Coefficient estimates (solid black lines) and 95% confidence intervals (dotted black lines) from the study in equation 10 for the full sample. Regressions control for census metropolitan area fixed effects, aboriginal group, specific tribe and a time trend.

*aren't there for them to move on, the tragedy is so painful we simply cannot allow it to happen.*" - Roberta Jamieson, President and Chief Executive Officer, National Aboriginal Achievement Foundation

If the future of their post-secondary education is uncertain, it may not be worthwhile to complete high school for students in communities with a high cost of graduating high school. Many students who live on reserves have to leave to obtain a post-secondary education and once they obtain this qualification they are less likely to return to the reserve, where the return to schooling is lower (George and Kuhn, 1994; Feir, 2013). Thus, if students are uncertain about whether they will be able to afford post-secondary education and there is a low return to graduating high school on a reserve, then they will choose to forgo the cost involved in obtaining a high school degree.

I test this hypothesis by re-estimating the difference-in-differences event study of equa-

tion 10 where I define the treatment group as the on-reserve eligible population in one specification and the off-reserve eligible population in a second specification. Figure 8 displays these results. After the program was implemented in 1977, there were no differential trends between high school graduation rates of both the off-reserve or on-reserve populations compared to the ineligible population. When funding was cut back in 1989 there was a large sustained decrease in the high school graduation rates of the on-reserve population with respect to the ineligible population and no differential trends for the off-reserve population.

## 6 Robustness

To attribute the changes in educational attainment to the effects of the education policies, I investigate several alternative explanations for the main results in Section 5. I start with a series of web searches of past articles pertaining to changes to education policy that were published in prominent Canadian newspapers and provide a discussion of the events that may confound the results in this paper. I then turn to the role of modern land claims and monetary settlements between the federal government and various Indigenous groups across the country. In summary, I show that the main results in Section 5 are not driven by other policy changes, nor are they driven by changes to the finances of specific bands as a result of newly negotiated settlements.

### 6.1 Possible Confounding Factors

I begin by conducting a series of online searches of leading Canadian newspapers to rule out the possibility that other large-scale education policies are driving the observed changes in educational attainment among the Indigenous population. Table 20 of Appendix H displays summary statistics for the search. For the time period surrounding the 1977 policy change, the only major Canadian newspaper that is available online is the *Globe and Mail*, and out of the keywords *Education Policy*, *Education Law*, *Indian Education*, and *Post-Secondary* the

search returned 263 articles. Of these articles, there was only one reference to an alternative education policy at the time. In 1978 the government of Ontario announced that students would no longer be eligible for a provincial grant if they had already completed four years of post-secondary studies. If anything, this policy would discourage students from obtaining more schooling, so I do not consider it to be a threat to the validity of the earlier estimates.

Similarly, the majority of the search results surrounding the 1989 policy change returned results that if anything work in the opposite direction of the hypothesis that educational attainment among Indigenous students decreased in response to the cutbacks to post-secondary funding. Between the *Globe and Mail*, the *Ottawa Citizen*, and the *Financial Times* there were 7,461 articles pertaining to the key words. Table 21 of Appendix H summarizes the results, and although most of the policy changes should lead to increases in educational attainment—e.g., increases in student aid in Ontario, increased funding for Indigenous students with children, etc.—two policy changes could be potential confounding factors for the analysis in this paper.

Between 1968 and 1990 university tuition in Quebec was frozen at \$540 per year (see Figure 9 in Appendix D) and in 1990 the Premier of Quebec announced a 140% increase in tuition. If the large decline in post-secondary completion after 1989 appears only in Quebec, the change in educational attainment would not be attributable to the change in post-secondary funding for Indigenous students that occurred at this time. Further, between July and September of 1990 a land dispute between the Mohawk community of Kanasatake and the town of Oka, Quebec, which was planning to expand a golf course on to a traditional Mohawk burial ground, resulted in a three-month stand-off between Canadian soldiers and members of the Mohawk peoples. If the political instability of the time was great enough to influence people's schooling choices, perhaps due to a loss of trust in federal institutions, then the change in educational attainment after the 1989 policy change would not be attributable to the policy change itself. I therefore re-estimate the main SUR results surrounding the 1989 policy change excluding Quebec residents.

The results excluding Quebec can be found in Table 22 of Appendix H and do not suggest that the downward trend in college and trade degrees after 1989 in the overall sample is driven by those in Quebec. The results are similar in magnitude to the original SUR estimates, and are consistent with the storyline that college and trade school participation declined after 1989, and this was offset primarily by an increase in the share of the population whose highest level of schooling is a high school degree, with modest increases in the share of the population without any educational certification.

The other notable policy change pertaining to the 1989 time period, was a cutback to education grants by the Alberta government. Once again, if the changes in educational attainment are driven by Alberta residents, then it might be the cutback to education grants by the Alberta government that are driving the results, rather than the change to post-secondary funding for Indigenous students at the federal level. I re-estimate the SUR results surrounding the 1989 policy change without the residents of Alberta. These results can be found in Table 23 of Appendix H and again do not alter the conclusions from the main SUR estimates in Table 3.

## 6.2 The Effect of Modern Treaties

Since the 1970s, the Canadian government and Indigenous groups have negotiated modern treaties, also known as land claims. Land claims are either comprehensive claims, which always involve a transfer of land ownership, or specific claims, which are not necessarily land related. Aragón (2015) discusses the importance of modern treaties in securing Indigenous property rights over resources, while Pendakur and Pendakur (2015) show that the specific claims relating to Indigenous self-governance have had a positive impact on communities involved. If the timing of these modern treaties and changes in education funding occurred simultaneously then the effect of post-secondary funding would be confounded by the income and investment effects of the modern settlements.

It is not immediately clear how these claims might affect educational attainment. On

the one hand, the settlements can be interpreted as a positive income shock, which might lead to an increase in educational attainment among the groups affected by the settlements. On the other hand, if students who belong to bands that received large settlements feel they no longer need post-secondary certification to maintain an adequate standard of living, we might see a decrease in educational attainment. Due to the ambiguous nature of the land and specific claims, I re-estimate the main SUR results for both the 1977 and 1989 policy changes excluding bands that received settlements coinciding with the timing of each change.

I obtain a list of land claim agreements and related communities directly from the Indigenous and Northern Affairs Canada (INAC) website. For specific claims communities, I obtain the list of bands that settled specific claims from INAC's website and then I match bands to their communities using the 2011 band to community linkage file that was provided to me by INAC.<sup>18</sup> Finally, I update any discrepancies between the 2011 and 2006 community names using Statistics Canada's geographic concordance tables<sup>19</sup>.

There were 2 land claims that affected 24 communities and occurred in the time period immediately surrounding the 1977 policy changes. For the 1989 cutbacks to funding there was 1 land claim affecting 4 communities. The results from estimating the SUR model for the 1977 and 1989 policy changes without land claim communities are found in Table 24 and Table 25 of Appendix H, respectively. There are no outstanding differences between the results without the land claim communities and the main results from Section 5. Again, college attainment seems to increase after the 1977 policy change, and both college and trade participation decreases after the cutbacks to funding in 1989.

Between 1973 and 1996, the Canadian government negotiated 132 specific claims involv-

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<sup>18</sup>The list of bands that signed comprehensive land claims can be found at: <https://www.aadnc-aandc.gc.ca/eng/1373385502190/1373385561540> and the list of communities that signed specific claims can be found at: [http://services.aadnc-aandc.gc.ca/SCBRI\\_E/Main/ReportingCentre/External/externalreporting.aspx](http://services.aadnc-aandc.gc.ca/SCBRI_E/Main/ReportingCentre/External/externalreporting.aspx). The band to community linkage file can be requested through INAC's statistics division.

<sup>19</sup>The geographic concordance tables are located at: <http://www.statcan.gc.ca/eng/subjects/standard/sgc/2011/concordances-2006-2011-2>

ing monetary settlements with Indigenous groups across the country. I focus on specific claims immediately surrounding each of the policy changes, and restrict the claims to those that were greater than \$100,000 in value. This amounts to dropping 63 communities from the sample. These results can be found in Tables 26 and 27 of Appendix H, respectively. Once again, the results do not differ from those in the main results tables.

## 7 Discussion

Post-secondary education is widely recognized as a key to success in the labour market, but a continuing question of policy relevance is what, if anything, can be done to increase the educational attainment of students who are unlikely to attend and graduate from post-secondary programs. As a matter of social policy, the higher level of economic activity and decreased reliance on government handouts resulting from an increasingly educated workforce could be used convincingly to argue for reduced post-secondary fees for all marginalized groups.

