The Intergenerational Legacy of Indian Residential Schools*

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Abstract

From the late nineteenth century until the end of the twentieth century, the Canadian government, in collaboration with Christian churches, operated a network of boarding schools for Indigenous children. The purpose of this system was to culturally and economically assimilate; Indigenous children were taken from their families and placed into residential schools where they were to be converted into the Eurocentric culture of the dominant society. Using a unique restricted-access database that asked Indigenous respondents about their family history with residential schools, in addition to questions on a variety of socioeconomic outcomes, I study the intergenerational effects of these schools. Despite previous research showing that residential schools led to increased human capital accumulation among those who attended, I find that residential schools are associated with lower educational attainment among subsequent generations. I present evidence consistent with the notion that both cultural detachment and a breakdown in family relationships contributed to a reversal of the standard relationship between the human capital of parents and children. Encouragingly, I find suggestive evidence that greater access to cultural centers may provide a buffer to the harmful legacy of this historical trauma.

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> *"Cultural genocide is the destruction of those structures and practices that allow the group to continue as a group. States that engage in cultural genocide set out to destroy the political and social institutions of the targeted group. Land is seized, and populations are forcibly transferred and their movement is restricted. Languages are banned. Spiritual leaders are persecuted, spiritual practices are forbidden, and objects of spiritual value are confiscated and destroyed. And, most significantly to the issue at hand, families are disrupted to prevent the transmission of cultural values and identity from one generation to the next."*
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> Truth and Reconciliation Commission of Canada, 2015

From the late nineteenth century until the end of the twentieth century, the Canadian government in collaboration with Christian churches operated a network of boarding schools for Indigenous children. The purpose of this system was to culturally and economically assimilate; Indigenous children were taken from their families and placed into live-in boarding schools designed to, *"break their link to their culture and identity"* (Truth and Reconciliation Commission of Canada, 2015b), by converting them into the Eurocentric culture of the dominant society.[1] Generations of students that passed through the schools were stripped of their cultures, resulting in a loss of Indigenous traditions, language, and community (Feir, 2016b).[2] Recently the process has been described as a type of "cultural genocide", a term used to refer to the systematic destruction of traditions, values, and beliefs common to a group of people (Truth and Reconciliation Commission of Canada, 2015a).[3]

Despite the deliberate attempt to destroy Indigenous cultures, empirical evidence from Canada has found that they led to a causal increase in educational attainment among those who attended (Feir, 2016b). Paradoxically, a negative correlation has been observed between educational attainment and the residential school attendance of one's parents (Bougie and Senécal, 2010; Bombay, Matheson, and Anisman, 2014; Feir, 2016a). Although this link has not yet been established as causal, this correlation is a departure from much of the existing literature on the intergenerational transmission of human capital that suggests parents' and children's levels of human capital are positively correlated (Black, Devereux, and Salvanes, 2005; Oreopoulos, Page, and Stevens, 2006; Page, 2006; Black and Devereux, 2010). This

[1] Boarding schools for Indigenous children were also operated in the United States, Greenland, Australia, and New Zealand.

[2] In 2007, the Canadian federal government settled the largest class-action lawsuit in its history with 86,000 Indigenous peoples who had once attended the schools. Since then, the government of Canada has implemented several policies directed at raising the educational attainment of Indigenous students, but educational disparities continue to exist (Melvin, 2021).

[3] In certain cases the Canadian residential school system has been compared to the segregation of black students during South Africa's apartheid regime (Kallaway, 2002; Davis, Sumara, and Luce-Kapler, 2015) and to the segregation of African Americans in the U.S. South during the Jim Crow era (Lau, 2002).

paper uses restricted access data from Canada to explore the sources of this puzzle.

I first show that by adulthood, the children of residential school attendees are less likely to have graduated high school than those whose parents did not attend residential school. Due to the limitations of the existing data, formally accounting for the systematic selection of students into residential schools using existing methods is not possible.[4] I therefore use the methodology of Oster (2019) to assess the stability of my coefficient estimates. This methodology uses movements in coefficient estimates and the R-squared induced by adding observable characteristics to the model to bound the selection on unobservables. While the Oster (2019) methodology is not a causal methodology itself, it provides evidence in support of a causal interpretation. The estimates in this paper are qualitatively robust to the Oster corrections, although they are generally smaller in magnitude under this adjustment.

Next, I focus on the channels through which the high school graduation rate is negatively affected by parental residential school attendance. Two prevailing theories explain how the residential school system has contributed to contemporary education disparities. One explanation is that the systematic undermining of Indigenous culture that occurred at the schools left generations of Indigenous peoples distrustful of mainstream educational institutions and that these attitudes have persisted intergenerationally (Thibodeau and Peigan, 2007; Bombay, Matheson, and Anisman, 2013; Loppie, Reading, and de Leeuw, 2014; Feir, 2016a). In a theoretical context, this intersection of culture and human capital is consistent with a model of utility maximization where utility is determined by both education and social identity (Akerlof and Kranton, 2002). The alternative explanation is that the intergenerational fallout of residential schools left many individuals without strong role models for parents (Evans-Campbell, 2008; Bombay et al., 2011; Truth and Reconciliation Commission of Canada, 2015a), which in turn affected the investments residential school survivors made in their own children.[5] The breakdown in the intergenerational transmission of human capital resulting from this explanation is in line with a model where cognitive skills are the outcome of a production technology where the inputs include aspects of parental investment (Todd and Wolpin, 2003; Cunha et al., 2006; Heckman, 2008).

Overall, the results of my empirical analysis supports a middle ground between the two

[4] Feir (2016b), uses a set of instrumental variables, including the distance between individuals' home communities and the closest residential school, the national trend in residential school enrolment, and the percent catholic in individuals' communities to study the relationship between residential school attendance and outcomes for those who attended the schools. Unfortunately, to replicate these results for those whose parents attended would require knowledge of parents' home communities, which is unavailable in the existing data sources.

[5] This might have been due to the destruction of Indigenous language which made communication between students and their families difficult or nonexistent once they left residential schools (Partridge, 2010).

explanations.[6] I use information on where the adult children of residential school attendees live to show that the negative correlation between parental residential school attendance and the child's high school graduation is only present off-reserve. While several factors could drive these patterns, one possibility is that Indigenous leaders and parents have less influence over curriculum, extra-curriculars, and pedagogies used in classrooms off-reserve.[7] If this is true, then we would expect to see fewer negative intergenerational effects of residential schools in places with more cultural support.

To explore this channel in more detail, I assemble a supplementary dataset for First Nations—one of three constitutionally recognized Indigenous groups in Canada.[8] This dataset is comprised of public-access data on educational attainment, which I combine with an indicator for whether a First Nation has a cultural centre. Using proxies for historical residential school exposure that are consistent with existing work on residential schooling in Canada (Feir, 2016b), I show that the relationship between these proxies and contemporary educational attainment is reversed for First Nations with access to a cultural centre. Admittedly, it is difficult to assign a precise interpretation to the presence of a cultural center. These centers provide language programs, curriculum development, teacher training, historical archiving, and many other programs and services, thus we can think of their presence as a multifaceted measure that captures many aspects, including culture.

