LITERACY MATTERS:
UNLOCKING THE LITERACY POTENTIAL
OF ABORIGINAL PEOPLES IN CANADA

June 20, 2013

TD Economics

Sonya Gulati
Senior Economist

TABLE OF CONTENTS

SPECIAL REPORT

TD Economics

June 20, 2013

Executive Summary

LITERACY MATTERS:
UNLOCKING THE LITERACY POTENTIAL
OF ABORIGINAL PEOPLES IN CANADA

TD Economics continues to carry out Aboriginal-related research to heighten the awareness of the many issues confronting Aboriginal peoples, businesses and communities. In this fourth series of Aboriginal-related articles, we explore the literacy outcomes of Aboriginal peoples. This paper is also our fourth installment under the 'Literacy Matters' masthead; these chapters reflect TD's broader commitment to improve literacy outcomes in Canada.

Literacy gap between Aboriginal and non-Aboriginal adults in Canada

Literacy is an essential component of social and human development – increased literacy produces better health outcomes, higher income, and improved communications with other people. Simply put, greater literacy means more exposure to ideas, and the exchange of knowledge spurs debate, making communities dynamic and continuously-improving.

A key source of data on adult literacy performance is the International Adult Literacy and Skills Survey (IALSS). While relatively high literacy scores make Canada outperform other countries overall, those scores are not shared by large segments of the Canadian population – particularly Aboriginal people.

The IALSS data surveyed urban Aboriginal peoples in Manitoba and Saskatchewan, as well as some communities in the three territories. While some data is better than no data, there are limitations with analyzing this data source. First, literacy proficiency is measured in English or French versus other language competencies. Second, there is a large written element attached to high proficiency. Third, IALSS covers approximately 30% of all Aboriginal peoples and excludes virtually all First Nations living on-reserve.

 Slightly more than 60% of Aboriginal Canadians do not have the literacy skills necessary to participate fully in the current knowledge-based economy. The threshold, Level 3, is equivalent to high school completion. In other words, 60% of the Aboriginal population are unable to understand and use the information around them to create a better life for themselves and their families. Discouragingly, this share is ten percentage points higher than registered by Canadian adults.

The percentage of Aboriginal peoples reporting a less-than-desirable literacy proficiency is greater or at-par with other countries including Australia (33%) and New Zealand (roughly 60%). These countries are reasonable comparators due to their large size of Aboriginal populations.

Most jobs in Canada demand literacy of Level 3 or higher. The literacy level of many Aboriginal adults, however, makes them more challenged for occupations/jobs which demand higher literacy pro-

Sonya Gulati, Senior Economist, 416-982-8063

ficiency. This skill disadvantage often translates into lower employment and wages for Aboriginal people in comparison with their non-Aboriginal peers.

If we examine literacy skill by age cohort, we see that the lowest levels are posted by Aboriginal peoples who are aged 46 and older. These low scores can in part be attributed to the lasting impacts of residential schooling and other assimilation policies of the past. They may also reflect the fact that literacy skills atrophy with age. Furthermore, older Canadians – Aboriginal or non-Aboriginal – generally speaking, have less education relative to their younger counterparts.

Youth represent the generation of tomorrow. Four out of ten Aboriginal children score poorly in early development instruments in the areas of language and communication skills. A greater proportion of Aboriginal children are also born with Fetal Alcohol Spectrum Disorder which impacts individual learning ability. In addition, less than half of First Nations children in Canada read a book every day. Discouragingly, these statistics suggest that many Aboriginal children are held back straight out of the gate when it comes to overcoming literacy barriers. If greater attention and efforts are not placed on the young Aboriginal population, a multi-generational cycle can perpetuate.

The high price of low literacy

Literacy has a significant impact on social and economic outcomes, both at an individual level and across the country. Literacy is a key determinant of high school completion and participation in post-secondary education. As a result, the relatively weak literacy skills of many Aboriginal peoples will likely translate into poorer educational attainment. Literacy skills are also an important factor in understanding health prevention, the proper use of medications, and overall nutrition. Taken together, the relative lack of literacy and its impact on education and health contribute to a gap in Aboriginal employment between the highly literate and the poorly literate of almost thirty percentage points.

The Aboriginal population is young and rapidly growing. As businesses and policymakers look to the Aboriginal population to help offset labour shortages, especially as the Canadian population greys and baby boomers retire, it is imperative that Aboriginal peoples be in a position to fully participate and contribute to the economy. As the Canadian economy becomes more knowledge-intensive, Aboriginal peoples having low literacy will find it increasingly difficult

to compete in the labour market and benefit from new economic opportunities. Both outcomes will result in Aboriginal peoples being pushed further to the margins of society.

Barriers to overcoming low literacy levels held by Aboriginal peoples

There are many barriers to Aboriginal people improving their literacy:

- *Geographic barriers:* Close to half (46%) of all Aboriginal peoples live outside urban areas. In their rural and remote locations, formal training and higher education are typically non-existent. This lack of access is worsened by unreliable broadband internet and poor telephone connectivity.

- *Social and economic barriers:* Many Aboriginal people experience poverty and unsafe living conditions – both of which can be barriers to full and effective participation in school.

- *Cultural barriers:* Some learning environments are less welcoming to Aboriginal students. Where there is racism and discrimination toward Aboriginal students, it affects their self-esteem and self-confidence.

- *A more holistic view of literacy:* Print-based literacy is a fairly new concept to many Aboriginal communities. Standardized tests of print-based literacy do not capture forms of literacy which are valued by many Aboriginal communities. The broader perspective may prevent individuals from focusing on the literacy skills which are most desired by the labour market and economy.

- *Education outcome gaps, education system complexities and under-funding:* At the current pace, it will take 28 years for Aboriginal peoples to possess the same educational attainment as non-Aboriginal Canadians. In essence, poor educational outcomes are costing the country hundreds of billions of dollars in lost opportunity. There is also a patchwork of policies supporting on-reserve education. This, in turn, provides a shaky foundation and often uneven service delivery. In terms of funding, on-reserve schools are short-changed by $2,000-3,000 per student relative to other remote and rural schools. A needs-based approach to measure the education gap also underscores the notion of under-funding in the education system.

- *Linguistic differences:* Aboriginal languages in Canada are structured differently than English and French,

making a lot of the terms, concepts and expressions in the official languages difficult to translate and understand. However, most literacy evaluations are carried out in English or French, but these are second languages to many Aboriginal peoples. Aboriginal students often cite language problems as a barrier to seeking additional help in school.

- *Too few teachers and other role models:* Role models can instil a 'will to learn' while providing individuals with positive examples. Many Elders and parents continue to feel the lasting impacts of residential schools. As a consequence, they mistrust the education system. Teachers can sometimes fill the gap; but unfortunately, many reserves cite shortages of highly-qualified educators.

- *Other individual barriers:* Lack of resources, a prior history of trauma, learning disabilities and inadequate academic preparation can impede literacy progress. Some of these barriers are multi-generational; accordingly, the plight of Aboriginal people often leads to a cycle of despair.

Turning the corner on Aboriginal literacy

Some literacy improvement among Aboriginal peoples is expected to have occurred over the last decade. More Aboriginal peoples are living in urban centres versus ten years ago, giving them greater access to support. The literacy assessment test developed in Saskatchewan argues that Aboriginal literacy proficiency is not as bad as the earlier statistics suggested when the data are viewed in an appropriate cultural context. Many new Aboriginal-targeted literacy programs have also been rolled out.

The extent of improvement in Aboriginal literacy performances is likely limited. International human development indices do not point to a big amelioration in education and social trends in Canada, relative to other countries. Current Aboriginal labour market performances are better than was the case in 2003 which could be pinned in part to improved education attainment levels. Yet, the rise in Aboriginal labour market participation could have been at the expense of education (individuals migrated to the workforce due to the decade-long commodity rally rather than first complete

---

Selected Best Practices to Promote Stronger Literacy Skills Among Aboriginal People

1) Engage parents to dispel the stigma associated with education and improve literacy.

2) Make Aboriginal students feel valued and welcomed to improve educational outcomes.

3) Incorporate Aboriginal approaches to learning into curriculum and teaching methods to increase literacy levels.

4) Increasing access and targeted funding for literacy programs and supports for those Aboriginal peoples in rural and remote areas.

5) Deliver teacher support and training to ensure that literacy programs are both sustainable and of high quality.

---

their studies). The challenge is that commodity prices go up and down over time. The only way to boost Aboriginal income potential on a sustained basis is through improved education and literacy.

Barriers are opportunities in disguise. Many determinants for success in delivering literacy-related programs and services have been identified – the accompanying text box presents five of these best practices. This list was compiled based on success stories and program evaluations for literacy support in Canada, Australia and New Zealand.

If the best practices identified here are systematically put into action, the future will look brighter for Aboriginal peoples. And the time to act is now: there are countless examples of such initiatives being delivered across the country today to young and adult Aboriginal peoples alike. These concerted efforts, exerted over a period of time, should help reduce the size of the literacy gap. Aboriginal peoples are increasingly leaving their economic footprint on the national stage; and the Aboriginal market is expected to reach $32 billion by 2016 – more than the economies of Newfoundland and Labrador and Prince Edward Island combined. All Canadians – Aboriginal or non-Aboriginal – will undoubtedly benefit from improved Aboriginal literacy and greater Aboriginal participation in the Canadian economy.

Sonya Gulati
Senior Economist
416-982-8063

June 20, 2013

LITERACY MATTERS:
UNLOCKING THE LITERACY POTENTIAL
OF ABORIGINAL PEOPLES IN CANADA

TD Economics continues its tradition of celebrating National Aboriginal Day. We mark the occasion by carrying out Aboriginal-related research and in doing so, heighten the awareness of the many issues confronting Aboriginal peoples, businesses and communities. The discussion that results helps drive forward the economic and policy agenda for Aboriginal peoples.

In this fourth series of Aboriginal-related articles, we explore the literacy outcomes of Aboriginal peoples. This paper is also our fourth installment under the 'Literacy Matters' masthead; these chapters reflect TD's broader commitment to improve literacy outcomes in Canada. By literacy, we refer to a person's ability to read and write, comprehend new ideas, and apply math when needed. Literacy is a fundamental human right and a lack of proficiency, on average, results in lower education attainment and income, poorer health status, and greater rates of incarceration.

The plight of Aboriginal peoples is well known – they do not perform well on any of the literacy measures tracked by Statistics Canada: just over 60% of all Aboriginal peoples score below Level 3, equivalent to high school completion. This means that two-thirds of Aboriginal peoples do not have the necessary skills to fully participate in the current knowledge-based economy. In other words, 60% of the Aboriginal population are unable to understand and use the information around them to create a better life for themselves and their families.

Some literacy improvement among Aboriginal peoples is expected to have occurred over the last decade. However, the extent of amelioration in Aboriginal literacy performances is likely limited, in part because there are many barriers to improving literacy skills. Examples of such obstacles include geographical remoteness and linguistic differences.

Barriers are simply opportunities in disguise. Many success factors in delivering Aboriginal literacy-related programs and services have been identified. There are countless examples of such initiatives being delivered across the country and abroad today. If these best practices continue to systematically be put into action, the future looks brighter than the past for Aboriginal peoples. All Canadians – Aboriginal or non-Aboriginal – will undoubtedly benefit from improved Aboriginal literacy and greater Aboriginal participation in the Canadian economy.

Literacy: an evolving definition

The United Nations Educational, Scientific and Cultural Organization (UNESCO) declares literacy to be a fundamental human right and a foundation for lifelong learning. The organization goes on to say that literacy is an essential component of social and human development.[1] This is because greater literacy proficiency typically results in better health outcomes, higher income and ameliorated inter-personal

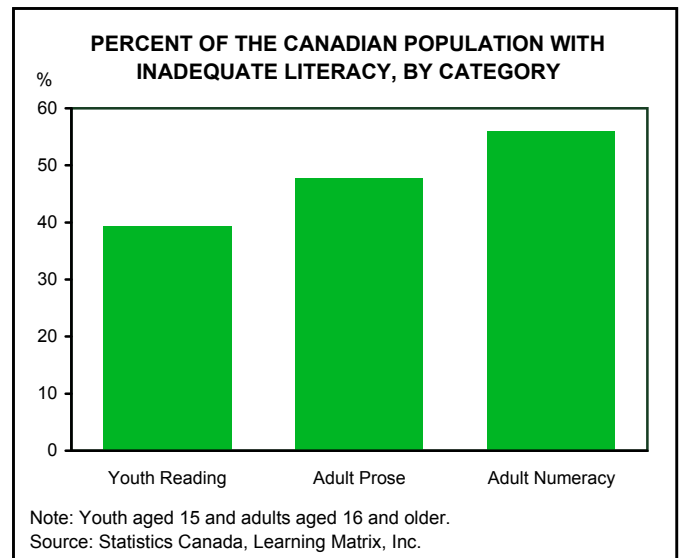Sonya Gulati, Senior Economist, 416-982-8063

relationships. The latter results because a literate community allows for the exchange of ideas while spurring debate. It is this interchange that makes communities dynamic and continuously-improving.

The term 'literate' originally conveyed 'familiar with literature' or 'well educated and learned.' However, since the late nineteenth century, literacy broadened to convey an ability to read and write. In other words, an individual needed to be familiar with literature, but in order to fully benefit from this learned knowledge, he/she had to be able to communicate that knowledge in both oral and written form.

For most people today, literacy is interpreted as an active and broad-based learning process.[1] It represents a set of tangible and cognitive skills and provides a critical framework for analytical thought. Proficiency is measured across a spectrum as opposed to a binary outcome (e.g., literate or not). In internationally-validated surveys – including the one commissioned by Statistics Canada almost a decade ago – the following four domains have been established and serve as an evaluation matrix to measure literacy ability (a more in-depth overview of these classifications is presented in Appendix 1)[2]:

- Prose literacy – understand and synthesize information in text from sources like editorials, news stories, brochures and instruction manuals.

- Document literacy – find and use information located in different sources like job applications, maps, tables and charts.

- Numeracy – manage the mathematical demands of diverse situations such as at the checkout aisle in a grocery store or negotiating a vehicle purchase.

- Problem solving – goal-directed thinking where routine solutions are elusive. In some cases, the problem solver may have a goal, but does not immediately know how to attain it.

The scope of what literacy means continues to expand and evolve. For example, the Organisation for Economic Co-operation and Development (OECD) views literacy to be cognitive understanding and a set of technical skills.[3] The Canadian International Development Agency (CIDA) defined literacy to be one of the skills that basic education should provide.[4] Others argue that for an individual to be literate, he/she must be able to apply these learned skills in his/her surroundings (e.g. the workplace and the media).

PERCENT OF THE CANADIAN POPULATION WITH INADEQUATE LITERACY, BY CATEGORY

Note: Youth aged 15 and adults aged 16 and older.
Source: Statistics Canada, Learning Matrix, Inc.

Advances in technology are also expanding the vehicles of communication to now include the internet, social media and text messaging.[5] Through this real-world application, the individual is able to fully participate in the economy and/or push for social change.

