

Aboriginal Education: Strengthening the Foundations

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Contents

Executive Summary	iii
Acknowledgments	viii
Chapter 1. Introduction	1
Box 1. Calculation of “Excess Spending” on Aboriginal Services	1
Box 2. Who Is an Aboriginal?	4
Chapter 2. Trends in Economic and Social Gaps	7
2.1 Health Gaps	7
2.2 Income and Employment Gaps	10
2.3 Education Gaps	14
2.3.1 Intergenerational Trends	14
2.3.2 K to 12 Student Performance Measures	21
2.3.3 Cohort Completion Rates	33
Chapter 3. Explaining the Education Gaps	37
3.1 Demand-Side Factors	38
3.1.1 Financial Incentives	38
3.1.2 Culture Matters	39
Box 3. Lessons from British Columbia School Districts	39
3.2 Supply-Side Factors	43
3.2.1 Socio-Economic Characteristics of Students’ Families	43
3.2.2 School Quality	45
3.3 Early Childhood Education	49
3.4 Federal and Provincial Education Funding	52
3.4.1 Federal Funding of On-Reserve Schools	52
3.4.2 Provincial School Funding	53
3.4.3 Estimates of Per Student INAC Spending	54
3.4.4 Estimates of Per Student Provincial Funding	56
3.4.5 Comparing Provincial and Federal Funding	59
Box 4. A Profile of First Nations Schools in Canada	59
3.4.6 Costs of Educating Special Needs Students	62
3.5 Early Childhood Education for Aboriginal Children	64
3.6 Conclusion	66
Chapter 4. Recommendations	67

Bibliography	73
Appendices	81
Appendix 1. School District 67 (Okanagan Skaha) Aboriginal Education Enhancement Agreement	81
Appendix 2. List of Interviewees	90

Executive Summary

Our underlying conviction is that the most important means to alleviate the poverty and marginalization of Aboriginals in Canadian society is via improved education outcomes. Other factors – including discrimination – matter, but in an industrial society, no community can prosper unless the overwhelming majority achieves reasonable rungs on the education ladder, starting with high school certification. A high school diploma is, however, a low rung. For a majority in any community to achieve what Canadians consider “middle class incomes,” most must achieve higher rungs. While achieving these higher rungs matters, they are inaccessible to those without high school. Given the severity of Aboriginal school dropout rates, our report concentrates on strengthening the K to 12 foundations.

1. Background: K to 12 Aboriginal Education Today

Our extensive review of current statistics and administrative data provides background, and points to several key issues in Aboriginal education.

Today, Aboriginal students represent a significant proportion of Canada’s school-age population, especially in western provinces.

- The Aboriginal share of the school-age population (6.2 percent of the ages 5 to 14 cohort in the 2006 Census) is much higher than the Aboriginal share of the total Canadian population (3.8 percent). The Aboriginal share of the ages 0 to 4 cohort is higher yet (6.4 percent). In western Canada, one in eight of the ages 5 to 14 cohort is Aboriginal; in Manitoba and Saskatchewan this ratio exceeds one in four.

Most Aboriginal children attend provincially run public schools.

- On-reserve, responsibility for education lies formally with the Department of Indian Affairs; in practice, responsibility lies with individual band councils. Off-reserve, responsibility lies with the relevant province. As Aboriginals have “moved to town,” the provincial role has become increasingly important. Within any province, the two systems are intertwined. Across Canada, only one third of the Aboriginal population live on a reserve; two thirds live off-reserve and one half live in a city. Two fifths of the children living on-reserve attend nearby provincial schools. Hence, approximately one Aboriginal student in five is attending an on-reserve band-operated school; four in five are attending a school within a provincial K to 12 system.

Those in younger non-Aboriginal cohorts have significantly increased investment in formal education relative to those older. The comparable increase among younger Aboriginals is less. Hence, Aboriginal/non-Aboriginal gaps in education levels have widened.

- Among non-Aboriginals, investment in formal education has dramatically increased from generation to generation. The share without high school certification has fallen by over half among those ages 25 to 34 relative to those ages 45 and over (from 26 to 10 percent). Simultaneously, those with a university degree have doubled from the older to younger cohort (from 16 to 30 percent).

- Among Métis in these two cohorts there has been a similar intergenerational decline in the percentage without high school certification (from 37 to 20 percent), but a more modest increase in percentage with a university degree (from seven to 12 percent).
- Among those who identify as North American Indian, the share without high school is somewhat lower among those ages 35 to 44 relative to those ages 45 and over (a decline from 47 percent to 36 percent). The incomplete high school rate among the ages 25 to 34 cohort has stalled (at 37 percent). There has been no intergenerational increase in share with a university degree (6.5 percent for both those ages 45 and over and ages 25 to 34). The education levels among Indian/First Nation living off-reserve lie roughly halfway between those for on-reserve Indian/First Nation and Métis.

Aboriginal children continue to face socio-economic and cultural barriers to high school completion.

- Relative to non-Aboriginals, Aboriginal children suffer both socio-economic and cultural barriers to successful completion of high school. Student performance indicators reveal significant Aboriginal/non-Aboriginal gaps beginning in early primary grades, and these gaps widen at higher grades. The gaps typically stabilize in secondary school. The explanation for stabilization is often the high dropout rate among lower-performing Aboriginal students.

2. Understanding and Addressing Current Issues in Aboriginal Education (K to 12)

While Aboriginal/non-Aboriginal education gaps have widened over the last generation and are undeniably a serious obstacle to Aboriginal progress, it is important to avoid fatalism. There are important examples of relative success. Some provinces, notably British Columbia and Ontario, are achieving results much better than the national average. (This doesn't imply these two provinces should rest on their accomplishments.) Within all provinces, particular schools – both band-operated on-reserve and provincial off-reserve – and particular provincial school districts have been diligently tackling Aboriginal education for decades, and are achieving impressive results that deserve to be known far more widely.

There are evident parallels between the history of African Americans as a historically marginalized community and that of North American Indians/First Nations. Many of the education lessons learned in the United States over the last half-century have relevance as Canadians grapple with the long-neglected issue of Aboriginal education:

- Early childhood education programs can offset some of the disadvantages faced by Aboriginal children upon entering primary school.
- Strategies to validate the Aboriginal community within the school system – in design of curriculum to reflect Aboriginal culture, in hiring of teachers, and in engaging local Aboriginal parents and community leaders – can yield positive results.
- In general, peer effects, both positive and negative, matter. The Aboriginal share of a school's student population will usually depend on the racial composition of the school catchment area. Potential negative peer effects militate against policy designed to concentrate Aboriginal students in one or a few schools of a provincial school district.

- As is the case with black students in the United States, Aboriginal students constitute a sizeable share of the Canadian student population and their educational needs vary, depending whether they are attending rural schools, inner city schools, suburban schools, or on-reserve schools. It is crucial to have district level school administration able to exercise discretion in adapting to local Aboriginal conditions.

The report concludes with the following set of recommendations.

Recommendation #1

Early childhood education (ECE) is a valuable investment, particularly for children from marginalized communities few of whose members have a tradition of formal education. All Aboriginal children should have access to ECE, either on- or off-reserve as is the case.

The provinces should begin by assessing the extent of access to reasonable quality child care programs among Aboriginal families in their respective provinces; on-reserve, band councils should do likewise. “Where numbers warrant” – to use the wording of section 23 of the Charter of Rights – the provinces should assure that Aboriginal-specific programming (such as Aboriginal language instruction) be included in the ECE curriculum.

Recommendation #2

Provincial education ministries should expand existing provincial precedents that enable school districts to undertake discretionary Aboriginal education initiatives.

There exists good evidence from British Columbia, supplemented with case study evidence from Alberta, to the effect that comprehensive initiatives undertaken at the school district level can significantly improve Aboriginal education outcomes. These benefits seem to derive from a variety of innovations. Provincial education ministry support for district initiatives can take several forms:

- awarding supplemental funding to districts based on number of identified Aboriginal students;
- requiring districts to draw up explicit agreements with provincial education ministries as is done in British Columbia;
- requiring districts to engage Aboriginal community leaders in school policy-making;
- collecting and disseminating data on district-level Aboriginal outcomes, with the intent of highlighting best practices.

Recommendation #3

To improve quality of school management, bands should form school authorities encompassing a minimum of 12 band-run schools. Responsibility for the relevant schools and early childhood education sites operating on-reserve should lie with trustees of the school authorities directly elected by band members. As inducement to bands to consolidate school management under school authorities, Indian and Northern Affairs Canada should offer a significant – at least 25 percent – increase in per student funding for schools organized into school authorities.

Most on-reserve schools are “stand alone,” operated by the relevant band independently. Provincial education ministries long ago abandoned a “stand alone” system due to its inability to provide adequate secondary services at reasonable per student cost. Secondary services include specialized courses and higher-level management (such as negotiating teacher compensation and terms of work).

Band-operated schools are not only “stand alone”; they are also very small relative to provincial schools and have a high proportion of “special needs” students. A realistic comparison is with the smallest provincial school districts, those with fewer than 1,000 students. Based on per student costs in comparable provincial schools, a 25 percent increase in per student funding for band-operated schools – which would increase the ordinary spending per on-reserve student to \$16,900 – is not unreasonable. It is unreasonable to expect more money to improve results unless it is accompanied with major institutional reform that transfers authority and budget for on-reserve schools from individual band councils to school authorities managing a reasonable number of schools.

Recommendation #4

Provinces should enable local Aboriginal organizations and individuals to participate meaningfully in school governance where numbers warrant.

Overcoming widespread Aboriginal cultural alienation toward formal education requires engaging Aboriginal communities. This may range from an active role for elders in particular schools to curriculum advisory committees comprised of local Aboriginal leaders. A dual responsibility is implied. At all levels, provincial school authorities need to provide opportunities for Aboriginal organizations, parents and citizens to participate meaningfully in school governance. Simultaneously, Aboriginal communities have a responsibility to engage with the provincial education system.

Recommendation #5

Provincial education ministries, band councils, and First Nations school authorities (where they exist), should engage in comprehensive performance measurement activities, and results should be publicly reported. One key activity is gathering data on Aboriginal student performance in core competency tests. We recommend that the relevant authorities publish core competency test results disaggregated to the school level.

The effectiveness of schools in supporting Aboriginal students should be measured and reported for two main reasons. First, measuring and reporting school and student performance serves an accountability function. Whether Aboriginal or not, parents and citizens are concerned about the effectiveness, efficiency, and responsiveness of the schools their children attend and for which they pay taxes. As well, given the absence of educational accountability to Aboriginal communities in the past, information about school performance is particularly important to convince Aboriginal communities that education programs are working for Aboriginal students. Second, performance measurement is a tool for high quality, data driven program evaluation and planning by those responsible for school program design.

The approach to performance measurement should be comprehensive. Measuring Aboriginal student performance on tests of basic skills is important, since competence in reading, writing and math are essential for success both in higher education and mainstream society. However, given the complexity and multiple aims of the educational enterprise, as well as the unique priorities of Aboriginal communities in Canada, a focus on standardized tests of basic skills is insufficient.

Recommendation #6

The provinces should undertake more aggressive affirmative action to encourage Aboriginal post-secondary students to become teachers; and provincial teacher training institutions should require courses in Aboriginal history/culture for all students aspiring to a career as teachers.

Among the more robust results in education analysis is the value of teachers who can identify culturally with their students – and vice versa, the value of students being able to identify culturally with their teachers. In most jurisdictions today, Aboriginals remain seriously underrepresented in both teaching and educational leadership positions. With the rising share of Aboriginals in the student body, this matter becomes more crucial.

Acknowledgments

Education is a complex policy file. We thank those listed in Appendix 2 for allowing us to interview them in order to gain insight into their specialized knowledge. Further, we thank the following for many conversations: Barry Anderson, Dan Beavon, Mark Campbell, Fred Caron, Gerry Hurton, Michael Mendelson, Andrew Sharpe, Pamela Sparklingeyes, Larry Steeves, and Aidan Vining. In addition, Judith Maxwell, Michael Mendelson, Andrew Sharpe, and Sharon Manson-Singer offered written comments on earlier drafts.

Aboriginal Education: Strengthening the Foundations

Chapter 1. Introduction

Aboriginals had occupied what is now Canadian territory many millennia prior to European contact. While their pre-contact life was far from idyllic, post-contact Aboriginal history has been marked by traumatic social crises. By the late-19th century, Canada's Aboriginal population had been everywhere pushed to the margins, geographically and socially. Over the last half-century, Canadian governments have undertaken to redress past policies of discrimination. There has been progress: the life-expectancy gap with non-Aboriginals has narrowed; Aboriginal education levels have risen; more Aboriginals successfully participate in mainstream urban society; First Nation institutions exercise greater autonomy. But Aboriginal poverty continues to overlie any discussion of Aboriginal policy.

Aboriginal poverty is a burden not only to those Aboriginals who themselves are poor; it poses an economic and social cost to the entire Canadian society. In a recent study, the Centre for the Study of Living Standards (Sharpe et al., 2009) estimated that, in 2006, the overall “excess spending” on the provision of five core services to Aboriginals due to their below-average socio-economic condition amounted annually to \$6.3 billion. (For elaboration, see Box 1.)

Box 1. Calculation of “Excess Spending” on Aboriginal Services

Federal and provincial governments provide considerable financial support and services directed toward Aboriginal Canadians. In 2008-09 Ottawa spent \$10.8 billion on programs targeting Aboriginals. The major ministries accounting for this spending were Indian Affairs (63 percent), Health Canada (21 percent), CMHC (four percent) and HRSD (four percent) (Indian and Northern Affairs Canada, 2009a). The majority of federal spending supports “province-like” services for registered Indians living on-reserve and for Inuit in the northern territories. On a much smaller scale, the federal government finances programs for Aboriginals living off-reserve. Provincial governments deliver services that target various categories of provincial residents (education for those in the K to 12 system, insured health care, and so on). Where eligible, Aboriginals receive benefits as provincial residents. In addition, provinces have created small Aboriginal-specific programs.

A useful way to assess the cost of social exclusion of Aboriginal Canadians is to examine “excess spending” attributable to the marginalized position of Aboriginals in Canadian society. The status quo is not only costly in human terms; it also has a substantial fiscal cost, since responding to inadequate social and economic conditions among Aboriginals requires additional spending by all levels of government. Although quantifying this cost is a challenge, a number of studies have made credible estimates. In 1996, the Royal Commission on Aboriginal Peoples (RCAP) estimated that governments spent an extra \$2.2 billion in the fiscal year 1992-93 because of the greater need for social services (including child and family services, income support, correctional services and healthcare) among Aboriginals (Government of Canada, 1996).

In a recent study, the Centre for the Study of Living Standards (CSLS) (Sharpe et al., 2009) employed RCAP's methodology to generate an updated estimate of the fiscal cost of such "excess" social spending. The CSLS study analyzed five categories of service:

- Transfer payments to individuals (including social assistance and old age transfers such as OAS and GIS but not CPP/QPP),
- Health care services, excluding the cost of insured services (so called Noninsured Health Benefits received by registered Indians but not by other Aboriginals or by non-Aboriginals)
- Housing costs
- Child and family services
- Protection of people and property (a category including corrections and rehabilitation, courts, etc.).

Education spending is not included in this exercise. In the CSLS study, the estimate of "excess spending" in any service depended on the following sequence of calculations:

1. An estimate of per capita general spending on the relevant service for the average non-Aboriginal Canadian.
2. An adjustment to the non-Aboriginal per capita spending to that arising if the non-Aboriginal population had the same age distribution as Aboriginals. The Aboriginal population distribution is considerably younger than the non-Aboriginal. This adjustment has the effect, for example, of lowering non-Aboriginal per capita health costs. Per capita health costs rise dramatically for those over age 65. If the non-Aboriginal population had the same (i.e. lower) share in the over-65 age cohorts as Aboriginals, the non-Aboriginal per capita cost would be lower.
3. An estimate of the Aboriginal population share receiving the particular general service.
4. An adjustment to the per capita Aboriginal spending due to "level of use" of the service by Aboriginals relative to non-Aboriginals. (In the most extreme case – incarceration costs – the Aboriginal level of use is eight times higher than for the non-Aboriginal population.)
5. Addition of per capita Aboriginal spending for a particular general service (adjusted by level of use) plus Aboriginal-specific per capita spending for the service to generate the aggregate per capita Aboriginal spending estimate.
6. Estimation of the difference in per capita spending between Aboriginals and non-Aboriginals for a particular service (subtraction of the adjusted per capita non-Aboriginal spending from the aggregate per capita Aboriginal spending on the service).
7. Multiplication of the difference in per capita spending times the Aboriginal population to generate the "age-adjusted excess spending."

Table B1.1

“Excess Spending” for Aboriginals on Five Services						
	Per Capita Expenditure– Total Population	Age Factor	Age Adjusted per Capita Expenditure – Total Population	Aboriginal Expenditure per Capita	Aboriginal Expenditure per Capita without NIHB	Age Adjusted Excess Expenditure without NIHB (\$ millions)
	A	B	C = A*B	D	E	F = (E-C)* Aboriginal Population
Transfer Payments	5,357	0.79	4,221	4,975	4,975	988
Health Care	3,295	0.68	2,250	4,159	3,550	1,706
Housing	137	0.82	112	341	341	300
Child and Family Services	139	1.69	235	1,199	1,199	1,265
Protection of Persons and Property	595	10.40	618	2,145	2,145	2,002
Total (\$ million)						6,261

Note: Noninsured Health Benefits (NIHB) refers to spending for registered Indians on services not included as insured services under provincial health insurance programs.

Source: Sharpe et al. (2009: 65).

This history is not unique to Canada. Throughout the world, when indigenous societies based primarily on hunting and trapping economies have interacted with societies constructed on settled agriculture and industry, the result has been social marginalization of the former. Admittedly, at the time of initial contact with Europeans between the 16th to 18th centuries, North American Indian societies varied considerably in the extent of settled agricultural cultivation. None however had developed the productivity of commercial agriculture and industry displayed by European economies. Achieving a just compromise between policies of respect and accommodation of indigenous culture and, on the other hand, policies to enable indigenous integration into mainstream society, is not an easy one.

For a century following passage of the Indian Act in 1876, the underlying logic of federal Aboriginal policy was assimilation. The final initiative in this tradition was Pierre Trudeau’s 1969 White Paper. It envisioned elimination of all legislative provisions enabling survival of Aboriginal institutions. It triggered adamant objections from Aboriginal leaders who introduced into the Canadian political discourse ideas of indigenous cultural revival. A prominent feature of the last generation has been litigation to expand the meaning of pre-20th century treaties and to devise modern comprehensive equivalents. The Department of Indian and Northern Affairs (INAC) acquiesced to this new logic by devolving responsibility for reserve-based programming to band councils, and by dramatically increasing fiscal transfers to them.

During the 1970s and 1980s, devolution helped improve social outcomes. But over the last two decades, progress along important dimensions has slowed, if not stalled. Two examples of initial progress followed by stall – and in some cases reversal – are Aboriginal/non-Aboriginal gaps in life expectancy and in education levels. A second trend that limits the relevance of devolution as strategy is urbanization. In the 1941 Census, only one Aboriginal in 25 lived in a city; by the time of the 2006 Census, one in two did. Even among registered Indians – those with the right to live on-reserve – fewer than three in five actually do live on a reserve. (As Aboriginal identities and demography have evolved over the last half-century, measuring the Aboriginal population has become more complex. In general, this report relies on Census definitions (see Box 2).

Our underlying conviction is that the most important means to alleviate the poverty and marginalization of Aboriginals in Canadian society is via improved education outcomes. Other factors – including discrimination – matter, but in an industrial society, no community can prosper unless the overwhelming majority achieves reasonable rungs on the education ladder, starting with high school certification. A high school diploma is, however, a low rung. For a majority in any community to achieve what Canadians consider “middle class incomes,” most must achieve higher rungs. While achieving these higher rungs matters, they are inaccessible to those without high school. Given the severity of Aboriginal school dropout rates, our report concentrates on strengthening the K to 12 foundations.

This report is concerned with strategies to improve Aboriginal education outcomes both on- and off-reserve. On-reserve, responsibility for education lies formally with the Department of Indian Affairs; in practice, responsibility lies with individual band councils. Off-reserve, responsibility lies with the relevant province. As Aboriginals have “moved to town,” the provincial role in education has become increasingly important. For every Aboriginal student attending an on-reserve school, approximately four attend a provincial school.

There are no comprehensive national statistics on the Aboriginal share of the Canadian K to 12 student population. The Aboriginal share of the ages 5 to 14 cohort affords a rough approximation. Whereas Aboriginals constitute 3.8 percent of the Canadian population in the 2006 Census, their share of the ages 5 to 14 cohort is 6.2 percent. (Their share of the ages 0 to 4 cohort is 6.4 percent.) Aboriginal students are now a sizeable share of the Canadian student population. This is most obvious in the four western provinces, home to over half the Aboriginal population. In these provinces, one in eight students (12.8 percent) is now Aboriginal (see Figure 1.1).

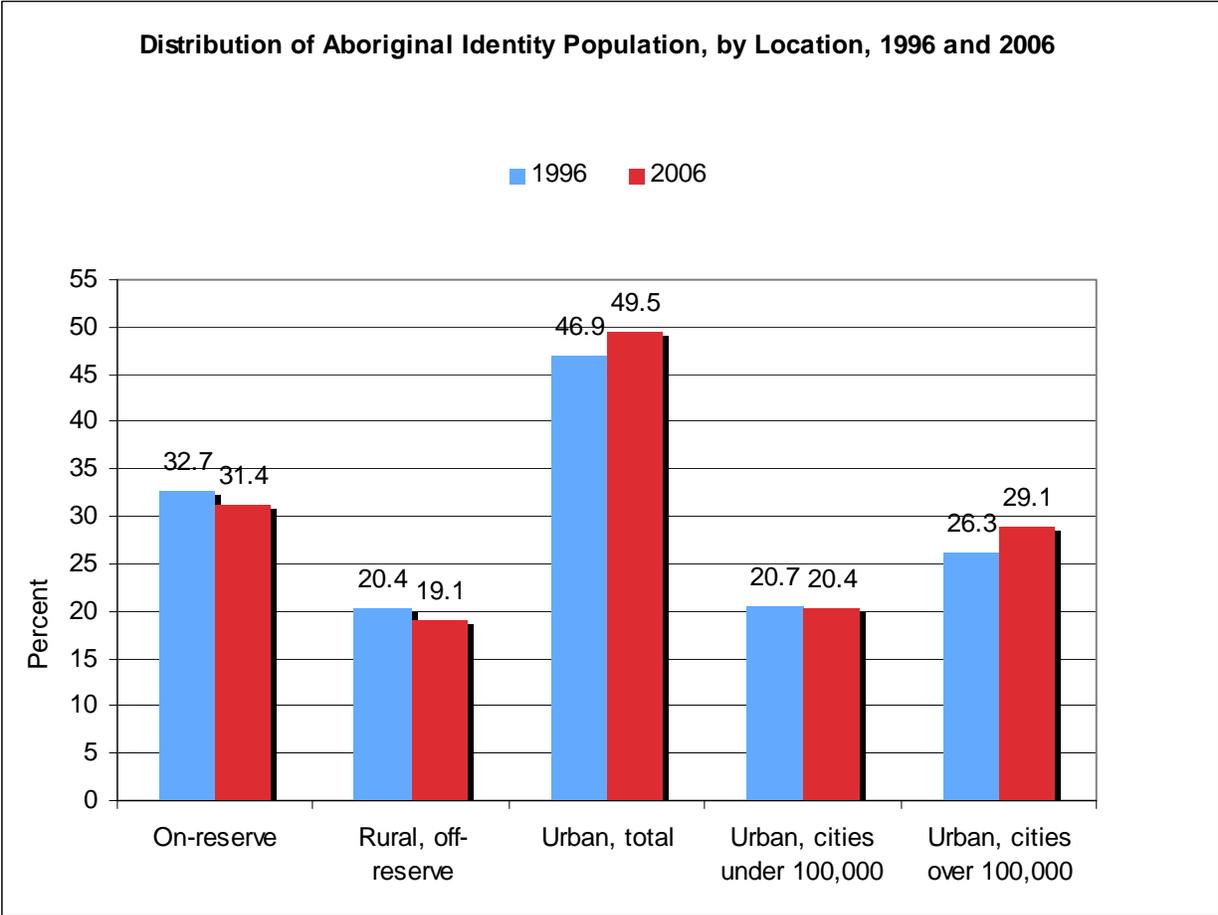
Box 2. Who Is an Aboriginal?

As with all issues of identity in the modern world, the criteria are debatable. The Canadian Census defines the Aboriginal population in several ways. The most widely used is based on self-identification. Individuals can self-identify as belonging to one of three Aboriginal groups: 1) North American Indian or First Nation (Mohawk, Ojibway, Cree, and so on), 2) Métis (descendants of communities formed from the intermarriage of Indians and coureurs de bois engaged in the fur trade), or 3) Arctic Inuit. Self-identification as an Aboriginal in the Census does not necessarily mean an individual has Aboriginal ancestry. Another Census definition is based on an individual indicating that he or she is a “registered Indian” under provisions of the

Indian Act, a Canadian statute dating from the late 19th century. The great majority of those who self-identify as Indian/First Nation are also registered Indians. Only registered Indians have the right to live on designated reserve lands and receive the associated benefits. The Census defines the “Aboriginal identity population” as those who self-identify as Aboriginal or indicate that they are registered Indians.

At the time of the most recent Census, in 2006, the Aboriginal identity population was 1.17 million. A total of 698,000 identified as Indian/First Nation; 390,000 as Métis, and 50,000 as Inuit. Among those self-identified as Indian/First Nation, a subset of 624,000 indicated they were also registered Indians (Statistics Canada, 2008a; 2008b). The Census suffers from under-enumeration on-reserve. A revised estimate of the Indian/First Nation population is 785,000 and of the total Aboriginal identity population, 1.26 million. Figure B2.1 illustrates the distribution of this revised total, by location.¹

Figure B2.1

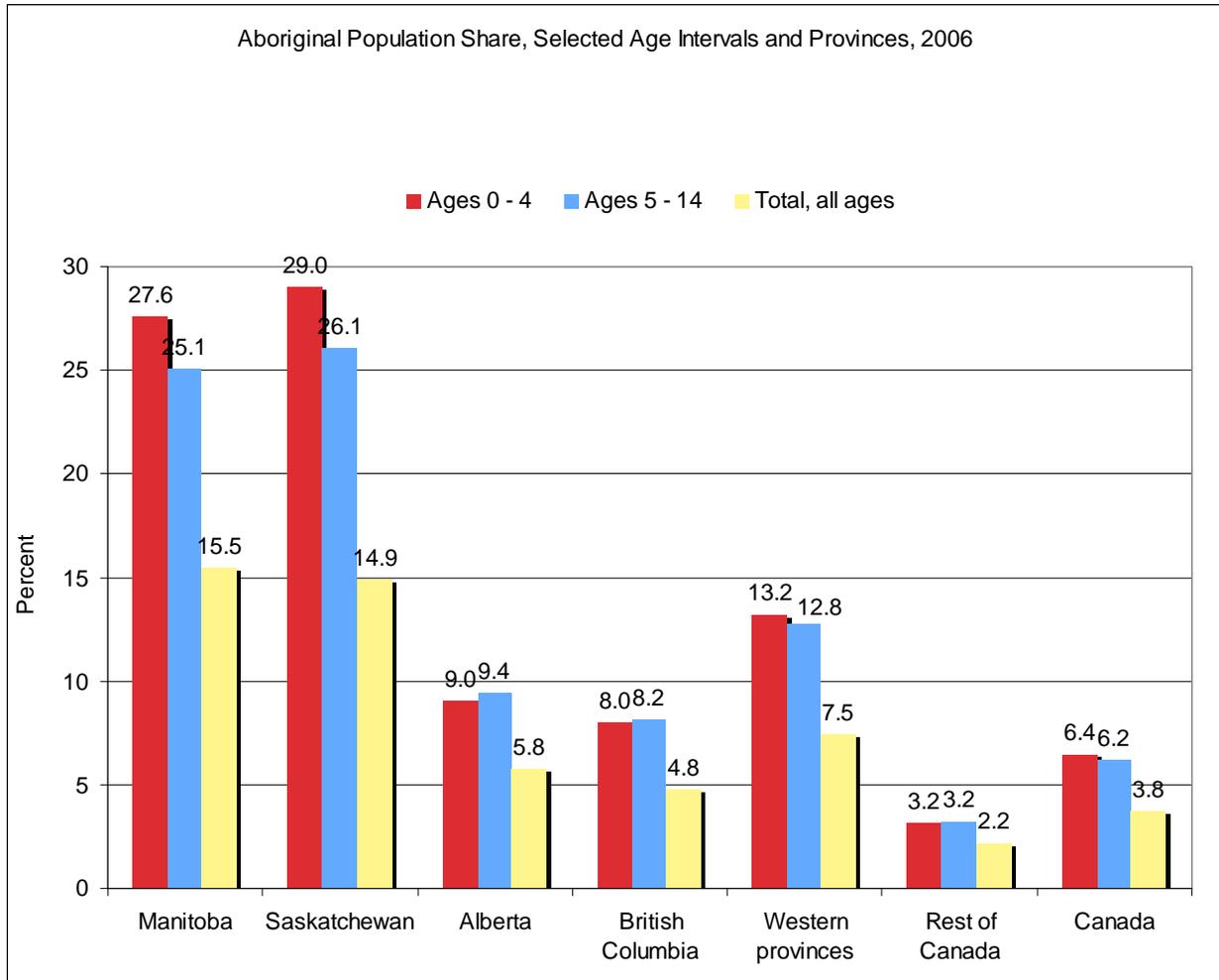


Sources: Authors’ calculations from Statistics Canada (2004; 2008c).

¹ The revision is based on Statistics Canada revised estimates for the 1996 and 2001 Indian/First Nation populations. Extrapolating the 1996-2001 growth rate of revised population estimates to 2006 yields an estimate of 785,000, and a revised estimate of the total 2006 Aboriginal identity population of 1,260,000.

The on-reserve share (which is overwhelmingly rural) has declined over time and the urban share, particularly in cities over 100,000 in population, has increased. The Aboriginal population is growing more quickly than the non-Aboriginal, leading to a rising Aboriginal share of the total. The rising share is due both to higher Aboriginal fertility and to an increase in self-identification. With the emergence of indigenous pride, high-profile Aboriginal organizations, and less overt racial discrimination, more Canadians have chosen to identify as Aboriginal.