This paper makes two primary contributions to the existing literature. Broadly speaking, it builds on a growing body of work that quantifies the impacts of colonial policies towards Indigenous peoples in Canada.[9] This research has largely focused on the impacts of modern and historical treaties (Aragón, 2015; Pendakur and Pendakur, 2021; Feir et al., 2023b), the structure of property rights (Aragón and Kessler, 2020), as well as education policy (Feir,

[6]This is consistent with existing qualitative work by Ing (1990) who interviewed three residential school survivors and concluded that the psychological and cultural loss of self-esteem, child-rearing patterns, and Indigenous language will all have adverse impacts on subsequent generations.

[7]Since the 1990s, several modern treaties have been signed between Indigenous nations and the Government of Canada which have resulted in varying degrees of self-governance, including control of education on reserves. Further, Indigenous peoples have stressed that language, culture, and history of Indigenous peoples should be an important part of school curricula and that this should include traditional activities and land-based learning (Government of Canada, 2018).

[8]The term "Indigenous peoples" is used to describe any person who identifies as Indigenous–that is, who identifies as part of a cultural group whose ancestors were the original inhabitants of the land before colonization. In Canada, there are three constitutionally recognized Indigenous groups: Inuit, Métis, and First Nations. First Nations people are Indigenous peoples whose ancestors inhabited the part of Canada south of the tree line. Some First Nations people are classified as Status Indians, meaning they are recognized federally by the *Indian Act*, while others do not have Status. Inuit people are a culturally distinct group who historically resided in the Arctic and subarctic regions in North America. Métis people are another culturally distinct group that arose from intermarriage between European fur traders and First Nations people in the 1800s, although there are nuances with this definition, as described by Vowel (2016).

[9]A related literature looks at the role of Indigenous peoples in the early fur trade (Carlos and Lewis, 1993, 1999, 2010, 2012).

2016a,b; Auld and Feir, 2022; Jones, 2023).[10] Arguably, the most rigorous analysis of the impact of Canadian residential schools on those who attended is by Feir (2016b), which shows that the residential school system increased high school graduation and employment and lowered the probability of receiving social assistance for those who attended; however, this was at the expense of Indigenous culture, where residential school attendees were less likely to speak an Indigenous language, participate in traditional activities, and more likely to live away from their traditional communities.[11] In a follow-up piece, Feir (2016a) finds that children whose parents attended a residential school in Canada have worse schooling experiences than those whose parents did not. My results advance our understanding of the intergenerational legacy of residential schools in Canada by providing quantitative evidence of the mechanisms relating residential school attendance of parents to the educational attainment of their children by adulthood.

It is worth noting that both my results and those of Feir (2016a) on the intergenerational impacts of residential schools in Canada are at odds with the economics literature on Indian boarding schools in the United States. Gregg (2018) finds that in the United States, greater community-level exposure to historical Indian boarding schools is related to better economic outcomes in Indigenous communities today. Gregg (2018) suggests the experience at Indian boarding schools in the United States may have differed from Canada because parents had to consent to attendance by 1911, whereas parental consent was not required in Canada until much later; however, my results provide a separate explanation to reconcile the findings of these two papers. Feir (2016a) uses individual-level survey data that includes children living both on- and off-reserve, while Gregg (2018) focusses on reservation-level outcomes. The heterogeneous effects I uncover by whether students live on- or off-reserve are consistent with the different data choices made in Feir (2016b) and Gregg (2018). My results suggest that reserves may provide a cultural buffer that contributes to resilience. This distinction is important, as it complements other work highlighting that empirical research needs to be mindful of the unique environment on reserves (Jones, 2023).

The second contribution of this paper relates to the literature on the intergenerational transmission of human capital. This literature has demonstrated that the educational attainment of parents and children tends to be positively correlated and has generally tried to

[10] In the United States, there has also been work on the legacy of Indian boarding schools (Gregg, 2018), as well as other colonial policies, like the forced coexistence of Indigenous nations without a shared history of governance (Dippel, 2014), fractionation on reservations (Russ and Stratmann, 2014; Leonard, Parker, and Anderson, 2020), and the decimation of the bison on the Great Plains (Feir et al., 2023b).

[11] Existing work studying the intergenerational impacts of residential schools on educational outcomes in Canada has focused on children (Bougie and Senécal, 2010; Feir, 2016a). Health outcomes have been studied extensively, with parental residential school attendance being correlated with suicide and depression in both adults (Bombay et al., 2011; Elias et al., 2012) and youth (Moniruzzaman et al., 2009).

disentangle selection from causation (Black et al., 2005). That is, it has sought to determine whether parents who obtain high levels of education have children who obtain high levels of education because of a correlation between the innate ability of parents and children or because education influences how people parent. At this point, the evidence suggests that both selection and causation contribute to the intergenerational transmission of human capital, suggesting that there may be an important intergenerational component of policy interventions aimed at increasing educational attainment (Black et al., 2005; Oreopoulos et al., 2006; Page, 2006; Black and Devereux, 2010). That being said, the negative correlation observed between parental residential school attendance and children's education is at odds with this existing literature, providing an example of the conditions under which this relationship has the potential to break down. Specifically, the mechanisms investigated in this paper suggest that family ties, culture, and institutional trust can play an important role in human capital acquisition, especially when parents' past experiences with schooling have been contentious or where those delivering education have not sought to incorporate elements of an individual's culture or identity.

To address these historical harms, the policy discourse should center on the types of programs that can help foster an inclusive educational environment for Indigenous peoples. If culture is an important determinant of the accumulation of human capital, then adding programs and curricula that incorporate Indigenous traditions and knowledge into educational institutions are important steps towards addressing this goal. This paper therefore recommends an avenue towards increasing equality of opportunity for Indigenous students. The remainder of the paper proceeds in the usual manner.

2 A Brief History of Residential Schools in Canada

The residential school system as we know it began as a formal institution after confederation in 1867; however, its roots can be traced to French Canada during the seventeenth and eighteenth centuries and mission schools in the Canadian West during the mid eighteenhundreds (Milloy, 1999; Truth and Reconciliation Commission of Canada, 2015a).[12] By the early 1930s, there were a total of eighty schools in operation across the country and by the time the last residential school closed in 1996, approximately 150,000 children had been removed from their homes and placed in the isolated live-in institutions.[13]

At the schools, children were forbidden from speaking their native languages or partici-

[12]This section provides a very brief history of the residential school system in Canada. A more comprehensive overview can be found in Bryce (1907), Milloy (1999), Truth and Reconciliation Commission of Canada (2015a), and Feir (2013).

[13]Figure B.3 of the Online Appendix displays the location of all residential schools and Indigenous communities in Canada.

pating in any cultural or spiritual practices. These efforts were part of a broader objective to assimilate Indigenous peoples. The schools were integral to this objective because of a belief that adults were *"physically, mentally, and morally [...] unfitted to bear such a complete metamorphosis."* (Milloy, 1999). Throughout their existence, the schools adhered to their objective of assimilation, though there were notable changes in their scope and administration. I outline some of the larger changes in what follows.