Why literacy proficiency is so critical today

While the definition and meaning of literacy continues to change, literacy skills are more critical than ever given today's knowledge-based economy. Put simply, robust literacy skills are not just a benefit to have in today's economy or a plus for a resume, they are now a necessity.[6]

Stronger literacy skills make it more probable that individuals will complete high school and then move onto, and eventually complete, post-secondary education. A highly literate person is more likely to be employed and have a better paying job than a person possessing low literacy skills. The former has a lesser risk of being unemployed and when they do find themselves in such a predicament, he/she is more likely to have a shorter duration of unemployment versus his/her less literate peers.

Literacy is a key driver of economic growth through important channels such as labour productivity and labour force growth. Research shows that Canada has benefited from a comparative advantage relative to other OECD countries on literacy scores for many years.[7,8] Even with this relative outperformance, almost one in two Canadian adults fall short of the desired proficiency level in either official language (English or French).[2] This threshold is equivalent to the literacy skills obtained upon high school completion. These scores are not conducive to maximizing participation

---

Aboriginal Adult Literacy Assessment Tool (AALAT)

The Saskatchewan Aboriginal Literacy Network (SALN) developed and piloted a tool in 2009-11 to evaluate adult literacy skills.[22] This new test is called the Aboriginal Adult Literacy Assessment Tool (AALAT). The test differs from the Statistics Canada International Adult Literacy Skills Survey (IALSS) in that the former takes into consideration Aboriginal culture and linguistics. For example, the Aboriginal literacy tool asks whether the test taker attended a residential school.

In creating this tool, Aboriginal educators, Elders and students were brought together to develop the content and literacy domains. In total, five domains were chosen: reading, problem solving, numeracy, writing and listening (IALSS did not include listening). The questions posed were categorized into emerging, knowledgeable, critical and comprehensive buckets. The test is administered either on a computer or on paper and is directed towards Aboriginal adults aged 16 and older. Results can be prepared for an individual or a community.

The Aboriginal Adult Literacy Assessment Tool was developed in English, but incorporates an Aboriginal-centred approach to assessing English literacy in Aboriginal communities. In addition, more than half of the survey can be translated into an Aboriginal language if desired. To recall, the option to take IALLS in an Aboriginal language was not available when Statistics Canada last ran its survey in 2003.

In the pilot project commissioned from 2009-11, 465 Aboriginal peoples in seven communities across Saskatchewan were surveyed. Respondents spanned First Nations and Métis who reside in urban centres. The AALAT seems to suggest that literacy results may be different when they are tested in culturally-relevant settings.

---

in the Canadian labour market, economy and more broadly, society. Therefore, it is particularly problematic that there is a sizeable share of individuals who still score below the desired proficiency level.

Literacy skills deficiencies represent some of the biggest barriers that individuals face as they attempt to secure a job and integrate themselves into society.[9] These barriers must be torn down. The challenge will be confounded when the size of the Canadian labour force gets squeezed with the upcoming baby boomer demographic shift.

Given the economic and social clout attached to literacy proficiency and its increasing importance in the years ahead, the Council of Ministers of Education, Canada – represented by provincial and territorial Ministers of Education – published a Declaration entitled Learn Canada 2020.[10] The framework identifies the educational priorities of Canadians. Its shortlist encompasses lifelong learning from early childhood to adulthood. One of the eight objectives tabled was to 'raise the literacy levels of Canadians.'[10] Although no specific goal was set in this regard, the communiqué stated that annual reporting will be used to assess and measure progress.

Literacy proficiency in the context of Canada's Aboriginal peoples

While relatively high overall literacy scores make Canada outperform other countries in the OECD, those high standards are not realized by large segments of the Canadian population. One particular group that has not reached its full literacy potential is Aboriginal Canadians: they consistently register lower literacy scores versus their non-Aboriginal peers across all of the major learning dimensions.

We delve into the details underpinning the data sources and survey results over the next few sections. Before we do that, we must first stress the importance of raising literacy levels among Aboriginal Canadians. The Aboriginal population is young and rapidly growing. Therefore, it is imperative that they reach their full literacy potential. From a financial perspective, the elderly segment of the Aboriginal population also has minimal savings and few pension benefits. In turn, Aboriginal people – young and old – should be in a position to fully participate and contribute to the economy and society. In particular, as Manitoba and Saskatchewan are the provinces with the largest share of Aboriginal peoples in their populations, they will require a thriving overall labour force to drive economic growth forward.

The International Adult Literacy and Skills Survey: The best, but imperfect, data source for assessing Aboriginal literacy proficiency

A key source of data on adult literacy performance is the International Adult Literacy and Skills Survey (IALSS) last released in 2003. Canada was one of the countries that participated in this survey. Respondents were aged 16-65 years old. Literacy was tested in one of the two official languages, English or French. In terms of the scores, performance was ranked across four dimensions (a more comprehensive

Aboriginal Peoples of Canada – Some Context and Background

Individuals who identify as Aboriginal have significant historical importance in Canada and have helped shape the national cultural identity. The traditional cultures of their ancestors exert a strong influence on Aboriginal peoples, in areas ranging from spirituality to political attitudes.

According to data from the National Household Survey (NHS), there were just over 1.4 million people who identified as Aboriginal in 2011 (4.3% of total Canadian population).[11] Within the Aboriginal umbrella, there were 851,560 First Nations, 451,795 Métis, and 59,445 Inuit individuals.

Aboriginal peoples were among the fastest growing population segments in Canada from 2006-11. Higher fertility rates among Aboriginals relative to the rest of Canada help explain this demographic out-performance. Another driving force of population growth is more individuals identifying as Aboriginal.[12]

Due to these higher fertility rates and a shorter life expectancy, the Aboriginal population is much younger than non-Aboriginals. The median age of all individuals who identify as Aboriginal was 28 years old in 2011, much lower than the 41-year old statistic posted by non-Aboriginals.

ABORIGINAL PEOPLE NUMBERED 1.4 MILLION IN 2011

- Multiple Aboriginal identities 1%
- Aboriginal identities not included elsewhere 2%
- Inuit single identity 4%
- First Nations single identity (Registered or Treaty Indian) 46%
- Métis single identity 32%
- First Nations single identity (not a Registered or Treaty Indian) 15%

Source: Statistics Canada, 2011 National Household Survey.

There are more than 600 First Nation/Indian bands in Canada and over 60 Aboriginal dialects reported by First Nations people.[13] Of these dialects, Cree, Inuktitut and Ojibwe have enough fluent speakers to be considered viable over the long-term.[14] Two Canadian territories – Northwest Territories and Nunavut – give official status to one or more Aboriginal languages; official status entitles citizens to receive services in their Aboriginal language upon request.

Individuals in the First Nations category include both Status and Non-Status Indians. Status Indians have their names on the Indian Register (maintained by the federal government), are recognized as Indians under the *Indian Act*, and are entitled to certain rights and benefits under the law. Roughly half of the people who identify as Aboriginal are Status Indians and are included on the Indian Register.

A distinction can also be made between Treaty and Non-Treaty Indians. A treaty is a negotiated, written agreement which defines rights and responsibilities. Issues resolved in treaties include land ownership, governance structures, wildlife and environment management, financial benefits and taxation rights. Eleven historical treaties were signed from 1871-1921 covering much of Canada, except British Columbia, Québec and Newfoundland and Labrador.[15] There have been twenty comprehensive land claims settled since 1973, involving over 70,000 Aboriginal people.

The Government of Canada recognizes the inherent right of self-government as an existing Aboriginal right under section 35 of the *Constitution Act*, 1982.[16] This policy allows Aboriginal communities to form governments which suit their particular historical, cultural and economic circumstances.

The struggles of Aboriginal peoples in Canada have been well documented. Many individuals do not have the most basic necessities and suffer from poorer health outcomes and lower education levels. For children under the age of 15, almost three in ten fall below the poverty line. This share is roughly three times higher than non-Aboriginal Canadians. However, recent data suggest that some of these social outcomes are headed in the right direction. Both the labour market participation rate and unemployment rate held by Aboriginal peoples are better today than they were a decade ago.[17] The size of the Aboriginal market is poised to reach $32 billion by 2016, surpassing the combined level of nominal GDP in Newfoundland and Prince Edward Island.[18]

In addition to improving economic outcomes, the youthful nature of Aboriginal peoples makes this demographic a lucrative one for Canadian businesses, especially as baby boomers increasingly leave the labour force. According to Statistics Canada's most recent population projections for Aboriginals (completed prior to the NHS data update), Aboriginal people will account for a growing share of the young adult population in Canada over the next ten years.[19]
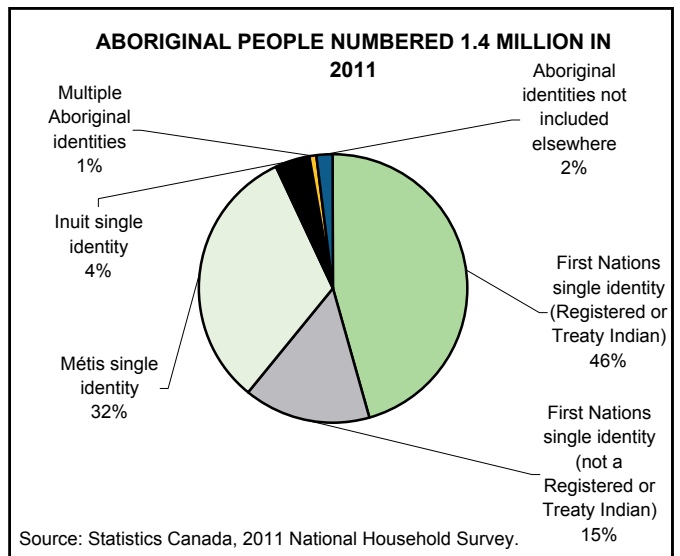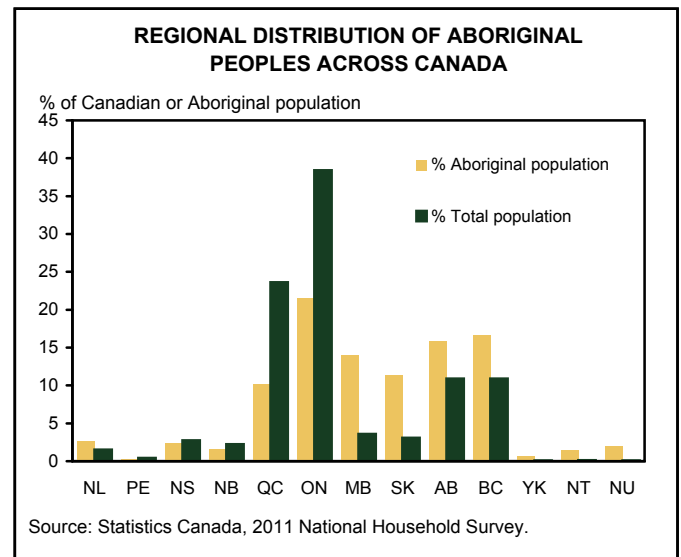
overview of the levels used can be found in Appendix 1). Scores range from zero to a theoretical maximum of 500.

- Level 1 (0-225 points) indicates basic literacy ability in either or both of Canada's official languages;

- Level 2 (226-275 points) denotes a relative improvement over Level 1, but still weak literacy skills;

- Level 3 (276-325 point) is deemed to be the desirable level of proficiency for an individual to personally and economically succeed in the current knowledge-based economy. This level is generally equivalent to high school completion;[20] and

- Levels 4 and 5 (326+) mean that the individual is highly literate in either or both official languages.

Aboriginal Canadians were included as respondents in the IALSS. Up until the survey release, reliable literacy data for Aboriginal peoples had been elusive. The survey presents an opportunity for researchers to assess and compare the prose, document, numeracy and problem solving proficiency levels of the Aboriginal and non-Aboriginal populations.

While we certainly agree that some data is better than no data, it is important to stress up front the limitations associated the IALSS's Aboriginal coverage. First, the survey assessed literacy levels in English and French. In other words, Aboriginal languages were not included and/ or taken into consideration. The 2011 National Household Survey revealed that roughly 90% of Aboriginal peoples can speak English, French or both.[13] However, depending upon the Aboriginal community, roughly 10% of Aboriginal

REGIONAL DISTRIBUTION OF ABORIGINAL PEOPLES ACROSS CANADA

% of Canadian or Aboriginal population

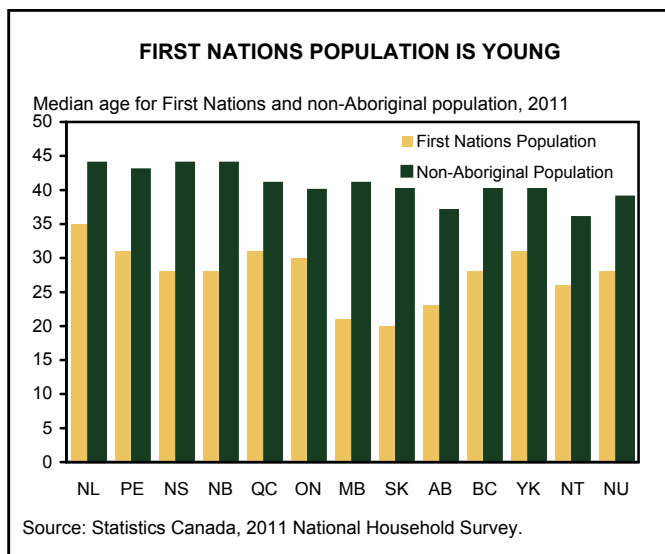Source: Statistics Canada, 2011 National Household Survey.

peoples are unable to converse in either English or French. For example, many Inuit would state that Inuktitut is the language they most often speak in the home. It is also an official language of the Government of Nunavut and as a consequence, Inuit peoples can receive all desired government services in Inuktitut.

The IALSS data also does not capture all Aboriginal peoples in Canada. Instead, it focused on the urban areas of Manitoba and Saskatchewan. It also includes selected communities in all three territories (Yukon, Northwest Territories and Nunavut). Together, these areas make up roughly 30% of all Aboriginal peoples in Canada. However, in the accompanying exhibits and analysis within this report, we make the assumption that these survey results are reflective of Aboriginal peoples across the country. While this approach is helpful to explain data results, one should note and be aware of the simplifying assumption required.