Figure 1.1



Source: Authors' calculations from Statistics Canada (2008c).

In summary, this report proceeds as follows. Chapter 2 makes the case that many of the Aboriginal/non-Aboriginal gaps have complex origins, and that improving education outcomes is probably the most important dimension of social policy to tackle. The chapter documents the severity of Aboriginal/non-Aboriginal education gaps. Chapter 3 reviews relevant literature on explanations for education outcomes and, in particular, explanations for gaps in performance between mainstream and marginalized communities. It also discusses in some detail particular Aboriginal education reforms undertaken, and their financial implications. Chapter 4 discusses policy recommendations.

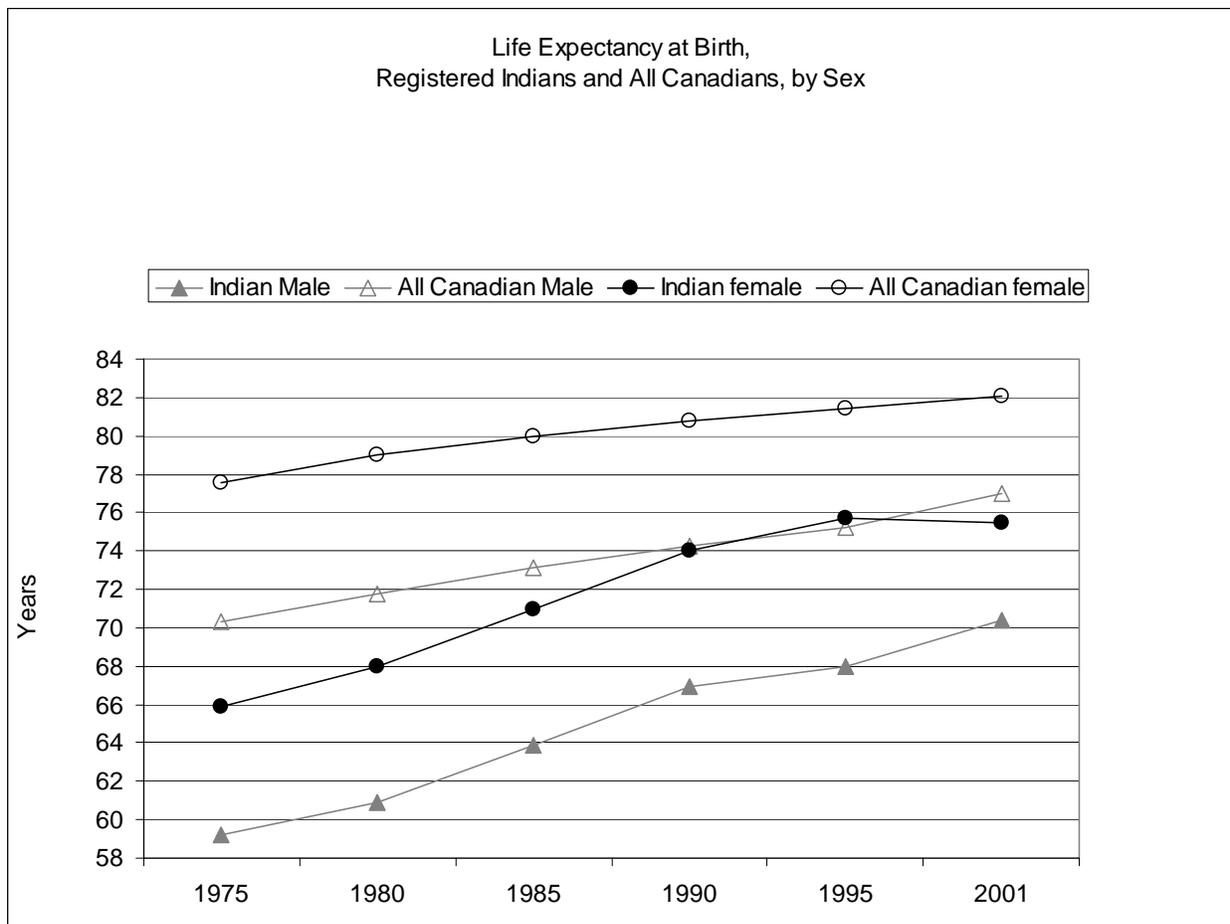
Chapter 2. Trends in Economic and Social Gaps

The purpose of this chapter is not to provide an exhaustive list of Aboriginal/non-Aboriginal gaps but to make two arguments. The first is that many of the gaps have complex origins, and closing them cannot be done by any one intervention. There is certainly no “silver bullet.” Subject to this caveat, our second argument is that improving education outcomes is probably the most important public policy initiative to tackle.

2.1 Health Gaps

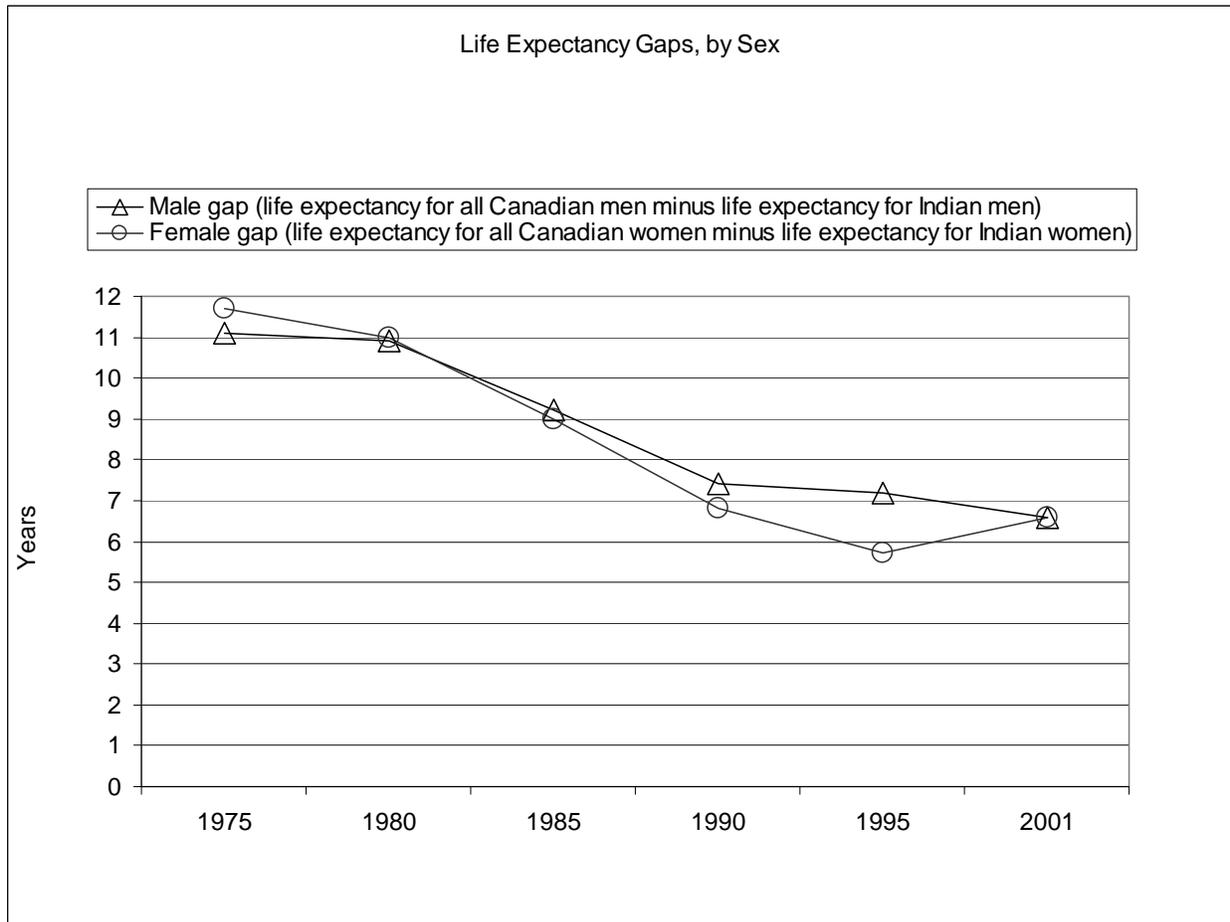
Life expectancy at birth is a useful measure to compare the health status of residents of one country relative to another or, in this case, the health of Aboriginal relative to non-Aboriginal Canadians. As recently as 1975, life expectancy for those on the Indian Affairs registry was 11 years below that for all Canadians. Over the next 15 years, 1975-1990, this gap fell by nearly half (see Figures 2.1 and 2.2). In the following 11 years, 1990-2001, registered Indian life expectancy continued to rise but the rate was similar to that of other Canadians. Consequently, the life expectancy gap has declined very little since 1990.

Figure 2.1



Source: Indian Affairs and Northern Development Canada (2005).

Figure 2.2



Source: Indian Affairs and Northern Development Canada (2005).

Why this marked difference between results in the first interval and the second? The first was a period of rapidly increasing absolute expenditure on health care among all Canadians – including those living on-reserve. This spending reduced relatively simple-to-address components of the gap such as the discrepancy in infant mortality. The remaining components are more intractable because they arise from complex social problems with unfortunate health consequences. Some insight into the remaining life expectancy gap is afforded by the potential years of life lost² (PYLL) exercise undertaken by Health Canada among on-reserve registered Indians for the year 1999 (Health Canada, 2003). The first column of Table 2.1 is the PYLL (per thousand population) attributable to various causes of death for the on-reserve population; the second column is the analogous PYLL for the Canadian population; the third is the difference between the first two, by cause of death; the fourth is the relative weight of each difference in the total.

² PYLL is a technique to measure the relative importance of causes of death. Application of the technique entails specification of a benchmark “ripe old age.” If all members of a community live to the benchmark age, the PYLL is, by construction, zero. The difference between benchmark age and actual age of an individual’s death is potential years of life lost for the individual. Normalized for population size, a PYLL exercise indicates the relative importance of causes of death within a population and across populations. The more prevalent a particular cause of death is, and the earlier the average age at which the victim succumbs, the larger the weight of the particular cause in a PYLL calculation.

Table 2.1 Relative Importance of Causes of Death, 1999

Relative Importance of Causes of Death, 1999*				
	Indian, On-reserve (1)	Canada (2)	Difference (1) – (2) = (3)	Distribution of Differences (%) (4)
(PYLL/1,000 population*)				
Injury (including suicide)	4,909	1,271	3,638	104.5
Circulatory	900	961	-61	-1.8
Cancer	770	1,617	-847	-24.3
Perinatal	329	211	118	3.4
Congenital	293	178	115	3.3
Digestive	280	177	103	3.0
Respiratory	247	201	46	1.3
Endocrine	225	148	77	2.2
Mental	142	60	82	2.4
Nervous	137	144	-7	-0.2
Musculoskeletal	70	16	54	1.6
Genitourinary	45	39	6	0.2
Blood	10	17	-7	-0.2
Ill-defined	294	130	164	4.7
Totals	8,651	5,170	3,481	100.0

* Causes of death are classified according to the International Classification of Diseases

Source: Authors' calculations from Government of Canada (2003).

Adult-onset diabetes is one example of differences in health status attributable to a complex syndrome not easily rectified. Diabetes is a chronic illness whose prevalence among Aboriginals is much higher than among the general Canadian population. (Prevalence among the non-Aboriginal Canadian population has risen in recent decades.) While diabetes need not be fatal, it is a contributing factor to various fatal ailments. Differences in diabetes prevalence are reflected in the higher on-reserve Indian than all-Canadian PYLL attributable to endocrine disorders, but the proximate cause of death may fall into some other category. The causes of high prevalence of adult-onset diabetes among Aboriginals are not simple. Genetic factors may matter. The key proximate factor is the higher rate of obesity among Aboriginal than non-Aboriginal Canadians. Obesity reflects an imbalance between daily caloric in-take relative to caloric expenditure in physical activity.³ Reducing Aboriginal diabetes prevalence entails, in addition to health programs, issues of diet and other lifestyle choices.

By far the most dramatic difference between the PYLL profiles of on-reserve Indians and the Canadian population is found in the injury category. Roughly one quarter of deaths in this category are attributable to suicide. One interpretation of the very high incidence of suicide as cause of Aboriginal death is cultural loss. In a well known study, Chandler and Lalonde (1998)

³ Among off-reserve Aboriginals, Tjepkema (2002) reported 23 percent with a BMI above 30 (the standard threshold for obesity), compared to 14 percent among non-Aboriginals.

evaluated suicide among young adult Aboriginals in British Columbia for whom the suicide rate was three times the comparable non-Aboriginal rate over a five-year period. The authors established the residence of each Aboriginal suicide in one of 29 tribal councils. Using an index of “cultural continuity” that each tribal council exercised – based on measures such as the percentage of children attending on-reserve schools and the extent of band control of health and social services – the authors found that the higher the index of cultural continuity, the lower the suicide rate among residents of the council.

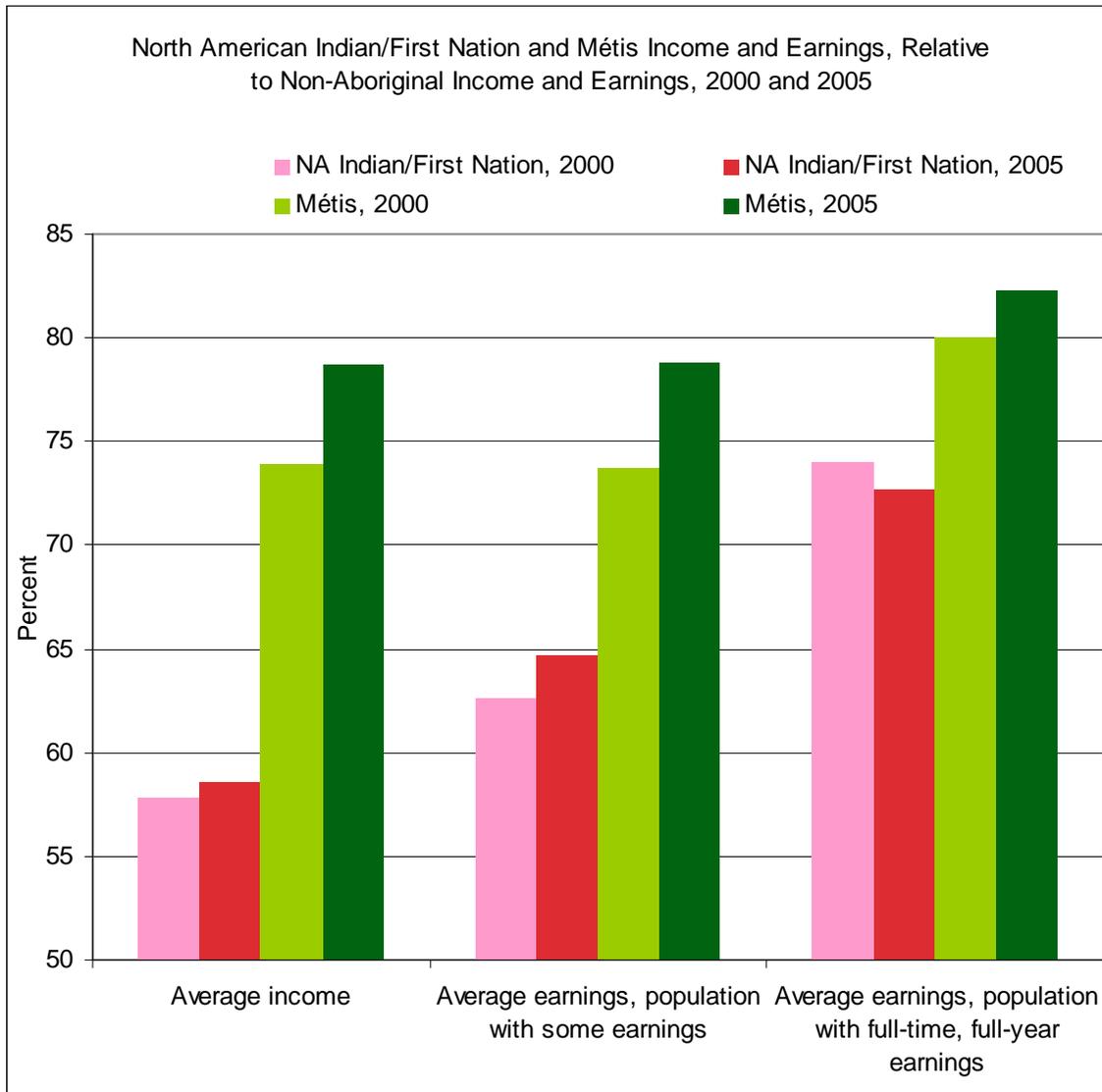
Chandler and Lalonde’s explanation is right inasmuch as “cultural continuity” is a relevant factor lowering the incidence of suicide. But they seriously oversimplify the problem of suicide by ignoring other relevant risk factors. It is well established, for example, that the poor and unemployed are more prone to clinical depression, itself a risk factor associated with suicide (World Health Organization, 2004). A more adequate explanation of Aboriginal suicide would add to cultural measures the impact of labour market outcomes. In turn, labour market outcomes depend on many variables, of which education level is among the most important. A band council may display a high index of “cultural continuity” but, if the band population suffers low education levels and consequent high unemployment and high dependence on social assistance, the suicide rate may nonetheless be high.

2.2 Income and Employment Gaps

There are many caveats to note in evaluating Aboriginal income, but unambiguously Aboriginal Canadians are significantly poorer than their non-Aboriginal neighbours.⁴ The average Census income among those identifying as Indian/First Nation was less than 60 percent of that among non-Aboriginals in 2000 (according to data gathered for the 2001 Census) and in 2005 (based on 2006 Census data) (see Figure 2.3). The comparable ratios for Indian/First Nation to non-Aboriginal earnings were below 65 percent in the case of those with some earnings. For those with full-year, full-time earnings, the ratios were below 75 percent. There is little change in these ratios between 2000 and 2005. For Métis, the gaps with non-Aboriginal income and earnings are smaller and the 2005 gaps in all three cases are smaller than for 2000, implying convergence over time.

⁴ For a detailed discussion of the difficulties in using Census income data to compare Aboriginal/non-Aboriginal income gaps, see Drost and Richards (2003).

Figure 2.3

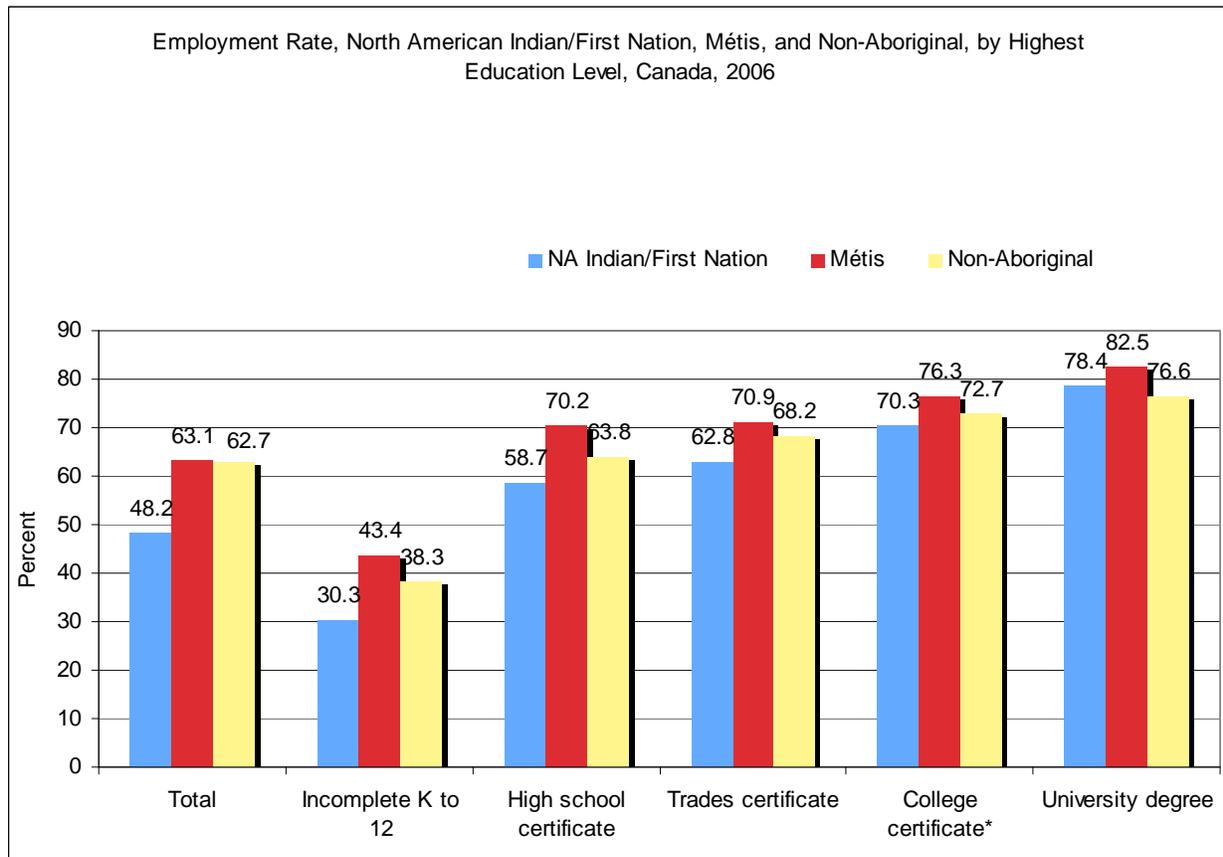


Note: Income refers to earnings, income from government sources, and investments. Earnings refers to total income received as wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income. Average income (or earnings) refers to the average among those, age 15 and over, who reported some income (or earnings). Below are the data for calculation of ratios.

	NA Indian/ First Nation	Métis	Non- Aboriginal
	2005 Dollars		
Average income, 2000	19,476	24,914	33,717
Average income, 2005	20,996	28,227	35,872
Average earnings, population with some earnings, 2000	22,484	26,476	35,914
Average earnings, population with some earnings, 2005	23,693	28,861	36,616
Average earnings, population with full-time full-year earnings, 2000	36,106	39,008	48,773
Average earnings, population with full-time full-year earnings, 2005	37,416	42,374	51,505

Sources: Statistics Canada (2008d; 2008f).

Figure 2.4



* Includes college/CEGEP certificates plus university certificates below bachelor level

Source: Statistics Canada (2008e).

Aboriginal/non-Aboriginal income gaps are an important measure of the extent of Aboriginal exclusion from Canadian society. The keys to closing the gaps are: 1) a higher employment rate; and 2) higher incomes among those working. Figure 2.4 illustrates the role of education in determining employment rate. The crucial rung on the education ladder for any community to achieve majority employment (among those aged 15 and over) is high school completion. Whether Aboriginal or non-Aboriginal, less than half of those without high school certification were employed in 2006. For the three groups, the employment rate is at least 25 percentage points higher among those having achieved high school certification. The employment rate continues to rise, at a more modest rate, among those reaching higher rungs on the education ladder. While the overall Indian/First Nation employment rate is well below that for non-Aboriginals, Métis actually enjoy a slightly higher overall employment rate than is the case for non-Aboriginals.

The previous discussion concerns the role of education – of high school completion in particular – in determining the employment rate. What role does education play in determining the wages of Aboriginals who are employed? Education level is one among several relevant variables. Others include the extent of on-the-job experience, whether one lives in a province with high (or low) average wages, and – potentially – discrimination in the case of Aboriginals. Andrew

Sharpe and colleagues at the Centre for Study of Living Standards (CSLS) undertook a rigorous exercise, using 2001 Census data, to assess the relative importance of these variables in explaining the Aboriginal/non-Aboriginal earnings gap.

Table 2.2

Decomposition of the Aboriginal/Non-Aboriginal Wage Gap		
	Using Estimated Effect of Characteristics on Aboriginal Wages (%)	Using Estimated Effect of Characteristics on Non-Aboriginal Wages (%)
Characteristics		
1. Education	30.5	28.4
2. Full-time employment	19.9	24.4
3. Residing in a census metropolitan area	9.9	6.6
4. Province of residence	9.5	0.7
5. Experience in labour force*	9.1	7.3
6. Married	5.2	3.8
7. Knowledge of an official language	-0.4	-0.9
8. Gap explained by characteristics: sum of 1. to 7.	83.6	70.2
9. Gap unexplained: 10. minus 8.**	16.4	29.8
10. Total wage gap***	100.0	100.0

* Experience is measured as age minus years of education plus five

** The unexplained gap is a combination of discrimination and the impact of unobserved characteristics

*** After adjusting for hours worked per year, the average Aboriginal wage is 70 percent of the average non-Aboriginal wage

Note: There are two ways to decompose the Aboriginal/non-Aboriginal wage gap:

1. Estimate the incremental impact (calculate regression coefficients) of non-Aboriginals' characteristics on non-Aboriginal expected wages.
2. Calculate differences between average levels of characteristics (in education levels, job experience, and so on) for Aboriginals and non-Aboriginals.
3. Calculate the change in non-Aboriginal expected income if the non-Aboriginal population had the average characteristics of the Aboriginal population. This is the "explained" portion of the interracial income gap.
4. Subtract the explained gap calculated at stage 3 from the total difference between Aboriginal and non-Aboriginal average incomes. This gives the unexplained residual. The residual is a measure of either discrimination or the impact of unobserved relevant variables.

The second way to proceed is to estimate the incremental effect of Aboriginals' characteristics on Aboriginal expected wages then, using these coefficients, undertake an analogous exercise of estimating the hypothetical change in Aboriginal incomes if Aboriginals possessed the average characteristics of non-Aboriginals. Table 2.2 shows the results of the CSLS exercise, undertaking the decomposition both ways.

Source: Sharpe, Arsenault, and Lapointe (2008).

After adjusting for the lower average hours worked by Aboriginals relative to non-Aboriginals, the average Aboriginal wage is 70 percent of the non-Aboriginal. In explaining this 30 percentage point gap, the most important characteristic is education. There are two procedures for decomposing the earnings gap (see note to Table 2.2). Estimated either way, lower average education levels among Aboriginals explain about 30 percent of the adjusted wage gap. The second most important characteristic is having a full-time job. Other things equal, full-time jobs pay better and a higher share of non-Aboriginals have full-time work. Interpreting this variable is ambiguous: it may reflect an element of discrimination (an employer bias to award full-time jobs

to non-Aboriginals); it may in part suggest an education effect not captured by the education variable (an employer bias to award full-time jobs to the better educated). The third characteristic to explain the gap is residing in a census metropolitan area (CMA). Wages for comparable jobs tend to be higher there than in non-CMA communities, and Aboriginals disproportionately live outside CMAs. A similar argument applies in assessing wages across provinces with relatively high and low wages. Aboriginals disproportionately live in low-wage provinces (Manitoba and Saskatchewan in particular). For men in particular, wages are higher for married than non-married; the share that is married is higher among non-Aboriginals. Knowledge of an official language matters – in explaining immigrant wages, for example – but there is a negligible difference in this characteristic between Aboriginals and non-Aboriginals.

Subject to the qualifications raised, differences in characteristics explain between 70 and 84 percent of the adjusted wage gap, and education is the most important variable. Some combination of racial discrimination and unobserved variables explains the residual.

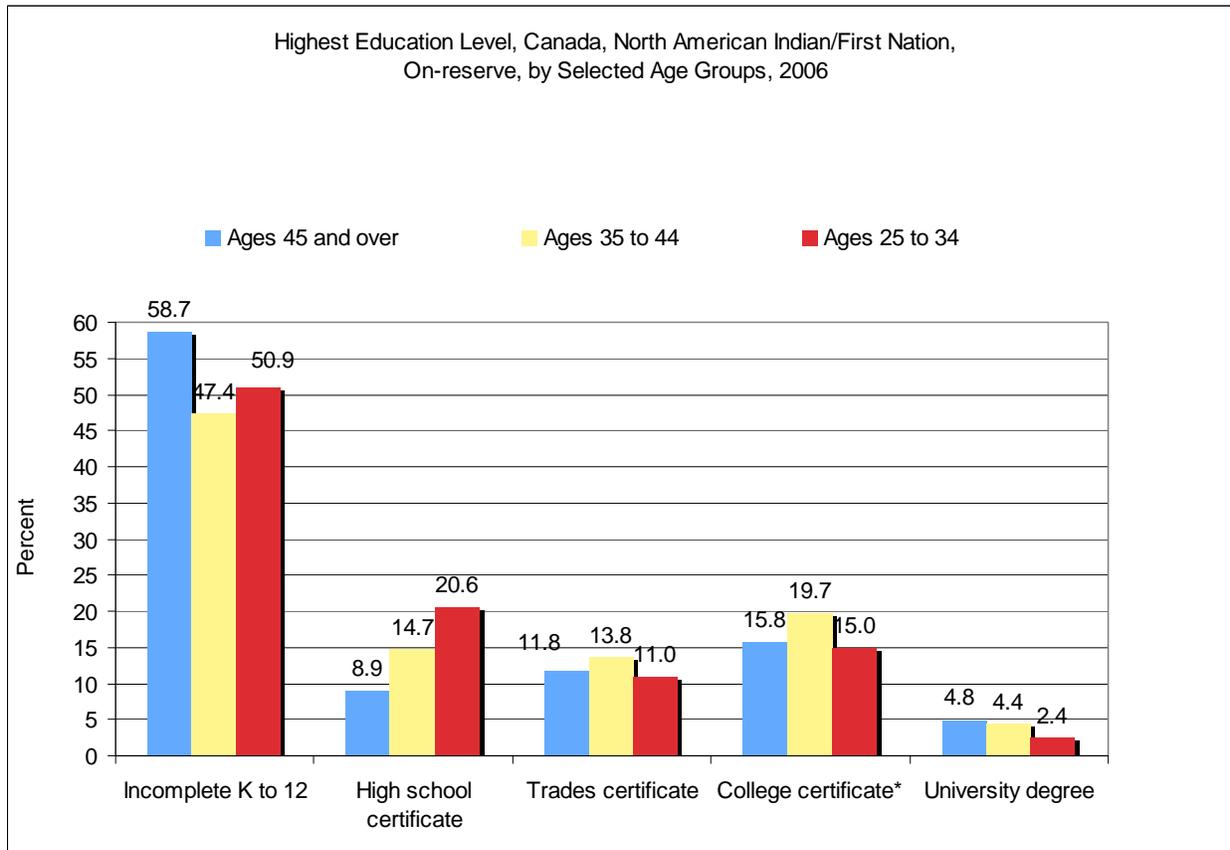
2.3 Education Gaps

A starting point here is to distinguish between registered Indian students attending on-reserve schools and Aboriginal students attending off-reserve schools, in conjunction with non-Aboriginal students. Jurisdiction over on-reserve schools rests formally with Ottawa; in practice, control lies with the relevant band councils. With a few exceptions, jurisdiction over off-reserve schools is provincial. About two fifths of on-reserve students – a higher ratio at the secondary than primary level – attend off-reserve schools. According to the Census, over two thirds of Aboriginals now live off-reserve (see Box 1) and their children attend provincially run schools. This two-thirds fraction includes all Métis, the small Inuit population, and roughly half of those who identify as Indian/First Nation. Based on these ratios, on-reserve band-operated schools are responsible at any point in time for educating about one Aboriginal child in five; provincial governments are responsible for the other four.