First, the attendance policy was ambiguous until legislation was passed in 1924 that required that all Status Indians from the age of 7-15 attend either a residential school or a day school (Indian Act, 1924, Section A10(1)). The law was modified in 1930 to require students aged 7-16 to attend and then again in 1945 which required children adhere to provincial rules in order for families to be eligible for the "Family Allowance", a monthly income supplement (Milloy, 1999). Enforcement of the laws was the responsibility of the Indian agent assigned to each reserve (Indian Act, 1924, Section A10(3)), and ultimately whether a student was assigned to a residential or day school was at the agent's discretion (LeBeuf, 2011). Although the agents retained exclusive control over who was admitted to the schools, churches had a heavy hand in recruiting students. Government funding was allocated to the schools on a per-student basis, thus it was in the interest of the church to ensure the maximum number of pupils were recruited. This often led to the targeting of children who were, *"orphans and children without any persons to look after them,"* and those who were, *"physically and intellectually unfit"* (Milloy, 1999).[14]

Second, the curriculum varied over time and across schools. For the majority of its history, the residential school system operated on a half-day system, where half the day was spent on academics and religion and the other half on skills. In the early 1900s, the "skills" that were emphasized included trades, but by 1910 manual labour had largely replaced trades. In the 1940s, Anglican schools broke from the half-day system, with other schools following suit after the half-day system was abolished at the federal level in 1951.[15]

Finally, the schools were originally run by Christian churches with funding from the federal government; however, by the end of the Second World War, amidst growing unpopularity among the public and a sentiment within the Department of Indian Affairs that the schools had not upheld the original vision of integration (Milloy, 1999), the government

[14]The schools were notoriously underfunded. For example, in 1931 the average per capita was set at $172 CAD, while at large U.S. child-care institutions they were $541 USD and at smaller ones they were $313 USD (Milloy, 1999). Such underfunding increased the incentive to recruit more students than there was space.

[15]The degree to which students suffered abuse also varied across schools. While this is impossible to measure with certainty, estimates compiled in Feir (2016b) suggest that abuse became more rampant over time, though there are accounts of abuse in every decade (Truth and Reconciliation Commission of Canada, 2015a), and the existing reports may undercount instances of abuse in earlier decades (Feir, 2016b).

began a gradual phase-out of the residential school system. Indigenous children were increasingly transferred to public schools, though resistance from the Catholic Church influenced the timing of the phase-out (Satzewich and Mahood, 1995; Milloy, 1999). The government took full control of the residential school system in 1969 and around this time parents began to have more choice in the schools their children attended (Cairns et al., 1967). As the residential school system was phased out, education discourse shifted in recognition of the fact that the provision of education to Indigenous children would have to be sympathetic to Indigenous cultures (Milloy, 1999).

3 Data and Sample Selection

To identify the effect of a parent having attended residential school on the adult child's outcome requires knowledge of parental history of residential schooling, in addition to measures of the adult child's outcomes. This information is available in the 2001, 2006, and 2012 Aboriginal People's Surveys (henceforth, APS). The APS is a post-censal survey that, since 1991, has been administered every 5 years to individuals who identify as Indigenous on the Census of Population in one of four ways: by reporting that their ancestors belong to an Indigenous group, by self-identifying as Indigenous, by indicating that they belong to an Indian band, or by stating that they are registered with the federal government as a Status Indian. The first year that the APS asked respondents questions about family members' exposure to residential schools was in 2001.

Although the APS is a voluntary survey, it typically has a high response rate, with 84%, 80%, and 76% responding in 2001, 2006 and 2012, respectively. The 2001 APS included both the on- and off-reserve populations, while the 2006 and 2012 waves covered the off-reserve population only.[16] The APS is unique in that it contains data on a broad range of topics that are particularly important for understanding socio-economic factors that specifically affect Indigenous peoples. It covers both adults and children and provides separate questionnaires to people of First Nation, Inuit and Métis backgrounds. Questions focus on standard socio-economic issues like health, employment, income, and schooling but also address a variety of cultural proxies like language, involvement in traditional Indigenous practices like hunting and fishing, use of traditional medicine, and central to the analysis in this study, family members' exposure to residential schools.

To understand how a parent's experience at residential school may affect their child's outcomes, I must restrict the sample to focus on individuals who know their parents' history

[16]The APS, like the long-form census, does not include people who live in hotels or motels, hospitals, missions, group homes or jails, etc. If any of these outcomes correlate with a parent having attended a residential school, the results of this paper will under- or over-state the parental residential school effect.

of residential schooling. Of these individuals, 6.3% attended residential school themselves, compared to 6.2% of individuals who do not know their full family history of residential schooling.

Table 1 presents descriptive statistics for those who know their family history of residential schooling. The reported means are split based on whether or not the individual reported having a parent who attended residential school. Differences in means tests are also reported. In some specifications, I choose to restrict the sample to those in the western provinces (British Columbia, Alberta, Saskatchewan, and Manitoba), as these individuals tended to have fewer rights to self-government, which would affect their power to resist their children being taken to the schools. Thus we may expect any impact of parental residential school attendance to be larger for these individuals. This restriction is in line with Feir (2016b) and Feir (2016a) and helps to provide a comparison with these analyses. The last three columns of Table 1 therefore report summary statistics for those living in the western provinces.

It is immediately clear from looking at Table 1 that there are large differences in the characteristics of those whose parents attended a residential school and those whose parents did not. Some of these differences are consistent with the objectives of the residential school system. The system was originally intended for Status Indian children, and since First Nations are the only Indigenous group eligible to become Status Indians, we should expect to see a greater proportion of Status Indians, First Nations, those living on-reserve, and those who have attended residential schools themselves among individuals whose parents attended a residential school. Individuals whose parents attended a residential school also tend to live closer to one of the now-defunct schools. Many of these differences are larger among those living in the western provinces.

We also see large differences in unconditional probability of graduating from high school for those whose parents attended a residential school compared to those whose parents did not. Students whose parents attended a residential school are 16.8 percentage points less likely to graduate high school compared to those whose parents did not attend a residential school. In the western provinces, this difference increases to 18.5 percentage points. Large differences are observed in other outcomes like higher education, employment, health, and involvement in traditional activities in Table E.1 of the Online Appendix.[17]

[17]Specifically, I examine indicators for whether the individual has a trade diploma, a college degree, bachelor's degree, as well as an indicator that equals one if the individual has some level of post-secondary completion. I also consider whether the individual is employed, health outcomes related to alcohol consumption, smoking, self-rated health perception, and an indicator for a diabetes diagnosis. Finally, I consider traditional activities like whether the individual speaks an Indigenous language, whether they hunt, trap, or fish, or are engaged in gathering goods from the land.

4 Empirical Methodology

The main empirical specification models outcomes as a function of parental residential school attendance and individual characteristics:

$$\mathrm{Y}_{irt} = \alpha + \gamma \mathrm{RS\_parent}_{irt} + \mathbf{X}_{irt}\boldsymbol{\beta} + \psi_r + \zeta_t + \epsilon_{irt}, \tag{1}$$

where, Y_{irt} is the outcome under consideration; most notably, an indicator that equals one if the adult child has graduated from high school and $\mathrm{RS\_parent}_{it}$ is an indicator for the parent having attended a residential school. For the main analysis, I focus on respondents who know the history of their parents' residential schooling. The controls in the matrix $\mathbf{X}_c$ include dummies for the APS wave, whether the respondent lives on- or off-reserve, gender, whether the respondent is First Nation, Métis, or Inuit. Also included are fixed effects for the census subdivision in which the respondent resides ψ_r and the respondent's year of birth ζ_t.[18]

The estimate $\hat{\gamma}$ will be biased if there are unobserved components in the error term ϵ_c that are simultaneously correlated with a parent having attended a residential school and a child's likelihood of completing high school. This would be particularly problematic if students were systematically selected into residential schools on the basis of characteristics that were observable at the time of selection but are not observable to the econometrician today. As the historical background would suggest, this is likely a relevant concern, as selection into residential schools was not random. Students who, in the absence of residential schools, would have been the least likely to attend school were disproportionately selected to attend residential schools. The per-student funding of the schools meant that often orphaned or neglected children were selected to attend first. To the extent that there is an intergenerational component to the factors underlying the selection process, then these unobservables will also be correlated with the educational attainment of those whose parents attended a residential school. This would negatively bias the coefficient estimate $\hat{\gamma}$.