In this paper, I have shown that a large-scale post-secondary funding program implemented in 1977 for First Nation and Inuit students, a group traditionally at a socioeconomic disadvantage in Canada, increased their average educational attainment. I have also demonstrated that cutbacks to the funding program in the late 1980s had a large negative impact on educational attainment. The effect of the initial program implementation was driven by increased college participation—the share of the population with a college degree increased by between two and three percentage points in the years following the implementation of the program. University participation declined slightly, which may be due to the fact that the program paid for tuition at the closest institution offering the student’s program of study. These results are consistent with a theoretical model that predicts that the share of the population choosing each level of schooling is determined by their relative costs and benefits. The effect of cutbacks to funding are also consistent with the theoretical predictions—college and trade school participation declined in response to the cutbacks, and this was offset by



an increase in the share of the population whose highest degree was a high school diploma.

In addition to the changes in college participation, the theoretical model predicts that we should only observe a change in the share of the population who has a high school degree if the costs of graduating high school are so large that the decision to attend depends on the affordability of post-secondary options. Using the non-eligible population as a control group, I show that high school graduation rates declined gradually after the funding program went through cutbacks, and that this result is driven by students who live on reserves, and are therefore more likely to face larger than average costs and lower than average returns to graduating high school. This result highlights the importance of looking at the whole distribution of educational attainment when examining the effects of student aid.

Overall, the findings of this paper suggest that post-secondary funding programs can result in substantial gains in educational attainment among traditionally marginalized groups. The findings of this paper can also be seen as cautionary; if existing funding programs are cut back, such that some people are excluded from post-secondary education, it may have a real and sustained negative impact on populations that are already at a socioeconomic disadvantage.<sup>20</sup>

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<sup>20</sup>In 2016, the Supreme Court of Canada unanimously passed a ruling stating that Métis and non-Status Indians are “Indians” within the meaning of the 1867 Constitution (Galloway and Fine, 2016). While this demographic is not as socioeconomically underdeveloped as the First Nation and Inuit populations, they still lag behind non-Aboriginal Canadians along dimensions such as health, education and income (Wilson and Macdonald, 2010). It is not yet clear which social benefits and programs will be provided to the Métis and non-Status populations under this new ruling, which should affect almost 700,000 people country-wide. If the government decides to provide post-secondary assistance to this demographic, the results in this paper suggest that there could be an increase in educational attainment among those affected by the ruling. On the other hand, if the federal government decides to split the existing funding between the population who is currently eligible for post-secondary assistance and the newcomers, it may result in a decline in First Nations and Inuit post-secondary graduates.

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## A School Entry and Exit Rules

Table 5: Provincial and territorial school entry and graduation rules

Province	Age of entry	Grades
Alberta	No provincially mandated entry age.	12
British Columbia	No mandatory entry age prior to 1989. After 1989, students who celebrated their 5th birthday between November 1st and April 30th would begin school on January 1st of that school year. Students who celebrated their 5th birthday between May 1st and October 31st would begin school on September 1st of that school year.	12
Manitoba	N/A	12
New Brunswick	Prior to 1991 students had to start grade 1 if they were 6 years of age by Dec. 31st of the year they were to start school. After 1991 kindergarten was introduced the same rule applied, but for 5 year olds.	12
Newfoundland	N/A	12
Northwest Territories	N/A	12
Nova Scotia	N/A	12
Nunavut	N/A	12
Ontario	N/A	13
P.E.I.	Prior to 2003 there was no mandatory kindergarten. If they chose to attend kindergarten the age was 5 by December 31st of that school year, otherwise they had to register in grade 1 if they were 6 by January 31st of that school year.	12
Quebec	5 by September 30th of that school year.	11
Saskatchewan	No provincially mandated entry age.	12
Yukon	N/A	12

Notes: This table gives the age of entry for students in each province and territory over the time period in this analysis. It also lists the final grade in high school before graduation. By using students' birthdays along with the combination of the age of entry and the number of grades each student must complete before graduation allows me to calculate a "year in which the student should have graduated" variable.

## B Summary of Post-Secondary Funding Policies

Table 6: Summary of financial aid from the Post-Secondary Educational Assistance Program

Allowance	Description
Training	Normal daily living expenditures such as food, lodging, local travel, recreation, etc. The amount varies according to number of dependents and whether it is necessary for the student to live away from home for school.
Shelter	Provided when it is necessary for a student to rent accommodation for which the cost exceeds 25% of the total of the student's gross current income together with the current income of the student's spouse and other dependence who reside with the student. Equivalent to the difference between the actual cost of the necessary accommodation and 25% of the total of the current incomes of the student, the student's spouse, and any dependents who are residing with the student. Do not include costs related to telephone, television, or parking.
Tuition	Equal to the actual tuition and registration fees of the student's post-secondary institution. Students attending a foreign institution are eligible to receive tuition fees equivalent to a comparable program of studies offered by a Canadian institution, unless the program is not available in Canada. Tuition to a foreign institution will be approved only if the training received is recognized by Canadian institutions (employers, licensing agencies, etc).
Travel	Travel costs are allowed from the student's usual place of residence to the nearest accredited Canadian university or college which offers the program of studies which the student has selected. Exceptions are made for the following cases: Masters or Ph.D. programs; when language of instruction at the nearest institution is not appropriate for the student; when it is more expensive to reach the geographically closest institution than to reach another Canadian institution; when professional accreditation is a requirement and the nearest institution is not within the student's province of residence; when the program selected is not available in Canada; when the student cannot gain admittance to the nearest Canadian institution. Travel allowance is provided for one return trip from the student's residence to the institution for each period of time covered by their enrolment in the institution. If the period of time is longer than two months, travel costs are paid for the student's dependents as well. If the period of time includes Christmas holiday, the student may also apply for travel allowance to be used to return home at this time of year. Finally, students may receive emergency travel funding for return to their usual place of residence.
Clothing and Equipment	Allowances are not provided for regular clothing except in cases of obvious and reasonable need. Funding is provided for the rental or purchase of special equipment or clothing if it is necessary for the student's program of studies. Items such as special tools, microscopes, drafting equipment, etc., are included in this category.
Books and Supplies	The cost of textbooks and supplies which are officially listed as requirements by the institution for the student's program will be paid in full. Additional consideration will be given to reference works and professional journal subscriptions which will assist the student and are not readily available in the institution's library.
Tutorial Assistance	Upon the strength of a written recommendation of the student's instructor(s), which has been approved by the appropriate department head or dean of the institution, an allowance will be provided to the student to cover the cost of special tutorial assistance to overcome areas of academic weakness.
Services and Contingencies	If required, students may receive a special allowance to cover the costs of babysitting or child-care for single parent families or for families where both parents are full-time students, to allow the parents to attend required classes. Other uncontrollable situations may require a student to request a special allowance under the terms of this category of assistance.

Table 7: Summary of financial aid from the Post-Secondary Student Support Program

Allowance	Description
Training Allowances	Normal daily living expenditures such as food, lodging, local travel, recreation, etc. The amount varies according to number of dependents and whether it is necessary for the student to live away from home for school.
Living	The support for living expenses is expected to cover such costs as food, shelter, daily transportation, daycare, rental costs and contingency funding. Living allowances are paid for Christmas and study breaks.
Tuition	Support is provided for regular tuition fees, mandatory registration fees, transcript fees for application and enrolment purposes, registration for other program activities, initial professional certification and examination fees. Tuition support is provided to students attending Canadian public institutions at the normal rate charged by the institution for a Canadian student. For students attending private or foreign post-secondary institutions, support is provided at the same rate charged by the Canadian institution nearest to the student's place of residence at the time of the application which offers a comparable program. If no comparable program exists in Canada, support is provided for the actual tuition rate at the foreign institution.
Travel	Students who are required to live away from their permanent place of residence may qualify for a travel grant, once every semester, for themselves and any dependents who reside with them. Travel support is equal to the cost of return transportation from the student's place of residence to the nearest Canadian post-secondary institution which offers the program of studies selected by the student. In addition, students will be provided emergency travel for individual and family illness, accident or bereavement. Exceptions are made for the following cases: when professional accreditation is a requirement and the nearest institution is not within the student's province of residence; when the program selected is not available in Canada; when the student cannot gain admittance to the nearest Canadian institution; the program of studies selected is funded by the department's Indian Studies Support Program.
Clothing (Regular)	Allowances are not provided for regular clothing except in cases of obvious and reasonable need.
Special Clothing and Equipment	Funding is provided for the rental or purchase of special equipment or clothing if it is necessary for the student's program of studies. Items such as special tools, microscopes, drafting equipment, etc., are included in this category.
Books and Supplies	Covers textbook and supplies, including special equipment, officially listed as required by the university or college for a student's program of studies. Typically, the administering office may provide up to \$500 for books and supplies.
Special Tutorial Assistance	Upon the strength of a written recommendation of the student's instructor(s), which has been approved by the appropriate department head or dean of the institution, an allowance will be provided to the student to cover the cost of special tutorial assistance to overcome areas of academic weakness.
Special Services and Contingencies	If required, students may receive a special allowance to cover the costs of babysitting or child-care for single parent families or for families where both parents are full-time students, to allow the parents to attend required classes. Other uncontrollable situations may require a student to request a special allowance under the terms of this category of assistance.