2.3.1 Intergenerational Trends

Figures 2.5a-d summarize evidence from the 2006 Census on intergenerational trends in Aboriginal education across Canada. The youngest cohort for which it is reasonable to expect completion of education investment is ages 25 to 34. Anyone in this age cohort graduating “on schedule” from high school at age 18 would have done so at some point in the decade 1990-99. Similarly, anyone ages 35 to 44 in 2006 would have been at age 18 in the decade 1980-89; anyone age 45 and over, would have been at age 18 before 1980. A few qualifications need to be made. Census data are not administrative data from education ministries. They are subject to potential bias – presumably upward bias – due to being self-reported. Also, bear in mind the problems of comparison across provinces on the one hand and, on the other, problems of comparison between provincial systems and on-reserve schools. A high school graduate from a relatively less demanding program may have learnt substantially less than a graduate from another with more demanding standards.

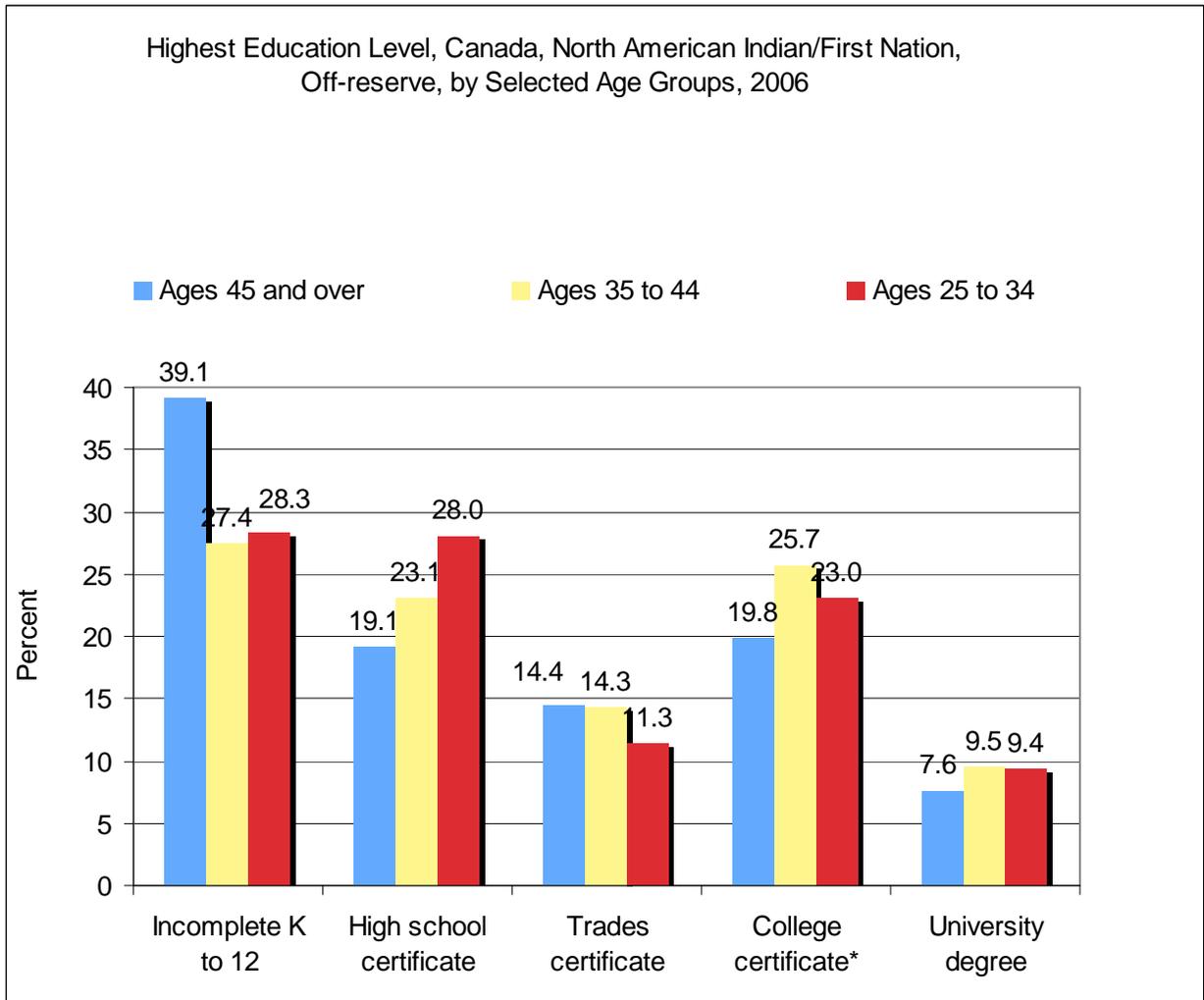
Figure 2.5



* Includes college/CEGEP certificates plus university certificates below bachelor level

Source: Statistics Canada (2008c).

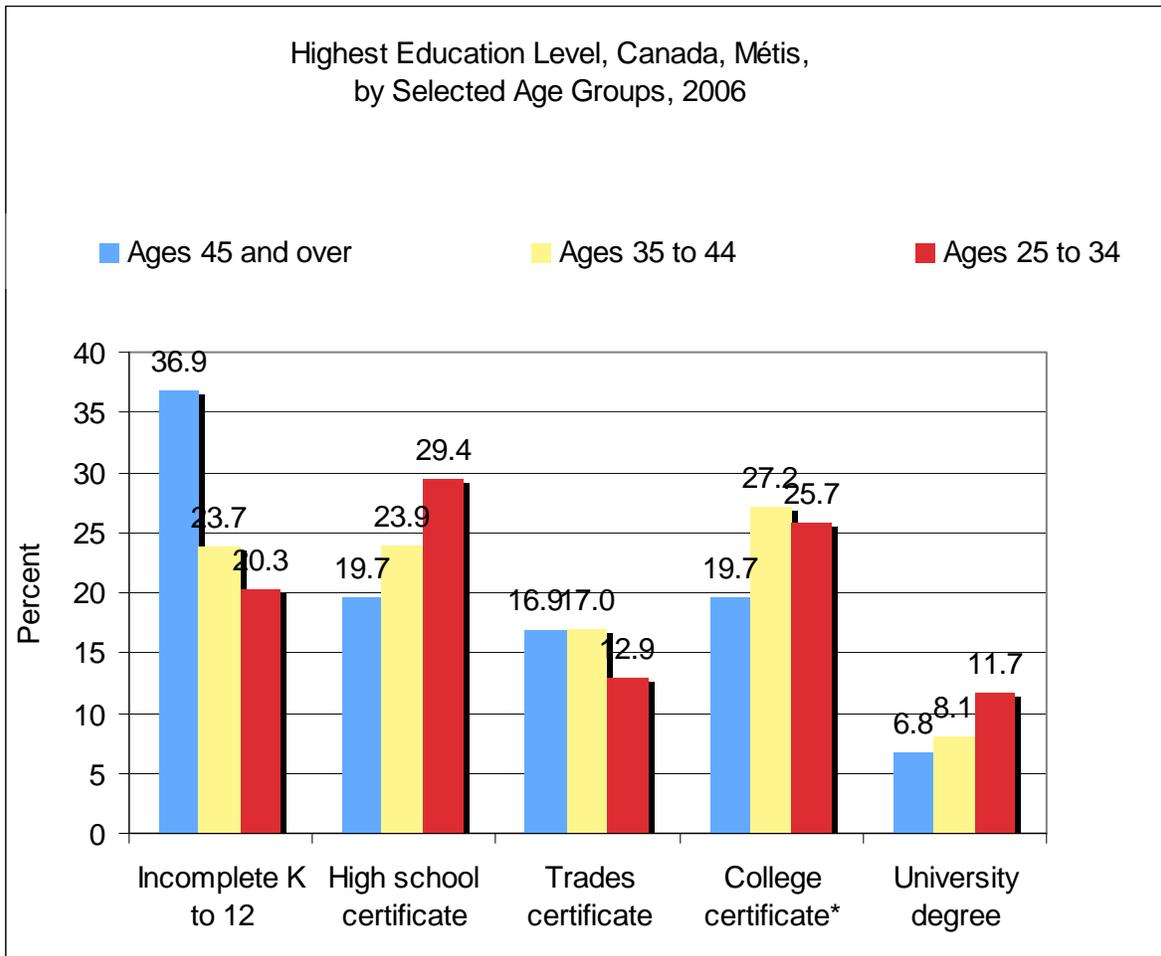
Figure 2.5b



* Includes college/CEGEP certificates plus university certificates below bachelor level

Source: Statistics Canada (2008c).

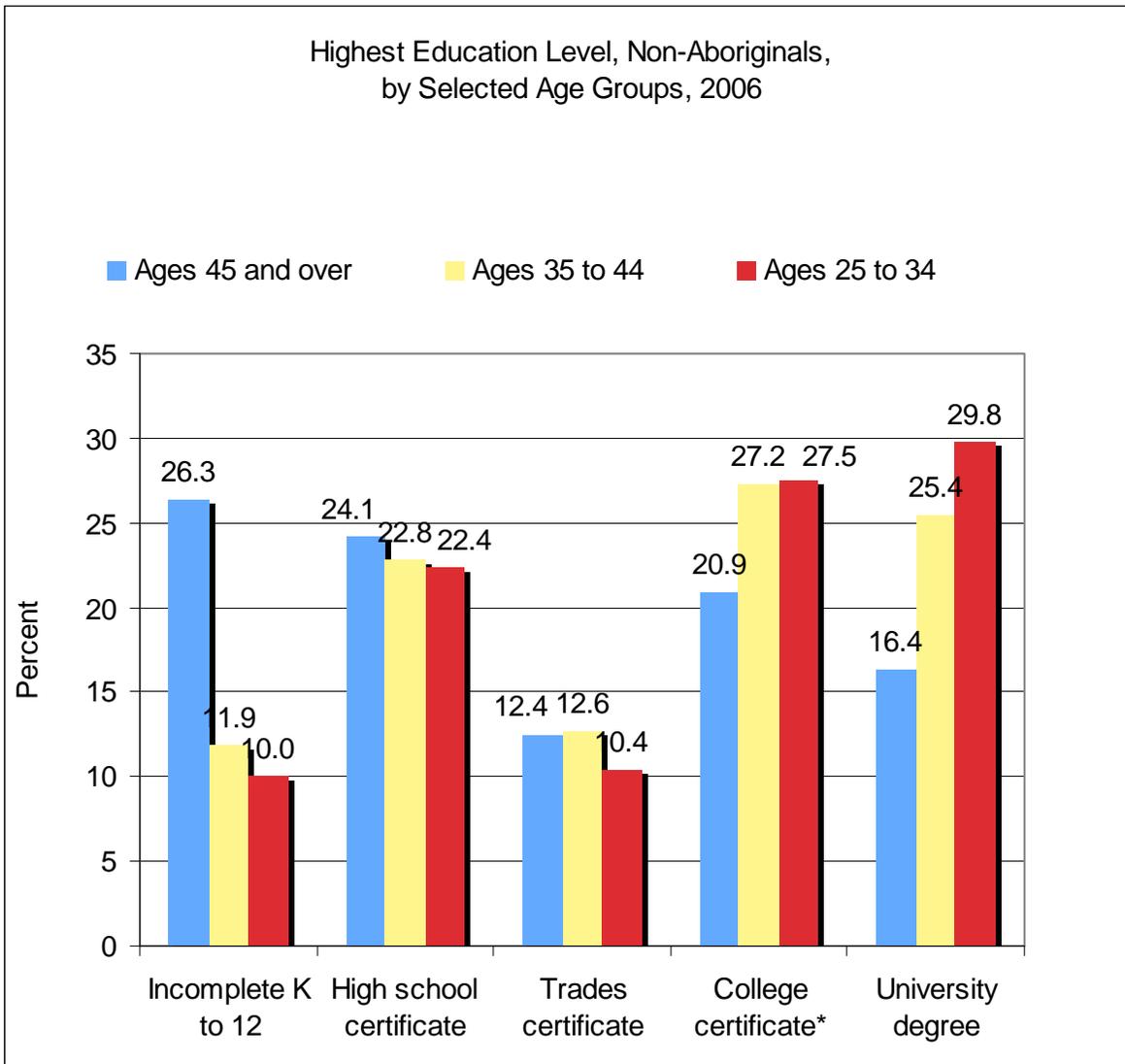
Figure 2.5c



* Includes college/CEGEP certificates plus university certificates below bachelor level

Source: Statistics Canada (2008c).

Figure 2.5d



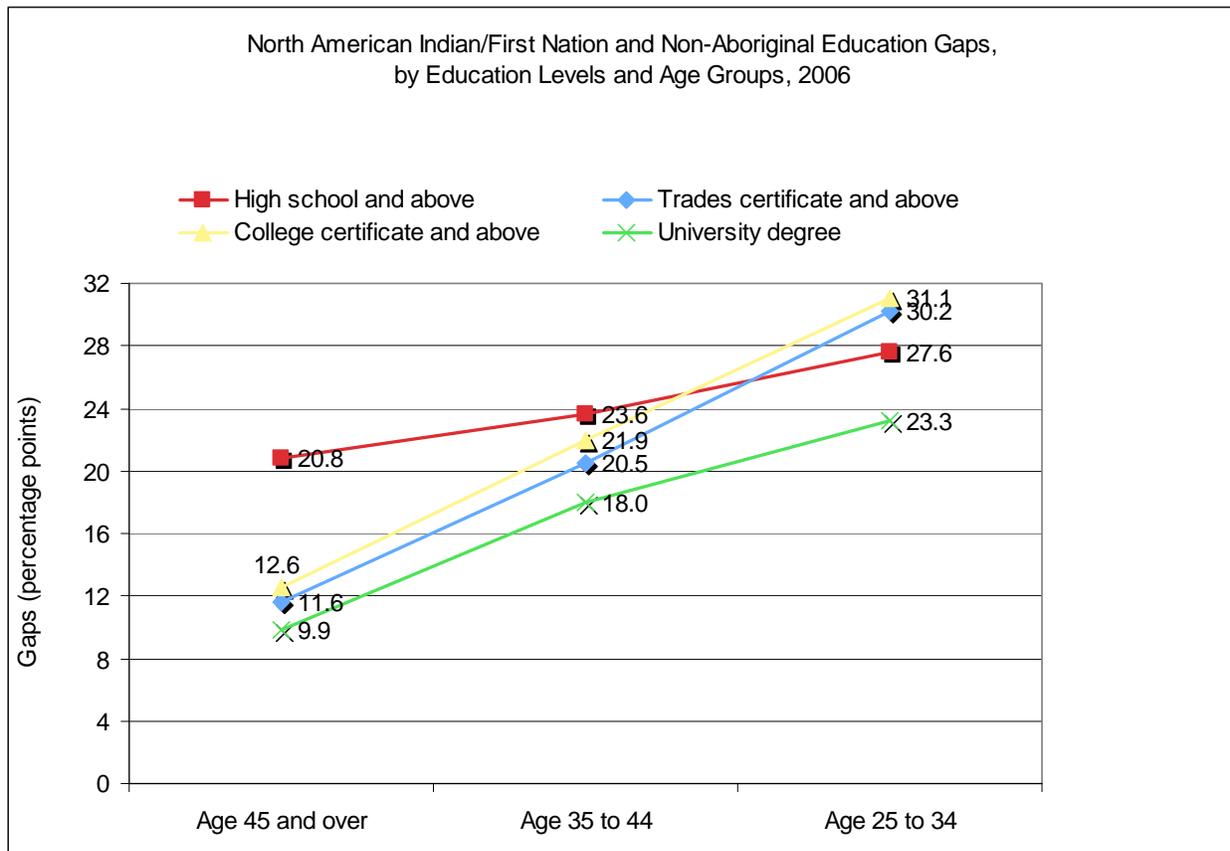
* Includes college/CEGEP certificates plus university certificates below bachelor level

Source: Statistics Canada (2008c).

Among Métis there is a continuous intergenerational decline in the percentage without high school certification and increase in percentage with a university degree. A complication arises in interpreting Métis trends. The high rate of growth of the Métis population in successive Censuses can only be explained by assuming that the Métis identity population includes some who, in earlier Censuses, placed themselves in the non-Aboriginal residual. The existence of “ethnic mobility” in Census data complicates discussion of intergenerational trends. If these newly declared Métis have above-average education profiles, they are giving an upward bias to what would otherwise be the education profiles for “old stock” Métis.

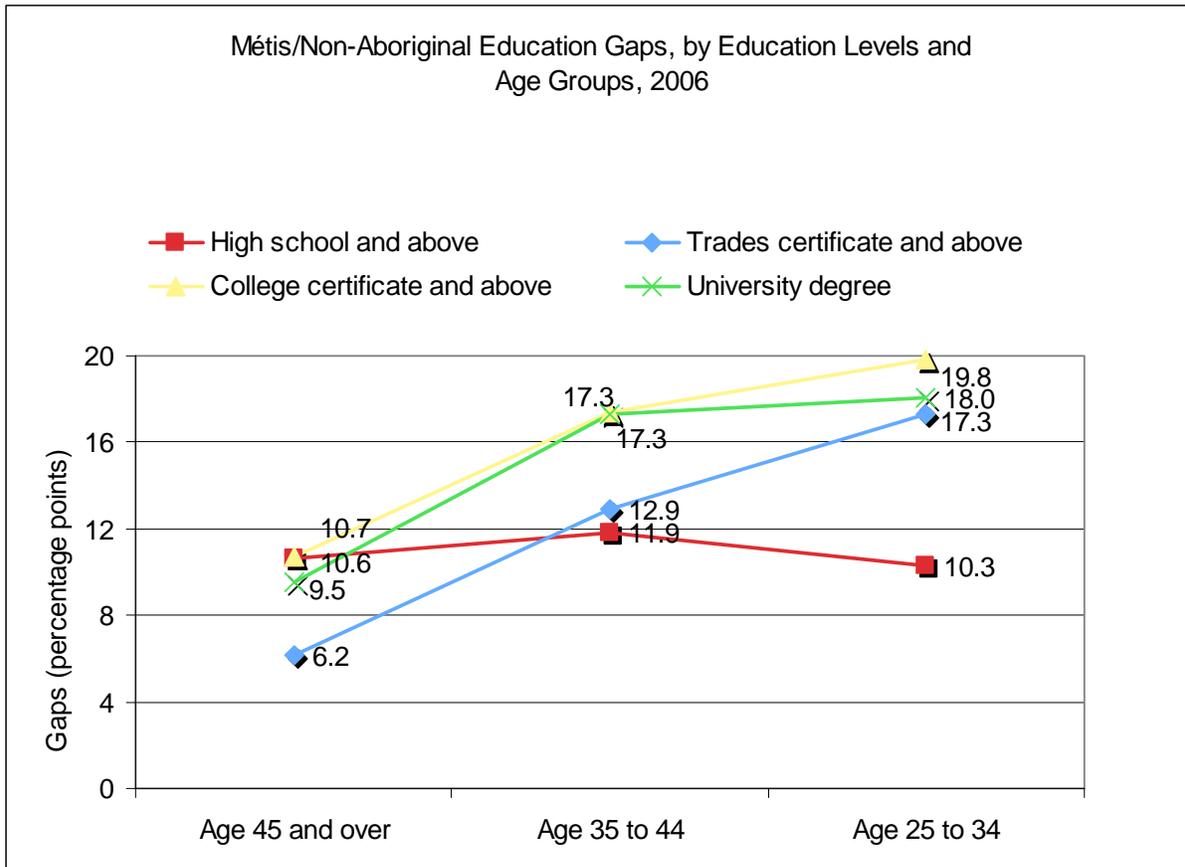
Among those who identify as North American Indian – both those living on- and off-reserve – education outcomes follow the “improvement-stall” pattern seen for life expectancy gaps. The share without high school certification is about 10 percentage points lower among those ages 35 to 44 relative to the oldest cohort (ages 45 and over). Achievement of the youngest cohort (ages 25 to 34) is slightly worse than among ages 35 to 44. There is negligible overall intergenerational increase in those with a university degree. Via adult education programs, those in the youngest cohort may admittedly catch up to the ages 35 to 44 cohort in terms of high school completion; it is doubtful they will make much progress at the more time-consuming post-secondary education levels.

Figure 2.6a



Source: Authors' calculations from Statistics Canada (2008c).

Figure 2.6b



Source: Authors' calculations from Statistics Canada (2008c).

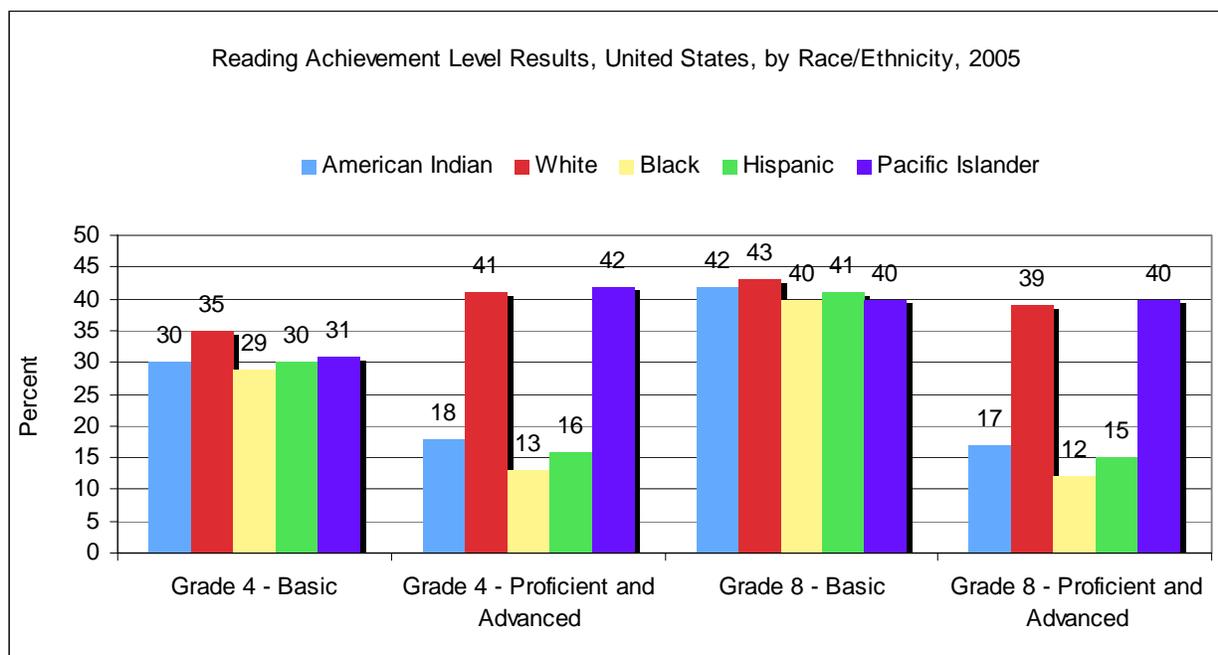
The implication of the dramatic intergenerational increase in investment in education among the non-Aboriginal population and only modest improvements among the Aboriginal population is an intergenerational widening of Aboriginal/non-Aboriginal education gaps at all levels. Figures 2.6a and 2.6b disaggregate the gaps for the Indian/First Nation population and Métis. The increase in gaps is more severe in the former case.

A second obvious conclusion is the dramatic difference between off- and on-reserve profiles of the Indian/First Nation population. To some extent, the difference reflects rational decisions among those choosing between an on- or off-reserve lifestyle. On-reserve, investing in education is less rewarding because of the scarcity of nearby jobs, especially jobs requiring higher education levels. Off-reserve, high school certification is the minimum rung on the education ladder to give a reasonable prospect of stable employment in the mainstream economy. The very high fraction without high school certification among the on-reserve cohorts means that the majority among them effectively have no choice between living on- or off-reserve. While for some life on-reserve is rewarding, for others on-reserve life in the absence of work means the frustrations of welfare dependency. The education profiles are higher among those living off-reserve, but the share of the under-45 off-reserve cohorts lacking high school certification is nonetheless alarming. It is nearly three times that of comparable non-Aboriginal cohorts.

2.3.2 K to 12 Student Performance Measures

In Canada, the United States and elsewhere, the average performance of indigenous children is below that of non-indigenous students in terms of conventional performance measures. The United States “no child left behind” strategy has generated much more data on student performance in core competencies than in previous decades. The most comprehensive evidence on the relative performance of North American indigenous students comes from the 2005 National Assessment of Education Progress (NAEP) reading and math results, as reported in the *National Indian Education Study* (Rampey, Lutkus, and Weiner, 2006). The 2005 sample included approximately 7,000 American Indians.⁵ In math and reading at both Grades 4 and 8, American Indians had lower average scores and lower percentages performing at or above the “basic” level than white and Asian/Pacific Islander students. However, the ranking with respect to black and Hispanic students is more complex. American Indian results exceeded those for black students, at Grades 4 and 8, for both reading and math, and by both measures. In general, American Indian results did not differ significantly from those of Hispanic students, except in Grade 8 math. In this case, the American Indian score exceeded the Hispanic. Finally, it is worth noting that, as with Canadian Aboriginals, the average scores of American Indian students were higher in urban than in rural locations.

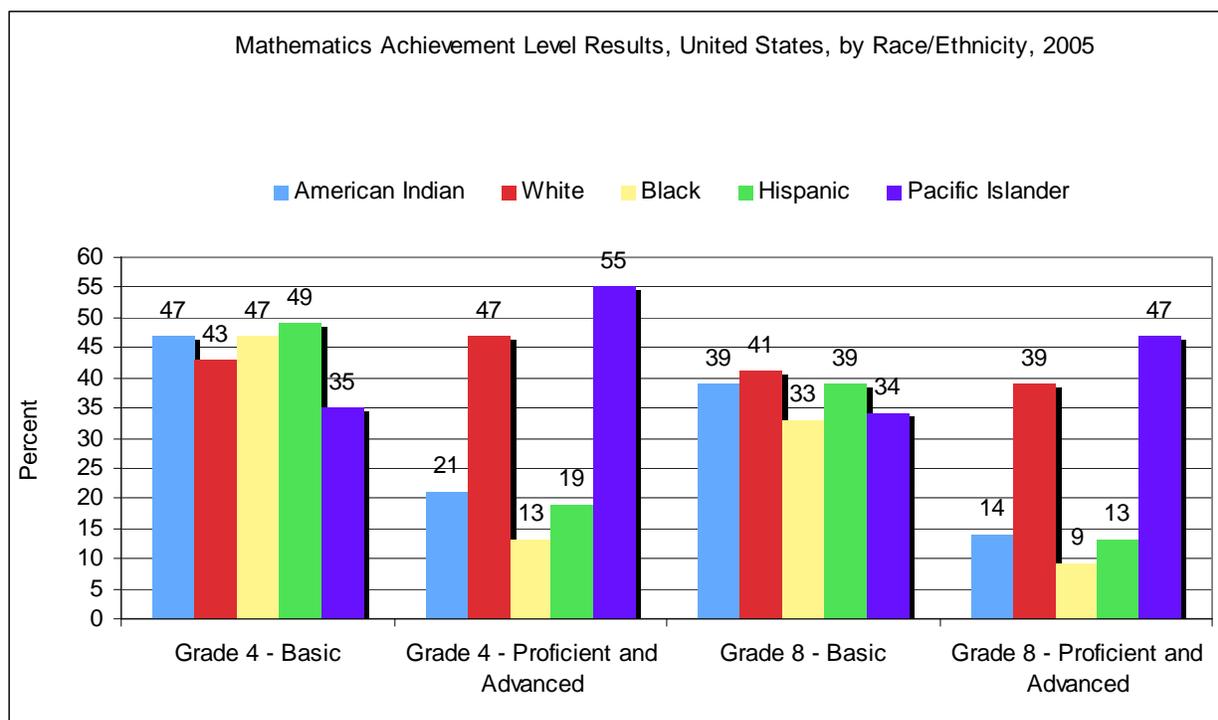
Figure 2.7a



Source: Rampey, Lutkus and Weiner (2006: 19-20).

⁵ American Indian includes Alaska natives.

Figure 2.7b



Source: Rampey, Lutkus and Weiner (2006: 41-42).

Only limited data are publicly available about the performance of Aboriginal students in Canada on standardized tests of basic skills either in provincial schools or in band-operated on-reserve schools. From the available evidence, however, it is clear that an Aboriginal/non-Aboriginal performance gap begins in early primary grades, and widens in the intermediate grades (4 to 7). At the secondary level, gaps in performance do narrow, but it is likely that, beginning as early as Grade 6, dropouts among struggling Aboriginal students account for much of the relative improvement in test scores among Aboriginal high school students.