Last, the IALLS data is now almost a decade old. In turn, the survey's assessment of literacy levels may no longer be relevant. This is particularly the case for Aboriginal peoples given their economic performance over the last decade, helped in part by robust resource prices.[21]

The literacy gap between Aboriginal and non-Aboriginal adults in Canada

In a 2009 study, the United Nations applied its Human Development Index (HDI) to indigenous people in Australia, Canada, New Zealand and the United States.[24] From their analysis, researchers conclude that the HDI recorded by Aboriginal peoples lag significantly behind their respective general populations.[24] The table in Appendix 2 provides an

FIRST NATIONS POPULATION IS YOUNG

Median age for First Nations and non-Aboriginal population, 2011

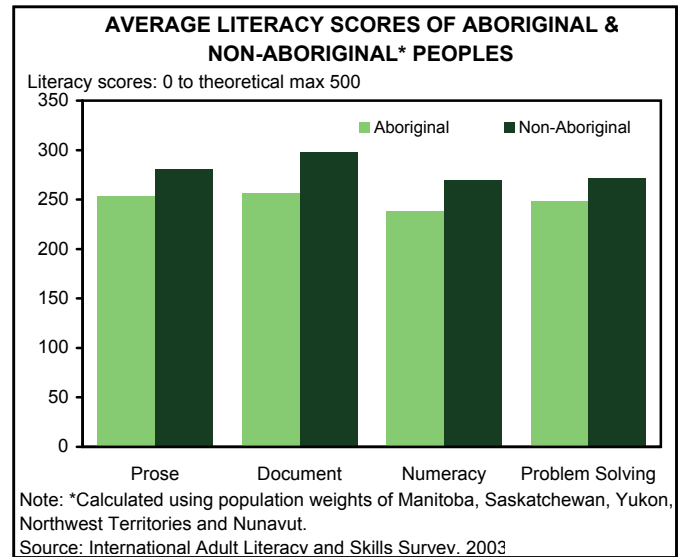Source: Statistics Canada, 2011 National Household Survey.

inter-jurisdictional summary of the indigenous populations in these countries and some literacy outcomes.

The authors then note that in Canada, over the past few decades, the HDI gap between the Aboriginal and non-Aboriginal populations has narrowed, but remains sizeable. For example, in 2001, Canada, as a nation, ranked eighth among all of the HDI rankings. However, Canadian Aboriginal peoples ranked a more distant 32nd. As a point of comparison, New Zealand Maori came in at the 73rd position, whereas Australian Aboriginal and Torres Strait Islanders ranked 103rd.[24]

Literacy is just one of the components which feed into calculating the HDI. While almost half of Canadian adults scored below Level 3 – equivalent to high school completion – just over 60% of Aboriginal Canadians fall below this threshold. In the 2006 Aboriginal Peoples Survey, Statistics Canada found that 48% of First Nations children (aged 6-14) read a book every day.[25] For children who are not First Nations, 52% read a book every day.

The share of Aboriginal Canadians reporting a less-than-desirable literacy proficiency is greater or at-par with other countries. For example, in Australia, over one third of indigenous students do not possess adequate reading and writing skills.[24] In New Zealand, roughly 60% of the Māori adult population fall below the desired threshold.[26]

While the low literacy shares are greater-than-optimal in Canada, these statistics are not entirely unexpected. The IALSS survey revealed that fewer than 10% of Canadian adults in need of literacy instruction enrolled in a formal literacy enhancement program.[2] This low enrolment is typically associated with high dropout rates.[27]

AVERAGE LITERACY SCORES OF ABORIGINAL & NON-ABORIGINAL* PEOPLES

Literacy scores: 0 to theoretical max 500

Note: *Calculated using population weights of Manitoba, Saskatchewan, Yukon, Northwest Territories and Nunavut.
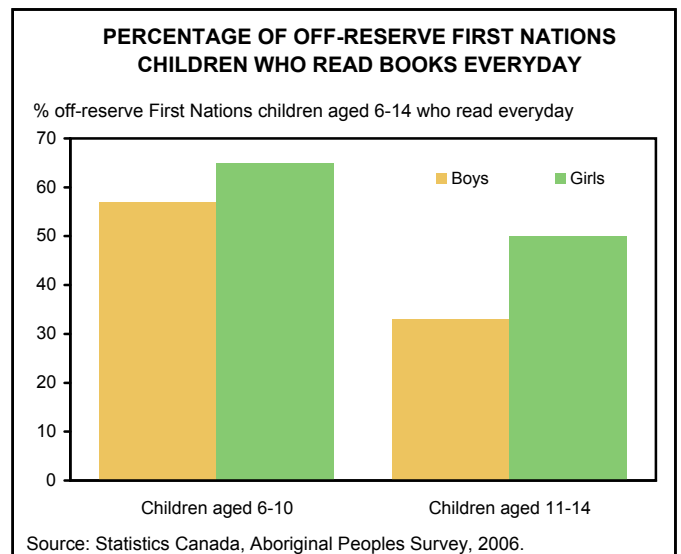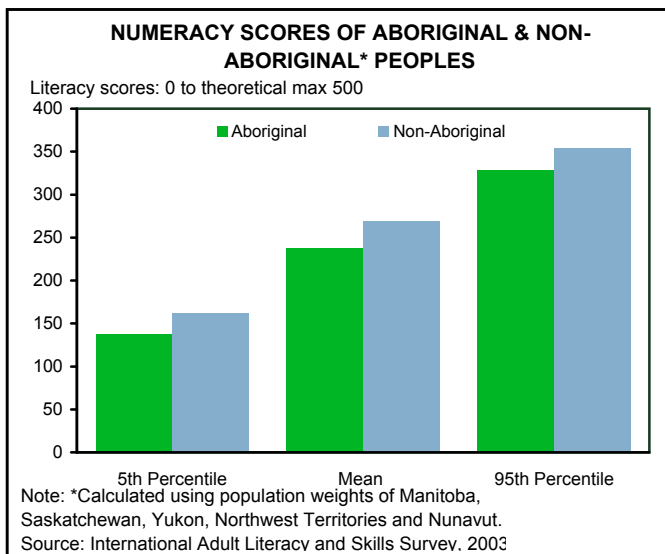Source: International Adult Literacy and Skills Survey, 2003

In its main report, Statistics Canada stresses some urgency in the Aboriginal findings: "as the Canadian economy becomes more knowledge-intensive, Aboriginal people lacking the necessary education and literacy skills to compete in the labour market will be excluded from new economic opportunities and will be pushed even further to the margins of society."[28]

a) Literacy proficiency across the four domains

In all four of the literacy domains (prose, document, numeracy and problem-solving), Aboriginal peoples score relatively worse than the total Canadian population. No one domain jumps out as being particularly poorer than the rest, however there are some interesting takeaways:

• In relative terms, Aboriginal peoples post the lowest

NUMERACY SCORES OF ABORIGINAL & NON-ABORIGINAL* PEOPLES

Literacy scores: 0 to theoretical max 500

Note: *Calculated using population weights of Manitoba, Saskatchewan, Yukon, Northwest Territories and Nunavut.
Source: International Adult Literacy and Skills Survey, 2003

PERCENTAGE OF OFF-RESERVE FIRST NATIONS CHILDREN WHO READ BOOKS EVERYDAY

% off-reserve First Nations children aged 6-14 who read everyday

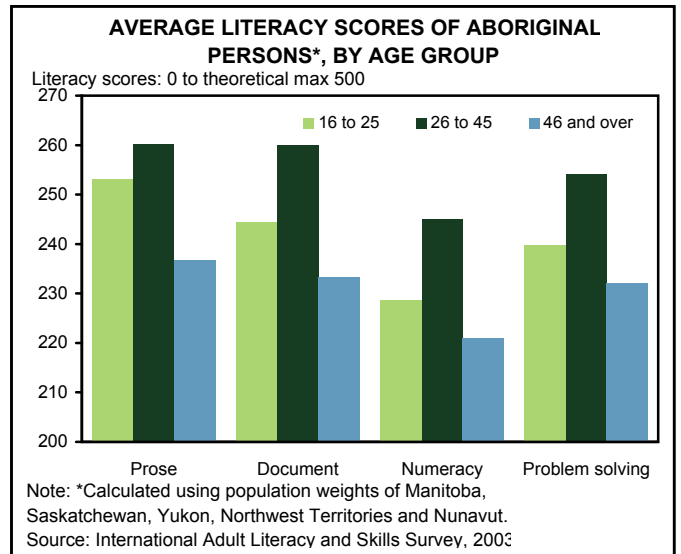Source: Statistics Canada, Aboriginal Peoples Survey, 2006.

average score in the numeracy category – a finding consistent with the national picture. To recall, numeracy encompasses everything from counting and simple arithmetic to making mathematical inferences and justifications.

• The greatest gap in average scores between the Aboriginal and Canadian population is in the document domain. This is particularly the case at the lower end of the percentile spectrum. That said, of the four domains, Aboriginal peoples, on average, scored the best in the document category.

b) Regional trends

For all five regions (Manitoba, Saskatchewan, Northwest Territories, Nunavut and Yukon) where Aboriginal literacy levels were assessed, Aboriginal peoples consistently scored lower than the non-Aboriginal population. A case in point, roughly 60% of the urban Aboriginal population in Manitoba and Saskatchewan recorded a prose literacy score of either Level 1 or 2. By contrast, just 45% of the non-Aboriginal population posted this same result.
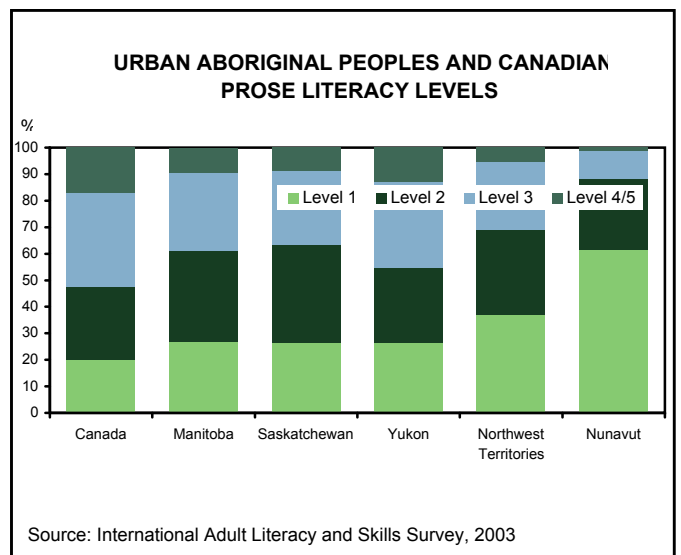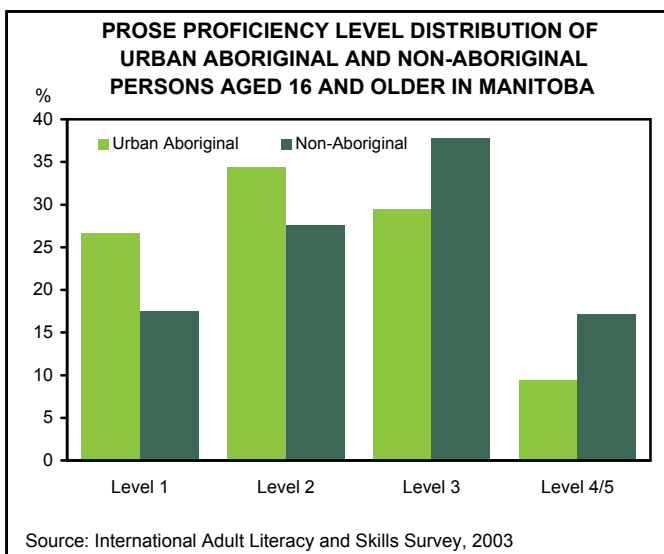
If we switch the focus to the territories, there were few differences in the average prose scores for Aboriginal peoples living in the Yukon versus the two provinces. Instead, more literacy variance was noted in the remaining two territories. In the Northwest Territories, roughly 70% of the Aboriginal population scored either a Level 1 or 2 in the prose category. The number shoots up to roughly 90% for Inuit in Nunavut, although the limited sample size calls into question the reliability of the data.

AVERAGE LITERACY SCORES OF ABORIGINAL PERSONS*, BY AGE GROUP
Literacy scores: 0 to theoretical max 500

Note: *Calculated using population weights of Manitoba, Saskatchewan, Yukon, Northwest Territories and Nunavut.
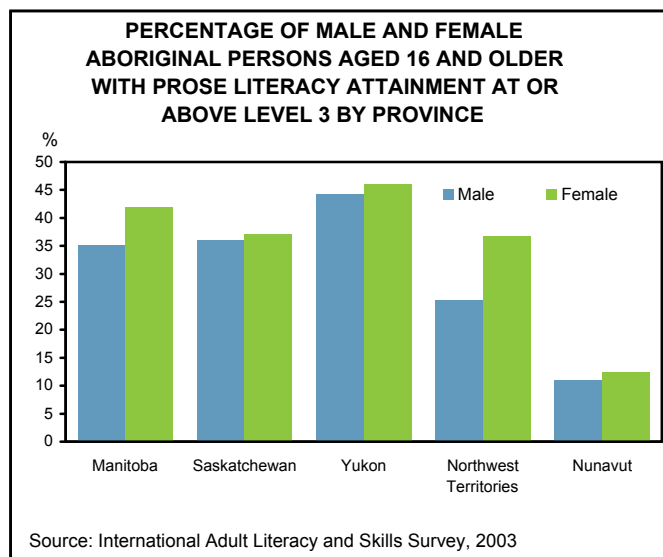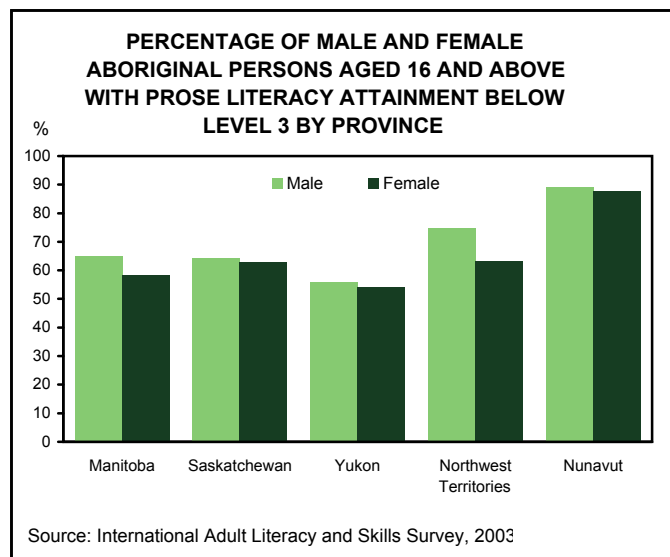Source: International Adult Literacy and Skills Survey, 2003

c) Literacy proficiency across age cohorts

In Manitoba and Saskatchewan, the average prose literacy scores for all age groups are lower than those for the non-Aboriginal population. Across the three age cohorts, average prose literacy scores correspond to proficiency consistent with Level 2. By contrast and with the exception of the 46 and over age bucket, the average scores for the non-Aboriginal population correspond to Level 3.