## C Education Levels in Canada

Table 8: Summary of levels of schooling in Canada

Levels	Description
None	A person is categorized as having no education if they have not completed high school or any higher levels of schooling.
High School	The respondent must have graduated from high school or completed their high school equivalency.
Trade	Anyone whose highest degree is a trades certificate or registered apprenticeship. This is typically a 1-2 year program and comprises fields like welding, plumbing, carpentry, etc.
College	College, CEGEP, other non-university degree programs, and university programs below the Bachelor's level are included in this category. These programs are usually 2-3 years to complete.
University	Anyone with a Bachelor's degree and above is included in this category. The standard length of a Bachelor's degree is 4 years, although many people take longer to complete.



## D Construction of Tuition Estimates

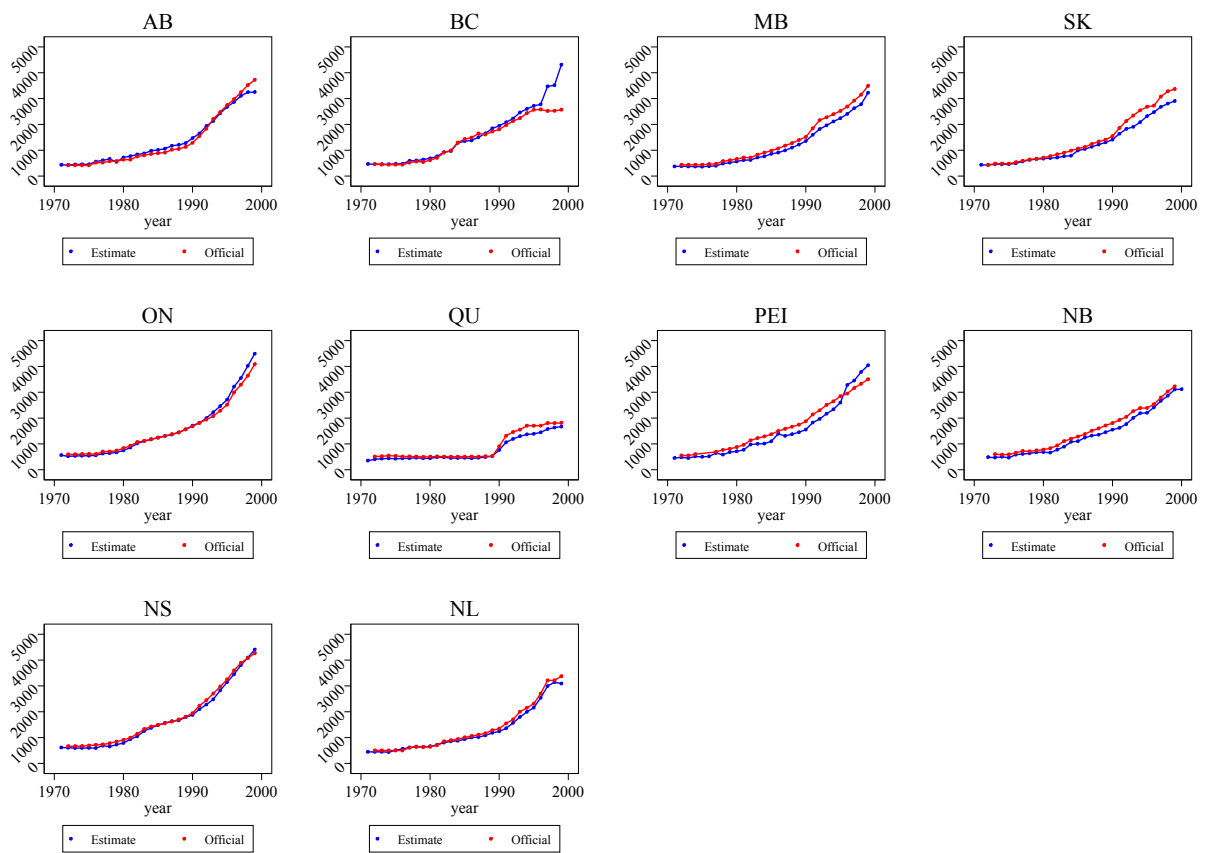


Figure 9: Verification of tuition estimate for universities in Canada between 1970 and 2000.

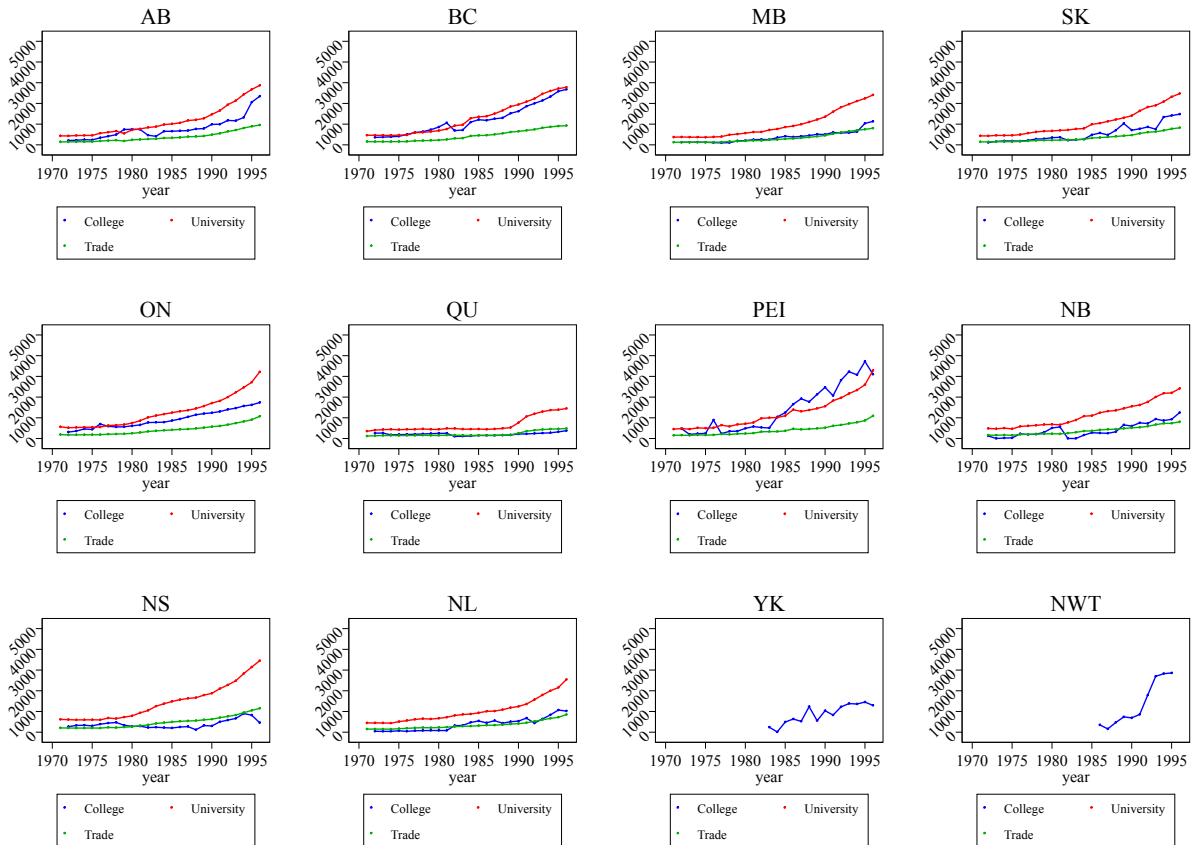


Figure 10: Tuition estimates for college, university and trade school for each province and territory between 1971 and 1998.