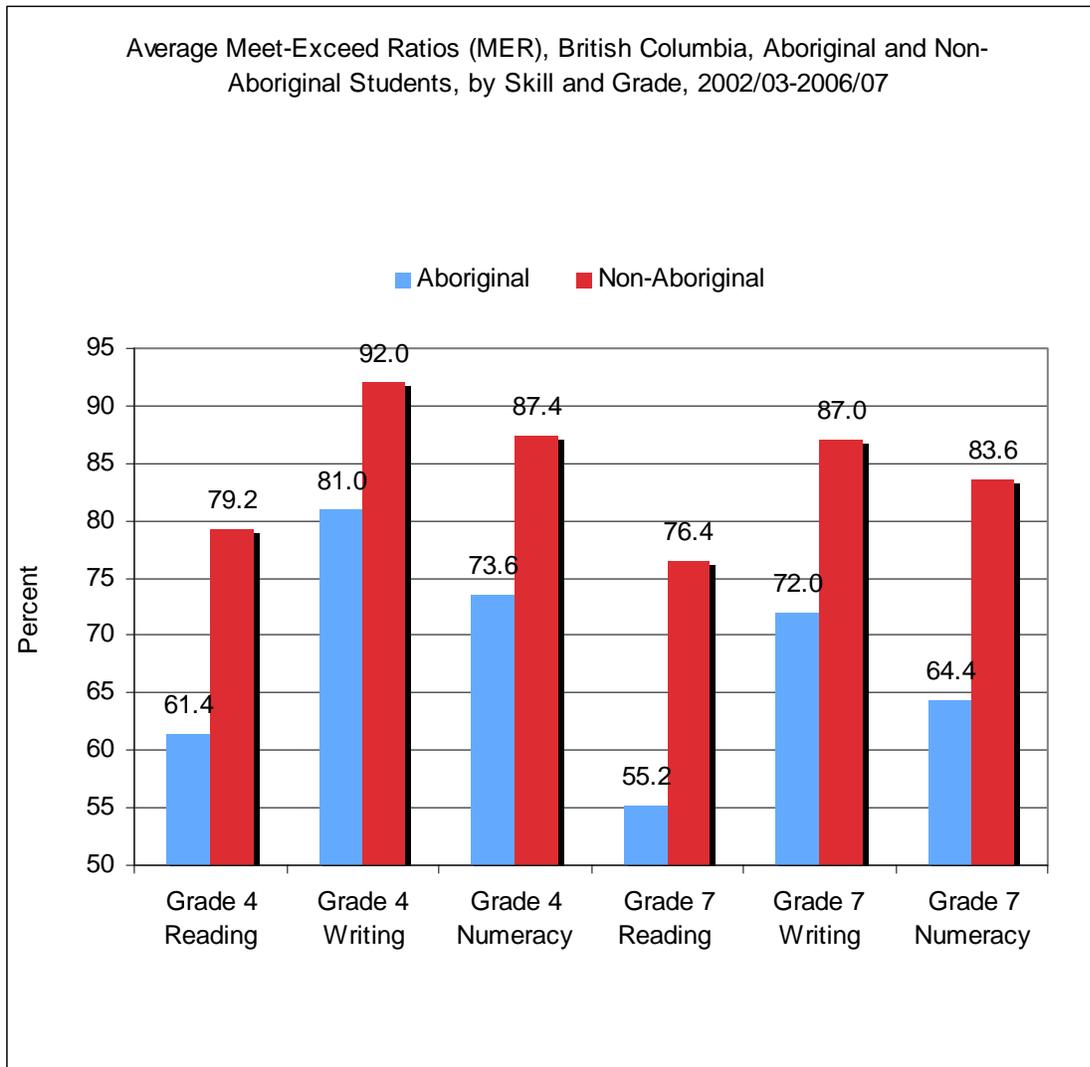
British Columbia

In British Columbia in 2007/08, 60, 200 students – about 10 percent of all students attending provincially funded schools – self-identified as Aboriginal. Of these, about one fifth were registered Indian/First Nation students living on-reserve. In Canada, British Columbia is the only province to publish standardized test results by school and by student characteristics, including Aboriginal identity.⁶ Starting with the 1999/2000 school-year, the British Columbia education ministry has conducted annual province-wide tests in reading, writing, and numeracy at selected grades. Currently, children take these Foundation Skills Assessment (FSA) tests in Grades 4 and 7, approximately at the ages of nine and 12. The FSA results classify student achievement in terms of three levels: “exceeding expectations,” “meeting expectations,” or “not meeting expectations.”

⁶ The tests are administered to all identified Aboriginal students, including registered Indian students, attending provincial schools. The tests are not presently administered to students attending band-operated on-reserve schools.

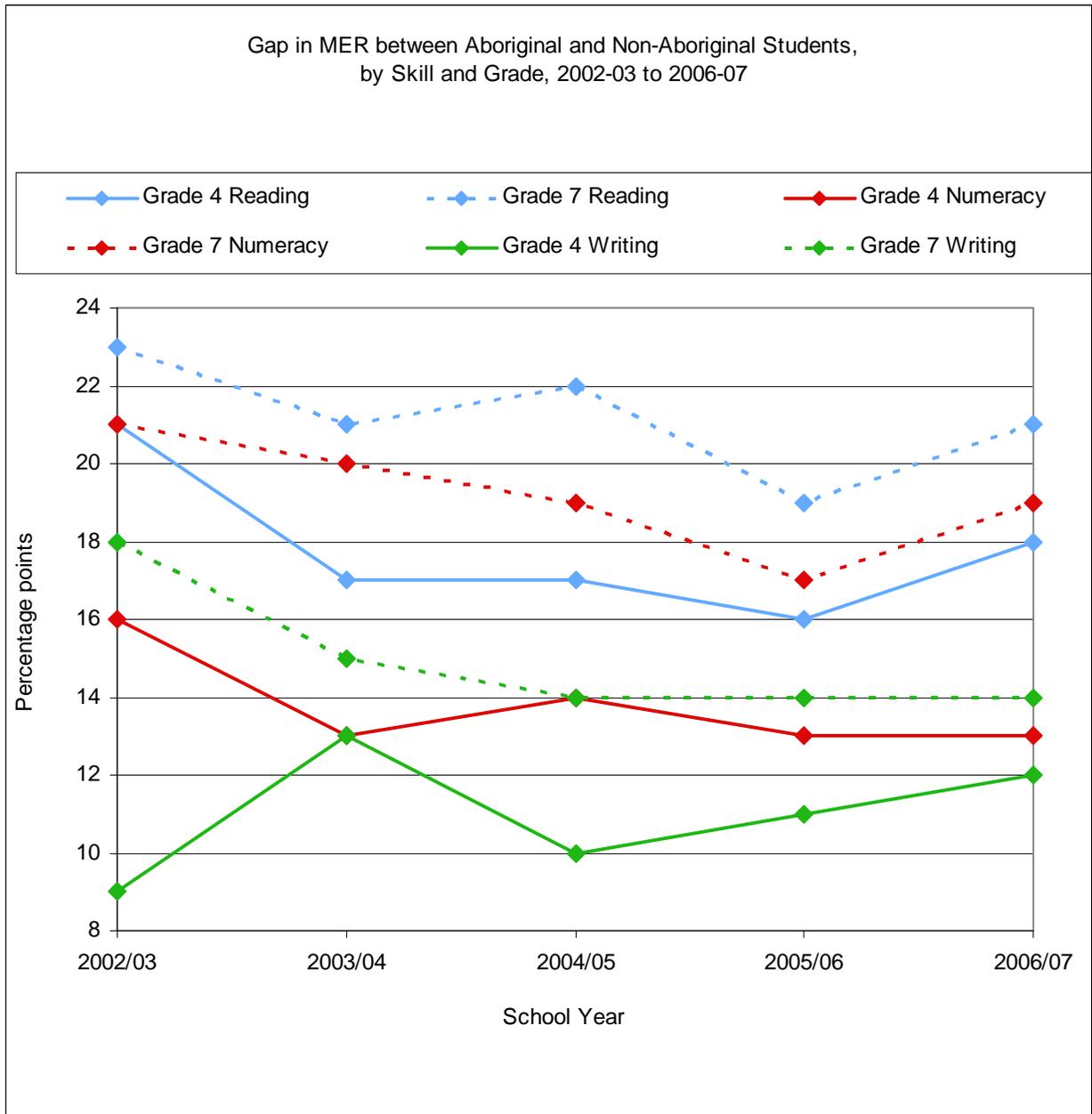
A widely used summary statistic is the “meet-exceed ratio” (MER): the number of test scores in which students meet or exceed expectations relative to the number of test scores in a school, school district, or the entire province. Figure 2.8 summarizes the province-wide MERs over the five school years 2002/03 to 2006/07 in the three skills tested, for both Aboriginal and non-Aboriginal students. There are clearly sizeable gaps at both grade levels and in all three skill areas.

Figure 2.8



Source: British Columbia Ministry of Education (2007: 12).

Figure 2.9

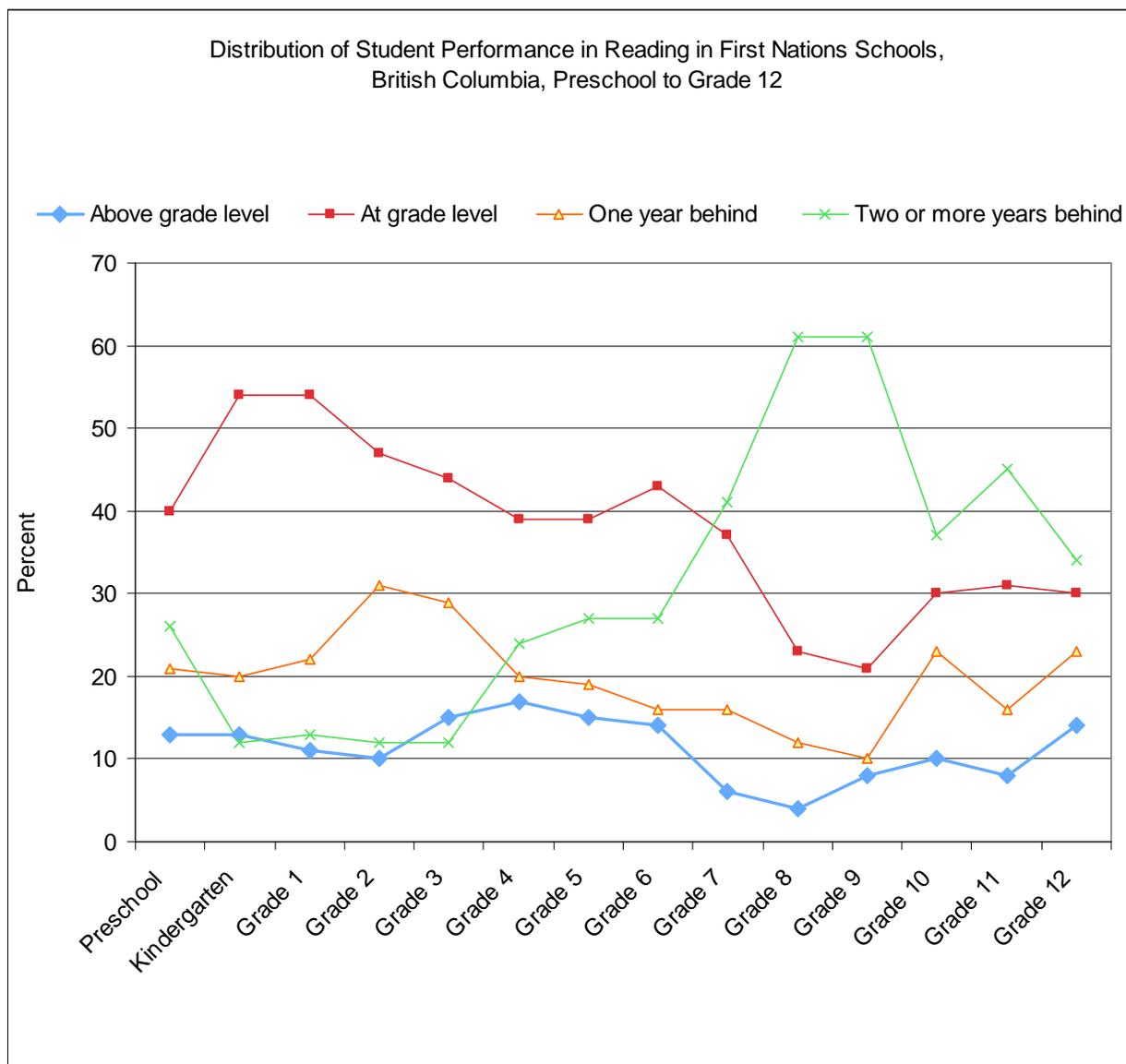


Source: British Columbia Ministry of Education (2007: 12).

There may be a slight narrowing of gaps over the five-years illustrated, although this may reflect changes in marking and in percent of students taking the tests. Nonetheless, the gaps appear to grow as students progress through the K to 12 system. In each year between 2002/03 and 2006/07 and for each skill, the Grade 7 Aboriginal/non-Aboriginal gaps exceeded those at Grade 4 (see Figure 2.9). If we follow a typical cohort, say that in which students take the Grade 4 tests in 2003/04, then most would be in Grade 7 in 2006/07. The Aboriginal MER for Grade 4 numeracy was 13 points below that for non-Aboriginal students. In 2006/07, the Grade 7 MER numeracy gap was 19 points. The comparable increases in reading gaps are from 17 to 21, in writing from 13 to 14.

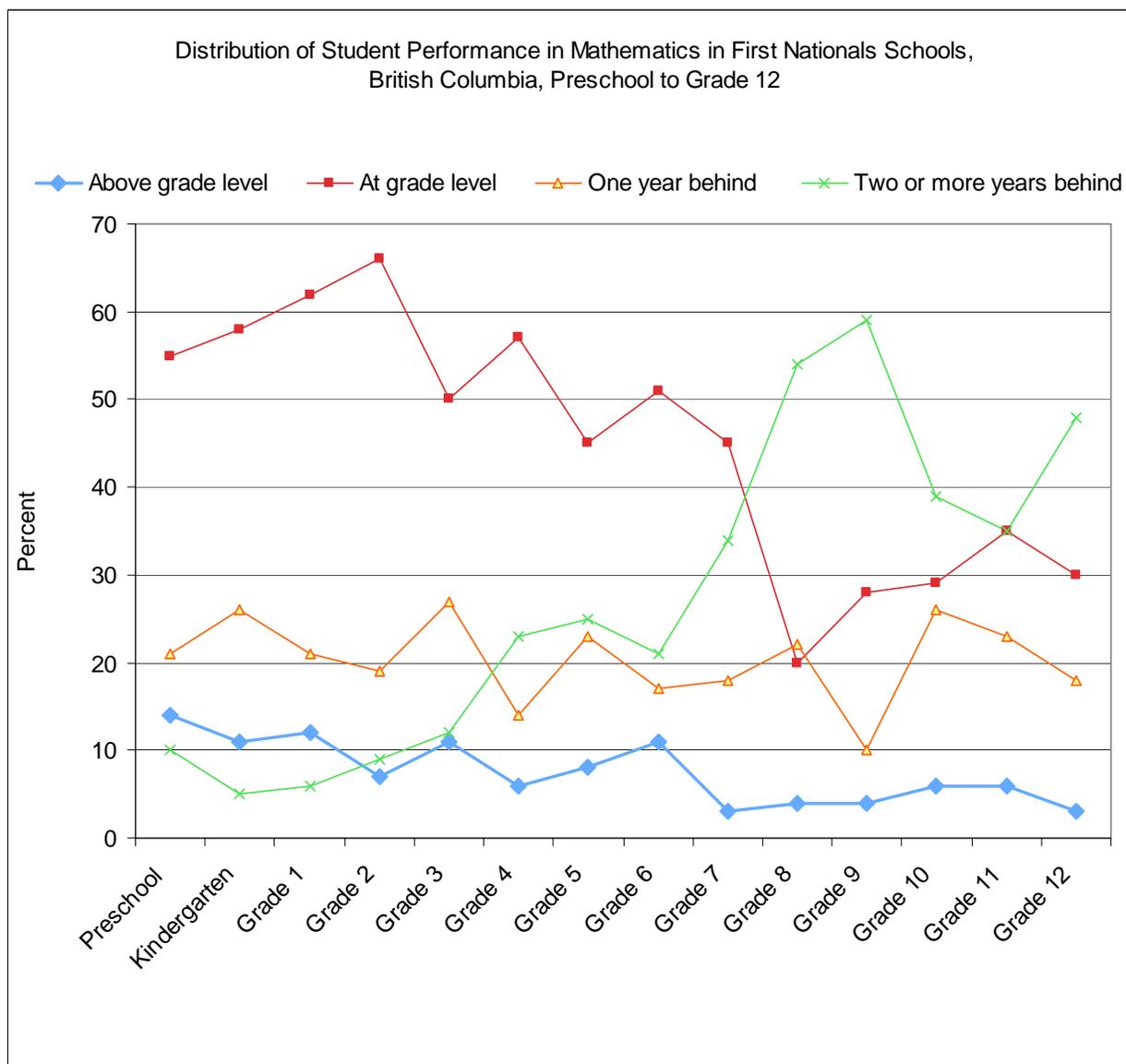
In British Columbia, there are currently 124 band-operated schools. Approximately 4,500 K to 12 students attend these schools; nearly all are registered Indians living on-reserve. For the past five years, the First Nations Schools Association (FNSA) has collected data about on-reserve schools in British Columbia as part of the FNSA School Measures and Data Collection project. About 40 percent of First Nations schools participated in the 2007/08 data collection process, which involved surveying schools, students and parents (Tindall Consulting, 2009). For the FNSA project, schools were asked to report whether their students were at or below grade level in reading and math. Schools used different measures to assess student achievement in these core areas, including classroom assessment and widely used standardized tests like the Canadian Test of Basic Skills and Canadian Achievement Tests. The results from the participating schools are summarized in Figures 2.10a-b.

Figure 2.10a



Source: Tindall Consulting (2009: 28).

Figure 2.10b



Source: Tindall Consulting (2009: 28).

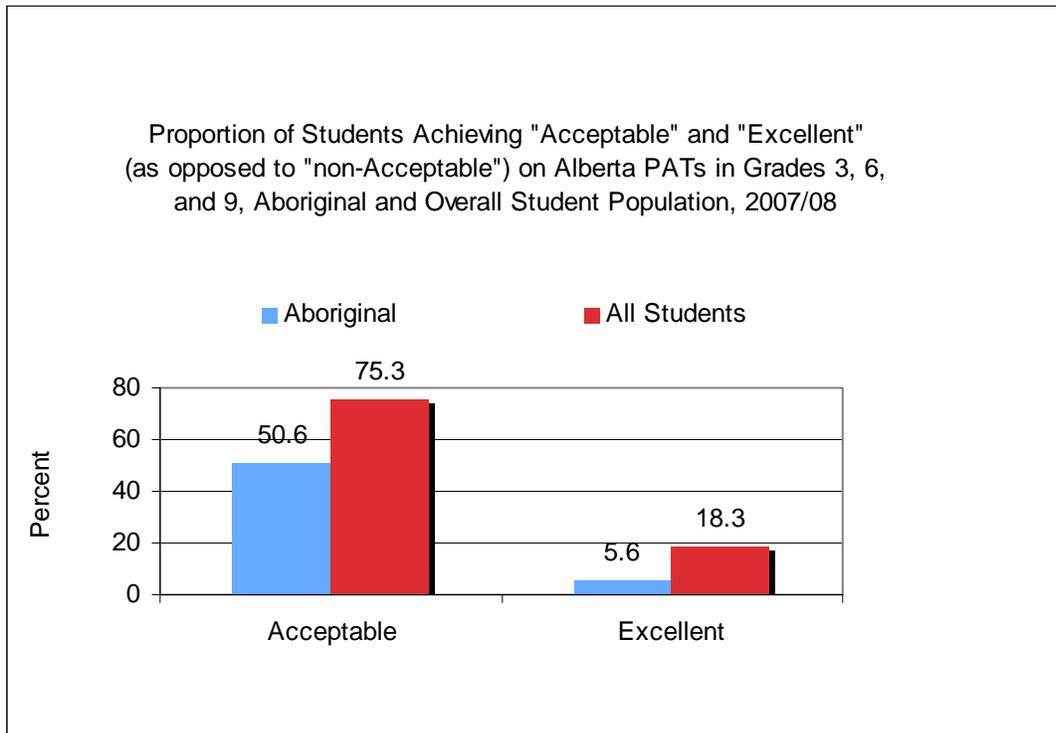
As the FNSA report notes, the pattern that emerges is one of declining performance until Grade 9, after which there is some improvement in the proportion of students working at grade level. In the primary grades (pre-K to 3), an average of 60 percent of students were at or above grade level in reading, and 69 percent at or above grade level in math. In the intermediate grades (4 to 7), just 53 percent were at grade level in reading, and 57 percent were meeting or exceeding the expectations for their grade in math. Although the FNSA data and the provincial FSA results are not comparable, the trend is similar: a growing proportion of students not meeting grade level expectations progress through the K to 12 system.

The FNSA data show some improvement in student performance following Grade 8. There are a number of possible explanations for this reversal. Cohort differences and remediation efforts may underlie the trend, but Grades 8 to 10 are critical transition years, a time when many students choose to drop out of school. Thus, the improvement in performance likely reflects, in large part, the exit of low-performing students.

Alberta

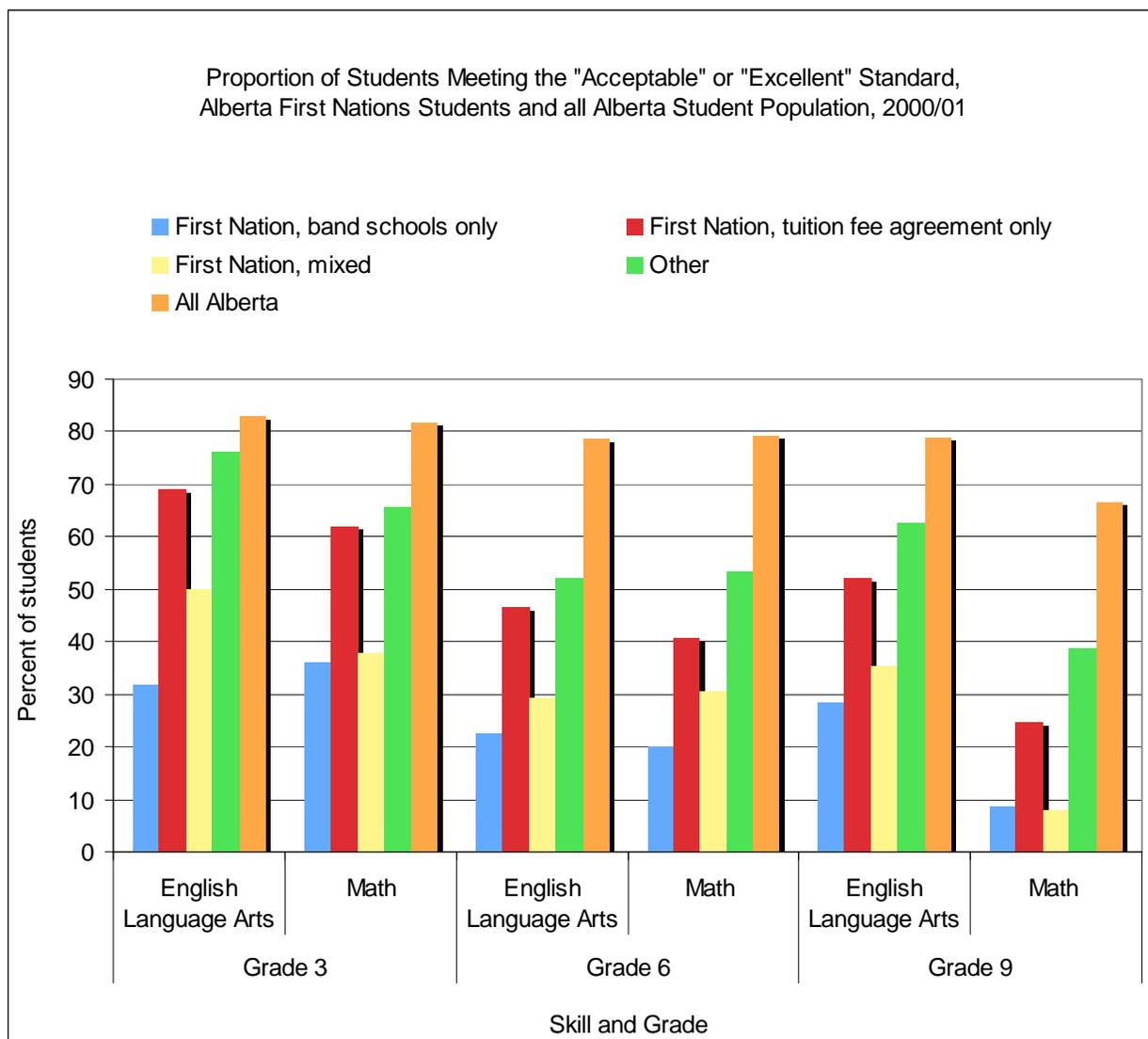
In Alberta, all students, including those attending band and federally operated schools, write Provincial Achievement Tests (PAT) in Grades 3, 6 and 9. The tests assess student achievement in the areas of mathematics, English language arts (reading and writing), science and social studies. The results are reported as the percentage of students meeting an “acceptable” standard and the percentage meeting a standard of “excellence.” Although disaggregated school-level data about Aboriginal student performance are not published, the Alberta Education Business Plan for 2009-2012 (Alberta Ministry of Education, 2009a) included a summary of the 2007/08 PAT results for both First Nations, Métis and Inuit (FNMI) students and the overall student population that wrote the tests in Grades 3, 6 and 9 combined (see Figure 2.11). These results demonstrate a significant gap between the average performance of Aboriginal students and the average performance of all students in Alberta. Among Aboriginal students writing the provincial tests in Grades 3, 6 and 9, 45 percent met the “acceptable” standard, compared to 57 percent of the overall student population (which includes Aboriginal students). The rate of achieving the “excellent” standard in the overall population was three times that for Aboriginal students. Overall, in 2007/08, 75 percent of all students met grade level expectations for achievement (either “acceptable” or “excellent”) in the core subject areas. In comparison, just 50 percent of Aboriginal students met this standard.

Figure 2.11



Source: Alberta Ministry of Education (2009a: 78).

Figure 2.12



Sources: White, Peters, and Beavon (2009: 161); Alberta Ministry of Education (2003).

The limited data available from Alberta for 2007/08 did not disaggregate results by grade, skill, Aboriginal identity groups or provincial versus band-operated on-reserve schools. Recently, White, Peters, and Beavon (2009) published older provincial achievement test results. These data provide additional insight into the relative gaps in outcomes on core competency tests for groups of registered Indian/First Nation students in the 2000/01 school year. In this case, the provincial data identified “those First Nations students who live on reserve or who have previously lived on reserve” (p.137), and divided those students into four subgroups:

1. Band School Only: Students attending one or more band-operated schools.
2. Tuition Fee Agreement Only: Students living on-reserve who attend provincial or independent schools off-reserve.

3. Mixed: Students attending a band school for part of the year and another school for part of the year.
4. Other: Students previously attending a band school or a school with a tuition fee agreement, but not in the data-gathering year. It is likely these students are living off-reserve (White, Peters and Beavon, 2009: 137).

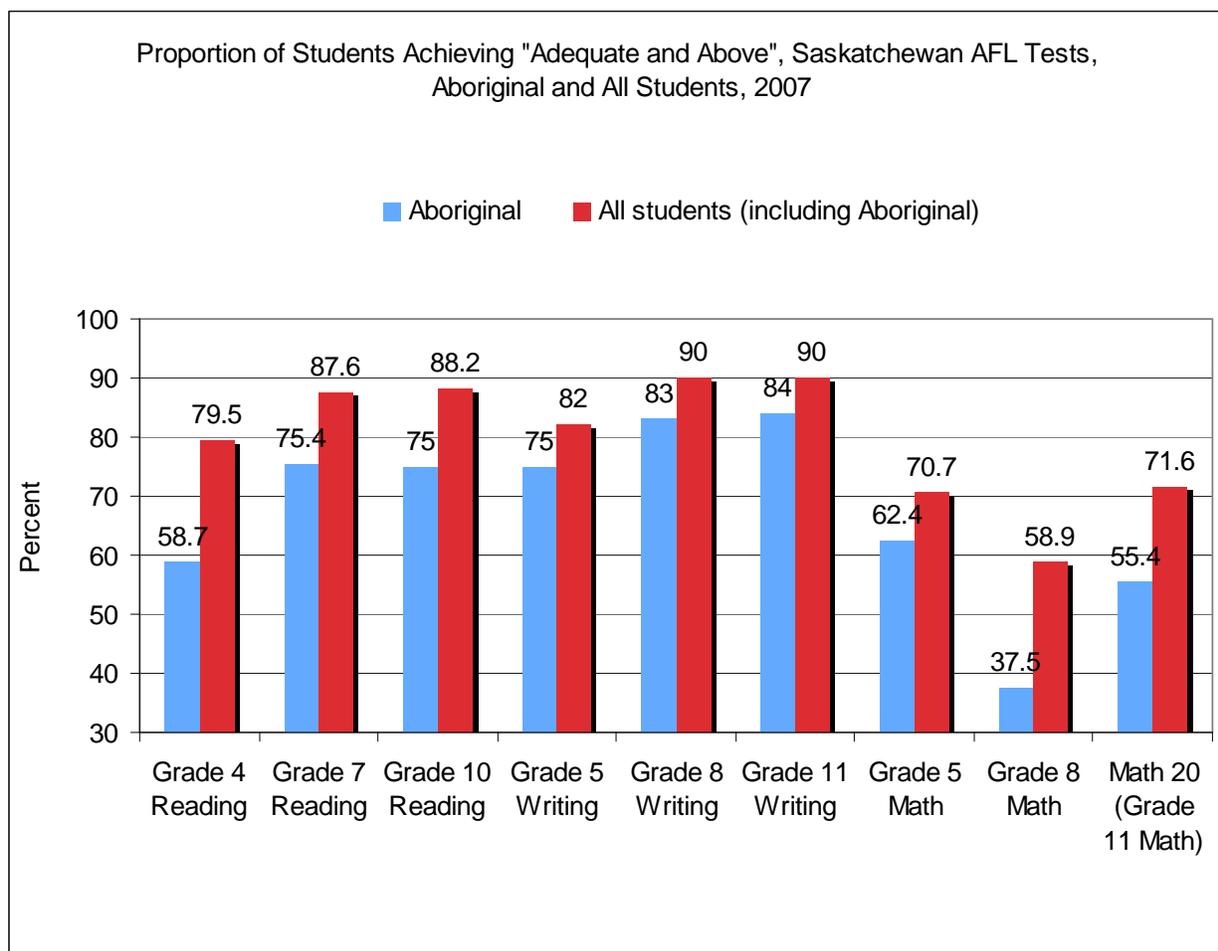
Figure 2.12 illustrates the percentage of students in each subgroup and among the overall student population who met the “acceptable” or “excellent” standard in English Language Arts and Math. At all levels in both Language Arts and Math, the performance among First Nations students was well below the average for all Alberta students. Among First Nations students, those attending band schools were the lowest achievers. Students in the “other” category performed the best, sometimes two or three times better than band school students. As in British Columbia, results decline between the primary grades and intermediate grades, and the gaps between the performance of First Nations students and the overall population grow. At the secondary level, the 2000/01 results shown above demonstrate better results in Grade 9 than in Grade 6 for both all Alberta students and all First Nations groups in English Language Arts. However, for all groups, math results continue to decline over the three grades tested.