If we examine the literacy by age cohort, we see that the lowest literacy scores are posted by Aboriginal peoples who are aged 46 and older. The scores can, in part, be attributed to the lasting impacts of residential schooling and other assimilation policies of the past. In terms of magnitude, Aboriginal peoples in this age cohort score the worst in
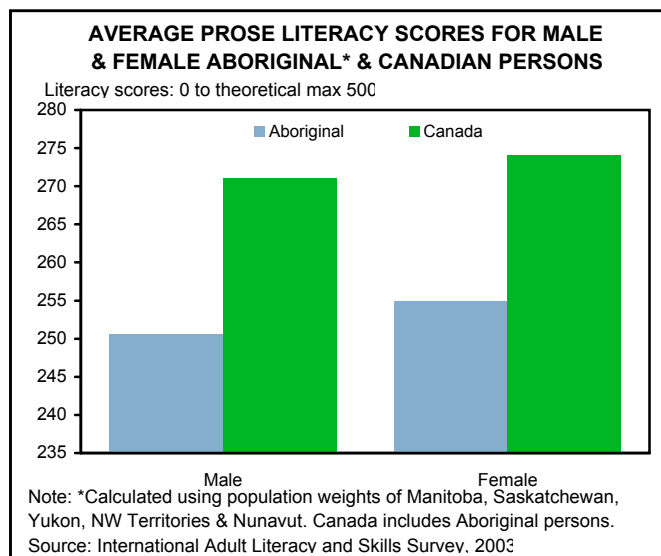

PROSE PROFICIENCY LEVEL DISTRIBUTION OF URBAN ABORIGINAL AND NON-ABORIGINAL PERSONS AGED 16 AND OLDER IN MANITOBA
Source: International Adult Literacy and Skills Survey, 2003

URBAN ABORIGINAL PEOPLES AND CANADIAN PROSE LITERACY LEVELS
Source: International Adult Literacy and Skills Survey, 2003

**PERCENTAGE OF MALE AND FEMALE
ABORIGINAL PERSONS AGED 16 AND ABOVE
WITH PROSE LITERACY ATTAINMENT BELOW
LEVEL 3 BY PROVINCE**

Source: International Adult Literacy and Skills Survey, 2003

**PERCENTAGE OF MALE AND FEMALE
ABORIGINAL PERSONS AGED 16 AND OLDER
WITH PROSE LITERACY ATTAINMENT AT OR
ABOVE LEVEL 3 BY PROVINCE**

Source: International Adult Literacy and Skills Survey, 2003

d) Literacy proficiency across gender

numeracy and the best in prose.

Weaker literacy results among older cohorts are registered for non-Aboriginal Canadians as well. As a consequence, the findings seen for Aboriginal peoples are not solely a product of the residential school system and/or other past policies. The data reflect the fact that many skills atrophy with age. Numeracy is a good example, as more advanced skills may not be used after the individual exits the formal education system. It is also the case that older Canadians generally have less education, regardless of Aboriginal status, versus younger Canadians.

For youth (aged 16-25) and middle age (26-45) groups, the gaps in literacy scores between Aboriginal and non-Aboriginal peoples are also stark. The latter is particularly troubling given that they represent the working age population. In turn, the scores likely serve as headwinds for social and labour market outcomes and signal the types of jobs that Aboriginal people are qualified for.

In each of the territories, there is some variation in prose literacy scores for Aboriginal peoples in the oldest age category. For example, in the Yukon, individuals in this age bucket mostly correspond to Level 2, whereas in the Northwest Territories and Nunavut, the average is Level 1.

As was confirmed in the 2011 National Household Survey, the Aboriginal population is much younger than the national average. However, it is important to note that the IALSS survey methodology did not age standardize the data to minimize the effect of age differences.

Nationwide, there was little difference in literacy proficiency across gender. On average, literacy scores are slightly higher for females than males, although the gap is within the margin of error of the survey. This finding is true across regions and across the four literacy domains.

Non-Aboriginal female literacy scores are much higher than those reported by Aboriginal women. However, Aboriginal females outperform their male counterparts. This is not surprising given education attainment figures. Furthermore, in some communities, the Aboriginal male of the household is tied with traditional economies (e.g., hunting, fishing) whereas the Aboriginal female is attached to more standard occupations, including those jobs requiring higher literacy skill.

**AVERAGE PROSE LITERACY SCORES FOR MALE
& FEMALE ABORIGINAL* & CANADIAN PERSONS**

Literacy scores: 0 to theoretical max 500

Note: *Calculated using population weights of Manitoba, Saskatchewan, Yukon, NW Territories & Nunavut. Canada includes Aboriginal persons.
Source: International Adult Literacy and Skills Survey, 2003

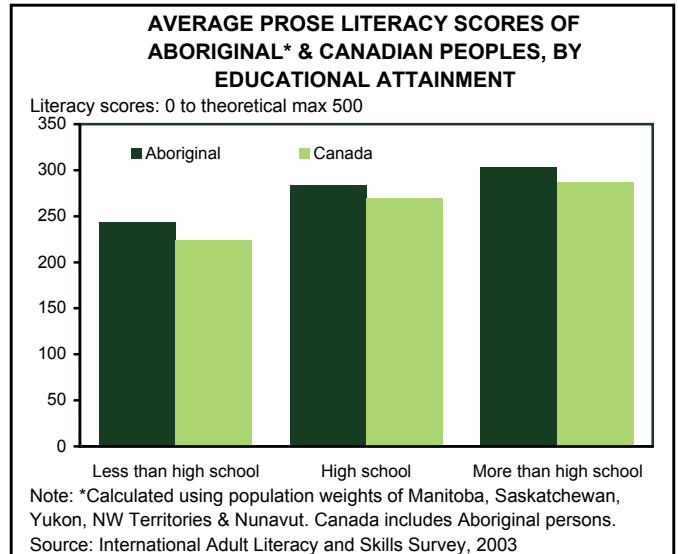## e) Literacy, educational attainment and job demands

There is a positive relationship between literacy proficiency and educational attainment. This pattern holds true in Aboriginal and non-Aboriginal populations. Generally speaking, the data show that those with the lowest education levels have the least prose scores. This finding can be extrapolated to the other three literacy domains as well.

Using micro-level data, one researcher finds that there are large differences in literacy performance between Aboriginal and non-Aboriginal populations in certain regions.[23] This is true even after differences in education are accounted for. The author concludes that while education levels are important for understanding literacy levels, there are other factors at play which must be taken into consideration.

Most jobs in Canada demand Level 3 proficiency. However, Aboriginal adults are much more likely to be attached to occupations and jobs which demand Level 2. It is well known that Aboriginal peoples in Canada have lower median household incomes versus the national average. Lower skill proficiency might be one of the reasons explaining why this is the case.
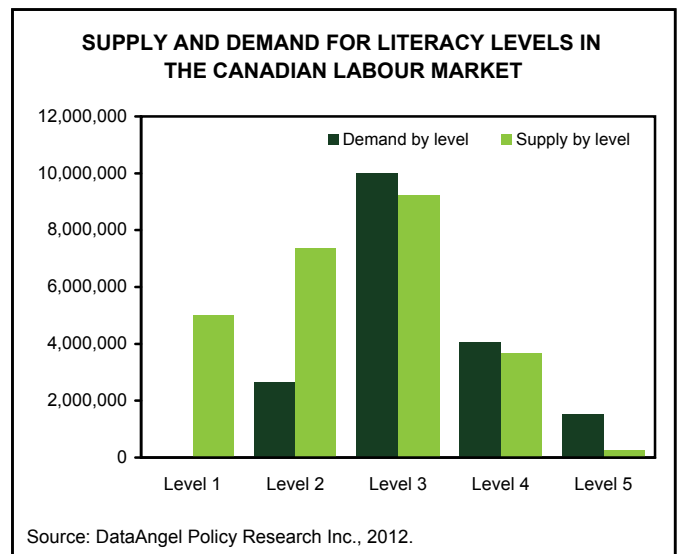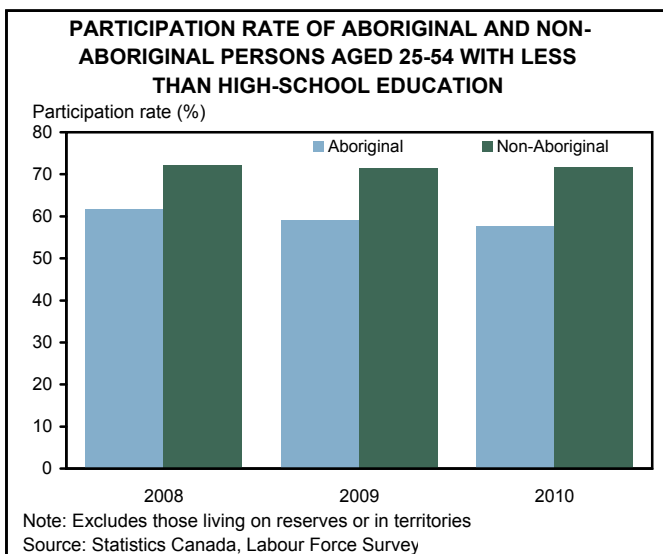
The high price of low literacy

Literacy has a significant influence on social and economic outcomes, both at an individual and national level. The economic literature supports this statement for Canadians as a whole, but more specifically, for Aboriginal peoples. We synthesize some of this evidence in the following three sections.
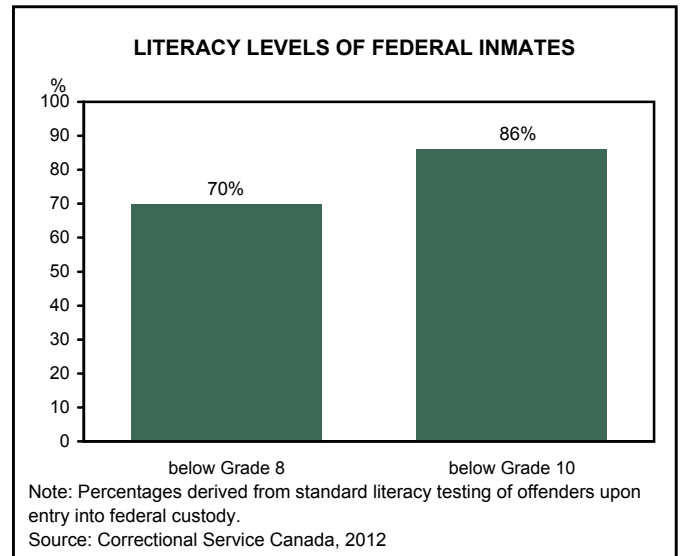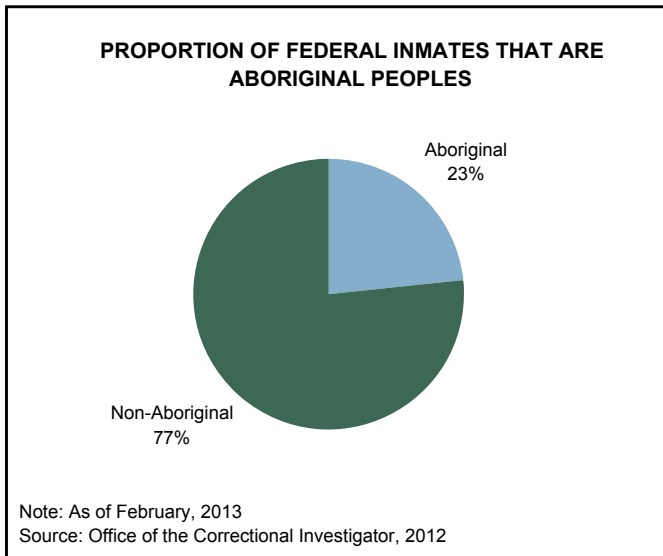

AVERAGE PROSE LITERACY SCORES OF ABORIGINAL* & CANADIAN PEOPLES, BY EDUCATIONAL ATTAINMENT

Literacy scores: 0 to theoretical max 500

Note: *Calculated using population weights of Manitoba, Saskatchewan, Yukon, NW Territories & Nunavut. Canada includes Aboriginal persons.
Source: International Adult Literacy and Skills Survey, 2003

a) Labour market and education outcomes

Weak literacy skills tend to go hand in hand with poor labour force outcomes. The IALSS survey shows that 77% of employed, working age Canadians have a literacy Level of 3 or above.[48] By contrast, only two-thirds of all Canadians with a literacy Level 1 and 2 are employed. The employment gap between the highly literate and those who are less literate is greater among Aboriginal peoples – it sits at thirty percentage points. For example, 65% of First Nations peoples in urban Saskatchewan who have at least Level 3 literacy are employed.[23] The same employment rate for those scoring below Level 3 is 31%.[23]

Researchers at the University of British Columbia found that lower literacy levels held by Aboriginal peoples in Canada leads to a 28% earnings disadvantage.[29] The

PARTICIPATION RATE OF ABORIGINAL AND NON-ABORIGINAL PERSONS AGED 25-54 WITH LESS THAN HIGH-SCHOOL EDUCATION

Participation rate (%)

Note: Excludes those living on reserves or in territories
Source: Statistics Canada, Labour Force Survey

SUPPLY AND DEMAND FOR LITERACY LEVELS IN THE CANADIAN LABOUR MARKET

Source: DataAngel Policy Research Inc., 2012.

PROPORTION OF FEDERAL INMATES THAT ARE ABORIGINAL PEOPLES

Aboriginal
23%

Non-Aboriginal
77%

Note: As of February, 2013
Source: Office of the Correctional Investigator, 2012

LITERACY LEVELS OF FEDERAL INMATES

70%   86%

below Grade 8   below Grade 10

Note: Percentages derived from standard literacy testing of offenders upon entry into federal custody.
Source: Correctional Service Canada, 2012

comparator used in this research was Canadians holding the same literacy scores. Aboriginal peoples enjoy higher returns from education – the relative benefits of receiving education are greater for Aboriginal persons versus non-Aboriginal persons given the former's low starting point. However, upon receiving this educational qualification, they do not get the same extent of income reward. In turn, these findings may suggest discrimination among Aboriginal peoples in the work place/labour market. Contrarily, the lower earning power could also simply reflect the occupations that Aboriginal peoples work in.

Literacy skill is the primary contributing factor towards high school completion and post-secondary educational participation.[30] If Aboriginal peoples have weak literacy skills, all else equal, this will translate into poorer educational attainment.