## E Estimation with OLS, Probit, and Logit

Table 9: Individual OLS Estimation of Education Choice Surrounding 1977 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02678* (0.01615)	-0.02136 (0.01398)	-0.01453 (0.01091)	0.00062 (0.01215)	0.00980 (0.01055)
$\tau = -5$	0.00221 (0.01431)	-0.01277 (0.01396)	-0.01191 (0.01008)	0.00822 (0.00992)	0.01504 (0.01170)
$\tau = -4$	0.00767 (0.01475)	-0.03208** (0.01289)	-0.00757 (0.00972)	0.01089 (0.01200)	0.02124* (0.01094)
$\tau = -3$	0.02247 (0.01483)	-0.02622* (0.01466)	0.00244 (0.01094)	0.00769 (0.01291)	-0.00602 (0.00899)
$\tau = -2$	0.01889 (0.01707)	-0.01512 (0.01388)	0.00918 (0.01076)	-0.00946 (0.01227)	-0.00406 (0.01002)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.00909 (0.01682)	-0.01580 (0.01178)	-0.00102 (0.01211)	0.02812** (0.01398)	-0.00843 (0.01063)
$\tau = 1$	0.00493 (0.01582)	-0.02290 (0.01407)	0.01486 (0.01221)	0.01304 (0.00903)	-0.01888* (0.00978)
$\tau = 2$	-0.02065 (0.01337)	-0.01333 (0.01340)	-0.01055 (0.01173)	0.02717** (0.01124)	0.00869 (0.01169)
$\tau = 3$	0.01629 (0.01425)	-0.02711** (0.01102)	-0.01535 (0.01296)	0.03821*** (0.01254)	-0.02448*** (0.00935)
$\tau = 4$	-0.01336 (0.01580)	0.00158 (0.01290)	-0.01485 (0.01406)	0.03322*** (0.01127)	-0.02386** (0.01106)
$\tau = 5$	-0.00282 (0.01473)	-0.01399 (0.01592)	-0.01697 (0.01666)	0.02798** (0.01124)	-0.02410* (0.01417)
$\tau = 6$	-0.01269 (0.01540)	0.00451 (0.01157)	-0.01673 (0.01875)	0.02521*** (0.00909)	-0.03604** (0.01398)
$N$	60,335	60,335	60,335	60,335	60,335
Adj. $R^2$	0.442	0.208	0.175	0.211	0.139

Notes: Standard errors in parentheses, clustered by CMA-province. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 10: Individual Probit Estimation of Education Choice Surrounding 1977 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02568 (0.01605)	-0.02123 (0.01341)	-0.01637 (0.01126)	-0.00104 (0.01269)	0.00870 (0.00991)
$\tau = -5$	0.00151 (0.01448)	-0.01246 (0.01320)	-0.01381 (0.01021)	0.00702 (0.01025)	0.01324 (0.01086)
$\tau = -4$	0.00651 (0.01473)	-0.03180** (0.01254)	-0.00921 (0.00972)	0.00925 (0.01240)	0.01723* (0.01007)
$\tau = -3$	0.02225 (0.01464)	-0.02493* (0.01413)	0.00099 (0.01050)	0.00682 (0.01337)	-0.00714 (0.00921)
$\tau = -2$	0.01853 (0.01694)	-0.01378 (0.01317)	0.00804 (0.01018)	-0.01032 (0.01315)	-0.00606 (0.01002)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.00830 (0.01687)	-0.01394 (0.01114)	-0.00121 (0.01175)	0.02840** (0.01359)	-0.00770 (0.01063)
$\tau = 1$	0.00517 (0.01585)	-0.02128 (0.01335)	0.01366 (0.01125)	0.01403 (0.00924)	-0.01974* (0.01017)
$\tau = 2$	-0.02006 (0.01357)	-0.01092 (0.01266)	-0.00944 (0.01123)	0.02853** (0.01111)	0.00789 (0.01067)
$\tau = 3$	0.01659 (0.01418)	-0.02552** (0.01064)	-0.01414 (0.01216)	0.03818*** (0.01172)	-0.02363** (0.00944)
$\tau = 4$	-0.01230 (0.01592)	0.00431 (0.01217)	-0.01248 (0.01286)	0.03544*** (0.01087)	-0.02275** (0.01124)
$\tau = 5$	-0.00115 (0.01481)	-0.01061 (0.01497)	-0.01360 (0.01500)	0.03090*** (0.01115)	-0.02184 (0.01413)
$\tau = 6$	-0.01179 (0.01565)	0.00657 (0.01078)	-0.01146 (0.01647)	0.02778*** (0.00906)	-0.03366** (0.01454)
Log. Like.	-66,255.532	-46,663.358	-41,068.871	-47,181.93	-33,630.819
$N$	60,250	60,250	60,250	60,250	60,250

Notes: Standard errors in parentheses, clustered by CMA-province. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 11: Individual Logit Estimation of Education Choice Surrounding 1977 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02524 (0.01603)	-0.02220 (0.01355)	-0.01675 (0.01124)	-0.00197 (0.01312)	0.00785 (0.01022)
$\tau = -5$	0.00124 (0.01427)	-0.01324 (0.01349)	-0.01396 (0.01028)	0.00629 (0.01059)	0.01378 (0.01116)
$\tau = -4$	0.00639 (0.01463)	-0.03313*** (0.01277)	-0.00893 (0.00972)	0.00954 (0.01274)	0.01742* (0.01007)
$\tau = -3$	0.02165 (0.01470)	-0.02643* (0.01429)	0.00085 (0.01065)	0.00660 (0.01369)	-0.00749 (0.00950)
$\tau = -2$	0.01845 (0.01697)	-0.01464 (0.01340)	0.00802 (0.01021)	-0.01142 (0.01363)	-0.00474 (0.01032)
$\tau = 0$	-0.00863 (0.01680)	-0.01505 (0.01142)	-0.00116 (0.01177)	0.02887** (0.01375)	-0.00793 (0.01087)
$\tau = 1$	0.00552 (0.01573)	-0.02223 (0.01364)	0.01392 (0.01126)	0.01381 (0.00949)	-0.01945* (0.01037)
$\tau = 2$	-0.01998 (0.01350)	-0.01223 (0.01291)	-0.00979 (0.01120)	0.02824** (0.01118)	0.00885 (0.01102)
$\tau = 3$	0.01718 (0.01401)	-0.02630** (0.01075)	-0.01421 (0.01212)	0.03903*** (0.01180)	-0.02396** (0.00976)
$\tau = 4$	-0.01210 (0.01581)	0.00265 (0.01222)	-0.01318 (0.01274)	0.03495*** (0.01108)	-0.02316** (0.01160)
$\tau = 5$	-0.00104 (0.01473)	-0.01220 (0.01524)	-0.01417 (0.01489)	0.03041*** (0.01124)	-0.02231 (0.01467)
$\tau = 6$	-0.01106 (0.01551)	0.00592 (0.01094)	-0.01349 (0.01627)	0.02768*** (0.00921)	-0.03439** (0.01505)
Log. Like.	-66,257.433	-46,661.632	-41,067.875	-47,186.349	-33,634.866
$N$	60,250	60,250	60,250	60,250	60,250