Feir (2016b) quantifies the extent of selection into residential schools for those who attended. Specifically, Feir (2016b) calculates the correlation between the error term in a regression of high school graduation on residential school attendance and the error term in a regression of residential school attendance on its determinants to be -0.208, which implies that a regression of high school graduation on residential school attendance would produce a coefficient on residential school attendance that is biased downwards. Without accounting for selection, Feir (2016b) finds that residential schools increased the likelihood of graduating

[18] Specifications that account for distance to the closest historical residential school, in place of census subdivision fixed effects, are nearly identical.

by 7 percentage points.[19] Using national trends in residential school enrolment, distance to the closest residential school at schooling age, and variation in the Catholic church's influence, as exogenous variation in residential school attendance the effect of attending a residential school on high school graduation rates increases to between 13.6 and 14.9 percentage points depending on the instruments used.

While it might be reasonable to assume that the effect of selection into residential schools is larger for a parent's schooling outcome than their child's schooling outcome, it would not be advisable to assume that selection is altogether absent from specifications attempting to quantify the intergenerational effects of residential schools. A natural extension of Feir (2016b) would be to reconstruct the instrumental variables for parental residential school attendance to evaluate the effect on children's outcomes. To do this requires information on the parent's age and community of origin. Unfortunately, the APS does not contain any additional information on parental characteristics besides whether or not they attended a residential school, which makes construction of the original instruments problematic. Furthermore, the APS cannot be linked to past censuses to obtain family characteristics due to technical infeasibility. Therefore, to address the potential endogeneity of parental residential school attendance under the limitations of the available data, I pursue two strategies.

The first strategy is to include a set of census subdivision (community) fixed effects. For the same reason that I cannot reconstruct the instruments that have been used in previous studies, I also cannot employ a fixed effects model that exploits within-community variation in parents' exposure to residential schools, because I do not observe the parents childhood community. I can, however, include fixed effects at the level of the adult child's community of residence. This specification compares high school graduation across adult children who live in the same community, where some of the parents attended a residential school and some parents did not. It is important to note, that this strategy will wash out any variation that is driven by the differences in residential schools across regions.

Second, I supplement the OLS and fixed effects results with the methodology of Oster (2019). This framework is an extension of the work of Altonji et al. (2005) which effectively bounds the selection on unobservables under a proportional selection hypothesis while taking into account movements in the R-squared induced by adding controls. Following the recommendations of Oster (2019) I assume that the selection on unobservables is equal to that of observables, and I set the maximum allowable R-squared to be equal to 1.3.[20] In the Appendix, I perform an additional sensitivity analysis using the methodology of Altonji

[19]This figure is based on the marginal effect from a probit regression of high school graduation on residential school attendance and a number of controls.

[20]This value for the maximum R-squared is a threshold for which 90% of randomized control trials in leading economics journals would survive.

et al. (2005) where I bound the estimates of the parental residential schooling effect using the estimates of selection computed by Feir (2016b) in a bivariate probit model.

5 Results

5.1 High School Graduation

Figure 1 displays the evolution of high school graduation for students born between 1925 and 1990. The figure is constructed by pooling the 2001, 2006, and 2012 APS and grouping students into year of birth cohorts and by whether or not they have at least one parent who attended a residential school. Each black dot represents the graduation rate of students born in the corresponding year who do not have a parent who attended a residential school (or do not know whether either of their parents attended a residential school), and each red dot represents the graduation rate of students born in the corresponding year who have at least one parent who attended a residential school. Starting with cohorts born in approximately 1940 a gap begins to emerge between the high school graduation rates of those born to residential school survivors and those whose parents did not attend residential school. By 1975 this gap is large–approximately 10 percentage points–and remains large for cohorts born in 1990.[21] The main objective of the ensuing empirical section is to quantify the magnitude of this gap, accounting for observables and potential selection issues surrounding residential school attendance, and then to examine the mechanisms that may explain the differences in high school graduation between those whose parents attended residential school and those whose parents did not.

The results from estimating equation 1 using OLS are presented in Table 2.[22] In each column, the dependent variable is an indicator for whether or not the individual graduated from high school and 0 otherwise. Each column adds an additional control or set of controls from the previous column to examine how the coefficient of interest $\hat{\gamma}$ varies with the addition of observable characteristics. All columns include dummies for the survey wave–either 2001, 2006, or 2012 APS–so that the results of column (1) will differ slightly from the summary statistics.

In each column, the effect of having a parent attend a residential school is statistically different from 0 and economically meaningful. The first column displays the OLS estimate without any controls, which suggests that children of residential school attendees are 16.5

[21] This pattern is particularly troubling, given that educational attainment has been associated with several non-market factors like reductions in criminal activity (Lochner and Moretti, 2004), increased health outcomes (Grossman, 2006; Heckman et al., 2017b,a), and higher levels of civic participation (Dee, 2004; Campbell, 2009).

[22] Results for the complete set of outcomes is included in Section E of the Online Appendix.

percentage points less likely to graduate high school. The coefficient estimate increases slightly in magnitude when I include birth year fixed effects in column (2) but decreases in magnitude to -11.3 percentage points when I add census subdivision fixed effects in column (3). This specification exploits within-community variation in parental residential school attendance and thus eliminates the variation that stems from differences in residential school experiences across communities.

The magnitude of the estimate of the impact of parental residential school attendance is reduced by 3 percentage points with the addition of indicators for First Nations, Métis, and Inuit identity, and another 2 percentage points once a control is added for whether the individual is registered with the federal government as a Status Indian. Finally, column (7) controls for whether the individual themselves attended a residential school. This control is particularly important for identification. To the extent that the portion of the unobserved component that is simultaneously correlated with own residential school attendance and high school graduation is also correlated with the portion of the unobserved component that is simultaneously correlated with parental residential school attendance and high school graduation, including this variable will help reduce omitted variable bias. Reassuringly, the estimated effect of parental residential school attendance changes very little with the addition of this control, suggesting that this source of bias may be less of a concern for the intergenerational relationship between residential school attendance and high school graduation than the relationship between own residential school attendance and high school graduation.

In the final column, where I include the full set of controls and fixed effects, the coefficient estimate suggests that students whose parents attended a residential school are nearly 6.5 percentage points less likely to complete high school. Applying the Oster (2019) correction to this coefficient suggests an intergenerational residential school effect of approximately -1.5 percentage points (unreported in the table). While this result is quite different in magnitude from the OLS estimate, both estimates point to the conclusion that the residential school system has, on average, had a lasting negative impact on human capital attainment among Indigenous peoples in Canada.