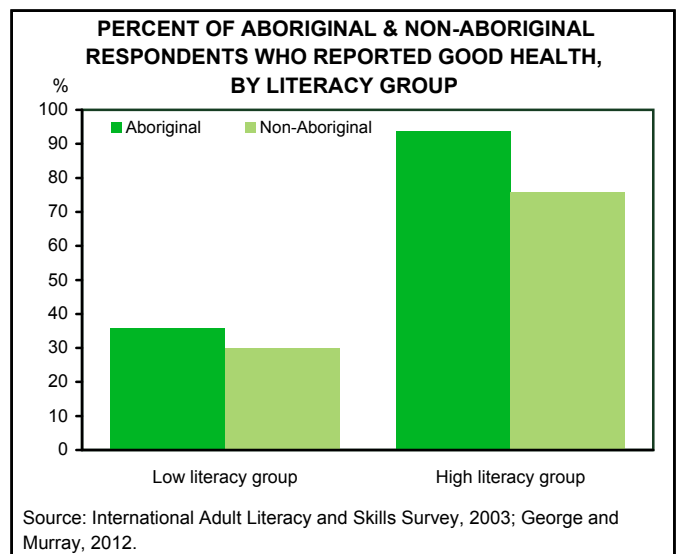**b) More frequent interaction with the justice system**

Approximately 65-70% of prison inmates are unable to sufficiently read and write.[31] According to the Correctional Service of Canada, 70% of offenders entering federal custody score below a Grade 8 literacy level and more than 86% score below Grade 10.[32] Therefore, literacy also has important implications for community safety.
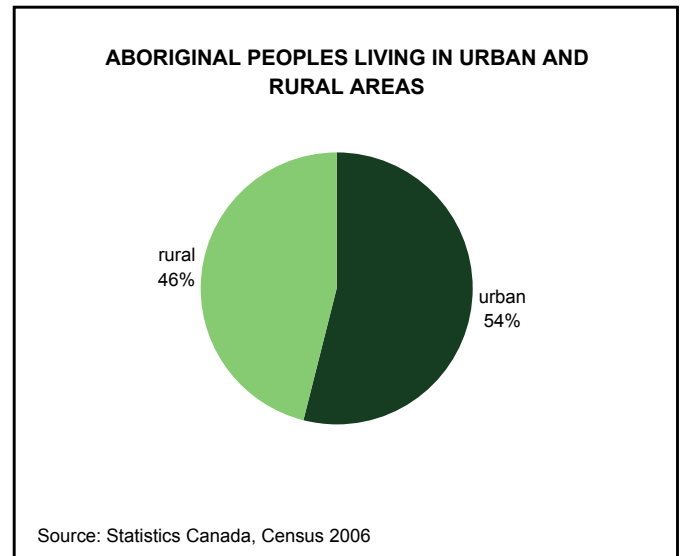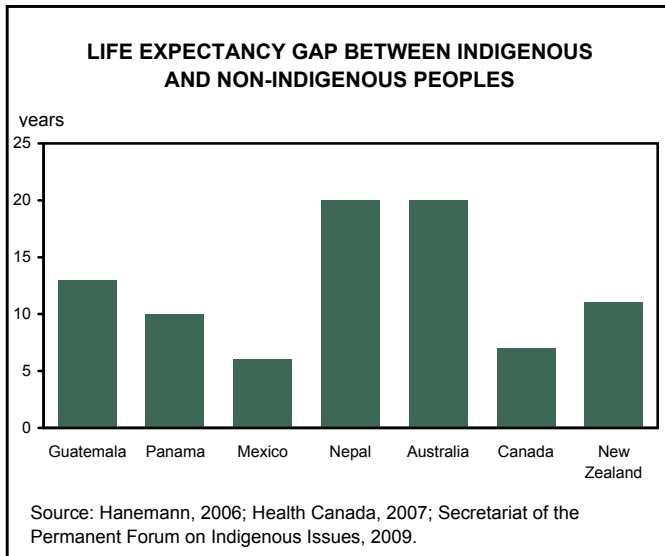
Discouragingly, while Aboriginal peoples account for approximately 4% of the Canadian population, 23% of federal inmates were Aboriginal peoples.[33] Further, over the past ten years, the Aboriginal inmate population has increased considerably by 37% while the non-Aboriginal inmate population has increased only modestly by 2%.[33]

Low literacy is also a risk factor for criminal recidivism. Prisoners who participate in education while in prison are less likely to re-offend. One study finds that every dollar allocated to vocational and basic education programs in a prison setting yields a 200-300% return on investment.[32] By the researcher's calculations: a 50% reduction in Aboriginal incarceration rates would yield annual savings of $1 billion.[27]

c) Poorer health outcomes

The Public Health Agency of Canada characterizes education and literacy as determinants of health.[34] The government agency states that literacy skills are an important part of understanding health prevention, the proper use of medications and overall nutrition. In Canada, socially and

PERCENT OF ABORIGINAL & NON-ABORIGINAL RESPONDENTS WHO REPORTED GOOD HEALTH, BY LITERACY GROUP

■ Aboriginal   ■ Non-Aboriginal

Low literacy group   High literacy group

Source: International Adult Literacy and Skills Survey, 2003; George and Murray, 2012.

LIFE EXPECTANCY GAP BETWEEN INDIGENOUS AND NON-INDIGENOUS PEOPLES

Source: Hanemann, 2006; Health Canada, 2007; Secretariat of the Permanent Forum on Indigenous Issues, 2009.

ABORIGINAL PEOPLES LIVING IN URBAN AND RURAL AREAS

Source: Statistics Canada, Census 2006

economically disadvantaged groups tend to have a lower life expectancy, poorer health, and a greater incidence of disability compared to the average person.[35] For many of the reasons previously described, Aboriginal peoples fall into this disadvantaged group.

In an inter-jurisdictional review, the United Nations concluded the following with regard to Canada's Aboriginal peoples[23,24]:

- Life expectancy for Aboriginal peoples is seventeen years less than for non-Aboriginal peoples;

- Rate of tuberculosis for First Nations peoples was 35 times higher than for the non-Aboriginal population; and

- Over 50% have Type 2 diabetes and the share is expected to increase.

Barriers to overcoming low literacy levels held by Aboriginal peoples

In the Aboriginal context, there are many barriers to improving literacy. Some of these obstacles can be viewed as structural based on existing systems and geographical locations. Others can be thought of as cultural stemming from linguistic differences or Aboriginal peoples having a much broader definition of what it means to be fully literate. History and former government policies also play an important role. In tandem, each of these barriers helps explain why improving literacy proficiency among Aboriginal peoples is such a complex task to undertake. In total, we have identified eight barriers that hinder Aboriginal peoples from

realizing their full literacy potential. Each one is explored in more detail below.

1) Geographic barriers

A structural barrier related to improving the literacy levels of Aboriginal peoples is location. According to the 2006 Census, 46% of Aboriginal peoples (including First Nations, Métis and Inuit) resided outside urban areas. Given their regional location, Aboriginal peoples often find themselves "living alone, in clusters, or as part of identifiable minorities in the fabric of Canadian cities, towns and hinterland."[36] The location of Aboriginal peoples across Canada can be disaggregated as follows:[36]

- *Urban environment:* This group is made up of individuals who formerly lived in rural and remote communities.

FIRST NATIONS PEOPLE LIVING ON- AND OFF-RESERVE

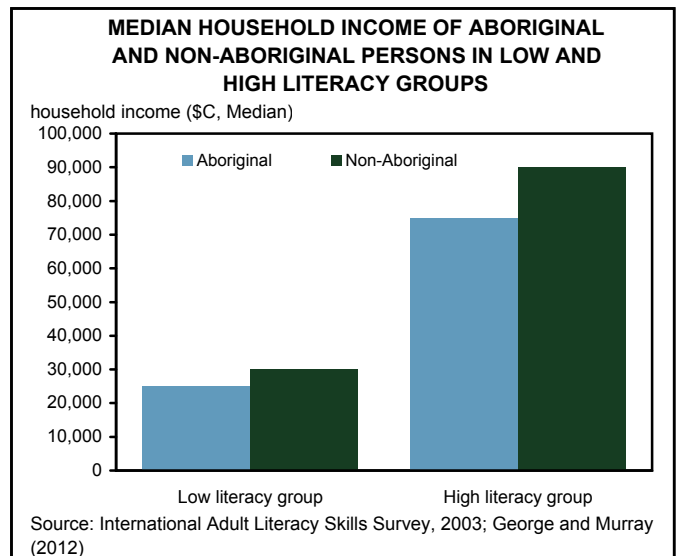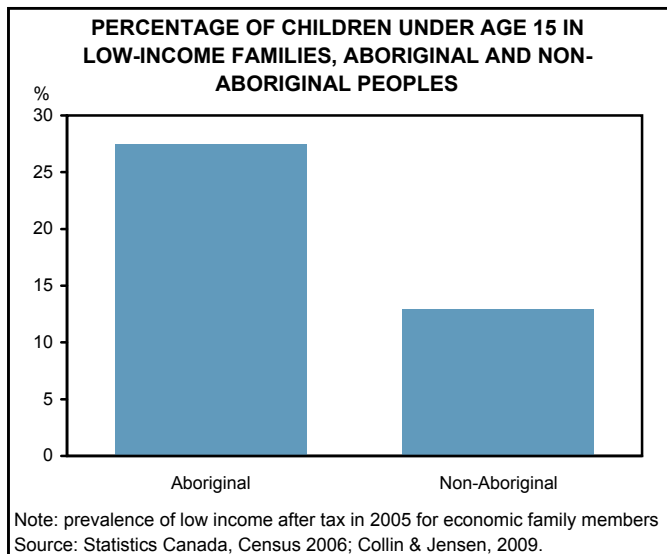Source: Statistics Canada, 2011 National Household Survey.
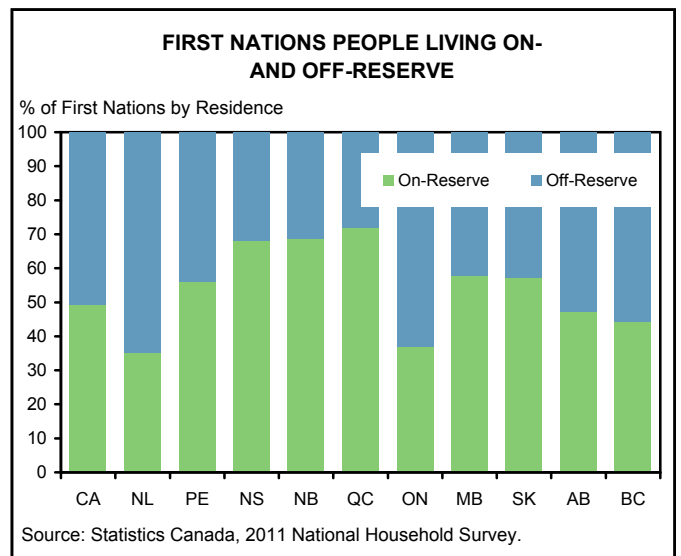
They might include recent and long-residing Aboriginal peoples. The former lacks urban roots and familiarity. Their distance makes them out-of-reach for community-based support programs back home. Local urban institutions are also unlikely to provide access to culturally-relevant services. Friendship centres are an important source of support for Aboriginal peoples in urban environments; these centres are often asked to intervene in crisis situations.[36]

- *Rural and remote communities:* These communities often rely on traditional economies (e.g., hunting, fishing) to support themselves. Others are tied to the resource sector. Given their location, it is sometimes hard for voices in these Aboriginal communities to be heard. As a consequence of being so far away from support services, social problems are easier to perpetuate and harder to address. There are many instances of inter-generational poverty. An exception to this reinforcing cycle is where the local town becomes a hub for a group of Aboriginal communities. In the case of rural communities, they typically have difficult road access and when such infrastructure is present, the routes are to smaller towns. The remote communities do not typically have year-round road access. In over half of these sites, there is no road access at all to a town or population centre.[36]

Due to their rural and remote locations, nearby formal training and higher education are typically non-existent.[23] An Aboriginal person wanting to access such services typically leaves their home community for either a short period

MEDIAN HOUSEHOLD INCOME OF ABORIGINAL AND NON-ABORIGINAL PERSONS IN LOW AND HIGH LITERACY GROUPS

Source: International Adult Literacy Skills Survey, 2003; George and Murray (2012)
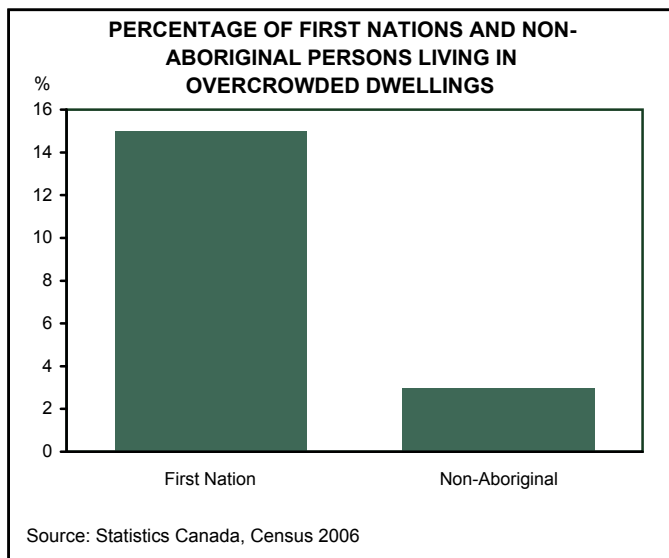
of time or in some cases, permanently. The 'forced' move can result in a feeling of isolation for the student which often hinders the extent and quality of learning. Without the necessary familial and emotional support nearby, students often return to their home communities failing to complete their studies and/or program.

In addition to the urban and rural categorization, a distinction can also be made between resource-rich and resource-poor communities.

- *Resource-rich communities:* these communities typically have one of the following features: (1) proximity to urban centres; (2) a populace that is larger, older and more educated; (3) a robust resource core and other regional economic opportunities; (4) strong leadership at the local level; and/or (5) access to capital from settlement agreements, resource development or other sources.[36] Individuals residing in these communities are also more likely to have access to literacy programs and better learning conditions.

- *Resource-poor communities:* these communities face the same challenges as the rural and remote communities including poverty and lack of access to essential services.

The remoteness of many Aboriginal communities goes hand in hand with a lack of access to broadband internet. Researchers have coined this challenge as the 'digital divide.'[37] By one estimate, less than 7% of Aboriginal households in Manitoba, Nunavut, British Columbia and Saskatchewan have access to high speed internet connections and ser-

PERCENTAGE OF CHILDREN UNDER AGE 15 IN LOW-INCOME FAMILIES, ABORIGINAL AND NON-ABORIGINAL PEOPLES

Note: prevalence of low income after tax in 2005 for economic family members
Source: Statistics Canada, Census 2006; Collin & Jensen, 2009.

PERCENTAGE OF FIRST NATIONS AND NON-ABORIGINAL PERSONS LIVING IN OVERCROWDED DWELLINGS

Source: Statistics Canada, Census 2006

vices.[37] The British Columbia Ministry of Labour estimates that at the end of fiscal year 2011-12, 16% of First Nations were without broadband access.[38] The provincial government's plan is to reduce this percentage to 6% by fiscal year 2014-15.

As part of Canada's Economic Action Plan in 2009, the federal government announced $225 million over three years to develop a strategy and extend broadband coverage to un-served and under-served households.[39] The largest part of the strategy is the Broadband Canada: Connecting Rural Canadians program which provided broadband access to over 210,000 additional households across the country.[40] Aboriginal peoples in Canada would have likely disproportionately benefited from the investment.

2) Social and economic barriers

Low literacy scores are intertwined with several social and economic challenges. Former Inuit Tapiriit Kanatami (ITK) National Leader Mary Simon implored policymakers to take a broader perspective on issues that impact Aboriginal student and education outcomes.[41] In her view, these contributing factors are crucial to understanding why Aboriginal literacy falls below the national average.

Income inequality for Aboriginal peoples in Canada is greater than is the case nationally. There is a noticeable disparity of employment incomes between Aboriginal and non-Aboriginal people in Canada. In recent years (1996-2006), the gap has closed marginally. If this current pace were to continue, it would take 63 years for the Aboriginal populace to catch up to the rest of Canada.[42] Some of the income differential evaporates given that there is a higher

cost of living in urban areas versus rural and remote communities. However, traditional economies are no longer as lucrative as they once were due to climate change and/or over-hunting.