Notes: Standard errors in parentheses, clustered by CMA-province. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 12: Individual OLS Estimation of Education Choice Surrounding 1989 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02228 (0.01449)	-0.00546 (0.01280)	0.00874 (0.01544)	-0.01632 (0.01275)	-0.01499 (0.01469)
$\tau = -5$	-0.01202 (0.01580)	0.00505 (0.01406)	0.01325 (0.01310)	-0.00003 (0.01173)	-0.00993 (0.01348)
$\tau = -4$	0.01342 (0.01515)	-0.00700 (0.01297)	0.00813 (0.01359)	-0.01322 (0.01316)	-0.00365 (0.01060)
$\tau = -3$	-0.00678 (0.01208)	0.01242 (0.01114)	0.00834 (0.01120)	0.00391 (0.01186)	-0.01998 (0.01240)
$\tau = -2$	0.00741 (0.01182)	-0.00093 (0.01113)	0.01609 (0.01084)	-0.02631** (0.01102)	0.00233 (0.00989)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.00920 (0.01510)	0.02059* (0.01219)	-0.00854 (0.01066)	-0.01123 (0.01185)	-0.00796 (0.00999)
$\tau = 1$	-0.01402 (0.01281)	0.01561 (0.01345)	0.00063 (0.01436)	0.00632 (0.01330)	-0.00516 (0.00973)
$\tau = 2$	0.02225 (0.01451)	0.02311* (0.01278)	-0.01479 (0.01804)	-0.02025 (0.01409)	-0.00440 (0.01531)
$\tau = 3$	-0.00236 (0.01432)	0.04909*** (0.01301)	-0.01953 (0.01940)	-0.01397 (0.01428)	-0.00460 (0.01973)
$\tau = 4$	0.00348 (0.01172)	0.05752*** (0.01403)	-0.02454 (0.02379)	-0.02450* (0.01469)	-0.00125 (0.02471)
$\tau = 5$	0.03380** (0.01684)	0.04732*** (0.01527)	-0.02912 (0.02934)	-0.03660** (0.01646)	-0.00104 (0.02745)
$\tau = 6$	0.02558* (0.01366)	0.06387*** (0.01435)	-0.03510 (0.03602)	-0.02736 (0.01745)	-0.00849 (0.03345)
$N$	65,750	65,750	65,750	65,750	65,750
Adj. $R^2$	0.443	0.247	0.161	0.219	0.142

Notes: Standard errors in parentheses, clustered by CMA-province. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 13: Individual Probit Estimation of Education Choice Surrounding 1989 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02143 (0.01474)	-0.00844 (0.01341)	0.00619 (0.01390)	-0.01513 (0.01180)	-0.01424 (0.01470)
$\tau = -5$	-0.01306 (0.01631)	0.00229 (0.01436)	0.01013 (0.01213)	-0.00060 (0.01073)	-0.00858 (0.01328)
$\tau = -4$	0.01312 (0.01530)	-0.00970 (0.01364)	0.00692 (0.01272)	-0.01352 (0.01239)	-0.00249 (0.01002)
$\tau = -3$	-0.00710 (0.01262)	0.01085 (0.01145)	0.00531 (0.01063)	0.00320 (0.01077)	-0.01844 (0.01214)
$\tau = -2$	0.00760 (0.01208)	-0.00222 (0.01168)	0.01486 (0.01031)	-0.02618** (0.01048)	0.00339 (0.00887)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.00996 (0.01533)	0.02062* (0.01218)	-0.00719 (0.01036)	-0.01043 (0.01109)	-0.00757 (0.00942)
$\tau = 1$	-0.01376 (0.01312)	0.01623 (0.01347)	0.00431 (0.01352)	0.00673 (0.01247)	-0.00391 (0.00935)
$\tau = 2$	0.02238 (0.01476)	0.02377* (0.01281)	-0.01025 (0.01715)	-0.01861 (0.01370)	-0.00521 (0.01529)
$\tau = 3$	-0.00156 (0.01493)	0.04814*** (0.01230)	-0.01207 (0.01775)	-0.01301 (0.01378)	-0.00500 (0.02009)
$\tau = 4$	0.00446 (0.01191)	0.05629*** (0.01317)	-0.01544 (0.02164)	-0.02350 (0.01468)	-0.00220 (0.02526)
$\tau = 5$	0.03575** (0.01700)	0.04717*** (0.01451)	-0.01806 (0.02661)	-0.03561** (0.01654)	-0.00159 (0.02840)
$\tau = 6$	0.02751** (0.01376)	0.06400*** (0.01364)	-0.02435 (0.03237)	-0.02744 (0.01753)	-0.01074 (0.03508)
Log. Like.	-68,242.54	-57,002.155	-40,473.781	-49,904.59	-33,351.036
$N$ 65,650	65,700	65,600	65,650	65,350	

Notes: Standard errors in parentheses, clustered by CMA-province. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 14: Individual Logit Estimation of Education Choice Surrounding 1989 Policy

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02095 (0.01447)	-0.00743 (0.01387)	0.00406 (0.01399)	-0.01680 (0.01209)	-0.01553 (0.01548)
$\tau = -5$	-0.01333 (0.01604)	0.00415 (0.01486)	0.00967 (0.01205)	-0.00103 (0.01089)	-0.01017 (0.01362)
$\tau = -4$	0.01253 (0.01509)	-0.00849 (0.01410)	0.00549 (0.01282)	-0.01349 (0.01260)	-0.00340 (0.01027)
$\tau = -3$	-0.00759 (0.01226)	0.01249 (0.01169)	0.00569 (0.01080)	0.00303 (0.01100)	-0.02000 (0.01275)
$\tau = -2$	0.00716 (0.01181)	-0.00175 (0.01201)	0.01448 (0.01048)	-0.02678** (0.01095)	0.00314 (0.00913)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.00902 (0.01506)	0.02145* (0.01256)	-0.00698 (0.01073)	-0.01088 (0.01138)	-0.00710 (0.00987)
$\tau = 1$	-0.01342 (0.01290)	0.01668 (0.01404)	0.00374 (0.01376)	0.00676 (0.01248)	-0.00440 (0.00961)
$\tau = 2$	0.02251 (0.01446)	0.02439* (0.01315)	-0.01025 (0.01744)	-0.01953 (0.01403)	-0.00435 (0.01591)
$\tau = 3$	-0.00111 (0.01449)	0.04922*** (0.01244)	-0.01228 (0.01787)	-0.01268 (0.01399)	-0.00464 (0.02095)
$\tau = 4$	0.00440 (0.01175)	0.05711*** (0.01322)	-0.01548 (0.02175)	-0.02434 (0.01497)	-0.00139 (0.02662)
$\tau = 5$	0.03515** (0.01669)	0.04821*** (0.01478)	-0.01750 (0.02670)	-0.03735** (0.01702)	0.00023 (0.02954)
$\tau = 6$	0.02717** (0.01361)	0.06338*** (0.01404)	-0.02364 (0.03246)	-0.02753 (0.01790)	-0.01036 (0.03718)
Log. Like.	-68,242.048	-57,007.116	-40,476.258	-49,899.916	-33,359.765
$N$	65,650	65,700	65,600	65,650	65,350

Notes: Standard errors in parentheses, clustered by CMA-province. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



## F Results with Registered Status Population

Table 15: SUR Estimates of Education Choice Surrounding 1977 Policy for Registered Status Population

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.04872*** (0.01104)	-0.02315*** (0.00864)	-0.03322*** (0.00799)	0.00055 (0.00874)	0.00963 (0.00724)
$\tau = -5$	0.00123 (0.01091)	0.00246 (0.00854)	-0.02911*** (0.00791)	0.00682 (0.00864)	0.02062*** (0.00718)
$\tau = -4$	0.01835* (0.01083)	-0.01909** (0.00848)	-0.03496*** (0.00784)	0.01424* (0.00857)	0.02297*** (0.00710)
$\tau = -3$	0.04050*** (0.01071)	-0.01621* (0.00839)	-0.01803** (0.00775)	0.00174 (0.00848)	-0.00699 (0.00702)
$\tau = -2$	0.02209** (0.01056)	-0.00325 (0.00826)	-0.01395* (0.00763)	-0.00275 (0.00835)	-0.00164 (0.00692)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.00834 (0.01025)	-0.00000 (0.00802)	-0.00554 (0.00748)	0.01941** (0.00811)	-0.00605 (0.00679)
$\tau = 1$	0.01762* (0.01017)	-0.01372* (0.00796)	-0.00420 (0.00754)	0.01233 (0.00805)	-0.01306* (0.00687)
$\tau = 2$	-0.01650 (0.01022)	-0.00100 (0.00800)	-0.01946** (0.00762)	0.02746*** (0.00809)	0.00798 (0.00696)
$\tau = 3$	0.01731* (0.01017)	-0.01835** (0.00796)	-0.01453* (0.00794)	0.03251*** (0.00805)	-0.01897*** (0.00731)
$\tau = 4$	-0.01276 (0.01015)	0.00545 (0.00795)	-0.01113 (0.00848)	0.03309*** (0.00804)	-0.01719** (0.00789)
$\tau = 5$	-0.00450 (0.01015)	-0.00319 (0.00795)	-0.00614 (0.00943)	0.02685*** (0.00804)	-0.01606* (0.00891)
$\tau = 6$	-0.00951 (0.01022)	-0.00142 (0.00800)	-0.00004 (0.01016)	0.03597*** (0.00809)	-0.02855*** (0.00967)
$N$	53,950	53,950	53,950	53,950	53,950
$R^2$	0.082	0.040	0.042	0.047	0.041