The intergenerational impact of residential schooling is even larger for those living in the Western provinces, as shown in Table C.1 of the Online Appendix. For those living in British Columbia, Alberta, Manitoba, and Saskatchewan, students whose parents attended a residential school are 8.4 percentage points less likely to graduate from high school themselves. Correcting for unobserved selection using the Oster (2019) methodology suggests that the residential school system lowered high school graduation rates among the children of those who attended by approximately 3 percentage points (unreported in the table).

As mentioned in Section 2, the nature of the residential school system, as well as who had control over the administration of the schools, changed over time. Indeed, Feir (2013) notes that there was a shift in curriculum around 1910 from one that incorporated more trades to one with a greater focus on manual labor. Further, compulsory schooling ages varied across decades, and government enforcement declined substantially following World War II. As such, Table C.2 of the Online Appendix also investigates whether the intergenerational effects of residential schools differ across decades. I estimate a separate specification for each decade of birth and perform this exercise separately for the full sample and for those living in the western provinces. In both samples, those born between 1960 and 1990 are driving the negative correlation between parental residential school attendance and high school graduation. Applying the Oster (2019) correction suggests that these effects are being driven by one decade in particular—1970—and to a lesser extent, 1980 in the Western provinces. The bias-corrected estimates for these decades suggest that in the Western provinces, those born in the 1970s and 1980s to parents who attended a residential school are nearly 6 and 3 percentage points less likely to graduate themselves, respectively.

This result is not entirely surprising, given that the residential school system reached its peak in the mid- to late-forties and that by the end of the forties, the phase-out of the residential school system had begun, with administration transferring hands from the churches to the federal government. Students born in the 70s and 80s likely had parents who attended residential schools during the peak time of the system. Another potentially related factor, documented in Feir (2013), is that there were more reported cases of abuse in later decades. If trauma is transmitted intergenerationally and if parents who had children in the 70s and 80s were more likely to attend a highly abusive school, then this may be a possible reason for the differential findings across decades.[23]

5.2 Mechanisms

The negative link between parental residential school attendance and children's high school graduation is at odds with the existing literature on the intergenerational transmission of human capital (Black et al., 2005; Oreopoulos et al., 2006; Black and Devereux, 2010; Corak, 2013; Chetty et al., 2014). The experiences of those who attended the school may have resulted in a distrust in mainstream educational institutions and these attitudes may have persisted intergenerationally (Thibodeau and Peigan, 2007; Loppie et al., 2014; Feir, 2016a). Alternatively, removing children from their parents without providing strong role models for

[23]Whether trauma is inherited genetically—a process known as epigenetics —has been the subject of some debate in the literature. Economists usually attribute the persistence of shocks to socioeconomic explanations; however, a growing body of research has connected persistence in health shocks to epigenetic causes (Heijmans et al., 2008; Costa et al., 2018, 2020).

caregivers, may have led to subsequent issues in the home environment of children whose parents attended a residential school (Truth and Reconciliation Commission of Canada, 2015a; Partridge, 2010). This section attempts to gain an understanding of which, if either, of these explanations is more likely. Throughout the section, I focus on the full sample.

5.2.1 Culture and Community

Table 3 begins by using the 2001 APS to examine whether there is a different impact of parental residential school attendance for those living on- compared to off-reserve.[24] Here we see that there is a clear difference in the relationship between parental residential school attendance and high school graduation for people who live on- versus off-reserve. The OLS estimates suggest that those who live on-reserve whose parents attended residential school are 3.2 percentage points more likely to graduate high school, while those living off-reserve whose parents attended residential school are 4.0 percentage points less likely to graduate high school. Applying the Oster (2019) correction suggests that the on-reserve impact is in the realm of 2.6 percentage points, while the off-reserve impact is closer to a null effect.[25]

Recall that (Feir, 2016b) shows that in Canada, residential schools increased the educational attainment of those who attended. Given that standard models of the intergenerational transmission of human capital predict that educational improvements in one generation should also be observed in the next generation, we should therefore expect the human capital of the children whose parents attended a residential school to be higher than those whose parents did not attend a residential school. The result that, on average, parental residential school attendance is associated with a lower level of educational attainment among subsequent generations runs counter to the prevailing theory. Table 3 demonstrates that the prevailing theory may hold on reserves. The differential impact for those on- versus off-reserve may provide evidence in line with the theory that residential schools led to a distrust in mainstream educational institutions. This could be true if reserves provide a protective shield against the legacy of colonialism. The question then becomes, what is it about reserves that may act as a protective shield?

One way in which the reserve environment may mitigate the harmful intergenerational effects of residential schooling is if the education or broader environment surrounding students allows for a greater connection with their cultures. This may occur directly through educational institutions or through community initiatives. If true, this would also suggest that funding that supports Indigenous cultural initiatives can be an important way to miti-

[24] The 2006 and 2012 APS waves only surveyed people off-reserve so are not included in this estimation.

[25] This finding is similar to Feir (2013) who examines the adult outcomes of the children of residential school survivors using the 2001 APS and finds little correlation between parental residential school attendance and high school graduation.

gate historical traumas. In what follows, I investigate this possibility by compiling a separate dataset on historical residential school exposure, contemporary high school graduation, and a measure of cultural interventions.

This supplementary dataset is constructed at the First Nation-level, so does not use restricted-access microdata from Statistics Canada. Instead, I measure high school graduation rates from the First Nations Community Profiles.[26] This yields a sample of 525 First Nations that meet Statistics Canada's public reporting requirements for women and 528 for men. To measure residential school exposure, I follow the intuition in Feir (2016b) and effectively re-construct a version of their instrumental variables to use directly in the estimating equation as proxies for community-level exposure to residential schools. I use the geodetic distance between the reserve centroid and the location of the closest residential school to construct the first proxy for residential school exposure. Since some First Nations span multiple reserves, I use the average distance to the closest residential school for all communities associated with each First Nation. For the second proxy, I also compile information on the share of Indigenous students in each province who attended a residential school in 1945—the peak of the residential system—from the 1945 Indian Affairs Annual Report.

As a measure of cultural interventions, I compile a list of cultural centres from the First Nations Confederacy of Cultural Education centres,[27] which I then match to First Nations through several secondary sources. This variable measures the extensive margin of having a cultural centre and does not take into account the intensity of cultural interventions provided by each centre. For instance, these cultural centers provide a variety of services and programs. They assist with curriculum development and teacher training, they perform historical archiving services, and offer language revitalization programs. I do not measure which of these programs or services is offered by each center and therefore a precise definition of a cultural center cannot be assigned. We can thus think of it as a bundle of effects, some of which capture meaningful proxies for cultural exposure.

I begin by establishing the basic relationship between the proxies for residential school and high school graduation. Using this First Nation-level dataset, I estimate the following

[26]Information on average educational attainment is from the First Nations Community Profiles at https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/SearchFN.aspx?lang=eng, which I scraped using the rvest package in R. To approximate high school graduation among adults, I summed over the number of individuals with a high school degree, trade school, university below the bachelor's level, and university at or above the bachelor's level and divide by the total population aged 15 and over. Since this denominator also includes people who may still be completing high school, I include a control for the median age of men and women in each nation.