Saskatchewan

In 2007/08 in Saskatchewan, 28,338 self-identified Aboriginal students attended provincially funded schools, accounting for 17 percent of the student population. An additional 10,500 Aboriginal students were registered in the province’s Student Data System as attending band-operated, independent and other types of schools (Saskatchewan Ministry of Education, 2008). The Saskatchewan Ministry of Education conducts annual large-scale assessments of student performance in reading, writing and mathematics at different grade levels as part of its Assessment for Learning (AFL) program. For the first time, in 2008, the province published results for Aboriginal students in its *Education Indicators Report* (Saskatchewan Ministry of Education, 2008).⁷ As in British Columbia and Alberta, Saskatchewan results reveal gaps in performance, with Aboriginal students performing below the average for all students at all grade levels and in all skill areas. Figure 2.13 summarizes the 2007/08 AFL results. Here, the test results are reported as the proportion of students achieving “adequate and above” for their grade level.

⁷ Schools operated by Saskatchewan bands in four major tribal councils participate in AFL testing, and their results are included in the 2008 numbers. These students likely represent between 10 and 15 percent of the total number of Aboriginal students writing the province-wide assessments. Although this proportion is significant, the results should be interpreted more as a reflection of the progress of Aboriginal students in provincial schools.

Figure 2.13



Source: Saskatchewan Ministry of Education (2008: 49-60).

The declining performance between early and later grades seen in British Columbia and Alberta is not as clearly in evidence in the Saskatchewan data. In reading and writing, Aboriginal students performed better in later grades than in Grades 4 and 5, and the gaps with all students narrowed. In math, however, students in Grade 8 performed significantly worse than those in Grade 5: 62 percent surpassed the threshold in Grade 5, but only 38 percent in Grade 8. In Grade 11, average Aboriginal performance in math was better. The rebound in Aboriginal performance in math by Grade 11 may be partly explained by cohort differences and/or remediation efforts. However, high dropouts in the junior grades mean that, by Grade 11, the much smaller Aboriginal cohorts perform better.

2.3.3 Cohort Completion Rates

High school completion is a key educational milestone. Self-reported Census data and the limited administrative data available from provincial education ministries show that, even allowing for adult remedial programs, Aboriginals are much less likely to complete high school than non-Aboriginals.

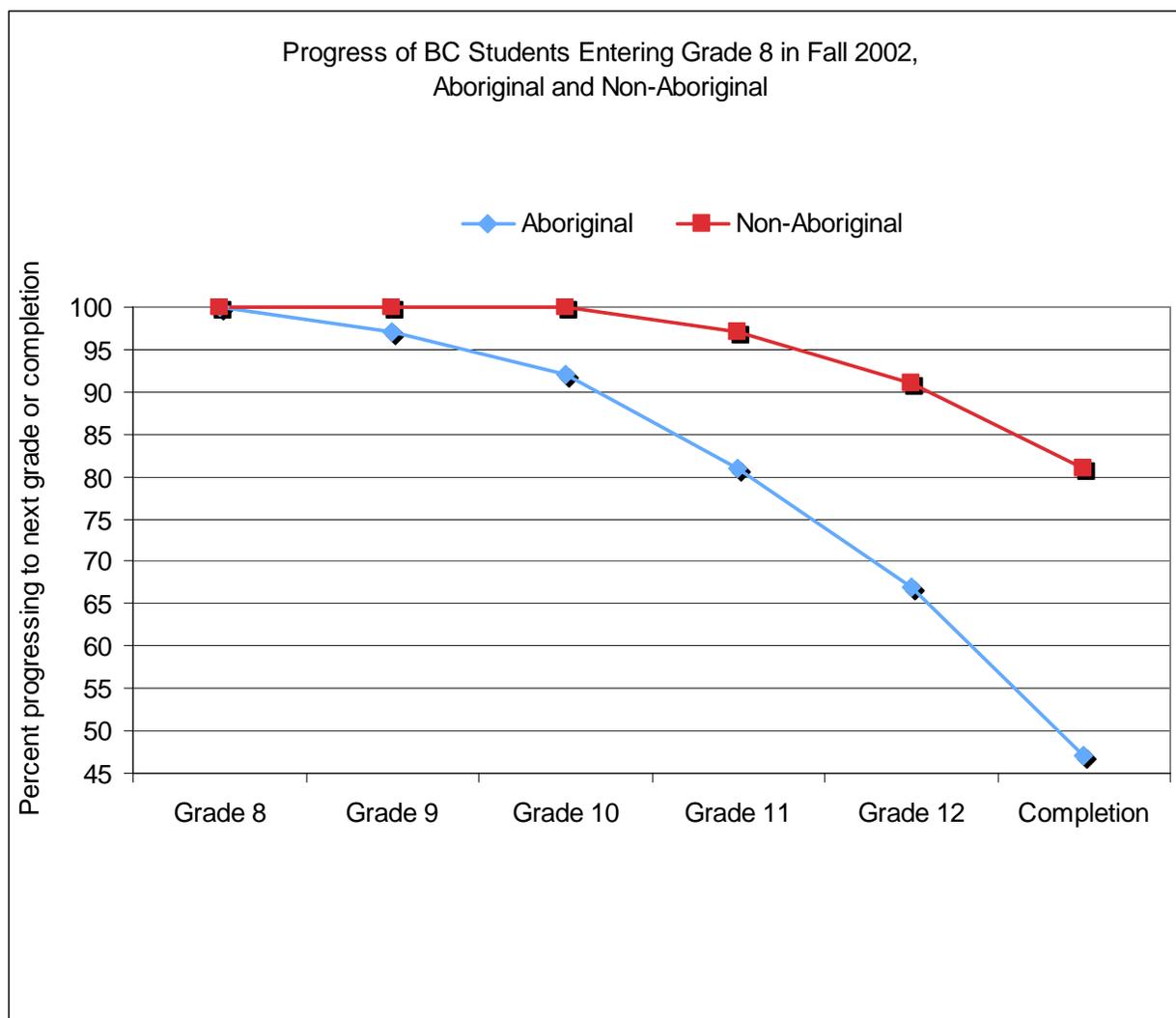
Most provinces do not publish data about Aboriginal grade-to-grade progression and graduation, and even less information is publicly available for band-operated schools. As well, high school completion rates are measured differently in different provinces, so interprovincial comparisons must be undertaken with care.⁸

British Columbia

British Columbia data on Aboriginal completion rates are the most detailed available among provinces. British Columbia uses a six-year completion rate, following student cohorts for six years after they enter Grade 8. The most recent cohort with available data is for students who entered Grade 8 in the fall of 2002 (British Columbia Ministry of Education, 2009a). Six years later, in 2008, 81 percent of non-Aboriginal students had graduated, compared to 47 percent of Aboriginals. The progress of this cohort from Grade 8 onwards is illustrated in Figure 2.14. The graph provides a striking illustration of both the sharply declining grade-to-grade progression of Aboriginal students following Grade 10, and of the widening gap between Aboriginals and non-Aboriginals. While school dropouts are the most important component in the reduction in cohort size, other dynamics exist: some students are retained in the previous grade; some leave the province.

⁸ Some provinces measure the number students that actually graduate as a proportion of those with the potential to graduate in a given year (Yukon, Newfoundland and Labrador). Most provinces take a longer view, and track the number of students within each cohort that graduate from high school within a certain number of years: for example, in Manitoba, four years after entering grade 9.

Figure 2.14



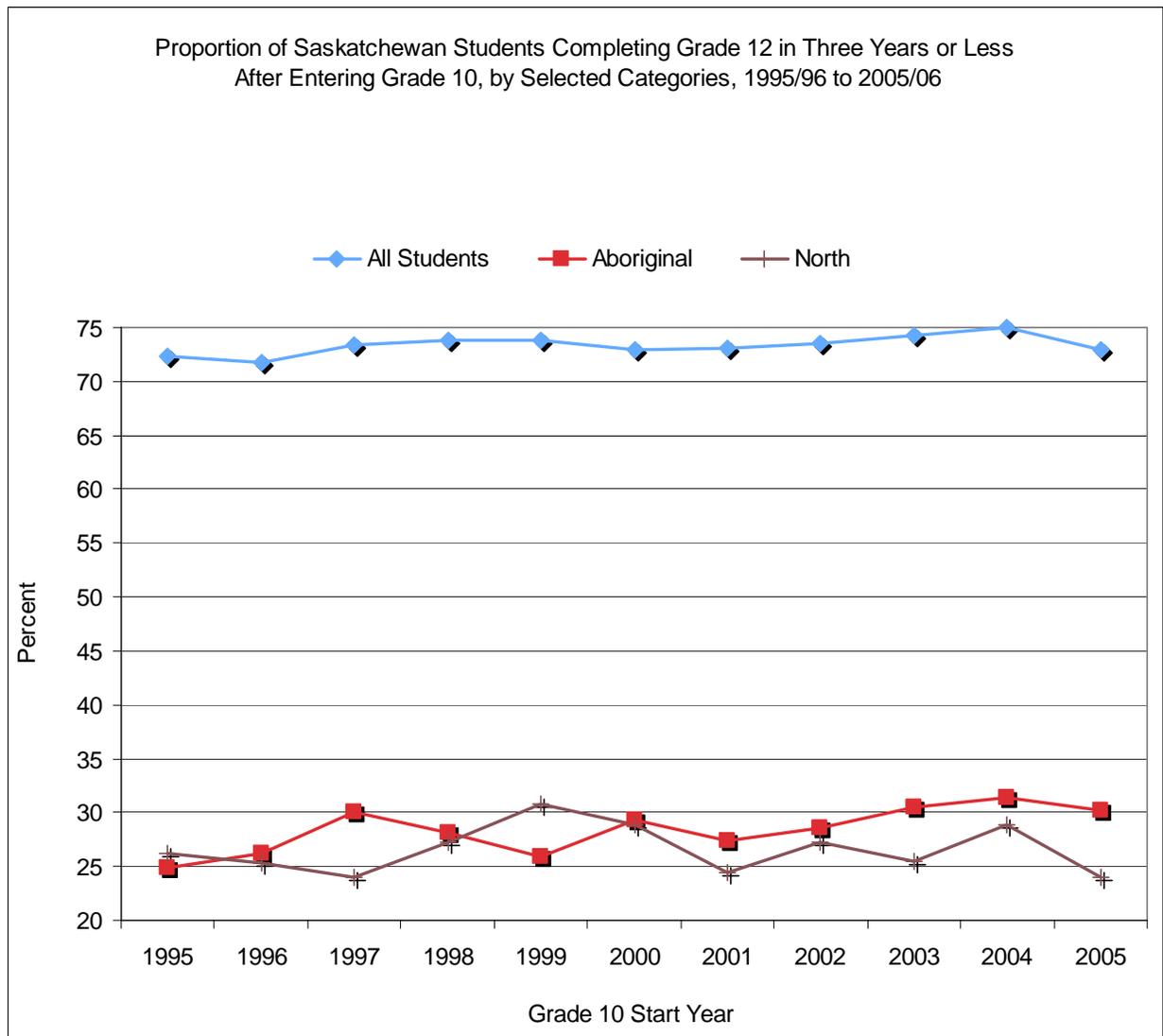
Source: British Columbia Ministry of Education (2009a: 29).

The British Columbia Ministry of Education recently combined its student data with those of the British Columbia Ministry of Children and Family Development (MCFD) in order to track the educational outcomes of children in MCFD custody. In 2006/07, the six-year completion rate among children in care was 32 percent for Aboriginal children, and 52 percent among non-Aboriginals (British Columbia Ministry of Education, 2009a). Clearly, the most vulnerable Aboriginal young people are also among the least likely to complete high school.

Saskatchewan

Saskatchewan has recently published information about graduation rates for Aboriginal students (Saskatchewan Ministry of Education, 2008). As elsewhere, yawning gaps exist between Aboriginal and non-Aboriginal completion rates in provincial schools. Between 1995/96 and 2005/06, the high school graduation rate three years after entering Grade 10 for the overall population in provincial schools was between 72 and 75 percent. “On schedule” female and rural completion rates were slightly higher. However, the “on schedule” completion rate for the Aboriginal identity population ranged from 25 to 31 percent. Figure 2.15 illustrates the gap between Aboriginal students and other groups within the overall student population.

Figure 2.15



Source: Saskatchewan Ministry of Education (2008: 102).

The “North” has a predominantly Aboriginal population and its completion rate in most years was slightly below the province-wide Aboriginal rate. If we allow for late completion beyond the third year, the results are better. For students who entered Grade 10 between 1995 and 2000, the eight-year Aboriginal completion rate was above 50 percent. This dynamic – Aboriginal students either repeating grades or leaving school and returning later – is also evident from Census data; it serves to narrow somewhat the ultimate Aboriginal/non-Aboriginal completion gaps. However, even following cohorts for eight years after entering Grade 10, the gap remains large: the Aboriginal completion rate remains 25 to 30 percentage points behind that for the overall student population (Saskatchewan Ministry of Education, 2008: 104).

The data presented above are mostly snapshots of student performance at one point in time. Other than in British Columbia, the lack of publicly available data about Aboriginal student performance makes it difficult to identify trends over time. However, it is clear that there are significant gaps in performance between Aboriginal and non-Aboriginal students on standardized tests of reading, writing and math skills. The gaps appear early, and widen as students progress through school. Ultimately, a large proportion of Aboriginal students do not complete high school.

Chapter 3. Explaining the Education Gaps

Educating the next generation is among the more complex activities undertaken in any society. Not surprisingly, there are many ideas and considerable disagreement about how best to do it. Here, our focus is on the potential of government to enable children to learn by organizing schools, training and funding teachers, developing curriculum, and so on. Government is only one agent engaged in this activity: parents and other family members matter, as do community organizations. Another constraint in this study is our emphasis on formal accreditation (such as high school certification) and on student performance in tests of core competencies. Admittedly, education is more than accreditation and learning math, reading and science. For Aboriginals, education obviously entails intergenerational transmission of a cultural heritage that risks being buried by that of a “settler society.”

The following passage from a Senate report on Aboriginal urban youth provides an introduction to the interplay of factors that impede Aboriginal education success, and to the sobering conclusion that disentangling the relative importance of these factors and determining where policy interventions may work is not easy.

There are many complex reasons why youth stop attending school. Some of these reasons include: racism; lack of parental involvement and guidance; resentment and embarrassment caused by feeling less successful scholastically than other students; instability caused by high rates of residential mobility; feelings of isolation caused by being in environments that are not culturally sensitive; an inability to afford text books, sporting equipment, and excursion fees; an unstable home life; and poverty. Consistently, witnesses emphasized that the lack of parental involvement, guidance and support was partly responsible for the fact that Aboriginal youth continue to fare so poorly academically ...

The damaging effects of residential schools on Aboriginal peoples, cultures, and languages are now widely recognized ...

[T]here is a deep mistrust among some Aboriginal people of mainstream educational institutions. The importance of obtaining a good education becomes secondary to what may be perceived as a further assimilative assault on Aboriginal culture, language and traditions. (Senate Standing Committee on Aboriginal Peoples, 2003: s.1.4.)

To impose some order on the analysis, it is useful to categorize relevant factors that potentially explain education outcomes. We lay out four sets of factors that impact either the demand for education by students and their families, or alternatively the supply of inputs relevant to educating children:

- Demand-side:
 - Financial incentives (expected return to student investment in education relative to expected earnings without secondary school certification supplemented by transfer income);
 - Cultural expectations for formal academic achievement;

- Supply-side:
 - Socio-economic characteristics (especially parental education and family income) of students' families.
 - School-related factors that collectively define school quality.

After introducing each set of factors, we discuss examples of programs intended to tackle the factors in question. As we stressed in Chapter 2, the causes of weak Aboriginal education outcomes are complex, and there are no “silver bullets.” Most of this chapter addresses supply-side factors but we begin with a brief discussion of the demand side.

3.1 Demand-Side Factors

3.1.1 Financial Incentives

Regions with weak labour markets for young adults (characterized by above-average unemployment rates and below-average employment rates among those ages 15 to 24) are typically associated with relatively relaxed regulations governing access to social assistance and employment insurance. The result is to discourage many secondary school students – in particular those without family traditions of post-secondary studies. They perceive a low expected return from high school completion relative to alternative options. This dynamic partially explains interprovincial differences in incomplete high school rates across Canada.

The combination of weak labour markets and ease of access to transfer income is more evident on- than off-reserve. In recent years, the proportion of the on-reserve population utilizing social assistance has declined somewhat, but remains above 35 percent (Indian Affairs and Northern Development Canada, 2005). Almost certainly, perceptions of a low financial return influence the decisions of Indian/First Nations secondary students living on-reserve.

In the last decade most provincial governments opted to make social assistance less accessible for employable young adults having no physical or mental handicaps. Across Canada, welfare utilization has declined from over seven percent of the population in the 1980s, and over 10 percent in the mid-1990s, to five percent this decade. The current rate of welfare utilization is similar to that which prevailed in the 1970s (Richards, 2007). Fear of entrenching intergenerational welfare dependency has been a major rationale for provincial shifts in policy. Since the 1970s, Indian and Northern Affairs Canada has devolved administration of on-reserve social assistance to band councils; in general, they have not undertaken a comparable policy shift. To do so would have accelerated off-reserve migration. Exploring options for social assistance policy on-reserve is controversial, and goes well beyond the scope of this report. Nonetheless, the relatively low financial return to completing high school is a relevant factor in understanding on-reserve education outcomes.

3.1.2 Culture Matters

The Senate report quoted above refers to a “deep mistrust among some Aboriginal people of mainstream educational institutions ... [as] a further assimilative assault on Aboriginal culture, language and traditions.” Undoubtedly, this mistrust is a relevant factor and one that can be overcome only gradually. The Canadian government has now made formal apology for the forced family separation in residential schools. Provincial education ministries now offer courses in Aboriginal history and literature, and not only as electives for Aboriginal students. Some provinces – probably British Columbia has advanced furthest with this strategy – have programs to engage Aboriginal community leaders in school affairs (see Box 3.)

Box 3. Lessons from British Columbia School Districts

Aboriginals comprise approximately 10 percent of students in British Columbia’s provincial schools. Like most provinces, the provincial education ministry tests student performance (in core subjects of reading, writing and numeracy) at stages (Grades 4 and 7) in the K to 12 cycle. British Columbia is the only province to both identify Aboriginal students and release Aboriginal data disaggregated to the level of individual schools.

In an attempt to assess the relative importance of various factors relevant to Aboriginal student outcomes in these core competency tests (Foundation Skills Assessment), we analyzed test results in a sample of 366 schools having sizeable Aboriginal student cohorts (Richards, Hove, and Afolabi, 2008; Richards, Vining, and Weimer, forthcoming). The dependent variable was the ratio of school test scores in which students either “meet expectations” or “exceed expectations,” as opposed to “not meeting expectations” in provincial FSA tests conducted over the five years 1999/00-2003/04. We explained school-level Aboriginal meet/exceed ratios (MERs) using the following variables:

- socio-economic characteristics of the Aboriginal families in each school’s catchment area (via the median annual income and average education level of Aboriginal families);
- overall school quality (measured by the FSA performance of non-Aboriginal students in each school);
- peer effects of other Aboriginal students (the number of Aboriginal FSA scores per school);
- an identifier variable for the school district of each school (43 districts in total).

Were Aboriginal families to enjoy average socio-economic conditions equivalent to those of non-Aboriginal families, the Aboriginal MER would rise, but not by much: it would rise three percentage points, from 64 to 67 percent. The non-Aboriginal MER serves as a measure of school-level instructional effects plus the impact on Aboriginals of non-Aboriginal student peers. Moving the non-Aboriginal MER from the 25th percentile (75 percent) to the 75th percentile (82 percent) increases the expected Aboriginal MER by 5 percentage points.

In our data, there was a marked negative peer effect. Increasing the number of Aboriginal test scores in a school from the average to twice the average lowered the expected Aboriginal MER by six percentage points. A plausible interpretation, consistent with other studies, is that large Aboriginal student counts may foster a culture of low academic expectations – among teachers, students’ peers or both. However, the Aboriginal test score count is negatively correlated with the Aboriginal SES (socio-economic status) index⁹. Thus, in addition to measuring expectations, it may also be capturing socio-economic effects. It is important to bear in mind a trade-off: Aboriginal outcomes improve with a culturally sensitive curriculum and realizing such is more likely in schools with more Aboriginal students.

Following is a brief digression on the institutional context. The provincial education ministry provides each district \$1,000 annually per identified Aboriginal student, and requires all districts to implement Aboriginal Education Enhancement Agreements intended to engage local Aboriginal communities in the school system and fund Aboriginal-specific education programs. These arrangements afford considerable discretion to districts to manage and innovate in Aboriginal education programming. Appendix 1 reproduces in entirety the agreement for one school district in the southern British Columbia interior. The opening paragraph indicates the implicit strategy:

The Aboriginal Education Enhancement Agreement is ... between the local aboriginal communities (Status On-Reserve First Nations, Other First Nations, Métis, Inuit, and other off-reserve people of aboriginal ancestry), School District 67 (Okanagan Skaha), and the Ministry of Education of the Province of British Columbia. The Agreement establishes the structures and processes that the parties and other partners commit to use to achieve ongoing improvement in the school achievement of aboriginal learners attending School District 67 (Okanagan Skaha) schools. The goal, indicators, and targets of the Agreement are living dimensions with which the parties will work together in good faith to reflect growth in the outcomes which are ambitious, meaningful, relevant, realistic and attainable for the program and the learners.

Inclusion of variables to identify school districts dramatically improved the explanatory power of the regression. Having undertaken the statistical analysis, we ranked school districts in terms of the proportion of district schools that performed better (in terms of Aboriginal MERs) than expected based on socio-economic and other school quality variables. Based on interviews with educators in a sample of school districts, there were evident differences between the high- and low-performing districts, based on this ranking. Education authorities in better-performing districts emphasized Aboriginal education as a long-term priority; they had more success in engaging Aboriginal leaders and the broader Aboriginal community; they used objective data on Aboriginal student performance in design of policy, and followed through on policy implementation.

⁹ A simple index was constructed to summarize the average socioeconomic status (SES) of the population in each school catchment area included in the study. Using data from the 2001 census, the index combined average parental education and income levels. The SES index was calculated for both Aboriginal and non-Aboriginal populations in the school catchment areas.

There are obvious parallels between Canadians' belated concern with Aboriginal education this decade and policy debates over black education in the United States triggered by the landmark Supreme Court desegregation decision of Brown v. Board of Education (347 US 483 (1954)). An element of the United States civil rights movement was a heightened concern – among both black and white Americans – for the complex reasons lying behind black under-performance in formal education. Americans acknowledged that the legacy of slavery and racism had generated a culture among much of black America that gave a low priority to formal education achievement. Longer and more seriously than we Canadians in the case of Aboriginals, Americans have been attempting to overcome that legacy, remedy the indifference of many state legislatures to black education success, give prominence to Afro-American educators, devise early childhood education programs for at-risk families, and so on.

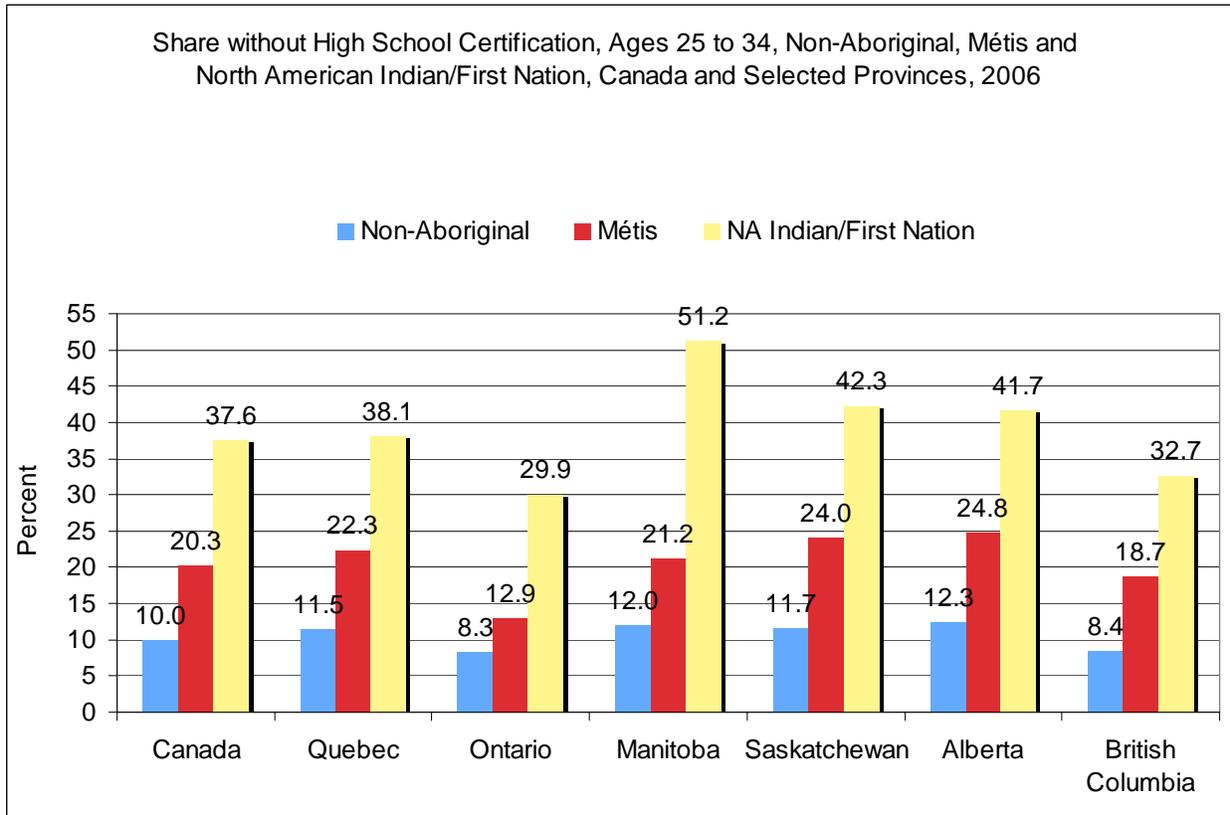
Virtually all analysts of education gaps among marginalized minorities stress the importance of affirming the inherent value in the minority culture – both for its intrinsic worth and as means to improve performance in core academic skills. We cite a representative statement to this effect:

This leads to one of the most potentially useful observations in the literature: Aboriginal students who have the most success in mainstream education are those who are strongest in their Aboriginal identities. Conversely, those students who indicate a discomfort with or lack of rootedness in their Aboriginal identity leave school and struggle academically with respect to both rooted Aboriginal students and non-Aboriginal students. This is, of course, in direct contrast to the educational pedagogy of assimilation that was accepted for decades and still lingers in the structures of contemporary education. (Barker, 2009: 31)

However, it is important to acknowledge a potential trade-off: promotion of Aboriginal identity at the expense of acquisition of core competencies. (For elaboration on this potential trade-off, see the discussion of peer effects below.)

Since the early 1970s, the United States Department of Education has tracked results from national samples of students on tests of core skills at various ages (nine, 13, and 17). The most recent round of National Assessment of Education Progress (NAEP) tests, for 2008, contains reasons for optimism: since the early 1970s, the increases in average scores in both math and reading for all three age groups are significantly larger for black than for white students (Rampey, Lutkus and Weiner, 2009: 4). There are also reasons for pessimism: while the black/white gaps have narrowed since the 1970s, most of the improvement occurred prior to 1990; latest results reveal that about half the original gaps persist; and US educators are rightly worried that overall student performance in US schools is well below the OECD average (Bussière, Knighton, and Pennock, 2007).

Figure 3.1



Source: Authors' calculations from Statistics Canada (2008c).

Figure 3.1 shows high school completion rates among those identifying as Indian/First Nation, Métis and non-Aboriginals, ages 25 to 34, in Canada overall and in six provinces. Cumulatively, these provinces account for nine in 10 of the Aboriginal population. (The cohort illustrated, ages 25 to 34, is the one enjoying the best Aboriginal education outcomes in terms of completed secondary education at the time of the 2006 Census.) The very large Indian/non-Aboriginal gaps in overall high school completion rates, nationally and in all provinces, are prima facie evidence as to the importance of cultural differences in determining education outcomes.

Culture matters, but it is not the only issue. There are large interprovincial differences within Aboriginal identity groups. For example, the range for incomplete high school among Indian/First Nation in this cohort is 21.3 percentage points (from 29.9 percent in Ontario to 51.2 percent in Manitoba). There are also large differences between those living either on- or off-reserve. (Refer back to Figures 2.5a and 2.5b illustrating education profiles among those identifying as Indian/First Nation.)

3.2 Supply-Side Factors

3.2.1 Socio-Economic Characteristics of Students' Families

Many family characteristics impinge on the probability of children's academic success. Here we concentrate on three of the most important: family income, parental education, and family mobility. Other studies have defined additional factors: parental involvement, family cohesion, and neighbourhood cohesion (Canadian Council on Learning, 2007).

Family Income and Parental Education

To use an economic analogy, parents are one "input" in producing the "output" of educated children. Parental education measures the stock of relevant human capital that parents can contribute to their children's education; family income measures the current resources, such as parental time, that families can contribute. Simple as it is, this analogy explains some of the dynamics of children's education. It also provides a rationale for government investing in early childhood education (ECE) programs for Aboriginal children. Aboriginal families have on average fewer economic "inputs" to contribute to their children's education success.

To quote an important US survey of panel data statistical evaluations of the determinants of children's success:

... perhaps the most fundamental economic factor is the human capital of parents, typically measured by the number of years of schooling attained. This variable ... is statistically significant and quantitatively important, no matter how it is defined. The human capital of the mother is usually more closely related to the attainment of the child than is that of the father ...