Poverty is more common among Aboriginal children (less than 15 years old) than among non-Aboriginal children. Four out of ten Aboriginal children grow up in poverty.[43] This is almost double the poverty rate experienced by non-Aboriginal children. Impoverished conditions for indigenous populations are prevalent elsewhere. In 2006, 41% of the indigenous population in Australia fell below the poverty rate – nearly triple the rate of non-indigenous people.[23] In the United States, 25% of Native Americans and Alaska Natives fall below the poverty line – double the national rate.[23]

Greater prevalence of poverty among Aboriginal peoples in Canada can be attributed to "the marginalization of indigenous peoples, a lack of control over their own lives, their being dispossessed of their lands and being relocated to areas that are poor in resources."[23] In addition to other long-lasting mental effects, these living conditions impede a student's ability to learn to read and write. Poverty leads to other social ills including hunger which impacts one's ability to absorb new information and concentrate on learning.[44]

Living conditions in Aboriginal communities have made headlines, including most recently, Attawapiskat in Northern Ontario. Approximately one in eight Aboriginal homes contains two families.[27] Roughly 20% of Aboriginal homes can be characterized as overcrowded. This is four to five times more than the overcrowding in non-Aboriginal homes. In addition to greater densification, one in three homes needs

SCHOOL READINESS FOR KINDERGARTENERS BETWEEN ABORIGINAL AND NON-ABORIGINAL

Source: Muhajarine, Nazeem et al. Soc. Indic Res (2011) 103:299-314
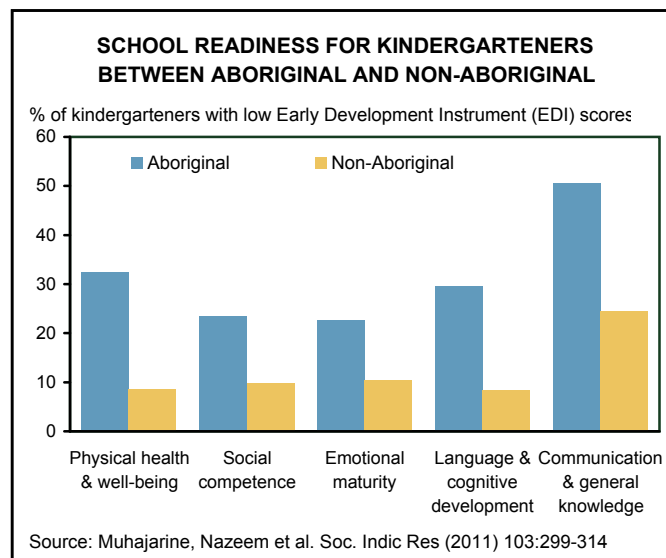
major repairs.

It is not surprising then that Aboriginal children score poorly when it comes to school readiness.[45] In British Columbia, approximately 40% of Aboriginal children received a low Early Development Instrument (EDI) score. This is a questionnaire that measures areas of child development that are associated with adult education, and health and social outcomes.[46] In particular, Aboriginal children did not perform well on the EDI in the areas of language, cogitative development and communication skills. Teachers rate Aboriginal children lower on the school readiness measure versus their peers.[46] Disturbingly, this suggests that these children are held back straight out of the gate when it comes to overcoming literacy barriers.

3) Cultural barriers

Learning environments and educational settings that are less welcoming to Aboriginal students are also a barrier to learning. For instance, some observers feel that teachers cover the curriculum too quickly, especially given that many Aboriginal students need time to relate the material to their community and cultural background.[23] The absence of spirit and spirituality is often mentioned, with one keynote speaker stating: "the silence on spirituality in the classroom, except in denominational schools, has left a gap in learning which reduces education to the mind and skills, and removes the factor that fuels our passion for our work, love and meaning making."[47]

There is also some evidence of racism and discrimination towards Aboriginal students.[48] In a study examining discrimination, Canadian teachers were asked to assess the performance of twenty-four students and recommend either a remedial, conventional or advanced program placement.[49] The authors found that teachers gave the students a lower evaluation if they were led to believe the student in question was Aboriginal.[49]

Teachers of literacy programs on-reserve or in semi-urban areas are four times more likely to have pupils with a tie to a residential school than teachers in other areas. Many attendees of residential schools lived in sub-standard conditions and/or experienced some form of abuse (emotional, physical, or sexual).[50] Both act as barriers to learning. While residential schools are now closed and the federal government has issued a formal apology[51], the legacy of these years is enduring. In the words of Canada's current Prime Minister, Stephen Harper, "the legacy of Indian Residential Schools

has contributed to social problems that continue to exist in many communities today."[51] In many cases, Aboriginal adults mistrust educational institutions.
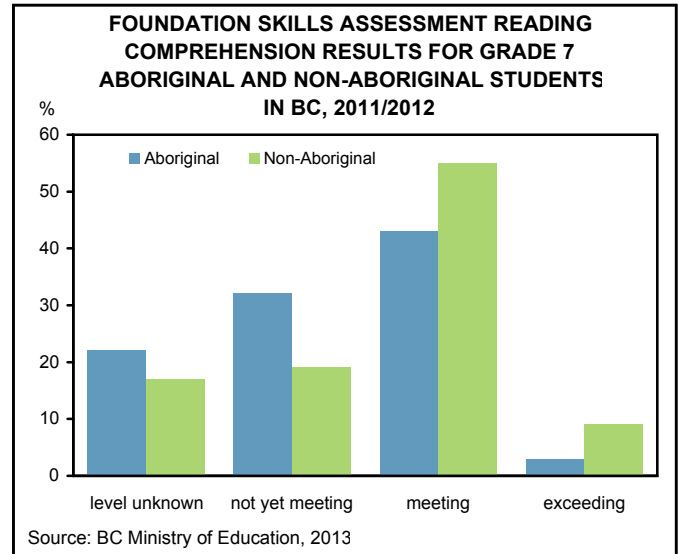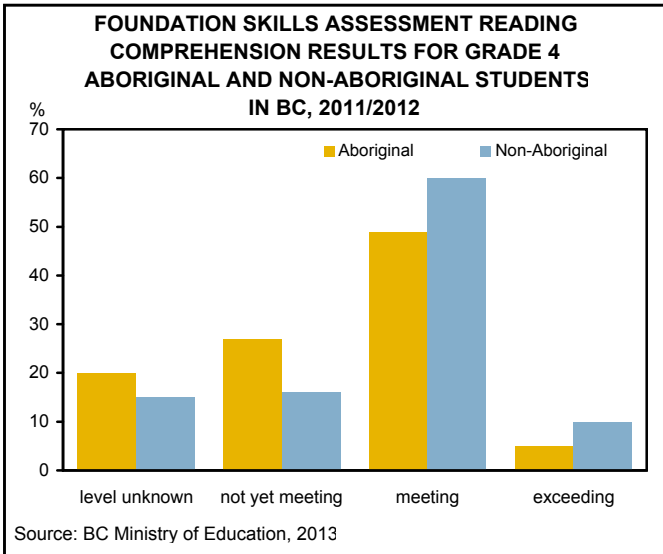
4) A more holistic view of literacy

Print-based literacy is a fairly new concept to many Aboriginal communities. Standardized tests of print-based literacy do not capture forms of literacy which are valued by many Aboriginal communities. The broader perspective may prevent individuals from developing the literacy skills which are most desired by the labour market and economy.

Throughout this report, we have referred to the academically-accepted definition of literacy which is based on the exchange of information primarily through written and text forms. However, many members of the Aboriginal community would argue that this definition of literacy is short-sighted. For example, the Ontario Native Literacy Coalition (ONLC) defines literacy as: "the development of self-knowledge and critical thinking along a life-long path of learning; it is a continuum of skills that encompasses reading, writing, numeracy, speaking, good study habits, and communicating in other forms of language as needed."[52]

Aboriginal peoples have had their own sources of literacy for centuries. Yet, print-based literacy is the focus of standardized tests such as the International Adult Literacy and Skills Survey and even the Aboriginal Adult Literacy Assessment Tool. These tests do not capture other forms of literacy which may be relevant to Aboriginal communities.

Aboriginal literacy advocates state that written prose does not replace nor negate traditional communication methods.[54] For instance, Marie Battiste, a Mi'kmaq educator from Potlo'tek First Nation in Nova Scotia, and a Professor in the Indian and Northern Education Program at the University of Saskatchewan states the following: "Through the use of pictographs, petroglyphs, notched sticks, and wampum, early North American Indians achieved a form of written communication and recording which served the social, political, cultural, and spiritual needs of the early period, fully describing the ideal and material world. Aboriginal literacy embodied tribal epistemology in Native texts, which interacted with and depended upon the oral tradition."[53]

Aboriginal communities view literacy as an important contributor to improving one's life. Given this mindset, communities approach literacy holistically. Elders, cultural relevance and a community mindset guide the design, development, delivery and evaluation of local literacy

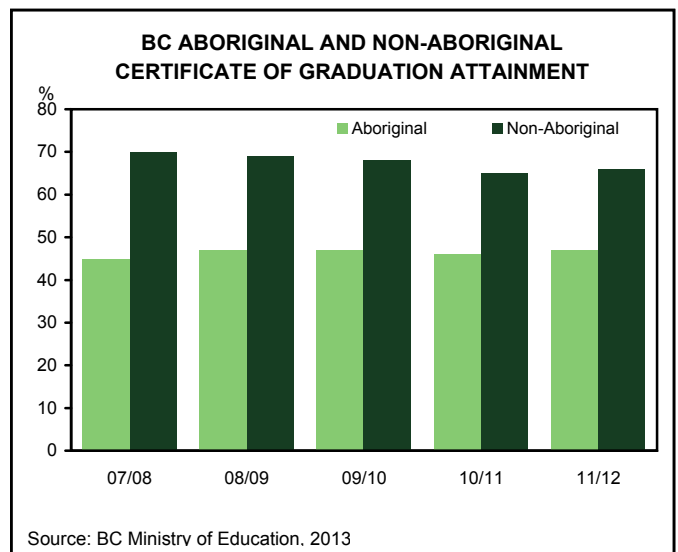**FOUNDATION SKILLS ASSESSMENT READING COMPREHENSION RESULTS FOR GRADE 4 ABORIGINAL AND NON-ABORIGINAL STUDENTS IN BC, 2011/2012**

%

Source: BC Ministry of Education, 2013

FOUNDATION SKILLS ASSESSMENT READING COMPREHENSION RESULTS FOR GRADE 7 ABORIGINAL AND NON-ABORIGINAL STUDENTS IN BC, 2011/2012

%

Source: BC Ministry of Education, 2013

programming.[54]

The Parkland Regional College of Yorkton, Saskatch-ewan have initiated a literacy project where each colour of the rainbow represents a form of literacy that has relevance and meaning in an Aboriginal community.[54] The holistic approach to literacy is more all-encompassing versus the traditional literacy score typically measured:[54]

- *Red* – signals the life-blood of humans and animals and conveys confidence. It also represents the language of origin for First Nations and/or communities.

- *Orange* – conveys balance, self-confidence and self-control. For individuals, this is the fire within and Aboriginal teachings, which have been passed on orally from generation to generation.

- *Yellow* –signals creativity and describes communication in the form of language, symbols or sign language.

- *Green* – interpreted as growth while remaining true to teachings. It also refers to literacy in the languages of the European newcomers and, in the case of Canada, English and French;

- *Blue* – demonstrates truth and commitment and a changing skyline. In the context of literacy, it refers to the skills required to communicate using technology.

- *Indigo* – refers to the night-time sky and dream time when Aboriginal peoples are more open to receiving messages from the Spirit World. This colour represents the skills required for spiritual or cultural literacy: the

ability to interpret messages from the Spirit World.

- *Violet* – wisdom, the ability to understand, and to respect others. It encompasses the spiritual, emotional, physical and mental learning outcomes attached to literacy learning.

To further flesh out the rainbow literacy approach, each colour is disaggregated into awareness, struggle, building and preservation. In doing so, the Aboriginal view of literacy captures spirit, heart, mind and body. From many community perspectives, the focus on writing and text is just one, albeit important, element of Aboriginal literacy. However, the broader definition may cause some individuals to lose focus on the elements valued most in the current labour market.