[27]The list of centres can be found here: http://fnccec.ca/.

specification:

$$Y_{ip} = \alpha + \gamma \mathrm{d}_{ip} + \phi \mathrm{s}_p + \theta \mathrm{d}_i \times \mathrm{s}_p + \mathbf{X}_{ip}\boldsymbol{\beta} + \epsilon_{ip}, \tag{2}$$

where, Y_{ip} is now the high school graduation rate of First Nation i located in province p, d_{ip} is the average distance between First Nation i and the closest residential school, and s_p is the share of Indigenous students in province p who attended a residential school in 1945.[28] Given the historical narrative, we would expect First Nations located farther from residential schools to have had lesser exposure to residential schools than those located closer to a residential school. We may further expect this relationship to be amplified in provinces where a smaller fraction of students attended residential school. In other words, in provinces where fewer students attended residential school, those in closest proximity to a residential school were most likely to attend, whereas in provinces where most Indigenous students attended a residential school, residential school attendance would be less determined by proximity to a school. Empirically, testing this hypothesis amounts to testing whether $\gamma > 0$ and $\theta < 0$.

As usual, $\mathbf{X}_{ip}$ is a matrix of controls, which I chose based on factors that may have influenced historical residential schooling and contemporary human capital acquisition. These include the distance between a reserve and the closest historical trading post, the closest historical railway station, the ruggedness index of a nation's ancestral territory and the ruggedness index of a nation's reserve, as well as indicators for whether a nation was historically egalitarian, centralized, nomadic or semi-nomadic, whether they signed a historical treaty, and if so, whether that treaty had an education clause. These historical factors come from Feir et al. (2023a).[29] I also control for the median age of men and women in my sample of reserves and an indicator for whether population data for that reserve was missing from the First Nations Community Profiles.

The results of equation 2 are located in Table 4. The first 3 columns establish the basic fact that First Nations located farther from residential schools have higher graduation rates and that the relationship between distance to a residential school and high school graduation is smaller for those living in provinces where a high fraction of students attended a residential school historically. Column (1) presents these results for the full sample, column (2) reports the results for men only, and column (3) reports the results for women.

The first three columns of Table 4 verify that the proxies for residential school exposure have the expected relationship with high school graduation; however, the purpose of Table 4

[28] Since some First Nations span multiple communities, I compute the geodetic distance between each community and the closest residential school and then average this value over each community associated with a given First Nation.

[29] The original sources for these controls are described in the Appendix.

is to understand whether the presence of these cultural centers may provide a buffer against any of the harmful impacts of historical residential school exposure. To test this, I interact each of the proxies for residential school exposure with an indicator for the presence of a cultural center described above. Specifically:

$$Y_{ip} = \alpha + \gamma \mathrm{d}_{ip} + \phi \mathrm{s}_p + \theta \mathrm{d}_i \times \mathrm{s}_p + \omega \mathrm{d}_{ip} \times \mathrm{c}_{ip} + \psi \mathrm{s}_p \times \mathrm{c}_{ip} + \zeta \mathrm{d}_i \times \mathrm{s}_p \times \mathrm{c}_{ip} + \mathbf{X}_{ip}\boldsymbol{\beta} + \epsilon_{ip} \quad (3)$$

The first three columns of Table 4 showed that the relationship between distance to a residential school and contemporary high school graduation is positive and that this relationship is dampened in provinces where a large share of the population was sent to residential school. That is, we found $\hat{\gamma} > 0$ and $\hat{\theta} < 0$. If the presence of a cultural center mitigates this relationship, we would expect the interactions of culture and these variables to be the opposite signs. In the context of equation 3, this would mean that, in addition to finding $\hat{\gamma} > 0$ and $\hat{\theta} < 0$ we should see $\hat{\omega} < 0$ and $\hat{\zeta} > 0$

The results of estimating equation 3 are reported in columns (4) through (6) of Table 4, for the full sample, and separately for men and women. The final row of Table 4 takes into account all of the interactions between the presence of a cultural centre and the residential school proxies and reports the marginal impact of the presence of a cultural center evaluated at the mean values of all variables. The first thing to note is that the coefficients on each of the residential school proxies interacted with the presence of a cultural centre are, indeed, of opposite sign from the non-interacted proxies, suggesting that these centers have the potential to mitigate the relationship between historical residential school exposure and contemporary educational attainment. The second noteworthy observation in Table 4 is that the marginal impact of having access to a cultural centre is non-trivial. Evaluated at the mean of all residential school proxies and control variables, a First Nation with access to a cultural centre has a high school graduation rate that is about 3 percentage points higher than one without a cultural centre. The mean high school graduation rate in my sample is 54%, so an increase of 3 percentage points is a sizeable change in the high school graduation rate.

Altogether, the results of this section suggest that First Nations cultural centers may have a potentially important role in mitigating the historical traumas inflicted on Indigenous peoples through colonization. While these results do not rule out the alternative explanation for the intergenerational impacts of residential schools—namely, that the lack of family structure and role models at the schools changed the investments made by residential school survivors in their own children—they provide insight into a tractable way in which policy may be able to address disparities in educational attainment among Indigenous and non-Indigenous students in Canada.

5.2.2 Role Models

The alternative narrative for why there may be a lasting impact of residential schools on subsequent generations is that residential schooling resulted in generations of adults who had not been exposed to parental role models as children. If this narrative is true, then we may expect to see a higher number of individuals who attended residential school themselves who have no, or low, expectations regarding their own children's educational attainment. The 2012 APS contains a set of questions regarding parents hopes or aspirations for their children's educational attainment. Since the 2012 APS also contains questions on people's own experiences with residential schools, I can examine whether parents who attended residential schools themselves have different expectations regarding their children's educational outcomes compared to parents who did not attend a residential school. To do so, I restrict the sample to include only the 2012 APS and to include only individuals who have children and then estimate OLS regressions of the form:

$$\text{aspiration}_{irt} = \alpha + \gamma \text{RS\_parent}_{irt} + \mathbf{X}_{irt}\boldsymbol{\beta} + \psi_r + \zeta_t + \epsilon_{irt}, \tag{4}$$

where the dependent variable aspiration_{irt} is now an indicator for whether the parent listed a particular level of education as an aspiration for their child's educational attainment. The outcomes I study are whether the parent has no aspirations for their child's education, "None", or whether they respond with high school, a trade, college, university, more than high school, or a post-secondary degree to the question, *"How far do you hope that [your child] will go in school?"* The right hand side of equation 5 is identical to equation 1.

Table 5 presents the results of estimating equation 4. I find no systematic correlation between parents' residential school experiences and future aspirations for their children's educational attainment. None of the coefficients are statistically different from 0. The coefficient that is largest in magnitude is that on whether a parent hopes their child will obtain a university degree, which suggests that parents who attended a residential school are 4.2 percentage points more likely to list this as an aspiration compared to those who did not attend a residential school. While the estimate is statistically insignificant, the Oster correction suggests and even larger magnitude of a roughly 7 percentage point difference. If anything, these results are at odds with the possibility that residential schools led parents to hold lower aspirations for their own children's educational attainment.