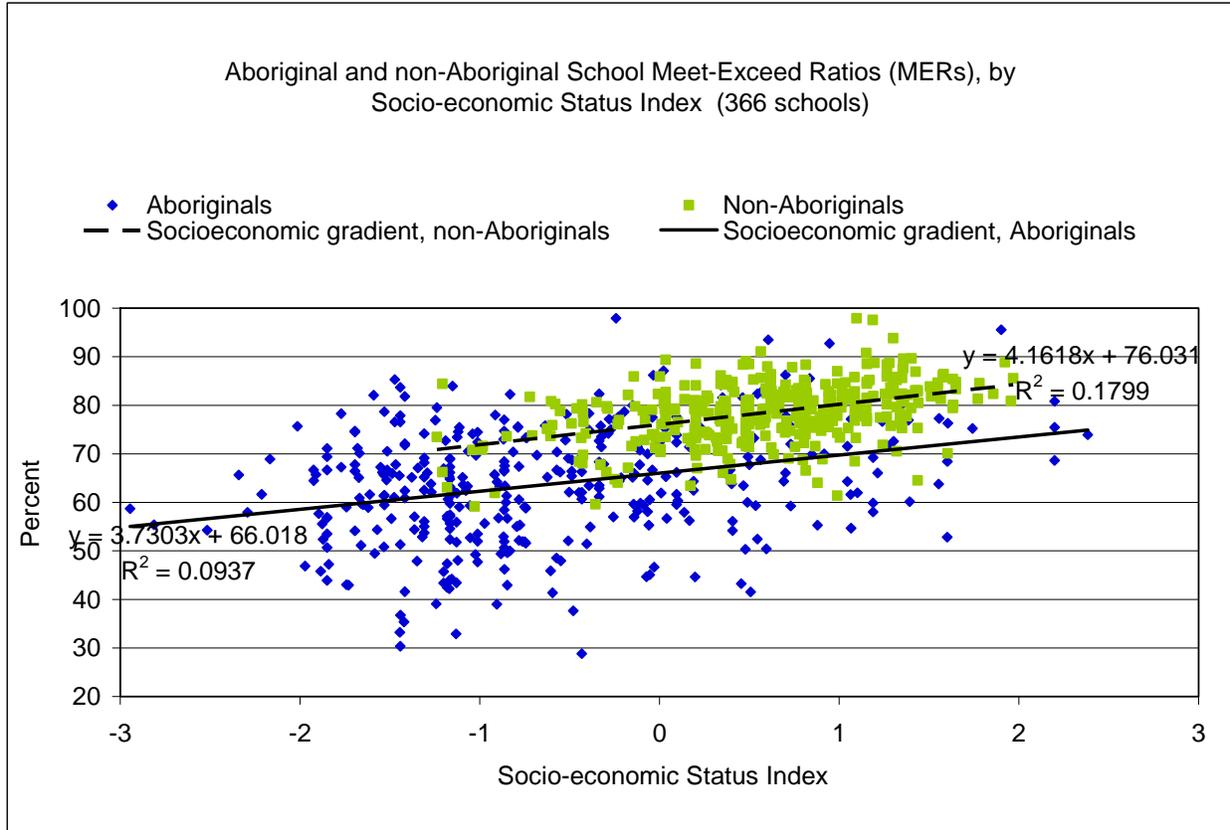
The income level of the family in which a child grows up is perhaps the best measure of the level of economic resources devoted to the child by the parents ... family income is positively associated with the educational attainment of the child, and the variable is statistically significant in more than half of all cases where a positive relationship is estimated ...

There is some evidence that the source of income matters; for example, while earned income has a positive effect on children's schooling, income from welfare programs tends to have a smaller positive – or even a negative – effect (Haveman, and Wolfe, 1995: 1855-1856).

Figure 3.2 displays graphically that family income and parental education of students' families are relevant to an explanation of both Aboriginal and non-Aboriginal education outcomes. The graph is from a study of Aboriginal and non-Aboriginal student performance in core competency tests at Grades 4 and 7 in 366 British Columbia provincial schools having sizeable cohorts of both Aboriginal and non-Aboriginal students (Richards, Hove, and Afolabi, 2008: 6). The vertical axis is the ratio of school test scores in which students either "meet expectations" or "exceed expectations," as opposed to "not meeting expectations," in provincial core competency tests. The horizontal axis is an index constructed with equal weighting of annual median family income and parental education levels among Aboriginal and non-Aboriginal families living in

the relevant school's catchment area at the time of the 2001 Census. Running trend lines through the Aboriginal and non-Aboriginal outcomes generates socio-economic gradients of very similar positive slopes.

Figure 3.2



Source: Richards, Hove, and Afolabi (2008: 6).

Predictably, the average socio-economic status across the school catchment areas is lower for Aboriginal than for non-Aboriginal students' families. If the Aboriginal families had the average income and education levels prevailing among the non-Aboriginal catchment populations, that would reduce by about a fifth the observed Aboriginal/non-Aboriginal gap in MER scores. This result – that family income and parental education levels explain some, but a fairly small share, of the education gap – is typical of comparative studies of children of marginalized communities in mainstream schools.

Family Mobility

Many studies have documented the negative impact on student performance of parental mobility. The problem affects low-income more than middle- or high-income families because employment among the poor tends to be less stable. Even after adjusting for income, Aboriginal mobility is disproportionately high (Aman, 2009; Beavon, Wingert, and White, 2009; Norris, and Clatworthy, 2003). Many Aboriginal families move regularly between a city and a rural community – a reserve in the case of those who are registered Indian. Students may begin the

school year in an urban school; the family may return to the reserve at some point in the fall; the family may come back to town in the spring. Aboriginal mobility within a city is also high. Obviously, such moves disrupt student learning and render coordination by teachers a challenge.

Although it does not identify Aboriginal students, a recently completed analysis of factors pertinent to “on schedule” high school completion among Alberta students entering Grade 10 found mobility to be a highly significant variable. Among those students who did not move, 75 percent successfully graduated in three years; among those who moved, only 60 percent did. Similar results were obtained in studying the rates of completion within four years. In a multivariate analysis, moving between Grades 3 and 9 was a statistically significant (negative) factor in the probability of high school completion within three years (among students who had reached Grade 10), as was any move in senior high school years (Alberta Ministry of Education, 2009b: 9,41). In another study, this one bearing on a cohort of British Columbia Aboriginal students entering Grade 8 in the 1998/99 school year, 57 percent of the students who stayed in the same school (or changed schools only because their original school did not teach senior secondary grades) completed high school within six years. Among those who changed schools (for other reasons), the completion rate was approximately 30 percent (Aman, 2009: 186).

There is not much that public policy can do to lower mobility rates. Provincial governments have implemented minor adaptations. Some school districts divide the school year into modules (of, say, 10 weeks) and seek to place mobile students according to the appropriate module as opposed to grade. Saskatchewan has integrated students attending on-reserve schools with the provincial education database, thereby simplifying access by both band-operated and provincial schools to student records.

3.2.2 School Quality

Everyone agrees that “good schools” are important, but determining what aspects of schools distinguish “good” from “bad” is contentious. Many proxies have been used: expenditure per student, student/teacher ratio, qualification and experience of teachers, curriculum, academic performance of students (relative to other schools after adjusting for non-school factors determining student outcomes), and quality of management of schools at the school and at higher levels (Rivkin, Hanushek, and Kain, 2005; Anderson, 2006).

As noted in our discussion of education gaps in Chapter 2, it is important to distinguish between registered Indian/First Nation students attending on-reserve schools and Aboriginal students attending off-reserve schools, in conjunction with non-Aboriginal students. Provincial governments are responsible for educating about 80 percent of Aboriginal children in Canada. The remaining Aboriginal students (the great majority of whom identify as Indian/First Nation) attend on-reserve schools that are operated by local band councils, but are formally under the jurisdiction of the federal government.

Quality of School Management

Quality of school management matters a great deal, but it is hard to determine what dimensions of management are important. However, those we interviewed were nearly unanimous in saying that the “one school stand-alone” model of on-reserve school management is inefficient and explains, to some extent, unsatisfactory on-reserve education outcomes. An elegant statement of this problem is that by Michael Mendelson:

[E]qually necessary [in addition to adequate funding] is the infrastructure to support and maintain a good education system – from curriculum development to capital facilities planning. Most on-reserve schools are managed by individual First Nations which have authority for one or two schools. This is an old and outdated model of school organization. The “non-system” of small rural schools in every province was reformed many years ago, when consolidated rural school boards [i.e. districts] were created – sometimes over the strenuous objections of local communities. At the same time, provincial ministries of education were greatly strengthened, with significant legislative authority and educational expertise. (Mendelson, 2008: 7-8.)

Mendelson (2009) makes a useful distinction between school districts as “executive managers” of schools and providers of services displaying important scale economies. In fulfilling the first mandate, districts oversee the human resources of district schools: negotiating contracts and the terms of employment for teachers and providing for stable employment with opportunities for professional training and advancement. In fulfilling the second, they finance specialized instruction and support services shared across schools, services that would be too costly for individual schools to finance.

In the context of current funding levels and organizational structures, band-operated schools are presently not providing a full range of specialized services and executive support. The results of a recent study of the Yorkton Tribal Council (YTC) in Saskatchewan are illustrative of the constraints that First Nations encounter in educational service provision. An example of a formative attempt to create a First Nation school district, the YTC Education Department provides support and services for about 1,100 students in eight schools. The study examined YTC’s second-level services (counselling, speech pathology, curriculum specialists, etc.) – services provided by school districts in provincial school systems. On a per student basis, the geographically overlapping provincial school district enjoyed a second-level services budget nearly 50 percent larger than YTC’s. The authors also regressed second-level service expenditures on district student enrolment across Saskatchewan. The results imply sizeable fixed costs, and hence scale economies. Based on the regression analysis estimates, in order to provide services at the same level as the local provincial school district, YTC’s second-level budget should be nearly 200 percent larger (Yorkton Tribal Council, 2009).

In the context of mainstream schools in both Canada and the United States, there has been debate about the optimal district size given a trade-off between lower cost of administration and delivery of secondary services with larger size set against more local control and parent participation with smaller size. Whatever the optimum, there is consensus that large cost savings exist from consolidation of very small districts. For example, Andrews, Duncombe, and Yinger

(2002: 2) conclude: “The best of the cost function studies suggest that sizeable potential cost savings in instructional and administrative costs may exist by moving from a very small district (500 or fewer pupils) to a district with approximately 2,000 to 4,000 pupils.”

Higher costs per student in smaller districts are evident in the data from the four western provinces (see Table 3.1). Ordinary expenditures in the smallest districts (with fewer than 1,000 students) averaged \$12,138 per student. This is \$2,000 higher than the average for districts with 2,000 to 5,000 students, and nearly \$3,700 more per student than in districts with over 10,000 students. Smaller districts also spent comparatively more per student on administration. On average, across western Canada, districts with fewer than 1,000 students spent \$777 per student on district administration – almost double the \$443 spent by districts with 2,000 to 5,000 students, and triple the \$256 per student spent by districts with more than 10,000 students. On-reserve band-operated schools are much like extremely small school districts. Only a handful of bands administer schools for more than 1,000 students; the vast majority of bands are responsible for fewer than 500 students.

Table 3.1

Per Student School District Ordinary and Administrative Expenditures in Western Provinces, by School District Size, 2006/07 or 2007/08										
District Size (number of students)	Per Student Ordinary Expenditure (including administration) (\$)					Per Student Administrative Expenditure (\$)				
	BC *	AB*	SK**	MB**	Western Provinces Average	BC*	AB*	SK**	MB**	Western Provinces Average
Provincial Average	8,466	9,458	8,995	9,010	8,977	277	352	234	321	306
Over 10,000	8,031	8,998	7,862	8,934	8,472	226	310	145	271	256
5,000 to 9,999	8,803	9,405	9,308	9,050	9,209	325	331	241	382	316
2,000 to 4,999	9,932	10,721	9,382	9,078	10,103	430	485	303	334	424
1,000 to 1,999	11,375	12,397	9,486	9,051	9,929	546	717	401	361	443
Under 1,000	14,652	11,323	10,344	9,448	12,138	1,235	604	604	385	777

* School year 2007/08

** School year 2006/07

Sources British Columbia Ministry of Education (2008a); Alberta Ministry of Education (2008b; 2009c); Saskatchewan Ministry of Education (2009); Manitoba Ministry of Education, Citizenship and Youth (2007; 2008).

Peer Effects

School quality encompasses the issue of student peer effects. Socio-economic characteristics of families may affect not only the students of the relevant families; they may also impinge – positively or negatively – on other students in the school and hence become determinants of

school quality. For example, mobile students tend to exercise a negative effect on their peers. Frequent school moves tend to lower a student's prospects and, as the share of movers rises in a school, it adversely affects the performance of all students, including those who do not move. Conversely, the peer effect may be positive. In the British Columbia school study discussed above, the performance of non-Aboriginal students in a school had a marked positive impact on that of Aboriginal students.

The potential impact of student peers is inseparable from designing school curriculum and hiring faculty in a manner to promote Aboriginal culture. To improve school performance among marginalized ethnic/racial groups, many studies stress the value of hiring teachers who belong to the ethnic/racial group in question, and of introducing a school curriculum oriented to the group's cultural experience. These features are usually more in evidence in schools with large numbers from the relevant group. Such schools are better able to achieve minimum efficient scale in such things. However, a trade-off exists. The presence of a large culturally homogeneous low-performing student cohort may well encourage a school culture of low academic expectations: some combination of low teacher expectations of their students' academic potential and low student expectations of their own and their peers' potential.

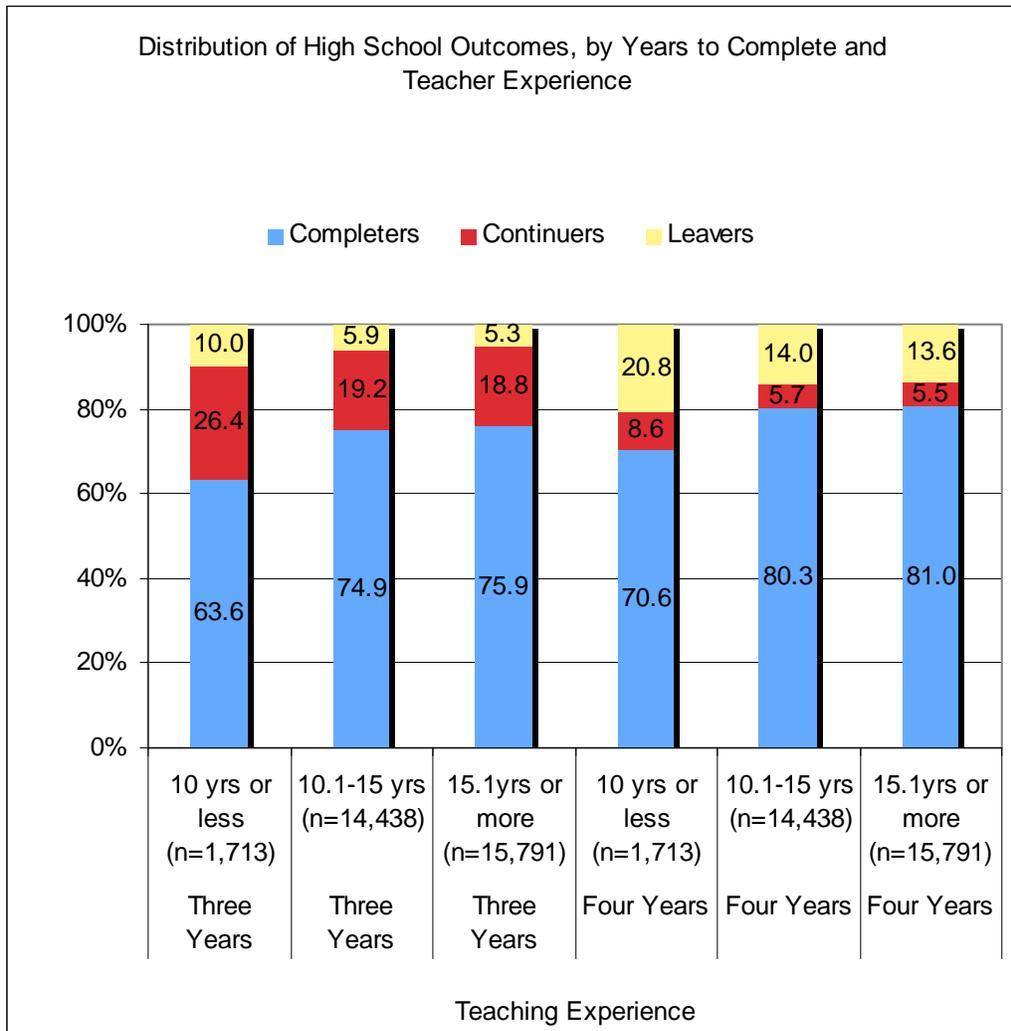
The potential of this trade-off lies behind many attempts to racially integrate US schools, and a concern that African Americans are, for reasons of neighbourhood segregation, overly concentrated in low-performing inner-city schools. In a rigorous study of Texas schools, Hanushek and Rivkin (2009) found that a rising share of black students in a school generated a negative externality on the performance of black students, particularly on those in the top quarter (in terms of core competency tests) in early elementary grades. The share of black students generated a smaller, but in many cases significant, negative externality on white students within the school.

Teacher Quality

Teaching in a "tough" inner city school or an isolated rural school is often more stressful than in a school located in a stable middle-class suburban neighbourhood. Faced with challenging working conditions and eventual burnout, some talented and committed professionals can gravitate away from such schools. According to many of our interviewees, a similar dynamic operates in on-reserve schools because teachers generally receive lower salaries, fewer benefits, and less secure employment compared to those in provincial schools. A problem of high teacher turnover and a teaching staff with limited experience is sometimes generated in these schools.

The Alberta study on factors conducive to "on schedule" graduation of students entering Grade 10 found some evidence to the effect this dimension of school quality matters. In schools where the average teacher experience was less than 10 years, 64 percent of students graduate within three years; in schools where the average teacher experience exceeded 10 years, 75 percent did (Alberta Ministry of Education, 2009: 28).

Figure 3.3



Note: Each total column represents the overall number (100 percent) of senior-high students in schools with various average years of teaching experience. The sections within each column are percentages of completers, continuers and leavers within each of these student categories.

Source: Alberta Ministry of Education (2009b: 28).

3.3 Early Childhood Education

Not surprisingly, children arrive in kindergarten with striking disparities in their readiness to learn (Thomas, 2006; Shonkoff, and Phillips, 2000). Early childhood education (ECE) is an intervention with the potential to overcome (at least some of) the socio-economic disadvantages faced by Aboriginal students. In a major survey of ECE programming in the United States, Steven Barnett concluded the educational benefits of early learning programs are a function of the “gap” between the quality of the child care centre and of the home as learning environments:

Benefits from programs appear to be produced via a number of different types of programs and across a number of different groups of children. Indeed, the best predictor of the size of program effects may be the size of the gap between the

program and home as learning environments, rather than whether a child is a member of a particular group. Thus, effects might be expected to be largest for the most disadvantaged, though there is no evidence that meaningful effects cease if a child's family moves above the poverty line. Indeed, there is even some suggestion at the other end of the income spectrum that children from very well-off families may suffer from [child care] inferior to that provided by their homes. (Barnett, 1995: 43)

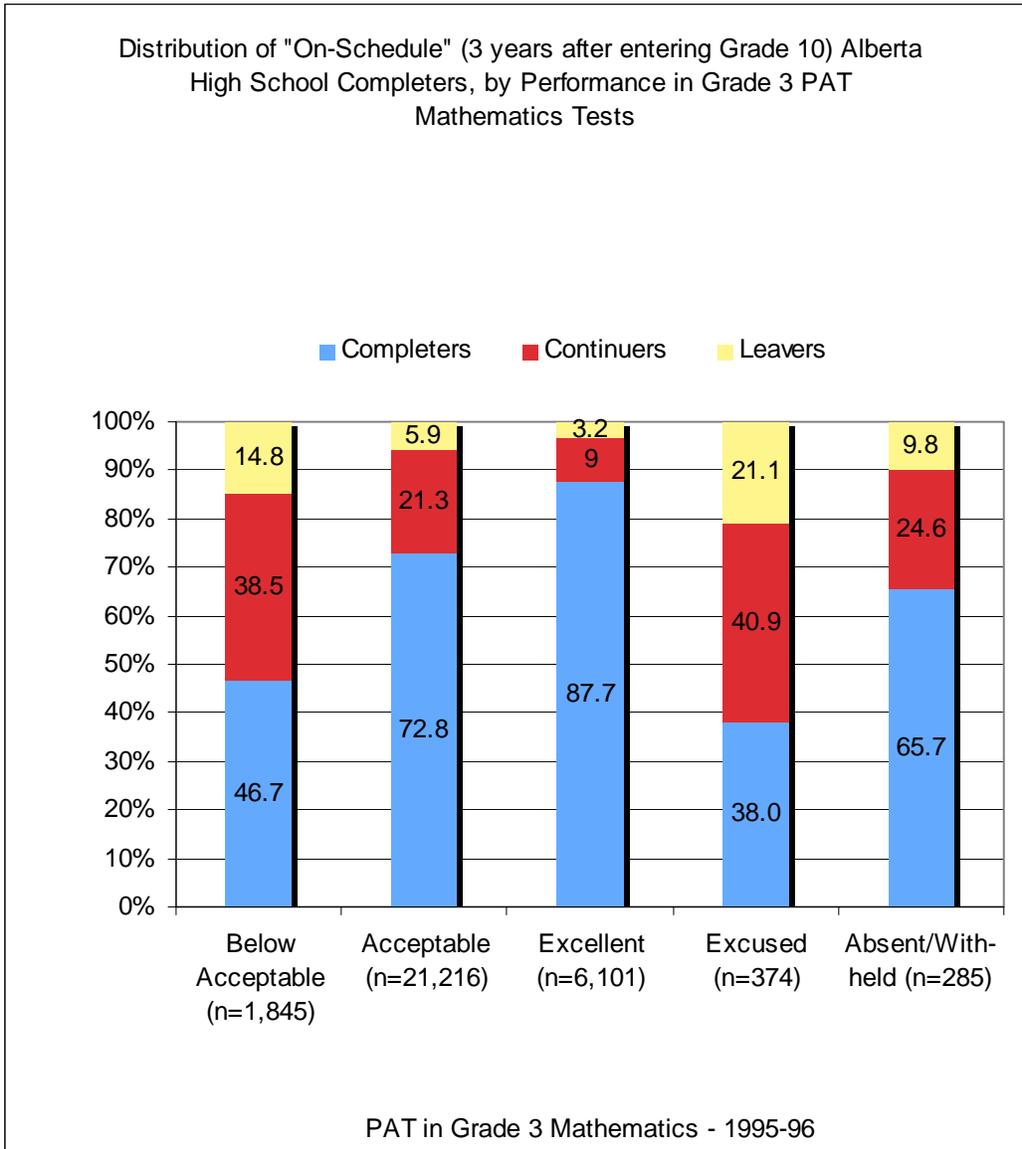
There are no comprehensive data available on Aboriginal access to ECE centres. In 2006/07, the federally funded Aboriginal Head Start (AHS) program operated at about 560 sites serving approximately 14,000 Aboriginal children under age six, both off- and on-reserve (Government of Canada, 2007). This is a small fraction of the total number of potentially eligible Aboriginal children. The 2006 Census puts the number of Aboriginal children ages 0 to 4 at almost 110,000. Off-reserve, ECE programming is a provincial matter. As with K to 12 education, there are 10 provincial ECE policies and no national programs other than AHS. Among all Canadian children, between 25 and 30 percent aged six months to five years are attending some form of ECE program (Bushnik, 2006). The corresponding percentage of Aboriginal children in this age cohort attending an ECE centre is unknown. To the extent they are doing so, only some programs include Aboriginal-specific programming. It is reasonable to conclude that many Aboriginal children are not currently attending an ECE centre, and many of them would benefit from doing so.

Ottawa launched its AHS program in 1995; in 1998, it expanded the program on-reserve. In a recent review of Aboriginal access to ECE, Jessica Ball notes the very limited evaluation to date of AHS impact on children's subsequent education outcomes. Her study offers some evidence to the effect that participating children have experienced a lower rate of grade repetition in elementary school than a non-participating comparable group (Ball, 2008: 17-18). While Canadian evidence is fragmentary, there is overwhelming evidence from US studies of programs among low-income "at-risk" families that ECE programming produces education benefits. The benefits are most evident in lower grades; at higher grades, the benefits tend to fade.¹⁰

The years between birth and five years of age are a critical period in development, where children establish a foundation of capabilities upon which future development builds (Shonkoff, and Phillips, 2000). Success in the early years of school has been clearly linked with the abilities, behaviours and attitudes children bring with them when they arrive in school. In turn, success in the first years of school has implications for future achievement in school and beyond (Thomas, 2006). Catching up in later grades is difficult. The Alberta study of a cohort entering Grade 10, to which we referred earlier, provides relevant evidence. Achievement on Provincial Achievement Tests (PATs) in Grade 3 and subsequent high school graduation (Alberta Ministry of Education, 2009b) were highly correlated. While Figure 3.4 illustrates a univariate tabulation, Grade 3 PAT performance is a statistically significant variable in the multivariate analysis performed. In the authors' words, these results "offer salient evidence confirming the critical importance of early learning success for much later education results, including high school completion" (Alberta Ministry of Education, 2009b: 11).

¹⁰ For a survey of such studies see Richards and Brzozowski (2006). The benefits are clear in terms of student performance in early primary grades. Tracing the impact in subsequent years is less clear.

Figure 3.4



Source: Alberta Ministry of Education (2009b: 12).

We offer a note of caution. There remains uncertainty in assessing the impact of interventions. Two recent studies of interventions in British Columbia, one in ECE and the other in primary school, reached divergent conclusions in terms of benefit to Aboriginal children. The first studied extending half- to full-day kindergarten (Warburton, unpublished). It found significant benefits overall, but no benefits for the Aboriginal students included in the sample. The outcome measure was a composite of performance in Grade 4, including student performance in provincial FSA tests. On the other hand, a study of “English as Second Dialect” programming in elementary schools showed significant positive outcomes among Aboriginal students. Here, the outcome was change in FSA reading performance in Grade 7 over Grade 4, among students who underwent the ESD program relative to those who did not (Battisti, Friesen, and Krauth, unpublished).

3.4 Federal and Provincial Education Funding

As a condition of Indian and Northern Affairs Canada (INAC) funding, band-operated schools are required to provide an educational program comparable to that of provincial schools. For the 2007/08 school year, approximately 113,000 registered Indian students were living on-reserve and listed on INAC’s Nominal Roll as attending school. Sixty percent of these students attended one of about 500 band-operated on-reserve schools. The remaining 40 percent attended a nearby provincial school. For the latter students, bands paid tuition to the relevant provincial school district. In all, INAC spent about \$1.7 billion to support elementary and secondary education in 2007/08 (Rajekar, and Mathilakath, 2009: 61). Debates as to the adequacy of this funding have frequently loomed large. We here outline in broad strokes the way that each of the two systems is funded and estimate per student funding in comparable band-operated and provincial schools.

As noted above, approximately four fifths of Aboriginal identity students attend schools under provincial authority, while the remainder (with a few exceptions) attend federally funded band-operated schools on-reserve. Because INAC-funded and provincially funded schools use different funding formulas, and because schools in the two systems operate under different organizational and governance structures, it is difficult to make meaningful per student spending comparisons. For provincial school systems, there are sizeable differences in average per student spending among provinces. There are much larger differences in per student spending across school districts within a province. Per student funding varies according to the number of students in the district, whether it is urban or rural, and the prevalence of “special needs” students. An additional problem is the lack of detailed funding information for band-operated schools.

3.4.1 Federal Funding of On-Reserve Schools

INAC funds band councils or other First Nations education authorities to support elementary and secondary education for registered Indians living on-reserve. This funding includes provision for instructional services in band-operated schools, the reimbursement of tuition fees for students attending provincial schools, and funding for other student support services.

Most funding for band-operated schools is allocated to regions based on the Band Operated Funding Formula (BOFF). The formula includes a basic amount for each full-time student, with adjustments made for school and community size, geographic location, and education administration.

This funding covers both instructional costs and education administration. In summary, the base unit funding “provides for costs associated with teachers and eligible on-reserve students (K to 12) attending band-operated schools, including instructional costs such as teachers’ salaries, books, supplies, special education, language and curriculum development” (INAC, 2004 quoted in Postl, 2005: 18). Additional funds are allocated to cover costs in a number of other areas, including minor capital expenses and student support services like transportation, accommodation, counselling, and financial assistance. Bands or First Nations education authorities also receive several supplementary allocations through other federal education initiatives, including New Paths for Education, the Special Education Program, Gathering Strength, Teacher Recruitment and Retention, and the Parental and Community Engagement Strategy. In 2008, INAC announced two new programs: the Education Partnerships Program and First Nation Student Success program. Bands receive funding via these programs based on successful applications. These allocations operate outside the core, formula-based funding. Expenditures for capital, operating and maintenance of First Nations schools are made separately through INAC’s Community Infrastructure Program (Rajekar, and Mathilakath, 2009).

Funds allocated through the national formula and other initiatives are received by INAC’s regional offices and then distributed to individual First Nations or education authorities. At the regional level, alternative funding arrangements have been developed and applied in certain cases. For instance, INAC’s Quebec office chose to adopt a unique regional funding formula in the late 1980s (FNEC/DIAND, 2005). In British Columbia, the First Nations Education Steering Committee (FNEC) and INAC negotiated an alternative funding formula in 2005. The new formula, called the Interim Band Operated Funding Formula (iBOFF), was an effort to bring funding for band schools in British Columbia more in line with that of provincial schools (First Nations Schools Association, 2008).

3.4.2 Provincial School Funding

Since education is a provincial responsibility, provincial and territorial regulations establish the systems by which funding is allocated to virtually all schools other than those band-run. All provinces share a similar organizational structure. The provincial education ministry provides leadership and a number of services (curriculum development, province-wide student assessment, school accreditation, etc.) to school districts that, in turn, manage schools within their respective districts. Provinces provide operating grants to school districts based on relatively stable formulas. Most provinces transfer funds directly to school districts. In some provinces, provincial transfers are supplemented with local revenues (Saskatchewan, Manitoba, Quebec and Nova Scotia).

Provincial and federal approaches to school funding are similar in that the bulk of funding is allocated through formulas. These formulas are based on number of students, with adjustments for various factors like remoteness, special needs students, and school size (Postl, 2005). Both provincially and federally, decisions on major capital expenditures (such as construction of new schools) are at the discretion of senior officials in the relevant provincial capital or Ottawa, and are funded separately from operating expenses. However, there are key differences. Federal funds are distributed mostly to the band or school level, and allocations are meant to support both education administration and instructional services. In contrast, provincial funding is

distributed to the school district level, with significant responsibility for the administration of education remaining at the district and ministry level.