BC ABORIGINAL AND NON-ABORIGINAL CERTIFICATE OF GRADUATION ATTAINMENT

%

Source: BC Ministry of Education, 2013

EFFECTS OF IMPROVING ABORIGINAL EDUCATION, LABOUR MARKET OUTCOMES, & SOCIAL WELL-BEING, 2006-2026

Source: Centre for the Study of Living Standards
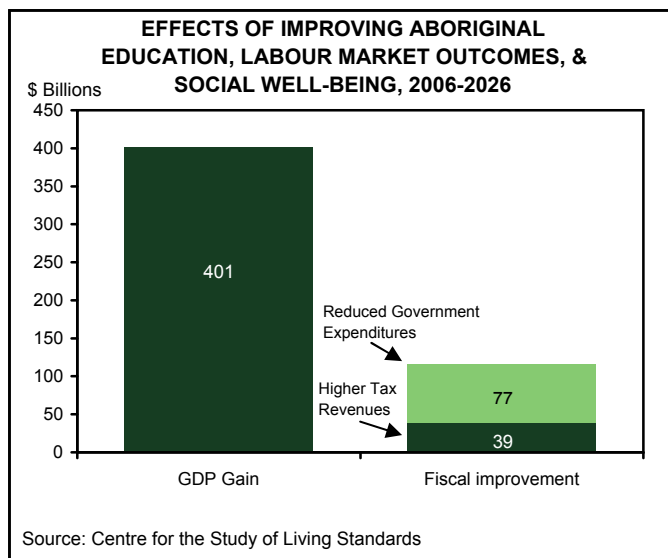
5) Education outcome gaps: education system complexities and under-funding
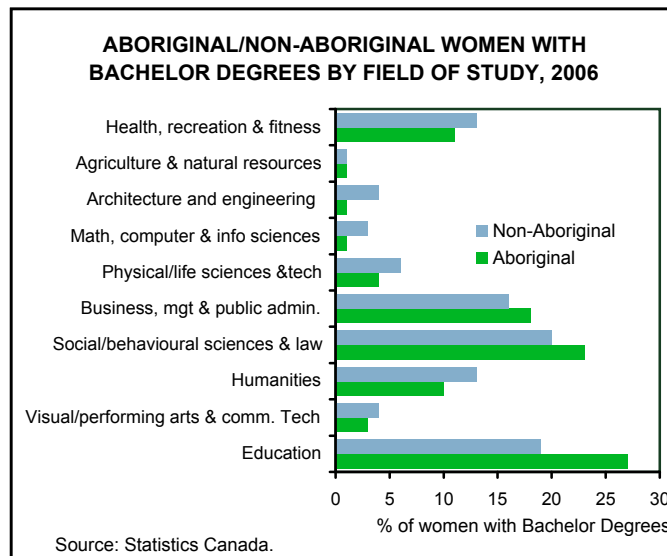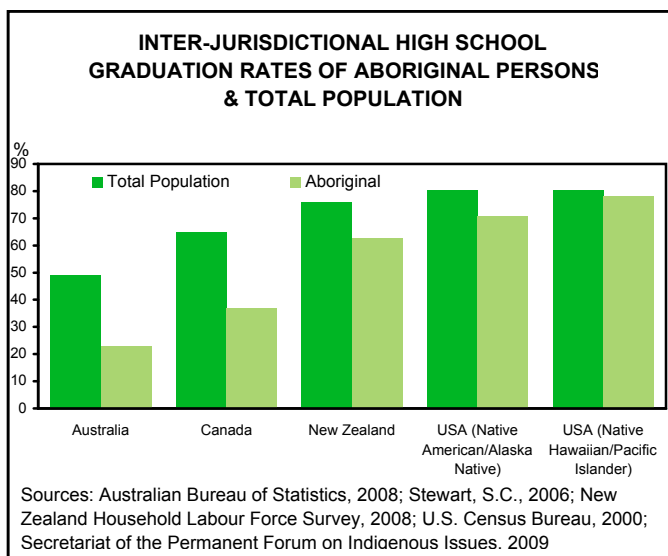
The barriers specific to the Aboriginal education can be broken down into two main categories: student performance; and education system and funding.
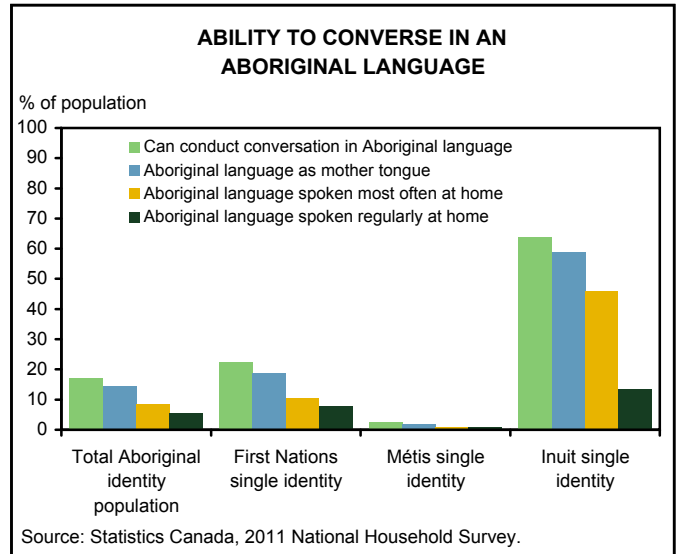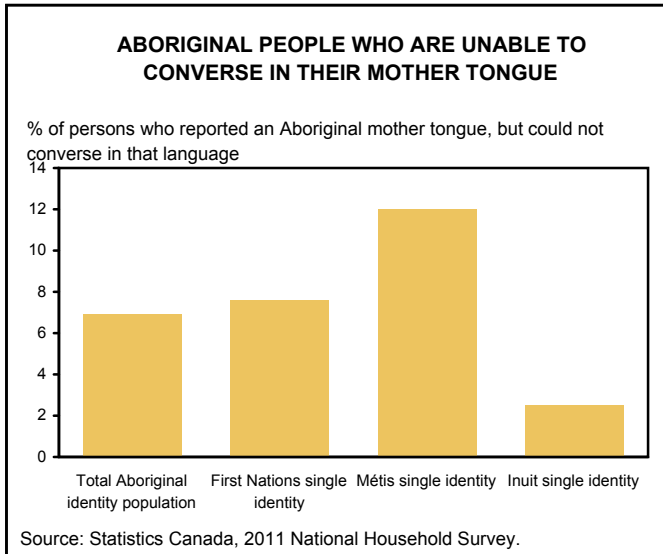
Aboriginal and Non-Aboriginal student performance gap

While poor education outcomes are typically interpreted as a by-product of low literacy, the student performance gap between Aboriginal and Non-Aboriginal Canadians is also a barrier to overcoming literacy. With such a long way to go to record education attainment at par with non-Aboriginal Canadians, the education gap possesses all of the same characteristics as the other barriers reviewed.

INTER-JURISDICTIONAL HIGH SCHOOL GRADUATION RATES OF ABORIGINAL PERSONS & TOTAL POPULATION

Sources: Australian Bureau of Statistics, 2008; Stewart, S.C., 2006; New Zealand Household Labour Force Survey, 2008; U.S. Census Bureau, 2000; Secretariat of the Permanent Forum on Indigenous Issues. 2009

Across Canada, roughly four out of five Aboriginal students attend a provincially-run school; the remaining students attend an on-reserve, band-run school.[55] The data suggest that student outcomes are better in provincially-run schools than in schools on-reserve. However, a large gap exists between outcomes of Aboriginal and non-Aboriginal students across Canada.[42] Using 2006 Census data, we see the education gap across these two populations firsthand:

• In British Columbia, a large gap exists by Grade 4 across Aboriginal and non-Aboriginal student performance. The gap widens by Grade 7 across all three skills (reading, writing and numeracy).[55,56]

• Less than half of First Nations youth graduate from high school compared to 80% in the non-Aboriginal population. The employment rate almost doubles for an Aboriginal person who has a high school certificate on his/her resume versus an Aboriginal person without this education.

• Roughly half of the on-reserve population aged 25 to 34 did not have a high school certificate versus 10% for all other Canadians in the same age category. Between 2001 and 2006 Censuses, there was little improvement seen in these shares.

• Roughly 25,000 Aboriginal peoples reach the age of majority every year (age 18).[41] However, just 8,000 of these individuals enrol in post-secondary education. One in five Canadians will obtain a post-secondary degree; just one in thirty-three will achieve the same among Aboriginal Canadians.

ABORIGINAL/NON-ABORIGINAL WOMEN WITH BACHELOR DEGREES BY FIELD OF STUDY, 2006

Source: Statistics Canada.

ABORIGINAL PEOPLE WHO ARE UNABLE TO CONVERSE IN THEIR MOTHER TONGUE

% of persons who reported an Aboriginal mother tongue, but could not converse in that language

Source: Statistics Canada, 2011 National Household Survey.

ABILITY TO CONVERSE IN AN ABORIGINAL LANGUAGE

% of population

- Can conduct conversation in Aboriginal language
- Aboriginal language as mother tongue
- Aboriginal language spoken most often at home
- Aboriginal language spoken regularly at home

Source: Statistics Canada, 2011 National Household Survey.

In a report to Parliament in 2000, the Auditor General of Canada forecast that it would take twenty years, at the then rate of progress, for First Nations to reach the same educational outcomes as non-Aboriginal Canadians.[57] In a follow-up report in 2004, the estimated time increased to 28 years, in large part due to improved educational attainment in the Canadian population.[58] In 2011, the Auditor General concluded that a greater number of years than previously envisaged will be required to close the gap.[58] Four impediments to improving education on-reserve were cited by the Auditor General: (1) lack of clarity regarding service levels; (2) lack of legislative base; (3) lack of an appropriate funding mechanism; and (4) few organizations present to support local service delivery.[58]

The First Nation Student Success Program[59] and the Education Partnerships Program[60], both introduced in 2008 by the federal government, are two elements of the Reforming First Nation Education Initiative. The goal underpinning this initiative is to improve First Nation education outcomes over the long-term. Furthermore, consultations are currently underway for the creation of a *First Nations Education Act*.[61] This proposed piece of legislation aims to clarify roles and responsibilities, strengthen governance and accountability, and provide stable and predictable funding.

Improving education outcomes would have significant economic benefits. In May 2009, the Centre of the Study of Living Standards projected the long-term benefit of eliminating the gap in education and labour market outcomes.[62] Two perspectives were taken: one for the Canadian economy and the other for government finances. When gaps were fully erased, the cumulative increase to the real economy over a twenty-five year period (2001 to 2026) was $401 billion. Roughly a third of this amount was attributed to closing the education gap. The remaining sum was then attributed to eradicating the employment and income gap associated with poorer education outcomes.

Barriers related to the education system and under-funding
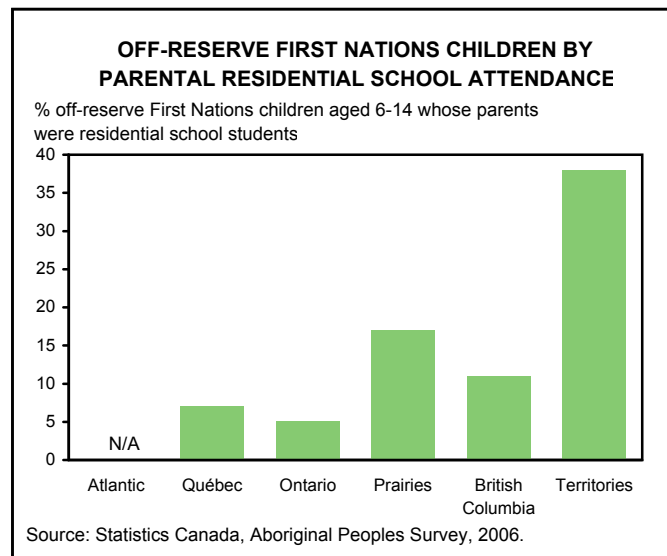
In their 2011 report, the National Panel on Elementary and Secondary Education On-Reserve concluded that there is a patchwork of policies and agreements supporting the on-reserve Aboriginal education system.[61] This, in turn, provides a shaky foundation. Hindered by its structure, the education system delivers services that are of uneven quality.[63] Some Aboriginal on-reserve communities are in control

ABORIGINAL PEOPLES' CONVERSATIONAL ABILITY IN ENGLISH OR FRENCH

% distribution of population

- English only
- French only
- English and French
- Neither English nor French

Source: Statistics Canada, 2011 National Household Survey.
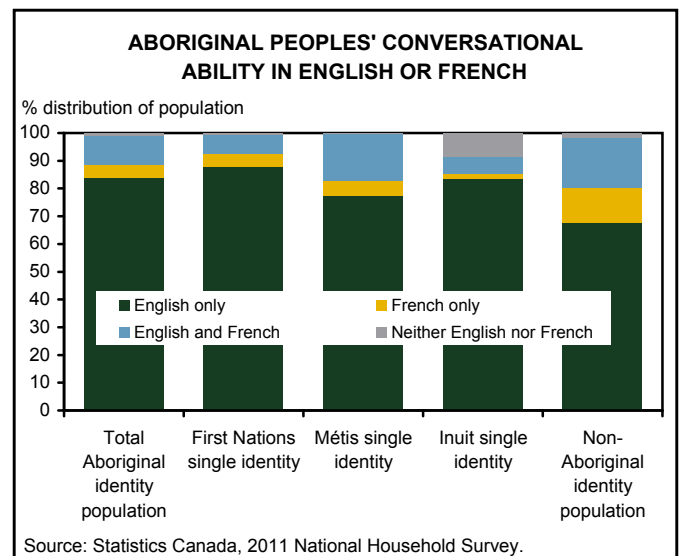
of their own schools, but others remain under provincial jurisdiction. The Commission – consisting of members from the Assembly of First Nations and Aboriginal Affairs and Northern Development Canada – also found that the existing education system does not meet the necessary accountability requirements to ensure that all students perform up to their full potential.[61]

For Canada's Inuit population, education is currently delivered by four separate public education systems.[64] These systems operate across two provinces and two territories – the region is called Inuit Nunangat by the Inuit. Each region has a different historical context and system of governance. In the proposed National Strategy on Inuit Education, the documents stated that there is little chance of Inuit education being delivered by a single system. However, senior Inuit leaders did call on fundamental changes to ensure that the system reflected the growth of the Inuit language and culture.

There are also under-funding issues, as existing school buildings are in disrepair.[65] Many schools do not have libraries, science labs and gyms, for instance.[65] To emphasize the extent of the deficiencies, others attach a dollar figure to the amount that Aboriginal schools are being short changed. For example, former Prime Minister Paul Martin calculates that there is a funding gap for on-reserve schools of $2,000-$3,000 per student.[66] The estimate is based on geography – matching per student funding to that of other remote and rural schools. However, the former Prime Minister argues that the dollar value is a conservative estimate as it does not capture the unique challenges of educating youth on-reserve.

OFF-RESERVE FIRST NATIONS CHILDREN BY PARENTAL RESIDENTIAL SCHOOL ATTENDANCE

% off-reserve First Nations children aged 6-14 whose parents were residential school students

Source: Statistics Canada, Aboriginal Peoples Survey, 2006.

6) Linguistic differences

Aboriginal languages are a critical component to maintaining and preserving Aboriginal culture. Conversation and interpersonal exchange allows for a shared cultural experience.[67] The Aboriginal languages used in Canada are structured differently than English or French.[68] A lot of terms, concepts and expressions, are not easily translatable and/or conveyed. For instance, in one case example in a northern Aboriginal community, translators were forced to come up with new expressions or words to explain the concepts being discussed.[36] Understandably, miscommunication often resulted.

Syllabics are used to write Inuktitut, whereas English is based on Roman orthography.[23] The sounds frequently used in each language are distinct. So, too, is the unique form of written communication. In some cases, there are words which only have meaning in one language and not another. Many students cite language problems and a lack of confidence as reasons why they do not seek out additional help.[69]

Most Aboriginal communities continue to use some form of their traditional language, either at home or in their community. However, Statistics Canada reports that over the past century, nearly ten flourishing Aboriginal languages have become extinct.[53] Twelve more are nearly extinct.

The Assembly of First Nations has grouped languages into the following categories: (1) flourishing; (2) enduring; (3) declining; (4) endangered; and (5) extinct.[53] The Métis, for example, believe Michif is one of the most severely endangered languages in the country.[70] Others are facing pressure or are being threatened with extinction.[71] Ap-

SOME ABORIGINAL PEOPLE ACQUIRING AN ABORIGINAL LANGUAGE AS A SECOND LANGUAGE

% of persons reporting an ability to conduct a conversation in an Aboriginal language that is not their mother tongue

Source: Statistics Canada, 2011 National Household Survey.

HALF OF ABORIGINAL CHILDREN LIVE WITH BOTH PARENTS

%

Note: (1) Children of both parents; (2) Stepchildren; (3) Children of lone parent; (4) Foster children; (5) Children living with relatives.
Source: Statistics Canada, 2011 National Household Survey.

proximately one in ten Aboriginal peoples have lost their ability to communicate in their native language.[13] In light of this trend, there may be a growing desire to protect and preserve the use of cultural-based languages.

According to 2011 National Household Survey data, roughly one in six individuals can converse in an Aboriginal language.[13] Furthermore, the vast majority of Aboriginal peoples (99%) can conduct a conversation in either English or French, although the share for Inuit is noticeably lower. There is also a growing trend towards attaining an Aboriginal language as a second language. However, most literacy programs available for Aboriginal Canadians focus on either English or French literacy.