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. A Breusch-Pagan test of independence among the error terms strongly rejects the null hypothesis that the errors are independent:  $\chi^2(6) = 35429.379$ ,  $P$ -value = 0.0000. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 16: SUR Estimates of of Education Choice Surrounding 1989 Policy for Registered Status Population

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.03488*** (0.00976)	-0.03180*** (0.00852)	0.01347 (0.00823)	-0.00780 (0.00778)	-0.00624 (0.00773)
$\tau = -5$	0.00351 (0.00963)	-0.00698 (0.00839)	0.01013 (0.00753)	-0.00114 (0.00767)	-0.00351 (0.00699)
$\tau = -4$	0.02632*** (0.00984)	-0.01367 (0.00858)	0.00474 (0.00727)	-0.01626** (0.00784)	0.00036 (0.00669)
$\tau = -3$	0.01098 (0.00978)	0.00970 (0.00853)	0.00598 (0.00706)	-0.00137 (0.00779)	-0.02429*** (0.00646)
$\tau = -2$	0.03003*** (0.00977)	-0.01109 (0.00852)	0.01177* (0.00685)	-0.03346*** (0.00778)	0.00326 (0.00623)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.03193*** (0.00973)	0.01626* (0.00849)	-0.00039 (0.00687)	-0.02731*** (0.00776)	-0.02100*** (0.00626)
$\tau = 1$	0.00265 (0.00987)	0.00220 (0.00861)	0.00054 (0.00746)	0.00314 (0.00786)	-0.00954 (0.00689)
$\tau = 2$	0.03955*** (0.00984)	0.00815 (0.00858)	-0.00621 (0.00856)	-0.03090*** (0.00784)	-0.01211 (0.00807)
$\tau = 3$	0.02116** (0.00986)	0.03632*** (0.00860)	-0.00556 (0.01010)	-0.03005*** (0.00786)	-0.02388** (0.00969)
$\tau = 4$	0.02220** (0.00985)	0.04012*** (0.00859)	-0.00383 (0.01176)	-0.04887*** (0.00785)	-0.01213 (0.01141)
$\tau = 5$	0.05455*** (0.00990)	0.03222*** (0.00863)	-0.00943 (0.01372)	-0.05048*** (0.00789)	-0.02989** (0.01342)
$\tau = 6$	0.03578*** (0.00989)	0.06114*** (0.00863)	-0.01365 (0.01552)	-0.05265*** (0.00788)	-0.03414** (0.01526)
$N$	58,720	58,720	58,720	58,720	58,720
$R^2$	0.102	0.039	0.041	0.060	0.058

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 4 equations are estimated jointly in a Seemingly Unrelated Regression model. A Breusch-Pagan test of independence among the error terms strongly rejects the null hypothesis that the errors are independent:  $\chi^2(6) = 38620.017$ ,  $P$ -value = 0.0000. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 17: Difference-in-differences results

Dependent Variable:	High School Graduation			
	(1)	(2)	(3)	(4)
Panel A: Program Implementation PSEAP (1977)				
Treatment	-0.00864 (0.00879)	-0.00779 (0.00895)	-0.00117 (0.00877)	0.00120 (0.00844)
<i>N</i>	958,435	958,435	958,435	958,435
Adj. $R^2$	0.041	0.043	0.043	0.044
Panel B: Program Cutbacks PSSSP (1989)				
Treatment	-0.02330*** (0.00551)	-0.02343*** (0.00556)	-0.02226*** (0.00556)	-0.01833*** (0.00546)
<i>N</i>	817,235	817,235	817,235	817,235
Adj. $R^2$	0.049	0.051	0.051	0.052
Aboriginal group		✓	✓	✓
CMA	✓	✓	✓	✓
Tribe				✓
Year	✓	✓		
Province-Year			✓	✓
Tuition	✓	✓	✓	✓

Notes: Standard errors in parentheses, clustered by CMA-province. All regressions control for gender and the estimated cost of tuition for college and university in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## G Results Without Mobility Restriction

Table 18: SUR Estimates of Education Choice Surrounding 1977 Without Imposing Mobility Restriction

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.01968** (0.00994)	-0.01723** (0.00800)	-0.01850** (0.00736)	0.00272 (0.00808)	0.01333** (0.00664)
$\tau = -5$	0.00109 (0.00976)	-0.00564 (0.00785)	-0.01777** (0.00723)	0.01112 (0.00794)	0.01121* (0.00654)
$\tau = -4$	0.01258 (0.00977)	-0.02716*** (0.00787)	-0.01661** (0.00723)	0.01066 (0.00795)	0.02053*** (0.00653)
$\tau = -3$	0.01465 (0.00965)	-0.02567*** (0.00777)	-0.00838 (0.00714)	0.02236*** (0.00785)	-0.00296 (0.00644)
$\tau = -2$	0.02385** (0.00944)	-0.01225 (0.00760)	-0.00358 (0.00698)	-0.00288 (0.00768)	-0.00515 (0.00630)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.00993 (0.00931)	-0.00659 (0.00750)	-0.00745 (0.00695)	0.03101*** (0.00757)	-0.00704 (0.00628)
$\tau = 1$	0.00902 (0.00919)	-0.01553** (0.00740)	0.00456 (0.00696)	0.01280* (0.00748)	-0.01085* (0.00631)
$\tau = 2$	-0.01937** (0.00921)	-0.00159 (0.00742)	-0.01656** (0.00701)	0.02533*** (0.00749)	0.01220* (0.00637)
$\tau = 3$	0.01386 (0.00910)	-0.02249*** (0.00732)	-0.01232* (0.00725)	0.03278*** (0.00740)	-0.01183* (0.00664)
$\tau = 4$	-0.02368*** (0.00905)	0.00637 (0.00729)	-0.00713 (0.00771)	0.02693*** (0.00737)	-0.00249 (0.00715)
$\tau = 5$	-0.00920 (0.00907)	-0.00830 (0.00730)	-0.00743 (0.00859)	0.02573*** (0.00738)	-0.00081 (0.00809)
$\tau = 6$	-0.01284 (0.00917)	0.00645 (0.00738)	-0.00517 (0.00929)	0.02135*** (0.00746)	-0.00979 (0.00882)
$N$	66,430	66,430	66,430	66,430	66,430
$R^2$	0.079	0.039	0.041	0.039	0.041

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 19: SUR Estimates of Education Choice Surrounding 1989 Without Imposing the Mobility Restriction

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02631*** (0.00855)	-0.01200 (0.00763)	0.01162 (0.00743)	-0.01426** (0.00707)	-0.01166* (0.00698)
$\tau = -5$	0.00041 (0.00846)	-0.00232 (0.00755)	0.00718 (0.00680)	0.00434 (0.00700)	-0.00961 (0.00632)
$\tau = -4$	0.00406 (0.00858)	-0.00367 (0.00765)	0.01501** (0.00655)	-0.01007 (0.00709)	-0.00532 (0.00603)
$\tau = -3$	0.00146 (0.00852)	0.00709 (0.00761)	0.00326 (0.00635)	0.00068 (0.00705)	-0.01248** (0.00583)
$\tau = -2$	0.01138 (0.00848)	-0.00455 (0.00757)	0.01422** (0.00615)	-0.02046*** (0.00701)	-0.00059 (0.00561)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.01467* (0.00852)	0.00667 (0.00760)	-0.00467 (0.00622)	-0.00778 (0.00704)	-0.00889 (0.00569)
$\tau = 1$	-0.01040 (0.00862)	0.01621** (0.00769)	-0.00368 (0.00675)	0.00414 (0.00713)	-0.00628 (0.00625)
$\tau = 2$	0.02159** (0.00860)	0.02022*** (0.00767)	-0.01724** (0.00773)	-0.01847*** (0.00711)	-0.00610 (0.00730)
$\tau = 3$	0.00897 (0.00857)	0.04403*** (0.00765)	-0.02796*** (0.00906)	-0.01722** (0.00709)	-0.00783 (0.00870)
$\tau = 4$	0.00957 (0.00862)	0.05794*** (0.00769)	-0.03199*** (0.01060)	-0.02523*** (0.00713)	-0.01030 (0.01029)
$\tau = 5$	0.03344*** (0.00865)	0.04647*** (0.00772)	-0.03793*** (0.01237)	-0.03728*** (0.00715)	-0.00470 (0.01210)
$\tau = 6$	0.03479*** (0.00863)	0.06461*** (0.00770)	-0.04329*** (0.01400)	-0.04232*** (0.00714)	-0.01381 (0.01377)
$N$	74,280	74,280	74,280	74,280	74,280
$R^2$	0.104	0.036	0.040	0.049	0.051