3.4.3 Estimates of Per Student INAC Spending

Our estimates of federal funding for K to Grade 12 education rely on national averages, not individual school data. The most recent data available are from the Parliamentary Budget Officer (Rajekar, and Mathilakath, 2009) whose calculations are summarized below in Table 3.2. For purposes of comparison with provincial spending, we make use of what we have defined as ordinary expenditures, totalling \$1.5 billion in 2007/08. This includes all INAC spending on elementary/secondary education except the following: expenditures on post-secondary education, cultural centres, and new school infrastructure. The average K to 12 ordinary funding per student living on-reserve for the 2007/08 school year was \$13,486. (Note that operations and maintenance expenditures are included to facilitate comparisons with provincial school district expenditures.) If capital spending on new school infrastructure (\$135.8 million – line 9. in Table 3.2) is added to ordinary expenditures, per student INAC expenditures rise to \$14,685.

Table 3.2

Estimates of INAC Elementary/Secondary Education Expenditures, 2007/08*			
Direct Expenditures	Type of Expenditure		Expenditure (\$ millions)
A. Off-Reserve Education Expenditures	1. Instructional Services: Provincial and Private Schools		359.9
	2. Special Education: Provincial and Private Schools		17.3
B. On-Reserve Education Expenditures	3. Instructional Services: Federal Schools		12.3
	4. Instructional Services: Band Schools		449.2
	5. Special Education		111.5
C. Summary: Allocated (On- Versus Off-Reserve) Expenditures		% of allocated expenditures	
	Total Allocated Expenditure (lines 1 to 5)	100.0	950.2
	Total Off-Reserve Expenditure (lines 1 to 2)	39.7	377.2
	Total On-Reserve Expenditure (lines 3 to 5)	60.3	573.0
D. Unallocated Expenditures	6. Transportation		65.8
	7. Other ¹		291.8
E. Post-Secondary Expenditures			309.0
F. Cultural Centres			10.0
G. Expenditures on Schools from Community Infrastructure Fund	8. Operations and Maintenance Expenditures		108.3
	9. New School Infrastructure Expenditures		135.4
Indirect Expenditures	10. Internal Services		107.8
Total Expenditures	11. Total Direct Expenditures (lines 1 to 9, plus E. and F.)		1,870.5
	12. Total Indirect Expenditures (line 10)		107.8
	13. Total Elementary/Secondary Expenditures, excluding PSE and Cultural Centres (lines 1 to 10)		1,659.3
	14. Elementary/Secondary Ordinary Expenditures, excluding PSE, Cultural Centres and new school infrastructure (lines 1 to 8 and 10)		1,523.9
Student Population, 2007/08**			
Population on First Nations Reserves Attending School, 2007/08			# of Students
	15. Total Students		112,996
	On-Reserve Students		68,576
	Off-Reserve Students		44,420
Per Student Ordinary Expenditure			
Ordinary Expenditures (line 14)/Total Students (line 15): \$13,486			

* Comprised of: Student Accommodation Service (All school types), Financial Assistance Allowances (All school types), Guidance and Counseling, Advice and Assistance (Provincial schools), Comprehensive Education Support Services, Teacher Recruitment and Retention, Parental and Community Engagement Strategy, New Paths for Education, Youth Employment Strategy Program, First Nations SchoolNet, National Aboriginal Achievement Foundation, Gathering Strength, Labrador Inuit Comprehensive Healing Strategy, James Bay/Northern Quebec Education Agreement (Quebec), Mi'kmaq Education Authority (Atlantic).

** In the PBO report, INAC's data lists the total school going population on First Nations reserves as those identified in the nominal roll call.

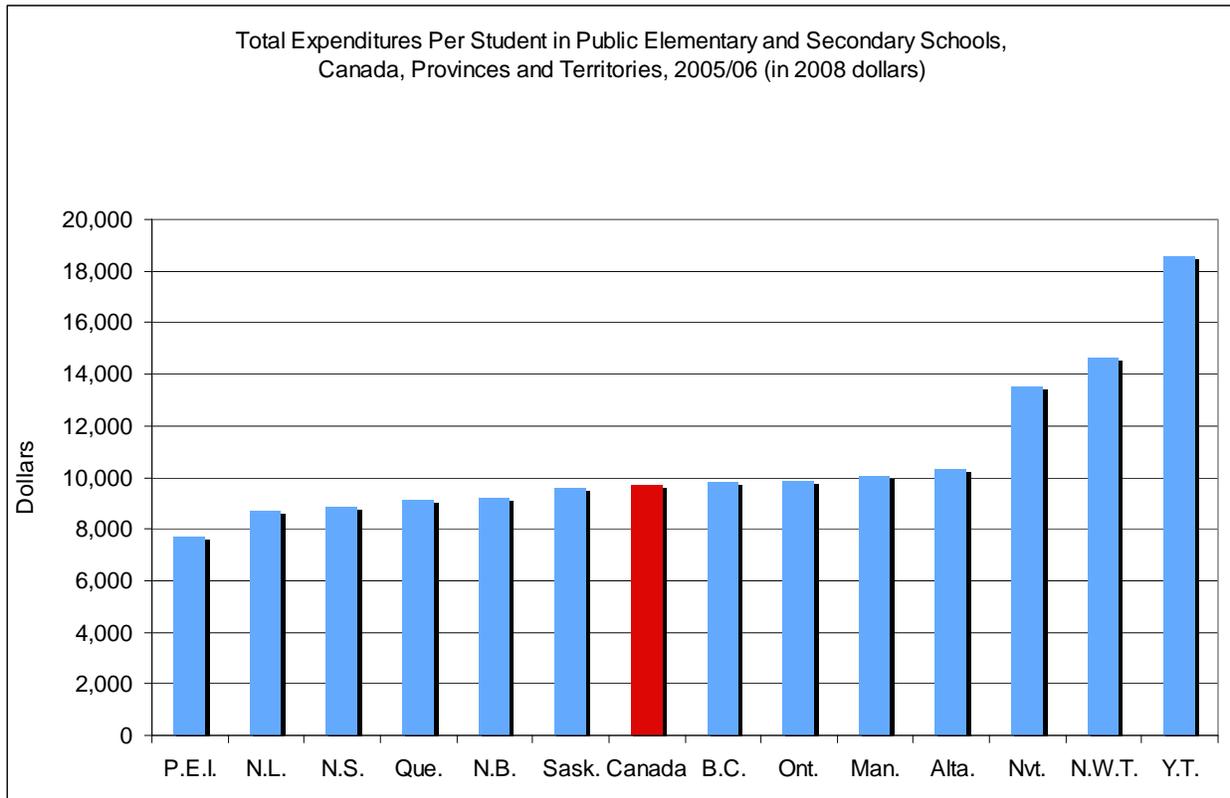
Source: Rajekar, and Mathlakath (2009).

There are qualifications to consider. First, it is arguable whether the expenditure on INAC's internal services should be included, since bands are almost wholly responsible for the administration and operation of their respective schools. INAC provides funding and some administrative support, but its role in educational matters is extremely limited. As well, INAC's internal services include costs of managing all levels of education, not just K to 12. Second, the average per student estimate includes tuition and support costs for the 40 percent of on-reserve students who attend off-reserve provincial schools. Within the allocated costs, the distribution corresponds very closely to the distribution of students between on- and off-reserve schools. However, we have no information on the distribution of the unallocated costs. Another qualification is that the number of on-reserve students is calculated using the Nominal Roll – a list of students that only includes registered Indian children, living on-reserve and eligible for federal funding in September of each school year. Often, students not listed on the Nominal Roll attend band-operated schools, and thus are not funded by INAC.

3.4.4 Estimates of Per Student Provincial Funding

The most recent data on provincial/territorial expenditures available from Statistics Canada are for the 2005/06 school year (Blouin, 2008). The Canadian per student average was \$9,704. In Figure 3.5, note the jump between the highest average for a province and the averages among the three territories. Given their isolated and small schools, the territorial governments spend substantially more per student than does the most generous among the provinces “south of 60.” These statistics include all provincial expenditures on elementary and secondary schools: operating, capital and education ministry costs. The major difference from our definition of ordinary expenditures is inclusion by Statistics Canada of major capital investments.

Figure 3.5



Source: Statistics Canada, Summary Public School Indicators for the Provinces and Territories, 1999/2000 to 2005/2006, Table A.17.1 (Blouin, 2008).

Within any province are large differences in per student spending among school districts. In the following discussion of intraprovincial variation in per student expenditures by school district, we resort to an ordinary expenditure concept. We include annual expenditures by school districts, but do not include major capital expenditures or the relevant costs incurred by the provincial education ministry. Table 3.3 summarizes lowest, highest and average per student expenditures across districts in the four western provinces.

Table 3.3

Per Student Ordinary Expenditures by Provincial School Districts: Highest, Lowest and Average Amounts, British Columbia, Alberta, Saskatchewan, Manitoba and INAC, 2006-07 and 2007-08							
	Lowest			Highest			Average
Province and Year	District Name	\$ per Student	District Enrolment	District Name	\$ per Student	District Enrolment	\$ per Student
BC (2007/08)	Central Okanagan	7,471	20,998	Stikine	22,359	272	8,466
AB (2007/08)	Pembina Hills	5,816	8,452	Northland School Division	19,066	2,807	9,458
SK (2006/07)	Saskatoon School Division	7,913	19,391	Conseil des écoles fransaskoises	16,225	1,063	9,299
MB (2006/07)	Hanover	6,772	6,790	Frontier School Division	14,644	5,719	9,010
INAC (2007/08)							13,486

Sources: British Columbia Ministry of Education (2008a, 2009b); Alberta Ministry of Education (2008b; 2009c); Saskatchewan Ministry of Education (2009); Manitoba Ministry of Education, Citizenship and Youth (2007; 2008); Rajekar and Mathilakath (2009).

In British Columbia, districts receive supplementary funding for “unique student needs” – including students with high cost special needs, English or French as a second language, and Aboriginal students. “Unique geographic factors” are also considered, so that districts with small, rural and highly dispersed communities, challenging climates, and low enrolment schools receive additional allocations (British Columbia Ministry of Education, 2009c). For the 2007/08 school year, the lowest expenditure was \$7,471 for each student in the Central Okanagan School District, located in the mid-sized city of Kelowna.¹¹ The maximum, for students in the Stikine District, located in the northwest corner of British Columbia, was \$22,359. In seven districts, all in rural and relatively isolated regions, per student spending was above the \$13,486 average for on-reserve schools in 2007/08 (British Columbia Ministry of Education, 2008b).

In Alberta, there is a similar range in per student expenditures by school districts: from \$5,816 to \$19,066 per student.¹² For 2007/08, the provincial average was \$9,458 per student. Six districts spent more than the INAC average of \$13,486. This group includes three francophone districts that have very few students, located in widely dispersed communities. As well, the Northland School Division, which serves the entire northeast quarter of the province, spent \$19,066 per student in 2007/08 (Alberta Ministry of Education, 2008b; 2009c).

¹¹ The per student expenditure amounts are total operating expenses incurred by school districts, not including major capital investments or BC Ministry of Education costs.

¹² The per student amounts represent actual school division expenditures for the 2007/08 school year, including instructional, administrative, transportation and operating and maintenance costs. Major capital costs and the costs incurred by the Alberta Ministry of Education are not included.

The most recent information available for Saskatchewan is for the 2006/07 school year, when districts spent an average of \$9,229 per student.¹³ The lowest per student amount was \$7,913 in the urban Saskatoon School Division. The province-wide francophone district, C.E. Fransaskoises, had both the highest per student expenditures at \$16,225 per student, and was the only district in Saskatchewan over the \$13,486 on-reserve average (Saskatchewan Ministry of Education, 2009).

A similar pattern exists in Manitoba where districts with the highest per student amounts tend to have fewer students, and serve widely dispersed communities in remote areas.¹⁴ At \$14,644 per student, the Frontier School Division was above the INAC level of \$13,486. Similar to the highest expenditure school districts in the three other western provinces, the Frontier Division serves nearly all of northern Manitoba (and covers almost three quarters of the province's area) and includes small, remote northern communities.

3.4.5 Comparing Provincial and Federal Funding

The provincial education ministries and INAC each allocate and account for education funding somewhat differently. The schools in each jurisdiction also have differing characteristics that influence the cost of providing public education. In the comparisons that follow, we have attempted to compare “apples to apples,” but the results should be viewed with these caveats in mind.

Excluding investment in major capital projects, the provinces spent in 2007/08 about \$8,000 per student in large urban school districts and over \$20,000 in some remote districts with high student needs and small, widely dispersed schools. Most on-reserve schools are also small, located in rural or remote areas, and disproportionately serve students with high needs. They fit the profile of provincial districts receiving per student funding well above average (see Box 4).

Box 4. A Profile of First Nations Schools in Canada

Small School Size

Most First Nations schools are very small. Table B4.1 summarizes INAC data for the 2008/09 school year. Only one of the 510 schools listed enrolls more than 1,000 students (Otter Nelson River School in Cross Lake, Manitoba). In fact, all but 2.4 percent of band-operated schools have fewer than 500 students. More than half (55.1 percent) enrol fewer than 100 students, and nearly one quarter have fewer than 25 students.

¹³ Per student amounts are school division expenditures excluding major capital costs and education ministry spending.

¹⁴ Data from Manitoba are from the 2006/07 FRAME report. Per student amounts include all school division expenses, but exclude major capital spending and education ministry expenditures.

Table B4.1

On-Reserve School Enrolment Size, 2008/09				
Enrolment (# of Students)	# of Schools	% of Schools	# of Students	% of Students
Over 1,000	1	0.2	1,113	1.6
500 to 1,000	11	2.2	8,887	12.7
300 to 499	46	9.0	17,990	25.7
200 to 299	64	12.5	15,804	22.6
100 to 199	107	21.0	16,004	22.9
50 to 99	82	16.1	5,847	8.4
Less than 50	199	39.0	4,248	6.1
Total	510	100.0	69,893	100.0
% of schools with <500 students	97.6	% of students attending schools with <500 students		85.7
% of schools with < 100 students	55.1	% of students attending schools with <100 students		14.4

*Source: Indian and Northern Affairs Canada (2009b).

Compared to provincial school systems, on-reserve schools are much smaller overall. In Saskatchewan, the most rural of the western provinces, just 28 percent of schools had fewer than 100 students enrolled in the 2007/08 school year (Saskatchewan Ministry of Education, 2008). In Manitoba this was true of 25 percent of provincial schools. In addition, in Manitoba about 10 percent of schools enrol over 1,000 students, compared to just 0.2 percent of band schools (Manitoba Ministry of Education, Citizenship and Youth, 2008).

Rural and Remote Locations

Almost half First Nations schools are located in small and remote communities. Table B4.2 categorizes schools by four types of communities using INAC's Band Classification Manual. Nearly one fifth are in "special access" communities; nearly half are located in "rural or remote" communities, and fewer than a third in urban communities (Simon Management Services, 2006). The distribution of students by community type is similar to that for schools.

Table B4.2

On-Reserve Student Population and School Location According to Band Classification Manual, 2006					
	Urban*	Rural	Remote	Special Access	Total
Number of Schools	162	241	13	98	514
% of Schools	31.5	46.9	2.5	19.1	100.0
Total Students	19,179	34,496	2,141	16,775	72,591
% of Students	26.4	47.5	2.9	23.1	100.0

* Urban is defined by INAC as a school within 50 km of a Service Centre, which could be a small town or village where basic government and banking services can be obtained.

Source: Simon Management Services (2006).

Cultural Priorities

The preservation and transmission of First Nations cultures and languages are key priorities for on-reserve schools. Across Canada, many bands have developed and implemented a cultural and language curriculum for their schools, despite limited funding. Still, many First Nations languages are endangered. In one survey (see table B4.3), over two thirds of 43 First Nations communities indicated that their local language was in trouble – either “declining, “endangered,” or “critical” (Simon Management Services, 2006).

Table B4.3

State of First Nations Languages in 43 Communities		
State of First Nations Languages in Communities		% of Communities
Flourishing:	80% of band members are speakers	30
Enduring:	60% of band members are speakers	2
Declining:	50% of band members over 30 but a lower percentage of young people are speakers	28
Endangered:	less than 50% of the adult band members are speakers	19
Critical:	fewer than 10 speakers or no known speakers live in the community	21

Source: Simon Management Services (2006).

Two studies (FNEC/DIAND, 2005; Postl, 2005), completed as part of a working group reviewing the federal funding formula, compared federal and provincial funding at the school level in detail. Both examined individual band schools, and estimated the funding each would receive were it a provincial school with similar characteristics. Both studies found that band schools receive less than comparable provincial schools.

Postl analyzed funding for 83 British Columbia First Nations schools in the 2003/04 school year. He concluded that First Nations schools in British Columbia would, on average, need 20 percent more funding to equal that provided to comparable provincial schools. Much of the gap was due to INAC’s less generous allowance for small school size. Schools with fewer than 25 students required an average increase above 40 percent; larger schools an increase below 20 percent. The

second study was in Quebec and also compared band-operated to provincial schools. For band schools to match funding available for comparable Quebec provincial schools, the increases required ranged between 25 and 63 percent. The report made a separate comparison using as a benchmark the more generously funded First Nations schools with a joint provincial-INAC funding arrangement under the James Bay and Northern Agreement. Based on this benchmark, even larger increases, between 79 and 124 percent, were necessary for other band-operated schools in Quebec.

After adjusting for the characteristics of on-reserve schools and students, these studies conclude that INAC per student funding is well short of provincial funding for comparable schools.¹⁵ Factors other than financing determine school quality, but it is necessary to acknowledge that providing a high quality basic education for on-reserve students is an expensive endeavour.

3.4.6 Costs of Educating Special Needs Students

“Special needs” refers to a range of challenges faced by some students, including learning disabilities, fetal alcohol spectrum disorder (FASD), visual or hearing impairment, physical disability, and behaviour disorders. These problems vary widely in severity, as do the additional costs imposed on a school in order to educate such students adequately. A higher prevalence of special needs students, especially in mild disability categories, is a characteristic of socially disadvantaged populations (Paquette and Smith, 2001). Not surprisingly, among Aboriginal students across Canada, the prevalence of special needs is higher than among non-Aboriginal students. For example, a 2007 survey of 106 First Nations schools in British Columbia identified 30 percent of the on-reserve student population as having special needs (Auerbach, 2007), triple the 10 percent prevalence in British Columbia public schools in the same year (British Columbia Ministry of Education, 2009b). In 2001, a study of seven First Nations communities in Quebec found an exceptionally high 47.4 percent of the student population with special needs (Paquette and Smith, 2001).

In British Columbia, the provincial education ministry distributes to school districts a minimum additional amount per identified special needs student of \$8,000. Students with higher cost special needs are allocated an additional \$16,000 or \$32,000 each (British Columbia Ministry of Education, 2009c: 12). Were the provincial special needs prevalence equal to that estimated among students in British Columbia band-operated schools (30 percent) as opposed to the actual (10.4 percent) (British Columbia Ministry of Education, 2009b) and were districts to receive an additional \$8,000 per special needs student, the increase in per student ordinary expenditures would be \$1,567. Based on these estimates, the provincial average ordinary expenditure in small districts, plus special needs adjustment, is \$13,698 (see Table 3.4 and Figure 3.6).

¹⁵ Other studies (Matthew, 2000; Simon Management Services 2006) reach the same general conclusion.

Table 3.4

Per Student Ordinary Expenditures in Provincial School Districts under 1,000 Students in Western Canada and in INAC-funded Band-Operated Schools, 2006/07 or 2007/08					
Province	Enrolment	Per Student Ordinary Expenditures (\$)*			
		Administrative (1)	Instructional** (2)	Operations & Maintenance (3)	Total (2+3=4)
British Columbia	3,749	1,235	12,515	2,136	14,652
Alberta	6,145	604	9,423	1,900	11,323
Alberta (excluding charters)	1,762	870	12,420	1,928	14,348
Saskatchewan	1,908	604	10,035	940	10,975
Manitoba	818	385	8,420	1,028	9,448
Total school districts under 1,000 students in western provinces	12,619				
Provincial averages		777	10,370	1,768	12,138
Provincial averages plus "special needs" instructional adjustment***		777	11,937	1,768	13,698
Federal (INAC) total	112,996				
Federal averages		Unknown	12,527	958	13,486

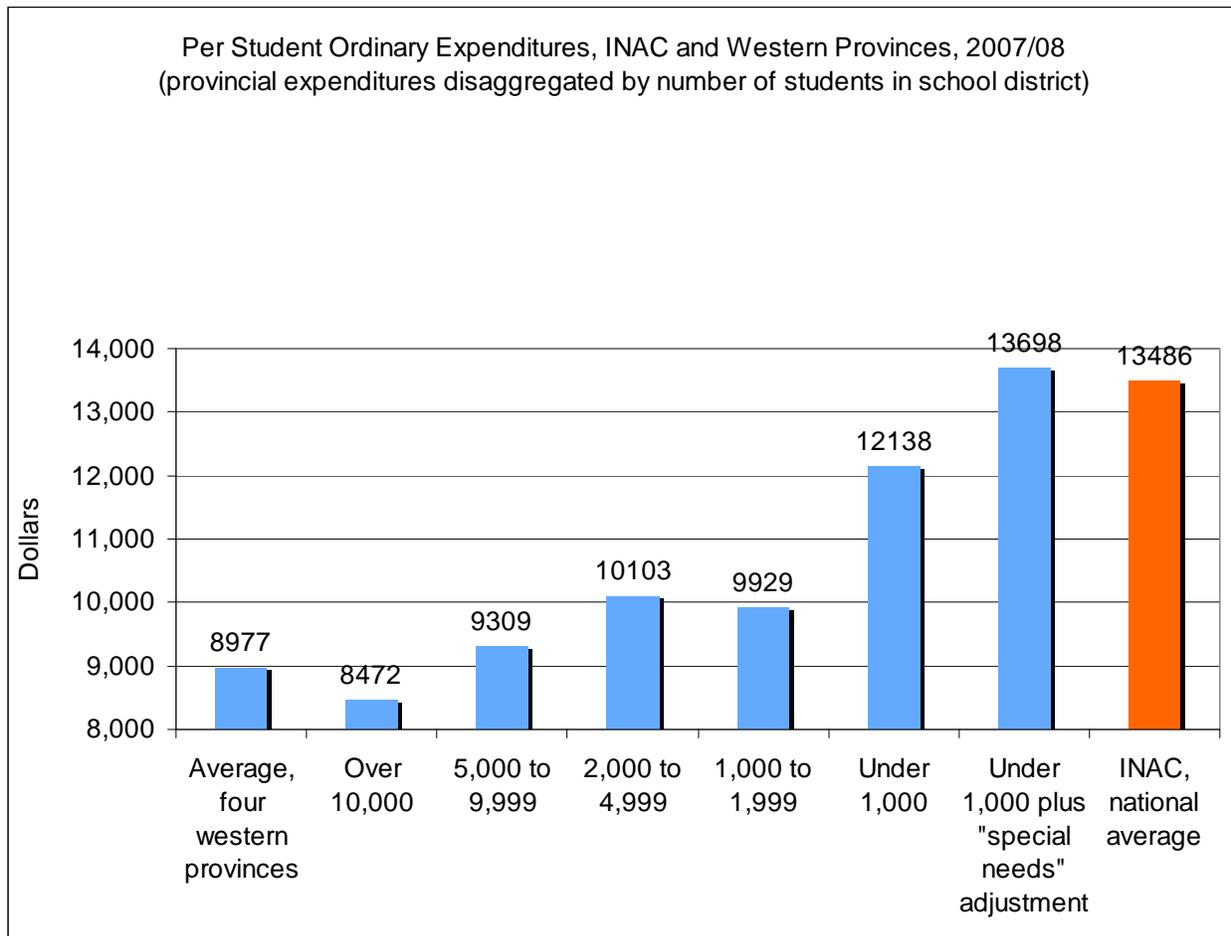
* Ordinary expenditures exclude capital infrastructure and provincial ministry expenditures

** Instructional expenditures includes administrative

*** See text above for explanation of "special needs" adjustment

Sources: British Columbia Ministry of Education (2008a); Alberta Ministry of Education (2008b; 2009c); Saskatchewan Ministry of Education (2009); Manitoba Ministry of Education, Citizenship and Youth (2007; 2008); Rajekar and Mathilakath (2009).

Figure 3.6



Sources: British Columbia Ministry of Education (2008b); Alberta Ministry of Education (2008b; 2009C); Saskatchewan Ministry of Education (2009); Manitoba Ministry of Education, Citizenship and Youth (2007; 2008).

3.5 Early Childhood Education for Aboriginal Children

Another key area of spending on education for Aboriginal children is for early childhood education (ECE).

To start, Ottawa transfers funds to provinces and territories designated for ECE. In 2005/06, \$725 million was transferred to provinces and territories under the Early Learning and Childcare Framework Agreement and Foundations program bilateral agreements with provinces. In addition, through the federal-provincial Early Childhood Development Agreement of 2000 (see Government of Canada, 2001), another \$500 million was transferred to provinces from the federal government in 2005/06.

Beyond transfer payments to provinces, Ottawa has designed tax-based programs to support early childhood development – programs that Aboriginal Canadians can access. The child care expense deduction (\$545 million in 2005/06) and maternity and parental leave benefits (\$3

billion in 2005/06) are the largest.¹⁶ The federal government also runs military family resource centres (\$4 million in 2005/06) and the Community Action Program, which involves supporting community groups to establish programs that support early childhood development (\$61 million in 2005/06).

Since the mid-1990s, the federal government has supported ECE programming specifically for Aboriginal children. The programs operated by the federal government in 2005/06 are summarized in Table 3.5. Four federal departments are involved – INAC, Human Resources and Skills Development Canada, Health Canada and the Public Health Agency of Canada – and except for Aboriginal Head Start in Urban and Northern Communities, the departments target First Nations children on-reserve. The Aboriginal Head Start program was launched in 1995 and, in 1998, it was extended to include on-reserve sites. In total, the federal government spent \$211 million on ECE programming for Aboriginals in 2005/06 (Government of Canada, 2007).

Table 3.5

Federal ECE Programs and Spending, 2005/06				
Program	Department	Spending (\$ millions)	Number of Sites	Number of Children Under 6
Aboriginal Head Start On Reserve (AHSOR)	Health Canada	50.2	Not Available (332 in 2004/05)	Not Available (9,415 in 2004/05)
First Nation and Inuit Child Care Initiative	Human Resources and Skills Development Canada	57.1	Not Available	7,500 Spaces for Children Under 12
Child/Daycare Program – Alberta	INAC	4.1	17	812 Spaces, 1,157 Children Under 12
Child/Daycare Program – Ontario	INAC	15.6	52 First Nations with 57 Programs	2,951
First Nations Child & Family Services Head Start – New Brunswick	INAC	1.4	15	Not Available
K to 4/K to 5 Programs	INAC	51.8	418 First Nations Schools, 6 Federal Schools, 217 Private Schools and 1 851 Provincial Schools	13,325
Aboriginal Head Start in Urban and Northern Communities	Public Health Agency of Canada	31.2	131	4,500
Totals		211.3		

Source: Government of Canada (2007).

¹⁶ By allowing families to calculate taxable income net of childcare expenses, Ottawa treats families as equivalent to businesses facing corporate income tax on net earnings. Allowing families to deduct childcare costs, families presumably make more efficient decisions with respect to entry into paid work or use of family members to provide non-market childcare. The effect of the deduction is probably higher labour force participation by productive family members and higher personal income tax payments.

Each of Canada's provinces and territories undertakes programs for early childhood education. Programs of regulated child care generally include preschools, centre-based daycare and regulated family child care. As well, provincial and territorial governments are responsible for kindergartens for children aged four and five. Some provinces operate programs that target Aboriginal children, and some provinces regulate on-reserve child care centres. A 2007 report estimated provincial allocations for ECE at approximately \$2.7 billion. Compared to other OECD countries, Canada spends proportionately less on ECE (Friendly et al., 2007).

3.6 Conclusion

The first conclusion to draw from our survey is that the responsibility for improvement lies with *both* First Nation institutions *and* provincial governments, and that within any province the two systems are intertwined. Across Canada, only one third of the Aboriginal population live on a reserve, and two fifths of the children living on-reserve attend nearby provincial schools. The second conclusion is to avoid fatalism: while Aboriginal/non-Aboriginal education gaps have widened over the last generation and are undeniably a serious obstacle to Aboriginal progress, there are many examples of relative success. Some provinces, notably British Columbia and Ontario, are achieving results much better than the national average. (This is not to imply these two provinces should rest on their accomplishments.) Within all provinces, particular schools – both band-operated on-reserve and provincial off-reserve – and particular provincial school districts have been diligently tackling Aboriginal education for decades, and are achieving impressive results that deserve to be known far more widely.

There are evident parallels between the history of African Americans as a historically marginalized community and that of North American Indians/First Nations. Many of the education lessons learned in the United States over the last half-century have relevance as Canadians grapple with the long-neglected issue of Aboriginal education:

- Early childhood education programs can offset some of the disadvantages faced by Aboriginal children upon entering primary school.
- Strategies to validate the Aboriginal community within the school system – in design of curriculum to reflect Aboriginal culture, in hiring of teachers, and in engaging local Aboriginal parents and community leaders – can yield positive results.
- In general, peer effects, both positive and negative, matter. The Aboriginal share of a school's student population will usually depend on the racial composition of the school catchment area. Potential negative peer effects militate against policy designed to concentrate Aboriginal students in one or a few schools of a provincial school district.
- As is the case with black students in the United States, Aboriginal students now constitute a sizeable share of the Canadian student population – particularly in the Prairies – and their educational needs vary, depending whether they are attending rural schools, inner city schools, suburban schools, or on-reserve schools. It is crucial to have district level school administration able to exercise discretion in adapting to local Aboriginal conditions.

These conclusions are of a very general nature. In the final chapter, we turn to more specific recommendations.

Chapter 4. Recommendations

There are many pitfalls in setting out recommendations for a report of this nature. One is to define recommendations in terms of a broad goal with which all agree, while suggesting no means to achieve the goal. Increased engagement of Aboriginal leaders and parents in local schools is an important goal. It does not amount to a recommendation unless accompanied with means to realize it.

Another pitfall is to insist that the same policy apply everywhere. There may be different means to the same end and, in different circumstances, different means may well be preferable. A danger in analyzing Aboriginal education policy is to ignore the differences between the Aboriginal experience in band-run reserve schools and provincial off-reserve schools, or between Aboriginal students living in a large city versus those in a northern reserve where neither English nor French is the lingua franca.