The final exercise I implement to shed light on the potential mechanisms behind the negative correlation between children's educational attainment and their parent's attendance at residential school is to look at the reasons why those who chose to leave high school made

that decision. I estimate the following specification:

$$\text{reason}_{irt} = \alpha + \gamma \text{RS\_parent}_{irt} + \mathbf{X}_{irt}\boldsymbol{\beta} + \psi_r + \zeta_t + \epsilon_{irt}, \tag{5}$$

where the dependent variable reason_{irt} is an indicator for whether the individual listed a particular explanation as a reason for why they left high school, and the controls are the same as equations 1 and 4. For these specifications, I pool the 2001 and 2006 APS for each explanation. However, I exclude 2012 due to the fact that, while there was some overlap in the reasons for leaving that were listed, they were not consistent across survey waves and were particularly different for the 2012 survey. I also restrict the sample to include only individuals who did not complete high school. Figure B.4 of the Online Appendix presents the results of this exercise, where each red circle represents the coefficient estimate on RS_{parent} for a separate regression. The Oster (2019) corrected coefficients are represented by red triangles. Dotted lines represent 90% confidence intervals.

There are several reasons students chose to leave high school that are more commonly reported by students whose parents attended a residential school. For instance, the children of residential school attendees are more likely to leave high school due to issues with alcohol and drugs, they are more likely to have been expelled, and are more likely to report leaving due to problems at home, having to engage in child care,[30] or having to work. Students whose parents attended a residential school are statistically less likely to report that they left school over health reasons,[31] and are less likely to refuse to provide an answer to the question. They are also less likely to report that they left high school because they had wanted to work, but the sign on this estimate flips once the Oster (2019) correction is taken into account. The remainder of the reasons produced estimates that were not statistically different from zero.

The analysis of the reasons why students chose to leave high school does not strongly favour one explanation over the other as to why we observe a negative correlation between parental residential school attendance and educational outcomes of subsequent generations. Some of the reasons that were found to be statistically different between the children of residential school attendees and those whose parents did not attend a residential school–having to work and involvement in childcare–are consistent with the possibility that they faced additional hardships at home, possibly due to a lack of support from their own parents. This explanation fits with the "role model" narrative wherein residential schools left generations

[30] It should be noted that this includes both individuals who must take care of their own children and individuals who had to take care of siblings or relatives' children.

[31] It is not clear whether these are due to physical health problems or mental health problems like addiction, depression, etcetera.

of individuals without the proper parenting and family skills that are typically developed from observing one's own family and home environment. However, students whose parents attended a residential school were less likely to report that they left as a result of poor health, whereas one might expect the reverse if there was a lack of parental role models among this population. Other statistical differences, like the abuse of alcohol or drugs, and a higher likelihood of being expelled from school, could be consistent with either mechanism.

6 Conclusion

It is well established that colonial policies have generally been unkind to Indigenous peoples in Canada, with implications that have lasted for generations. Today, Indigenous peoples in Canada have lower levels of educational attainment compared to all other population groups, which in turn contributes to lower levels of employment and other related outcomes (Wilson and Macdonald, 2010; Statistics Canada, 2017). In this paper, I explore the colonial roots of educational disparities and, in doing so, uncover a puzzle related to the intergenerational transmission of human capital among Indigenous peoples in Canada.

I focus on the intergenerational legacy of the residential school system—a policy of forcible assimilation that was used by the Canadian government to subjugate Indigenous peoples. Recent work in the economics literature has shown that this system was largely successful in economically and culturally assimilating Indigenous peoples, in that those who attended them had better educational, health, and employment outcomes, but that this was at the expense of Indigenous cultural practices (Feir, 2016b; Auld and Feir, 2022). Given that the literature on the intergenerational transmission of human capital suggests that better-educated parents tend to have children who are also more educated (Black et al., 2005; Oreopoulos et al., 2006; Page, 2006; Black and Devereux, 2010), we would expect children of residential school survivors to have higher levels of educational attainment compared to those whose parents did not attend a residential school. However, the estimates in my paper suggest that this is not the case. These results are consistent with other empirical and qualitative work that has studied the intergenerational legacy of Indian residential schools (Ing, 1990; Bombay et al., 2013; Feir, 2016a).

The most common explanations put forth for the negative correlation between parental residential school attendance and children's outcomes are twofold. On the one hand, removing children from their own families and placing them in live-in institutions without strong role models for parents may have led to generations of children who, as adults, had not learned family skills that are typically developed from observing one's own family (Evans-Campbell, 2008; Bombay et al., 2011; Truth and Reconciliation Commission of Canada, 2015a). On the other hand, the deprival of Indigenous culture at the hands of those in

charge of these institutions may have created a sense of distrust in mainstream educational institutions that has persisted across generations (Thibodeau and Peigan, 2007; Bombay et al., 2013; Loppie et al., 2014; Feir, 2016a). I present evidence that is consistent with both narratives, suggesting that inclusive educational policy will need to be mindful of all the potential channels through which the effects of residential schools may persist intergenerationally. That being said, the results of my analysis suggest that the presence of Indigenous cultural centers may have the potential to mitigate the negative impacts of the residential school system, thereby suggesting a way in which governments can strategically invest in programs to reduce these gaps.

The concept of Indigenous resilience has often been overlooked when it comes to discussion of historical trauma (Hatala et al., 2016). In the psychological literature, the construct of resilience has migrated from one referring to an individual trait, wherein someone was perceived as resilient if they were, *"doing well despite adversity"* (Luthar and Cicchetti, 2000), towards a broader concept—one in which resilience incorporates individual, social, political, and cultural dimensions of adjustment (Masten, 2001). In this sense, my results speak to the concept of Indigenous resilience through this multidimensional lens and provide quantitative evidence on the potential for cultural perseverance to facilitate resilience and assist in overcoming trauma. In relation to the broader economics literature, this paper emphasizes the importance of fostering culture and identity in educational institutions, in line with earlier work by Akerlof and Kranton (2002). This is particularly important for traditionally marginalized populations, who, due to historical policies or events, may have been underserved when it comes to education—both in terms of access to and quality of education—and who, as a result, may not feel their identities are well-represented by mainstream educational institutions.

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7 Figures

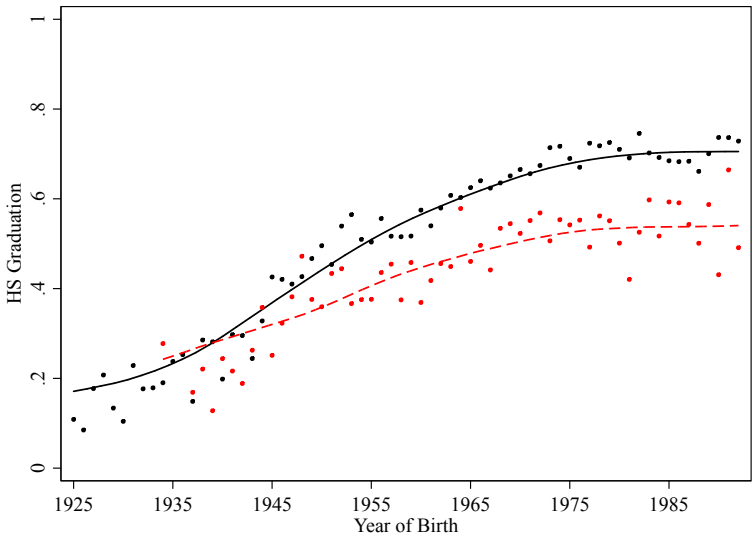

Figure 1: The evolution of high school graduation rates among Indigenous students between 1925 and 1995. The curves show the graduation rates of students who have at least one parent who was a student at a federal residential school (dashed red) and students who either do not know if their parents attended residential school or know that neither parent attended residential school (solid black). Data used to construct the plot are from the 2001, 2006 and 2012 waves of the Aboriginal People's Surveys.