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## H Robustness Checks

Table 20: Number of search results for confounding events

	Globe and Mail (1)	Ottawa Citizen (2)	Financial Times (3)
January 1st, 1975 - December 31st, 1979			
Education Policy	12	.	.
Education Law	48	.	.
Indian Education	5	.	.
Post-Secondary	198	.	.
January 1st, 1987 - December 31st, 1991			
Education Policy	156	2027	763
Education Law	125	1883	433
Indian Education	59	601	79
Post-Secondary	561	587	187

Table 21: Summary of policy changes from online searches

Date	Summary	Source
78-04-15	Government announced limit on provincial assistance beyond 4 years	Globe and Mail
87-01-26	Alberta government cuts education grants	Globe and Mail
87-02-27	OSAP gets a 17% boost	Globe and Mail
88-02-24	Ontario adds scholarship program for universities	Globe and Mail
88-10-11	Native Language programs introduced into Ontario Schools	Globe and Mail
89-04-01	Ontario School Boards required to enact employment-equity policies for women	Globe and Mail
89-04-17	New policy increases post-secondary tuition assistance	Ottawa Citizen
89-04-25	Student Aid increased by 15.4 Million in Ontario	Globe and Mail
89-06-01	Queen's Park Donation to disabled students allows for new financial assistance	Globe and Mail
89-09-13	Native Students with children to get more funding	Ottawa Citizen
89-10-07	BC Government adopts Royal Commission Recommendations for education	Globe and Mail
90-02-06	Premier Bourassa raises tuition by 140%	Financial Times
90-07-11	Alberta Universities cut back class sizes	Globe and Mail
91-04-24	Ontario adds \$220 Million to post-secondary assistance	Ottawa Citizen

Table 22: SUR Estimates of Education Choice Surrounding 1989 Excluding Quebec

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02457** (0.00968)	-0.01482* (0.00869)	0.01668* (0.00920)	-0.01210 (0.00792)	-0.01432 (0.00881)
$\tau = -5$	-0.00432 (0.00957)	0.00146 (0.00859)	0.01456* (0.00807)	-0.00019 (0.00783)	-0.01151 (0.00764)
$\tau = -4$	0.02018** (0.00973)	-0.00657 (0.00874)	0.01026 (0.00751)	-0.01923** (0.00797)	-0.00464 (0.00702)
$\tau = -3$	0.00512 (0.00967)	0.01149 (0.00868)	0.00545 (0.00715)	0.00026 (0.00792)	-0.02231*** (0.00664)
$\tau = -2$	0.01455 (0.00965)	-0.00572 (0.00866)	0.01466** (0.00679)	-0.02491*** (0.00790)	0.00142 (0.00626)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.01726* (0.00967)	0.02094** (0.00868)	-0.01566** (0.00690)	-0.01180 (0.00791)	-0.01074* (0.00638)
$\tau = 1$	-0.00557 (0.00974)	0.01066 (0.00874)	-0.00429 (0.00766)	0.00298 (0.00797)	-0.00377 (0.00719)
$\tau = 2$	0.02940*** (0.00975)	0.02306*** (0.00876)	-0.02193** (0.00913)	-0.02780*** (0.00799)	-0.00274 (0.00874)
$\tau = 3$	0.00763 (0.00971)	0.04722*** (0.00871)	-0.02451** (0.01122)	-0.02510*** (0.00795)	-0.00525 (0.01090)
$\tau = 4$	0.01139 (0.00976)	0.05906*** (0.00876)	-0.03167** (0.01359)	-0.03573*** (0.00799)	-0.00305 (0.01333)
$\tau = 5$	0.04593*** (0.00980)	0.04552*** (0.00880)	-0.04105** (0.01631)	-0.04946*** (0.00802)	-0.00095 (0.01609)
$\tau = 6$	0.03151*** (0.00976)	0.06049*** (0.00876)	-0.05043*** (0.01888)	-0.03737*** (0.00799)	-0.00421 (0.01869)
$N$	58,170	58,170	58,170	58,170	58,170
$R^2$	0.107	0.037	0.033	0.055	0.047

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table 23: SUR Estimates of Education Choice Surrounding 1989 Policy Excluding Alberta

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.01672* (0.00968)	-0.00213 (0.00868)	0.00554 (0.00855)	-0.00936 (0.00793)	-0.01077 (0.00796)
$\tau = -5$	-0.01558 (0.00955)	0.00677 (0.00856)	0.01417* (0.00779)	0.00557 (0.00782)	-0.01092 (0.00715)
$\tau = -4$	0.00806 (0.00974)	-0.00631 (0.00873)	0.00474 (0.00746)	-0.00262 (0.00797)	-0.00387 (0.00677)
$\tau = -3$	-0.00983 (0.00970)	0.01030 (0.00869)	0.00872 (0.00724)	0.01009 (0.00794)	-0.01928*** (0.00653)
$\tau = -2$	0.00422 (0.00968)	0.00105 (0.00867)	0.01616** (0.00702)	-0.02169*** (0.00792)	0.00026 (0.00629)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.00568 (0.00971)	0.01686* (0.00870)	-0.00719 (0.00711)	-0.00519 (0.00795)	-0.01015 (0.00638)
$\tau = 1$	-0.01980** (0.00974)	0.02178** (0.00873)	0.00082 (0.00765)	0.00737 (0.00797)	-0.01017 (0.00697)
$\tau = 2$	0.01329 (0.00978)	0.02170** (0.00876)	-0.00982 (0.00888)	-0.01585** (0.00800)	-0.00932 (0.00830)
$\tau = 3$	-0.00302 (0.00975)	0.05422*** (0.00874)	-0.02069** (0.01033)	-0.01339* (0.00798)	-0.01712* (0.00984)
$\tau = 4$	-0.00117 (0.00981)	0.06474*** (0.00879)	-0.02574** (0.01212)	-0.02385*** (0.00803)	-0.01398 (0.01170)
$\tau = 5$	0.02783*** (0.00992)	0.05849*** (0.00889)	-0.03136** (0.01400)	-0.03172*** (0.00812)	-0.02324* (0.01363)
$\tau = 6$	0.02447** (0.00979)	0.05752*** (0.00877)	-0.02805* (0.01579)	-0.02853*** (0.00801)	-0.02540 (0.01547)
$N$	57,580	57,580	57,580	57,580	57,580
$R^2$	0.111	0.040	0.047	0.055	0.053

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, and a second order polynomial in year-of-graduation.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 24: SUR Estimates of Education Choice Surrounding 1977 Policy Without Land Claim Communities

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02840*** (0.01064)	-0.02334*** (0.00852)	-0.01666** (0.00780)	0.00494 (0.00856)	0.00665 (0.00694)
$\tau = -5$	0.00288 (0.01053)	-0.01444* (0.00843)	-0.01340* (0.00773)	0.01339 (0.00847)	0.01158* (0.00688)
$\tau = -4$	0.00684 (0.01050)	-0.03375*** (0.00840)	-0.00860 (0.00769)	0.01648* (0.00844)	0.01903*** (0.00684)
$\tau = -3$	0.02395** (0.01040)	-0.02810*** (0.00832)	0.00193 (0.00761)	0.01046 (0.00836)	-0.00825 (0.00677)
$\tau = -2$	0.01950* (0.01019)	-0.01583* (0.00815)	0.00800 (0.00745)	-0.00636 (0.00819)	-0.00532 (0.00663)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.01077 (0.01001)	-0.01586** (0.00801)	0.00307 (0.00740)	0.02960*** (0.00805)	-0.00604 (0.00660)
$\tau = 1$	0.00364 (0.00989)	-0.02445*** (0.00791)	0.02095*** (0.00742)	0.01454* (0.00795)	-0.01468** (0.00664)
$\tau = 2$	-0.02363** (0.00994)	-0.01460* (0.00795)	-0.00393 (0.00752)	0.02803*** (0.00799)	0.01412** (0.00675)
$\tau = 3$	0.01553 (0.00981)	-0.02760*** (0.00785)	-0.00567 (0.00778)	0.03582*** (0.00789)	-0.01807** (0.00706)
$\tau = 4$	-0.01331 (0.00978)	0.00147 (0.00782)	-0.00360 (0.00832)	0.02878*** (0.00786)	-0.01334* (0.00765)
$\tau = 5$	-0.00445 (0.00977)	-0.01420* (0.00782)	0.00036 (0.00930)	0.02808*** (0.00785)	-0.00979 (0.00871)
$\tau = 6$	-0.01443 (0.00990)	0.00518 (0.00792)	0.00317 (0.01012)	0.02574*** (0.00796)	-0.01967** (0.00956)
$N$	57,720	57,720	57,720	57,720	57,720
$R^2$	0.082	0.043	0.043	0.043	0.040