A third pitfall is to search for the “silver bullet,” the one overarching policy innovation that will, if rigorously applied, solve the problem. The history of Aboriginal marginalization in Canadian society is complex. Important as we think education reforms are, we have no illusions that one particular education innovation – or rigorous application of all our education recommendations – is a “silver bullet.”

With those caveats, we propose the following recommendations.

Recommendation #1

Early childhood education (ECE) is a valuable investment, particularly for children from marginalized communities few of whose members have a tradition of formal education. All Aboriginal children should have access to ECE, either on- or off-reserve as is the case.

The provinces should begin by assessing the extent of access to reasonable quality child care programs among Aboriginal families in their respective provinces; on-reserve, band councils should do likewise. “Where numbers warrant” – to use the wording of section 23 of the Charter of Rights – the provinces should assure that Aboriginal-specific programming (such as Aboriginal language instruction) be included in the ECE curriculum.

Targeting is hard to do well. One means is by location of ECE centres in urban neighbourhoods with high concentrations of Aboriginal families. Some regulation covering dimensions of ECE quality is necessary if centres are to generate positive results. Provided centres satisfy such regulations, choice is a desirable feature. Families eligible for child care subsidy should be able to choose among state-sponsored centres; licensed centres operated by charitable, religious, or non-profit societies; or approved for-profit firms. In many instances choice is not feasible – small reserves for example – but where feasible, provision for parental choice makes sense. Families with strong ties to a particular First Nation group may be more inclined to trust a centre if it acknowledges their cultural heritage. Other Aboriginal parents may prefer a religious-based, a non-profit community-organized centre or a privately operated centre. Particular centres may offer services that better meet the demands of families with atypical work schedules. Finally, the

existence of options assures some benefits of competition and minimizes the threat of a destabilizing province-wide disruption, such as Quebec parents faced in 2005.

Recommendation #2

Provincial education ministries should expand existing provincial precedents that enable school districts to undertake discretionary Aboriginal education initiatives.

There exists good evidence from British Columbia, supplemented with case study evidence from Alberta, to the effect that comprehensive initiatives undertaken at the school district level can significantly improve Aboriginal education outcomes. These benefits seem to derive from a variety of innovations. Provincial education ministry support for district initiatives can take several forms:

- awarding supplemental funding to districts based on number of identified Aboriginal students;
- requiring districts to draw up explicit agreements with provincial education ministries as is done in British Columbia;
- requiring districts to engage Aboriginal community leaders in school policy-making;
- collecting and disseminating data on district-level Aboriginal outcomes, with the intent of highlighting best practices.

Recommendation #3

To improve quality of school management, bands should form school authorities encompassing a minimum of 12 band-run schools. Responsibility for the relevant schools and early childhood education sites operating on-reserve should lie with trustees of the school authorities directly elected by band members. As inducement to bands to consolidate school management under school authorities, Indian and Northern Affairs Canada should offer a significant – at least 25 percent – increase in per student funding for schools organized into school authorities.

There is agreement among most educators and policy administrators involved with Aboriginal education – admittedly not among most chiefs and band councils – that improvements in on-reserve school outcomes requires *both* more money *and* reorganization of schools into professionally run multi-school equivalents of provincial school districts.

Based on our analysis, per student operating expenditures of band-operated schools in 2007/08 (at \$13,500) were slightly below comparable provincial expenditures (at \$13,700). The provincial comparison we used is adjusted per student operating expenditures in small districts in the western provinces having fewer than 1,000 students. An increase of 25 percent (to \$16,900) implies an annual increase of \$380 million. This increase would be phased in over the period of transition.

It is unreasonable to expect more money to improve results unless accompanied with major institutional reform that transfers authority and budget for on-reserve schools from individual band councils running “stand alone” schools to First Nation school authorities managing a reasonable number of schools. In recent years, institutional initiatives have been undertaken by individual bands, by groups of bands, by tribal councils, and by INAC. There are lessons to learn from all of them, and there is no single reform that should be imposed. There are, however, key dimensions that should guide further reform of reserve school management and creation of First Nation school authorities:

1. Assuring accountability to reserve members: There are at least three aspects to accountability for school management:
 - a. Democratic accountability: Schools are such an important component of local government that those in charge should have an explicit electoral mandate for their decision-making. Members of a First Nation school authority should have a mandate independent from that of band councillors and chiefs. Ideally, members of all reserves subject to a particular authority directly elect members of the school authority.
 - b. Financial accountability: The authority should receive its core funding directly from INAC, based on a formula to be negotiated (say, once every five years) between the relevant bands and INAC, either nationally or at the level of INAC regions. Between negotiations, school budgets should be formula-driven and free from discretionary reductions by either INAC or the relevant band councils.
 - c. Outcome accountability to parents: In the United States, tribal schools are subject to standardized tests on core competencies, as are most children in off-reserve Canadian schools. This provision should extend to children attending on-reserve schools.
2. Realizing “scale economies”: To be cost-effective in provision of secondary services and executive management, the authority should administer a reasonable number of schools (ideally 12 or more).
3. Expanding secondary services: First Nations school authorities should provide an expanded range of services beyond the scope of individual “stand alone” schools. These services include specialty course instruction, development of appropriate curriculum material, and much else. Among the secondary services should be greater interchange with the relevant provincial education ministry and local school districts: better access by on-reserve students to provincial education programs and provincial student certification procedures (such as writing provincial exams).
4. Providing professional managerial procedures for teachers and other school employees: At the heart of good schools are good teachers with decent working conditions. The authority should be responsible for the following:
 - a. Professional standards for hiring and evaluation of teachers and principals.
 - b. Design and administration of multi-year teacher contracts. Over time, there may emerge regional/national associations of reserve-school teachers. These associations may exercise some aspects of a bargaining role with school authorities.

Recommendation #4

Provinces should enable local Aboriginal organizations and individuals to participate meaningfully in school governance where numbers warrant.

Transforming Canadian provincial schools such that Aboriginal culture is adequately reflected and Aboriginal students succeed academically is no small task. Yet it is critically important: the great majority of Aboriginal students, about four out of five, attend provincial schools. Overcoming the mistrust of the past means future educational change must proceed in partnership with Aboriginal communities. A dual responsibility is implied. At all levels, provincial school authorities need to provide opportunities for Aboriginal organizations, parents and citizens to participate meaningfully in school governance. Simultaneously, Aboriginal communities have a responsibility to engage with the public education system.

There is no one model for such participation. Participation may range from an active role for elders in particular schools to curriculum advisory committees comprised of local Aboriginal leaders actively interested in education. Initiatives exist across Canada to establish formal and informal partnerships with Aboriginal communities, and to better involve Aboriginals in school governance. However, there is a tremendous variation across school districts as to the seriousness with which these partnerships are pursued. Where good relationships have been established between Aboriginal communities and school district authorities, there is evidence – admittedly tentative – as to its positive impact on student achievement (Richards, Hove, and Afolabi, 2008).

Recommendation #5

Provincial education ministries, band councils, and First Nations school authorities (where they exist), should engage in comprehensive performance measurement activities, and results should be publicly reported. One key activity is gathering data on Aboriginal student performance in core competency tests. We recommend that the relevant authorities publish core competency test results disaggregated to the school level.

The effectiveness of schools in supporting Aboriginal students should be measured and reported for two main reasons. First, measuring and reporting school and student performance serves an accountability function. Whether Aboriginal or not, parents and citizens are concerned about the effectiveness, efficiency, and responsiveness of the schools their children attend and for which they pay taxes. As well, given the absence of educational accountability to Aboriginal communities in the past, information about school performance is particularly important to convince Aboriginal communities that education programs are working for Aboriginal students. Second, performance measurement is a tool for high quality, data driven program evaluation and planning by those responsible for school program design.

The approach to performance measurement should be comprehensive. Measuring Aboriginal student performance on tests of basic skills is important, since competence in reading, writing and math are essential for success both in higher education and mainstream society. However, given the complexity and multiple aims of the educational enterprise, as well as the unique

priorities of Aboriginal communities in Canada, a focus on standardized tests of basic skills is insufficient. Other indicators of school performance are important. For instance, the ability of provincial schools to provide a non-racist, culturally affirming educational experience for Aboriginal children is an important aspect of performance to monitor. Overall, chosen performance measurement activities should be based on goals and conceptions of educational quality that have been discussed with key stakeholders (Volante, 2007).

Standardized tests permit comparisons among schools and school systems. Canada participates, for example, in international random sample tests – such as the Programme for International Student Assessment (PISA) tests conducted by the Organisation of Economic Cooperation and Development. These are useful in comparing education results across provinces and between Canada and other countries. As with many kinds of data gathering by statistical agencies, such comparisons can be abused. To rank schools without, for example, adjusting for factors beyond the control of schools is not helpful. Nonetheless, the potential to abuse evidence is not a good reason to ignore evidence. We have faith that valid uses of data will prevail and the invalid will ultimately be ignored.

Setting aside the controversies surrounding school rankings, we want to stress the wide range of research that publicly available standard test evidence has enabled. This short list illustrates research projects that have used British Columbia's FSA data:

- Studying the education impact of invasive treatment on young cancer survivors as they progress through the K to 12 school system;
- Identifying school districts with superior Aboriginal student performance and determining what they are doing right;
- Analyzing the effects of changes in student funding;
- Analyzing the impact of early-childhood education on subsequent student performance;
- Evaluating “English as a second dialect” programs to enhance Aboriginal student reading;
- Evaluating the outcome of programs intended to eliminate gender differences in mathematics.

Standardized tests are only one measure of student achievement. They are certainly no replacement for the many other assessments made by teachers of their students.

Across Canada, a small proportion of band-operated schools currently choose to participate in provincial testing regimes. An exception is Alberta, where students in nearly all band-operated schools take annual provincial achievement tests. Among schools that do participate, little information about results is publicly available. There are a number of good reasons that band-operated schools should participate in provincial testing processes and make the results publicly available. Most importantly, since band-operated schools generally follow the relevant province's curriculum, using provincial tests makes good sense as a useful and affordable tool to generate information about student performance in support of school improvement. Promoting enhanced accountability – both for bands and for the federal government – is another reason.

In a recent article, White, Peters, and Beavon (2009) argue that participating in provincial testing is a way to both motivate and measure positive change in on-reserve schools. As well, the authors note that good data about student performance can be used to leverage more resources, and effectively guide the allocation of those resources. As mentioned above, gathering and disseminating high quality, comparable student performance information facilitates valuable research about the conditions that support improved educational outcomes for Aboriginal students in Canada – an area about which relatively little is known at present. This is not to say that provincial standardized testing is a panacea for band-operated schools. Cultural bias, lost instructional time, narrowing of the curriculum, and the risk of unfair and sometimes damaging comparisons are real concerns that need to be addressed. However, the limitations of provincial standardized testing should be balanced with its clear benefits.

Recommendation #6

The provinces should undertake more aggressive affirmative action to encourage Aboriginal post-secondary students to become teachers; and provincial teacher training institutions should require courses in Aboriginal history/culture for all students aspiring to a career as teachers.

Particularly in the four western provinces, home to over three fifths of the Aboriginal population, Aboriginals form a sizeable and increasingly important share of the provincial student population. In Manitoba and Saskatchewan, about one in five students – and one in four pre-school age children – are Aboriginal.

Among the more robust results in education analysis is the value of teachers who can identify culturally with their students – and vice versa, the value of students being able to identify culturally with their teachers. In most jurisdictions today, Aboriginals remain seriously underrepresented in both teaching and educational leadership positions. With the rising share of Aboriginals in the student body, this matter becomes more crucial. Training and hiring more Aboriginal teachers has been recommended as a key strategy to improve Aboriginal education outcomes in all of the seminal reports about Aboriginal education in Canada: the Hawthorn Report (Hawthorn, 1966), Indian Control of Indian Education (National Indian Brotherhood, 1972) and the Royal Commission on Aboriginal Peoples (Government of Canada, 1996).

In most (if not all) jurisdictions today, Aboriginals are still seriously underrepresented in both teaching and educational leadership positions. In Saskatchewan, for example, Aboriginal students make up about 17 percent of all students in public schools, a proportion that is set to grow in coming years. However, in 2007/08, just six percent of teachers and five percent of administrators self-identified as Aboriginal (Saskatchewan Ministry of Education, 2008). A large 2006 survey of teachers in Manitoba similarly found that about six percent of teachers in public schools were Aboriginal, a much smaller proportion than the Aboriginal share of the student population in that province. Among First Nations schools in Manitoba, the proportion of Aboriginal teachers was higher, at 44 percent (Manitoba Ministry of Education, Citizenship and Youth, 2006). In British Columbia, where Aboriginal students account for 10 percent of public school kids, 2.5 percent of the teaching force is Aboriginal, according to one estimate based on 2001 Census data (Archibald, Glickman, and McKinnon, 2005).

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Appendix 1. School District 67 (Okanagan Skaha) Aboriginal Education Enhancement Agreement

Preamble

The Aboriginal Education Enhancement Agreement is an agreement between the local aboriginal communities (Status On-Reserve First Nations, Other First Nations, Métis, Inuit, and other off-reserve people of aboriginal ancestry), School District 67 (Okanagan Skaha), and the Ministry of Education of the Province of British Columbia. The Agreement establishes the structures and processes that the parties and other partners commit to use to achieve ongoing improvement in the school achievement of aboriginal learners attending School District 67 (Okanagan Skaha) schools. The goal, indicators, and targets of the Agreement are living dimensions with which the parties will work together in good faith to reflect growth in the outcomes which are ambitious, meaningful, relevant, realistic and attainable for the program and the learners.

The Aboriginal Education Planning Council (AEPC) is a partnership between the Penticton Indian Band, the Metis Culture and Heritage Society (Penticton), the Elders Council of the Penticton Indian Band, the Oonakane Friendship Centre, and School District 67 (Okanagan Skaha). This Aboriginal Education Enhancement Agreement has been developed and will be implemented with the guidance and approval of the AEPC with the vision and spirit of improving the educational success of all aboriginal learners within the School District's jurisdiction. The Agreement has been guided by the positive support and advice of the Aboriginal Education Branch of the Ministry of Education.

The AEPC and School District acknowledge and honour the special relationship that exists with the First Nations in whose traditional territories they operate. They recognize and honour the historical and critical importance original peoples place on preservation of their language and culture. This Agreement acknowledges and honours the special relationship with the Syilx People of the Okanagan First Nation.

Notwithstanding the aforementioned obligations, AEPC acknowledges the collective responsibility for the success of all aboriginal learners attending school in School District 67 (Okanagan Skaha). In respect and honour of all aboriginal communities we intend, with their participation and wisdom, to continue to develop appropriate and meaningful educational programs for the benefit of all aboriginal learners.

This Agreement recognizes the progress made over the last decade in improving the respectful and productive working relationship of the partners. The Agreement reflects the success of the Aboriginal Education Programs at the elementary, middle, and secondary levels in the schools across the School District, but further affirms the parties' commitment to the continued growth of the program and continued improvement of the classroom and school success achieved by aboriginal learners. The Agreement also signals the beginning of a new time when the aboriginal community's voice and influence in the education of its children will be enhanced through the Aboriginal Education Planning Council.

Aboriginal Education Planning Council

Purpose

The Enhancement Agreement provides the framework for the Aboriginal Education Planning Council partners (Penticton Indian Band, the Metis Culture and Heritage Society (Penticton), the Elders Council of the Penticton Indian Band, the Oonkane Friendship Centre and School District 67 (Okanagan Skaha)) to *work together for student success*.

1. To improve school achievement for children of aboriginal ancestry;
2. To improve the services delivered to aboriginal learners both through the aboriginal education program and through the core instructional services of schools;
3. To honour and support the history, culture and language of the Syilx People of the Okanagan First Nation whose traditional territories are served by School District 67 (Okanagan Skaha);
4. To respect and affirm the diverse histories and cultures represented in our aboriginal student population; including, but not limited to, the First Nations, Inuit and the Metis;
5. To collaboratively recognize the current level of student achievement and collectively plan to improve that achievement level; and
6. To increase the capacity, participation, and influence of the aboriginal community in decision making regarding aboriginal education.

Definition

Aboriginal peoples are recognized in the revised Canadian Constitution 1982, and include people of First Nation, Metis, and Inuit ancestry. For the purposes of this agreement, aboriginal students are school age students who have self-identified as having aboriginal ancestry.

Principles

1. The performance areas selected for improvement are those where there is assurance that the data can be:
 - a. Tracked with integrity;
 - b. Tracked over time;
 - c. Effectively used to implement programs and services.

The data used and the assessment of that data will be reported annually to the Aboriginal Education Planning Council (AEPC), its constituent partners, the Penticton Indian Band Council, and to the Education Committee of the Board of School Trustees.

2. The processes and structures of the Aboriginal Education Planning Council are one part of the ongoing effort to improve the working relationship between local aboriginal communities, parents / guardians, and the school district and its personnel. The improved working relationship requires perseverance, understanding, and commitment from all of the partners in the education of aboriginal learners.

Performance Goals, Measures of Progress and Student Achievement Targets

1. **Goal:** To improve the literacy of learners of aboriginal ancestry.

Indicator(s):

- a. The percentage of aboriginal students who are reading at grade level three years after receiving Early Literacy Intervention will be monitored and tracked.
- b. The assessment data in use for the District Literacy goal will be aggregated for aboriginal learners and tracked for improvement over time.

Target:

- a. The District has baseline data regarding the total population. The Literacy Work Group will develop baseline data and processes to collect ongoing data for children of aboriginal ancestry served through Early Literacy Intervention for September, 2006.
- b. The target will be developed during the 2006-2007 school year.

2. **Goal:** To improve the numeracy of learners of aboriginal ancestry.

Indicator(s):

- a. The percentage of aboriginal students who are demonstrating numeracy at grade level three years after receiving Early Numeracy Intervention will be monitored and tracked. The assessment data in use for the District Numeracy goal will be aggregated for aboriginal learners and tracked for improvement over time.
- b. The percentage of aboriginal students achieving at or above grade level on FSA Numeracy assessments at grades 4 and 7.

Target:

- a. Baseline data does not exist for this indicator for either the general population or the aboriginal population. This will be established and targets determined during the first year of the Agreement.
- b. The baseline average for grade 4 for 2001-2004 is 79% for aboriginal learners and is 63% for grade 7 aboriginal learners. The FSA data has not existed long enough to provide a true baseline or trend. A baseline and target will be established by the AEPC in consultation during the first year of the agreement.

3. **Goal:** To improve the grade transition rate for learners of aboriginal ancestry.

Indicator(s):

- a. The transition rates at critical grades (6, 8, 9, 11 and 12) will be monitored and tracked.

Target:

Baseline data exists for this indicator. The trend would be that a smaller percentage of aboriginal learners move on to the next grade as the grade level increases. Significant decrease in transition rate is clear from grade 9 and grade 11. These indicate that the transitions to high school and the transition to grade 11 are relatively unsuccessful. The target is to increase the percentage of students transitioning to grade 10 and grade 12 by 3% each year for five years.

4. **Goal:** To improve the schooling success rate for learners of aboriginal ancestry.

Indicator(s):

- a. The percentage of aboriginal learners achieving a passing average grade point average will be tracked at grades 6,8,9,11 and 12 over time.
- b. The rate of aboriginal student participation in extra-curricular and leadership programs will be tracked qualitatively.

Target:

- a. Baseline data will be collected in June, 2006. Targets will be developed early in 2006-2007.
- b. As above.

5. **Goal:** To improve the Dogwood graduation certificate completion rate for learners of aboriginal ancestry.

Indicator(s):

- a. The Dogwood completion rate will be monitored and tracked.

Target:

Baseline data exists and shows a clear improving trend parallel to the provincial trend for the general population. The target is that 75% of aboriginal learners will earn the Dogwood graduation certificate by 2011.

6. **Goal:** To increase the awareness and appreciation of aboriginal history and culture by both the aboriginal and general populations of students.

Indicator(s):

- a. The measure of this goal will be developed and baseline data determined during the first year of the Enhancement Agreement.

Target:

- a. The measure of this goal will be developed and baseline data determined during the first year of the Enhancement Agreement.

7. **Goal:** To increase the number of students of aboriginal ancestry who are enrolled in and complete post secondary transition programs such as careers exploration, work experience, career preparation, and/or apprenticeship programs.

Indicator(s):

- a. The measure of this goal will be developed and baseline data determined during the first year of the Enhancement Agreement.

Target: see above.

Implementation

1. This agreement will be in effect from September 1, 2006 until June 30, 2011.
2. Baseline data will be collected for 2005-2006, and for three years previous if available.
3. The 2006-2007 school year will be the first performance year.
4. Targets will be further developed for the performance goals by the AEPC in consultation with parents, students, and staff of the Aboriginal Education Program during the 2006-2007 school year.
5. Sources such as Targeted Aboriginal Education funding, appropriate external grants, the local expertise of the local aboriginal education communities, and the core resources of the District will provide resources for the implementation of the Agreement.
6. Continuous improvement of the Aboriginal Education program and student progress will be achieved through collaboration on the AEPC and through ongoing collaboration and shared decision making between the District, the aboriginal communities, and the AEPC.
7. As part of the annual preliminary budget development process, the school board shall provide the Aboriginal Education Planning Council with an opportunity for input on the allocation of educational services, programs, staff and resources in the schools for the upcoming year and matters contained in the school board's accountability contract relating to the schools.
8. The Aboriginal Education Planning Council will submit an Annual Progress Report to the Board of School Trustees of School District 67 (Okanagan Skaha) by May 31 of each year to communicate progress, targets, and strategies for the following school year. This report will also be provided to all constituent groups of the AEPC.

School District 67 (Okanagan Skaha) Aboriginal Education Enhancement Agreement

Appendix A. Data Aboriginal Education – Indicators of Progress Toward Goals

	2001- 2002	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008
Early Literacy Intervention – % reading at grade level after three years							
FSA: Reading – % meeting grade expectations							
Grade 4	69	70	56	68			
Grade 7	85	48	74	56			
English 12: Participation %	69	65	61				
English 12: Success %	100	91	67	100			
Communication 12: Participation %	54	47	100				
Communication 12: Success %	100	63	89	88			
FSA: Writing – % meeting grade expectations							
Grade 4	93	92	76	79			
Grade 7	76	61	87	76			
FSA: Numeracy – % meeting grade expectations							
Grade 4	81	82	78	72			
Grade 7	62	61	68	59			
Early Numeracy – % achieving at grade after three years							
Transition Rate % from:							
Grade 6	100	97	98	100			
Grade 7				96			
Grade 8	89	90	100	83			
Grade 9	97	83	74	90			
Grade 10	76	72	83	89			
Grade 11	42	40	63	53			
Retention of Class of 2003							
Grade 8	100						
Grade 9	97						
Grade 10	88						
Grade 11	80						
Grade 12	50						
Completion	54						
6 Year Dogwood Completion Rate	50	50	54	65			
Grade 12 Completion Rate	84	93	94	100			
First Time Grade 12 Completion Rate	77	63	78	79			
Grade 10 Provincial Exams: Pass Rate							
English 10				83			
English 10 Participation				43			
Essentials of Math 10				75			
Essentials of Math Part.				29			
Principles of Math 10				90			
Principles of Math 10 Part.				36			
Science 10				60			
Science 10 Participation				54			

School District 67 (Okanagan Skaha) Aboriginal Education Enhancement Agreement

Appendix B. The Aboriginal Education Planning Council Constitution

Committee Name

- a. Aboriginal Education Planning Council

Membership

- a. Penticton Indian Band Education Director
- b. Penticton Indian Band Council Representative
- c. Oonkane Friendship Centre Representative
- d. Metis Heritage and Culture Society Representative
- e. School District No. 67 Superintendent or designate (non-voting)
- f. Okanagan Skaha Principals'/Vice-Principals' Association Representative
- g. Aboriginal Education Staff Representative
- h. Administrator, Aboriginal Education Program
- i. Trustee
- j. Elders, Penticton Indian Band (2)
- k. Elder, Metis (1)
- l. Students (2)
- m. Members at large: Parents / family of aboriginal ancestry children / other persons of aboriginal ancestry (up to 5), appointed annually by the Aboriginal Education Parent Advisory Council (PAC) or, in its absence, by the Aboriginal Education Planning Council.
- n. Observer Participants (non-voting)

Changes to the Planning Council Membership

- a. Additional organizations representing the local aboriginal community(s) can be added to the Aboriginal Education Planning Council by the agreement of the signatories to the Agreement following the majority support by the current AEPC of a written motion of support for the change.
- b. The above motion must be provided to all standing members of the AEPC in writing accompanied by at least 10 working days notice of the AEPC meeting at which the motion will be considered.

Term

- a. Members will be appointed annually in September or at the discretion of represented groups.

Selection of Members

- a. Members representing an organization or body would be appointed by that body using that body's democratic processes
- b. Members at large will be appointed by the AEPC unless there is a structure for an election
- c. Attendees who are not appointed members of the AEPC will attend as observer participants

Attendance and Quorum

- a. Unless specifically an in camera meeting dealing with confidential personnel or financial items, meetings will be open
- b. A quorum will be comprised on a minimum of six voting members of the Council.
- c. Voting members absent for more than 50% of the regular meeting held in a given school year may be replaced.

Minutes

- a. Minutes will be kept of each meeting
- b. Copies of the minutes will be distributed to appointed members
- c. Copies of the minutes will be available to others on request

Decision-Making

- a. Generally by consensus
- b. The minutes will reflect when consensus was not attainable
- c. By vote on the Progress Report
- d. Only appointed members may move/ second motions
- e. Only appointed members of the committee will be able to vote
- f. All attendees will be welcome to speak to issues and motions
- g. Motions voted on will be recorded in the minutes
- h. Generally a simple majority will be required to pass a motion
- i. Substantive motions will be decided by a quorum reflective of aboriginal interests
- j. Final decisions on the Progress Report will require a 2/3 majority
- k. The chair may vote

Mandate

The role of the Aboriginal Education Planning Council is to:

- a. Prepare and submit to the Board a program plan (Aboriginal Education Progress Report) by April 1 of each year for improving student achievement and other matters contained in the Board's accountability contract (District Progress Report) that relate to that program;
- b. Consult on matters referred to it by the school board, superintendent or the superintendent's designate; and
- c. Consult on matters referred to it by aboriginal parents, students, the aboriginal community, principals, and district employees in the program in respect of improving student achievement and matters contained in the school district accountability contract.

The following are not within the mandate of the Aboriginal Education Planning Council:

- a. Personal and confidential information on students, parents, teachers and other employees;
- b. Performance or conduct of individual employees, students and parents;
- c. Terms and conditions of individual employment contracts; and
- d. Activities beyond the advisory and consultative roles set out in the School Act and this policy.

In order to carry out its mandate, the committee may:

- a. Receive information on but not restricted to aboriginal enrolment, district aboriginal programs, district aboriginal staffing, targeted aboriginal funding, district aboriginal education program budget, Ministry of Education aboriginal matters and aboriginal student achievement outcomes
- b. Meet with district aboriginal education staff with their supervisor
- c. Make decisions on district aboriginal programs, district aboriginal staffing, targeted aboriginal funding, district aboriginal education program budget, and other local Ministry of Education aboriginal education matters for inclusion in the annual Aboriginal Education Progress Report

Acceptance, Rejection and Modification

- a. In order for the proposed Aboriginal Education Progress Report to be adopted by the school board, it must derive from the school district accountability contract, be in harmony with the school district strategic directions framework and be consistent with school district policies.
- b. If the school board rejects or modifies a proposed progress report, it shall provide reasons to the Aboriginal Education Planning Council.

Meeting Notice and Schedule

- a. The committee will meet at least four times during each school year.
- b. Notice of meeting will be provided to appointed members.
- c. Notice of meeting will include a draft agenda.

Chairperson of the Committee

- a. The Council will elect a chairperson from the appointed members at the first meeting of each school year

Appendix 2. List of Interviewees

Individuals interviewed in preparation of this report

Barry Anderson

Consultant, Executive Director of British Columbia's Virtual School Society and
Former Special Advisor to the Deputy Ministry, British Columbia Ministry of Education

Adam Barker

Research Analyst, Aboriginal Education Enhancements Branch,
British Columbia Ministry of Education

Dan Beavon

Director, Research and Analysis, Research and Analysis Directorate,
Indian and Northern Affairs Canada

Allan Blakeney

Member of Royal Commission on Aboriginal Peoples and
Former Premier of Saskatchewan

Ross Brown

Deputy Director, Instruction and School Services, Regina Public Schools

Fred Caron

Assistant Deputy Minister Office of the Federal Interlocutor,
Indian and Northern Affairs Canada

Sheila Carr-Stewart

Professor, Educational Administration, College of Education,
University of Saskatchewan

Gladys Christiansen

Executive Director, Education and Training Secretariat,
Federation of Saskatchewan Indian Nations

Deb Draney

District Principal, Aboriginal Education,
School District No. 73 – Kamloops/Thompson

Marjorie Dumont

Aboriginal Education Coordinator, Professional and Social Issues Division
British Columbia Teachers' Federation

Caroline Grimard

Senior Legislative Consultant, Legislative Services Branch, Alberta Ministry of Education

Ken Horsman
Director of Education Programs, Office of the Treaty Commissioner

Gerry Hurton
Special Advisor on Education Policy, Assembly of First Nations

Kathleen Keenan
Director General, Indian and Northern Affairs Canada, Education Branch

Gordon Martell
Superintendent of Education, Greater Saskatoon Catholic Schools

Jane Martin
Director of Aboriginal Policy Branch, Alberta Ministry of Education

Darren McKee
Assistant Deputy Minister, Saskatchewan Ministry of Education

Linda Pelly
Director, First Nations, Métis and Inuit Services Branch, Alberta Ministry of Education

Calvin Racette
Program Coordinator, First Nations and Métis Education, Regina Public Schools

Trish Randolph-Beaver
Education Manager, First Nations, Métis and Inuit Services Branch,
Alberta Ministry of Education

Audrey Roadhouse
Deputy Minister, Saskatchewan Ministry of Education

Renee Spence
Administrator, First Nations Education Council (SD No.73- Kamloops/Thompson)

Ross Spina
Assistant Superintendent, SD No.73 – Kamloops/Thompson

Larry Steeves
Assistant Professor, Educational Administration, University of Regina

Pamela Witte
Learning System Quality Manager, System Improvement Group,
Alberta Ministry of Education



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