8 Tables

Table 1: Descriptive statistics

	Know History			Western Provinces		
	Parent RS	No Parent RS	Diff	Parent RS	No Parent RS	Diff
A: Covariates						
Attended RS (%)	20.9	3.2	17.7***	21.3	2.6	18.7***
	(0.6)	(0.1)	(0.6)	(0.7)	(0.1)	(0.7)
Status Indian (%)	69.6	23.1	46.4***	75.5	24.0	51.5***
	(0.8)	(0.3)	(0.8)	(0.8)	(0.4)	(0.9)
First Nation (%)	73.0	34.1	39.0***	78.5	35.1	43.4***
	(0.7)	(0.4)	(0.8)	(0.7)	(0.5)	(0.9)
Métis (%)	19.3	37.8	-18.4***	20.3	44.2	-23.8***
	(0.6)	(0.4)	(0.7)	(0.7)	(0.5)	(0.9)
Inuit (%)	5.2	2.8	2.4***	0.8	0.6	0.3**
	(0.2)	(0.1)	(0.2)	(0.1)	(0.0)	(0.1)
Male (%)	42.5	45.4	-2.9***	41.7	45.4	-3.7***
	(0.8)	(0.4)	(0.9)	(0.9)	(0.5)	(1.0)
On-Reserve (%)	7.7	1.3	6.4***	8.4	1.4	7.0***
	(0.2)	(0.0)	(0.2)	(0.2)	(0.0)	(0.2)
Closest RS	67.54	103.60	-36.06**	44.10	58.03	-13.93***
	(1.41)	(0.88)	(1.66)	(1.00)	(0.65)	(1.20)
Birth Year	1965	1964	1.004***	1965	1965	0.012
	(0.22)	(0.11)	(0.25)	(0.25)	(0.14)	(0.28)
B: Main Outcome						
High School (%)	44.0	60.7	-16.8***	43.0	61.6	-18.5***
	(0.8)	(0.4)	(0.9)	(0.9)	(0.5)	(1.0)
N	14,800	55,700	70,500	10,400	36,800	47,200

Notes: this table shows sample means from the pooled 2001, 2006, 2012 Aboriginal Peoples Surveys weighted by the survey weights. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Effect of parent's residential schooling on child's probability of graduating high school (full sample)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Parent RS	-0.165***	-0.175***	-0.113***	-0.115***	-0.0857***	-0.0685***	-0.0647***
	(0.019)	(0.015)	(0.019)	(0.019)	(0.017)	(0.018)	(0.018)
Gender				-0.0573***	-0.0573***	-0.0587***	-0.0590***
				(0.007)	(0.007)	(0.007)	(0.007)
First Nation					-0.122***	-0.0884***	-0.0880***
					(0.008)	(0.008)	(0.008)
Métis					-0.0615***	-0.0605***	-0.0609***
					(0.008)	(0.009)	(0.009)
Inuit					-0.120***	-0.118***	-0.115***
					(0.026)	(0.026)	(0.027)
Status						-0.0733***	-0.0715***
						(0.017)	(0.017)
Own RS							-0.0362*
							(0.018)
Constant	0.577***	0.222***	0.228*	0.259**	0.340***	0.348***	0.346***
	(0.024)	(0.062)	(0.117)	(0.113)	(0.109)	(0.105)	(0.106)
birth year f.e.		X	X	X	X	X	X
csd f.e.			X	X	X	X	X
Observations	70460	70460	70460	70460	70460	70460	70460
Adj. R^2			0.198	0.201	0.208	0.211	0.211
R^2	0.0185	0.0968					

Notes: Dependent variable is 1 if individual has a high school degree. Standard errors, clustered by province, are reported in parentheses. Census wave fixed effects are included in each regression. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Effect of parent's residential schooling on child's probability of graduating high school for those living on- versus off- reserve (2001 sample)

	On-Reserve	Off-Reserve
Parent RS	0.0317***	-0.0397
Oster Correction	[0.02578]	[0.00061]
	(0.029)	(0.009)
Observations	9960	28580
Adj. R^2	0.113	0.269

Notes: Dependent variable is 1 if individual has a high school degree. Standard errors, clustered by province are reported in parentheses. Census wave fixed effects, year of birth fixed effects, census subdivision fixed effects, and geographic controls are included in each regression. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Historical Impact of Residential Schools

	Full	Men	Women	Full	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Closest RS (in 100 KM)	0.0325*	0.0463**	0.0181	0.0461**	0.0628**	0.0285
	(0.015)	(0.017)	(0.015)	(0.017)	(0.022)	(0.020)
Closest RS × Culture				-0.0454	-0.0530	-0.0343
				(0.031)	(0.031)	(0.037)
RS Share	0.0946	0.0889**	0.0821	0.121*	0.118**	0.102
	(0.053)	(0.039)	(0.075)	(0.060)	(0.044)	(0.088)
RS Share × Culture				-0.129*	-0.135**	-0.108
				(0.068)	(0.055)	(0.095)
Closest RS × RS Share	-0.118***	-0.138***	-0.101**	-0.144***	-0.168***	-0.124**
	(0.032)	(0.036)	(0.035)	(0.034)	(0.036)	(0.044)
Closest RS × RS Share × Culture				0.142**	0.148**	0.149*
				(0.061)	(0.051)	(0.080)
Cultural center (Culture)				-0.129*	-0.135**	-0.108
				(0.068)	(0.055)	(0.095)
Marginal Impact of				0.031**	0.029	0.035**
Culture at the Mean				(0.013)	(0.017)	(0.013)
N. Observations	525	528	525	525	528	525
Adjusted R^2	0.433	0.349	0.334	0.438	0.353	0.337

Notes: Standard errors, clustered by province are reported in parentheses. All columns include controls for the median age of men and women, indicators for whether population data is missing, distance to the closest historical trading post, distance to the closest historical railway station, ruggedness on reserves, ruggedness in traditional territories, an indicator for whether a nation was historical egalitarian, an indicator for whether a nation was historically centralized, an indicator for whether a nation was historically semi-nomadic, whether the nation had signed a historic treaty, and if they had signed a treaty, whether it included an education clause. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Effect of parent's residential schooling on aspirations for child's educational attainment (full sample)

	None	High School	Trades	College	University	> High School	Post Secondary
Own RS	0.00484	-0.0219	-0.00797	-0.00527	0.0416	-0.0202	0.00825
Oster Correction	[0.00743]	[-0.05138]	[-0.00791]	[-0.01199]	[0.06960]	[-0.01074]	[0.03881]
	(0.006)	(0.031)	(0.009)	(0.026)	(0.042)	(0.029)	(0.035)
Observations	8520	8520	8520	8520	8520	8520	8520
Adj. R^2	0.0582	0.159	0.196	0.151	0.172	0.0859	0.168

Notes: Standard errors, clustered by province are reported in parentheses. All columns include the full set of controls, as well as census wave, year of birth, and census subdivision fixed effects. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$