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 25: SUR Estimates of Education Choice Surrounding 1989 Policy Without Land Claim Communities

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02210** (0.00916)	-0.00549 (0.00811)	0.01147 (0.00784)	-0.01410* (0.00745)	-0.01397* (0.00727)
$\tau = -5$	-0.01246 (0.00905)	0.00462 (0.00802)	0.01589** (0.00719)	0.00103 (0.00736)	-0.00908 (0.00658)
$\tau = -4$	0.01341 (0.00921)	-0.00695 (0.00816)	0.00973 (0.00696)	-0.01294* (0.00749)	-0.00324 (0.00629)
$\tau = -3$	-0.00698 (0.00915)	0.01246 (0.00811)	0.00974 (0.00675)	0.00428 (0.00744)	-0.01950*** (0.00607)
$\tau = -2$	0.00745 (0.00913)	-0.00134 (0.00809)	0.01694*** (0.00656)	-0.02581*** (0.00743)	0.00276 (0.00586)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.00931 (0.00916)	0.02101*** (0.00812)	-0.00900 (0.00663)	-0.01293* (0.00745)	-0.00840 (0.00594)
$\tau = 1$	-0.01397 (0.00922)	0.01609** (0.00817)	-0.00066 (0.00714)	0.00404 (0.00750)	-0.00551 (0.00650)
$\tau = 2$	0.02196** (0.00921)	0.02360*** (0.00816)	-0.01691** (0.00817)	-0.02299*** (0.00749)	-0.00566 (0.00761)
$\tau = 3$	-0.00205 (0.00918)	0.04920*** (0.00814)	-0.02311** (0.00955)	-0.01766** (0.00747)	-0.00637 (0.00908)
$\tau = 4$	0.00330 (0.00922)	0.05820*** (0.00817)	-0.02949*** (0.01114)	-0.02844*** (0.00750)	-0.00357 (0.01073)
$\tau = 5$	0.03397*** (0.00928)	0.04773*** (0.00822)	-0.03511*** (0.01298)	-0.04259*** (0.00755)	-0.00400 (0.01263)
$\tau = 6$	0.02551*** (0.00922)	0.06477*** (0.00817)	-0.04201*** (0.01464)	-0.03601*** (0.00750)	-0.01226 (0.01434)
$N$	65,260	65,260	65,260	65,260	65,260
$R^2$	0.109	0.040	0.044	0.053	0.052

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 26: SUR Estimates of Education Choice Surrounding 1977 Policy Without Specific Claim Communities

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02845*** (0.01056)	-0.02265*** (0.00839)	-0.01695** (0.00774)	0.00313 (0.00844)	0.00802 (0.00683)
$\tau = -5$	0.00322 (0.01045)	-0.01378* (0.00831)	-0.01338* (0.00767)	0.01242 (0.00836)	0.01152* (0.00678)
$\tau = -4$	0.00838 (0.01040)	-0.03341*** (0.00827)	-0.00921 (0.00762)	0.01351 (0.00832)	0.02073*** (0.00673)
$\tau = -3$	0.02352** (0.01031)	-0.02791*** (0.00820)	0.00026 (0.00756)	0.01133 (0.00825)	-0.00720 (0.00667)
$\tau = -2$	0.01947* (0.01010)	-0.01536* (0.00803)	0.00746 (0.00740)	-0.00627 (0.00808)	-0.00531 (0.00653)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	-0.00850 (0.00993)	-0.01748** (0.00789)	0.00255 (0.00733)	0.02875*** (0.00794)	-0.00532 (0.00648)
$\tau = 1$	0.00587 (0.00981)	-0.02395*** (0.00780)	0.02006*** (0.00735)	0.01249 (0.00784)	-0.01447** (0.00652)
$\tau = 2$	-0.02041** (0.00985)	-0.01327* (0.00783)	-0.00534 (0.00743)	0.02478*** (0.00787)	0.01424** (0.00661)
$\tau = 3$	0.01767* (0.00974)	-0.02696*** (0.00774)	-0.00776 (0.00764)	0.03414*** (0.00778)	-0.01709** (0.00687)
$\tau = 4$	-0.01257 (0.00969)	0.00162 (0.00770)	-0.00320 (0.00811)	0.02793*** (0.00775)	-0.01378* (0.00739)
$\tau = 5$	-0.00146 (0.00968)	-0.01415* (0.00770)	-0.00094 (0.00897)	0.02670*** (0.00774)	-0.01015 (0.00833)
$\tau = 6$	-0.01192 (0.00982)	0.00549 (0.00780)	0.00278 (0.00970)	0.02319*** (0.00785)	-0.01955** (0.00909)
$N$	58,870	58,870	58,870	58,870	58,870
$R^2$	0.082	0.044	0.043	0.044	0.040

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 27: SUR Estimates of Education Choice Surrounding 1989 Policy Without Specific Claim Communities

	(1) None	(2) High School	(3) Trade	(4) College	(5) University
$\tau = -6$	0.02092** (0.00933)	-0.00378 (0.00828)	0.01050 (0.00800)	-0.01313* (0.00761)	-0.01451* (0.00745)
$\tau = -5$	-0.01365 (0.00921)	0.00565 (0.00818)	0.01503** (0.00734)	0.00257 (0.00752)	-0.00960 (0.00674)
$\tau = -4$	0.01294 (0.00939)	-0.00701 (0.00834)	0.00931 (0.00709)	-0.01188 (0.00767)	-0.00337 (0.00645)
$\tau = -3$	-0.00700 (0.00931)	0.01383* (0.00827)	0.00820 (0.00687)	0.00562 (0.00760)	-0.02067*** (0.00622)
$\tau = -2$	0.00603 (0.00931)	-0.00031 (0.00827)	0.01583** (0.00669)	-0.02410*** (0.00760)	0.00256 (0.00601)
$\tau = -1$	.	.	.	.	.
$\tau = 0$	0.00892 (0.00933)	0.02029** (0.00828)	-0.00959 (0.00675)	-0.01118 (0.00761)	-0.00844 (0.00608)
$\tau = 1$	-0.01591* (0.00940)	0.01649** (0.00834)	-0.00239 (0.00728)	0.00709 (0.00767)	-0.00529 (0.00666)
$\tau = 2$	0.01858** (0.00939)	0.02463*** (0.00834)	-0.01766** (0.00834)	-0.02060*** (0.00766)	-0.00495 (0.00781)
$\tau = 3$	-0.00339 (0.00935)	0.05115*** (0.00830)	-0.02476** (0.00975)	-0.01669** (0.00763)	-0.00631 (0.00929)
$\tau = 4$	0.00186 (0.00939)	0.05856*** (0.00834)	-0.03125*** (0.01138)	-0.02678*** (0.00766)	-0.00240 (0.01099)
$\tau = 5$	0.03319*** (0.00945)	0.04740*** (0.00839)	-0.03634*** (0.01326)	-0.04017*** (0.00771)	-0.00408 (0.01293)
$\tau = 6$	0.02450*** (0.00938)	0.06602*** (0.00833)	-0.04330*** (0.01497)	-0.03524*** (0.00766)	-0.01199 (0.01467)
$N$	62,680	62,680	62,680	62,680	62,680
$R^2$	0.110	0.040	0.044	0.054	0.053

Notes: Standard errors in parentheses. The dependent variable in each specification is a dummy variable for whether or not the highest level of education completed is the one being examined in the regression. The 5 equations are estimated jointly in a Seemingly Unrelated Regression model. I exclude the dummy variable for  $\tau = -1$  so that all effects are measured relative to one cohort before the policy change occurred. All regressions control for gender and I include fixed effects for tribe, CMA-province, aboriginal group, whether the individual is registered as a status indian, year-of-graduation time trend and controls for the tuition of education level  $r$  in province  $p$  at time  $t$ . \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$