Funding is often an issue for Canadian literacy programs that carry out their curriculum in an Aboriginal language.[53] This policy often hinders literacy capability in an Aboriginal language. The official language concern is less of an issue in other jurisdictions. For example, New Zealand considers Mãori to be an official language. In 2006, then U.S. President George W. Bush signed the *Esther Martinez Native American Languages Preservation Act* into law.[72] In Australia, Aboriginal English is a dialect separate and distinct from Standard Australian English.

7) Too few teachers and other role models

Role models are a critical component to a successful learning environment, particularly for youth during their elementary and secondary school years. Role models help instil a 'will to learn' while providing individuals with positive examples.[41] This lets the student apply what they are learning to the real-world. In the post-secondary education

context, the presence of role models helps improve cultural compatibility for the student.

Elders play an important role in an Aboriginal community as they provide advice and guidance. However, many Elders and parents continue to feel the lasting impacts of residential schools. In some cases, their experiences in these schools have led them to be hesitant to participate in their own formal education and the education of Aboriginal youth.[54]

In the school setting, the teacher is typically a go-to role model for most children. However, many teachers are not well-informed about Aboriginal issues and cultures. In certain instances like remote communities, the teachers lack the necessary resources and/or curriculum to meet the needs of their students.[41] At a recent conference on indigenous issues in post-secondary education at Queen's University, attendees concluded that good teacher training is the foundation for any successful educational system.[41]

The teacher shortage present in Aboriginal communities can be seen in the data. In 2006, Aboriginal children accounted for 5.2% of total student population.[73] Yet, 2.7% of Aboriginal peoples are teachers.[74] This means that in many instances, children are being taught by someone from outside the community.

In recent testimony to the Senate Standing Committee on Aboriginal peoples, witnesses described the difficulties of recruiting and retaining qualified teachers in part due to the funding model.[75] Many Aboriginal leaders stated difficulties with high teacher turnover and the discontinuity that results for students. For instance, one representative from Québec

LEARNING & BEHAVIOUR DISABILITIES OF ABORIGINAL & NON-ABORIGINAL STUDENTS IN BC, 2011-2012

%

Source: British Columbia Ministry of Education, 2013

RATE OF LEARNING DISABILITY AND ATTENTION DEFICIT DISORDER AMONG OFF-RESERVE FIRST NATIONS CHILDREN

% off-reserve First Nations children aged 6-14 with diagnosis

Source: Statistics Canada, Aboriginal Peoples Survey, 2006.

HEAVY DRINKING AMONG DRINKERS ON A WEEKLY BASIS FOR FIRST NATIONS* PERSONS ON-RESERVE & CANADIANS* OFF-RESERVE

%

Note: Aged 18 years and older. Includes only persons who reported drinking in the year prior to the survey

Source: Regional Health Survey, 2002-03; Assembly of First Nations, 2005; Statistics Canada, Canadian Community Health Survey, 2003.

stated that in one year, 30% of the teachers left and so did 50% of the principals.[75] An inability to pay a competitive salary to neighbouring jurisdictions was a common reason cited. A case in point, a Councillor of Six Nations of the Grand River estimated that teachers on reserve get paid 30% lower than teachers working off-reserve.[75] In turn, teachers gain work experience on-reserve, but move to a local district school board shortly afterwards.

Parents are role models for children as well. However, many Aboriginal children lose out on this important family resource. In 2011, half of Aboriginal children aged 14 and under were living in a family with both their parents, either biological or adoptive, compared with 75% of non-Aboriginal children.[12] In addition, there is greater representation of Aboriginal children living with their grandparents or other

non-parent relatives versus the non-Aboriginal population.[12] Furthermore, almost half of children aged 14 and under in foster care in Canada identify as Aboriginal. Of this group, older Aboriginal children – those aged 5-14 – were more likely to be in foster care than children aged 4 or younger.

Due to their living environments, many Aboriginal children arrive at school, but are not in a position to learn and absorb the new information. This lack of preparedness snowballs as the children progress through school. The longer such gaps persist, the harder it is to overcome the wall erected.

8) Other individual barriers

There are formidable personal barriers, which undoubtedly compound the social and economic obstacles discussed

RATE OF ILLICIT DRUG USE OF FIRST NATIONS AND CANADIAN PERSONS.

%

Source: First Nations Regional Longitudinal Health Survey, 2002-2003; Council on Drug Abuse, n.d.

SUICIDE RATES PER 100,000 PEOPLE, FIRST NATIONS*, INUIT*, AND CANADIAN* PERSONS

persons per 100,000

Note: Data from year 2000, 1999-2003, and 2001, respectively.
Source: Government of Canada, 2006.
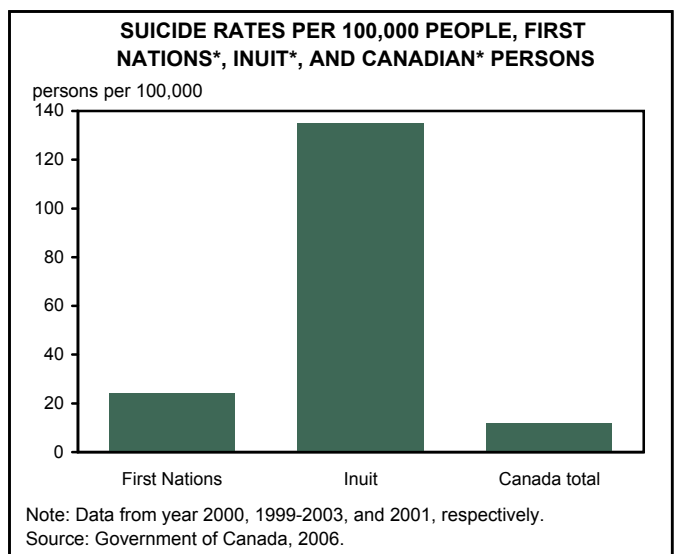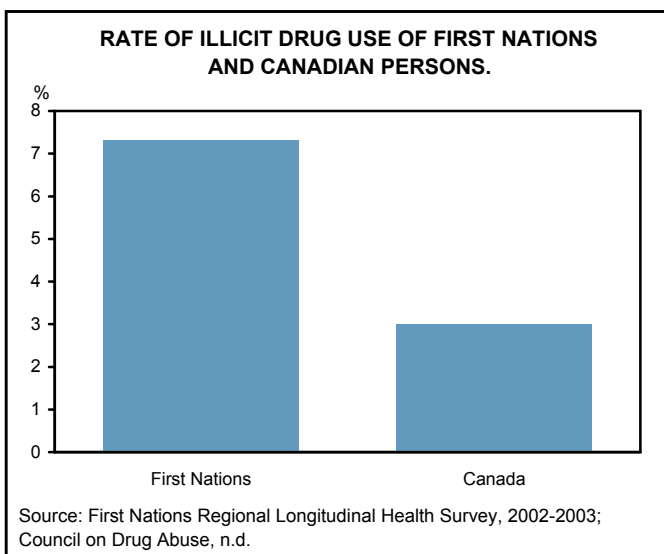
thus far. Examples of these individual barriers include finances, transportation, history of trauma and inadequate academic preparation.[23,76] Support to overcome these barriers may also be missing in Aboriginal communities.

For Aboriginal students enrolled in the University of Manitoba, administrators cite that the most important, but missing, area for student success, is personal and family support.[78] More specifically, the top reason that students drop out is for 'personal reasons' – academic failure was the last reason students cited for prematurely leaving their program. Stress, discrimination in some cases, loneliness, combines to overwhelm students.[78]

Aboriginal students are over-represented among students with special needs.[77] In British Columbia, 5% of Aboriginal students have a learning disability while only 3% of non-Aboriginal students are likewise afflicted. Aboriginal students in B.C. are also over-represented in the behavioural disability category.[56] While only 2% of non-Aboriginal students in B.C. have a behavioural disability, the rate is 6% for Aboriginal students. Additionally, for First Nations children (aged 6 to 14) living off-reserve in Canada, 18% of Aboriginal boys have a learning disability versus 9% of Aboriginal girls.[25] Learning and behaviour disabilities hinder a student's ability to enhance their literacy skills. This coupled with a lack of specialized learning resources for many Aboriginal students suggests that these disabilities might be a serious impediment to increasing the literacy of Aboriginal students.

Self-esteem and self-concept are important aspects of effective learning – if a person is confident with whom they

ABORIGINAL POPULATION GROWTH OUTPACING NATIONAL TOTAL

Indexed, 2001=100

Source: Statistics Canada.
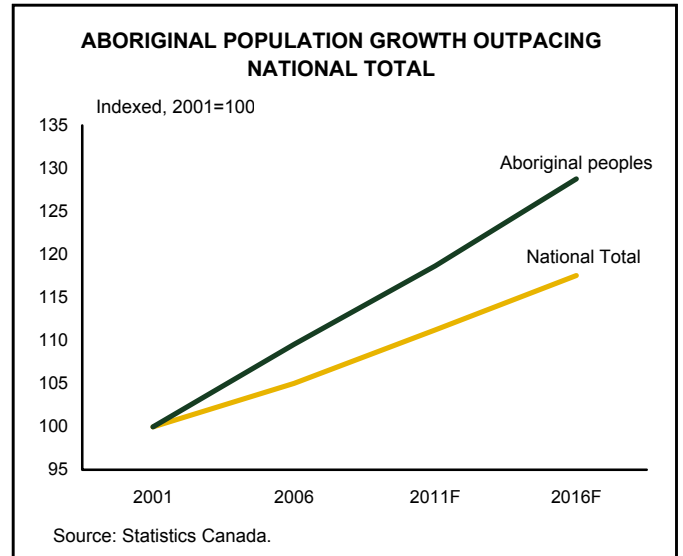
are, they tend to perform better in the classroom.[78] In most cases, a confident person will have an easier time meeting objectives.

The importance of self-esteem among Aboriginal youth has been studied in-depth in the setting of Australia, New Zealand, the United States and Canada.[23] Through a literature review and stakeholder interviews, consultants found that poor self-concept held by Aboriginal peoples in Canada manifested in a "sense of powerlessness, apathy, poor mental and physical health, anger and frustration."[78] In some cases, these emotions led to alcohol and substance abuse. For instance, the share of adults who classify themselves as heavy drinkers – having five or more drinks on one occasion – was 16% for First Nations on-reserve.[79] The same proportion for non-Aboriginal peoples was 7.9%. Illicit drug use is also higher among First Nations (7.3%) versus the general population (3.0%).[80] In addition to substance abuse, the sense of powerless that many Aboriginal peoples experience can lead to other ill-desired outcomes like physical abuse, suicide and/or incarceration.[81]

The individual barriers described here have multi-generational impacts and therefore the plight of Aboriginal peoples can sometimes lead to a cycle of despair. For example, it is estimated that more than 3,000 children are born each year in Canada with Fetal Alcohol Spectrum Disorder (FASD).[82] According to Health Canada, there are approximately 30,000 people with the condition today. Research by the government agency indicates that the prevalence of FASD is higher in the Aboriginal population and greater in rural, remote and northern communities.[82]

ABORIGINAL POPULATION GROWING ACROSS THE BOARD

Total Population, 15 yrs and over

Note: Forecasts by TD Economics as at June 2011.
Source: Statistics Canada
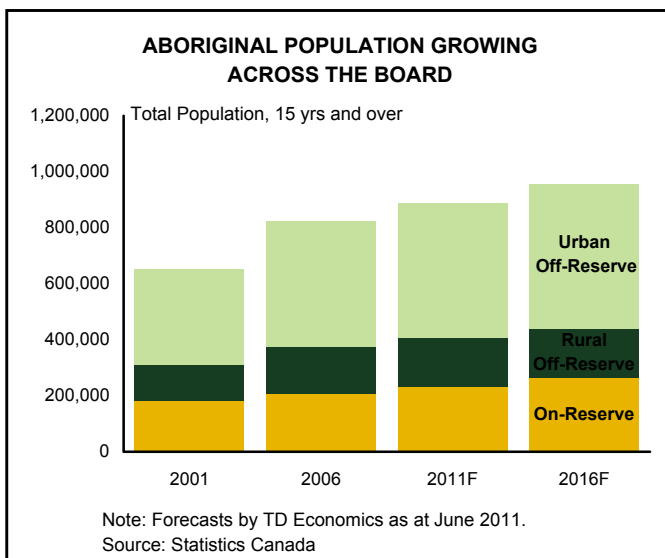
Unlocking the literacy potential for Aboriginal peoples

Some literacy improvement among Aboriginal peoples is expected to have occurred over the last decade. More Aboriginal peoples are living in urban centres versus ten years ago, giving them greater access to support. The literacy assessment test developed in Saskatchewan argues that Aboriginal literacy proficiency is not as bad as the earlier statistics suggested when the data are viewed in an appropriate cultural context.

The extent of improvement in Aboriginal literacy performances should, however, be limited. International human development indices do not point to a big improvement in education and social trends in Canada, relative to other countries. Current Aboriginal labour market performances are better than was the case in 2003 which could be pinned in part to improved education attainment levels. Yet, the rise in Aboriginal labour market participation could have been at the expense of education ((individuals migrated to the workforce due to the decade-long commodity rally rather than first complete their studies). The challenge is that commodity prices go up and down over time. The only way to improve Aboriginal income potential on a sustained basis is through improved education and literacy.

Fortunately, since the 2003 IALSS survey, many new Aboriginal-targeted literacy programs have been rolled out across the country (see Appendix 3 for a list of programs and descriptions). The purpose of this section is to draw on prominent reports[83] and selected programs to detail five best practices that are promoting stronger literacy skills among Aboriginal peoples. Examples of programs have been taken from Canada, Australia and New Zealand. However, there are many common themes associated with program design and curriculum across the countries. The programs discussed next are not meant to be exhaustive, but instead, illustrate some of the initiatives which have been adopted.

1) Engaging parents works to dispel the stigma associated with education and improve literacy.

Due to the fact that education was historically used as a tool to assimilate Aboriginal people, many Aboriginal parents are hesitant to participate in the schooling of their children.[48] However, strong evidence suggests that the success of students depends on the degree of parental involvement. Parental educational engagement works to: (1) support students; and (2) target the problems of absenteeism and student mobility among Aboriginal students.

Given the benefits of engaging parents in the education of their children, some methods to actively involve Aboriginal parents have been proposed. Research indicates that parents are more likely to participate in their child's education when: schools or programs actively seek out their participation; they are involved in the governance of the school; they are kept informed; and schools incorporate Aboriginal culture and traditions into their frameworks.[48] Furthermore, the National Committee on Inuit Education has suggested that a program must be developed to increase parental support for education.[64] The Government of Manitoba has created a guide to help facilitate parental involvement in the education of Aboriginal students. The guide, which is offered in Cree and Ojibwe, provides parents with activities they can use to help support their children's learning.[84]

In addition to parental involvement benefitting children, the engagement can also positively impact the parents themselves. Findings from the Advisory Committee on Literacy and Essential Skills suggest that parents who participate in literacy programs with their children experience an increase in their literacy levels, a positive change in their distrust of education, an improvement in their understanding of parenting options and a greater employment status.[85]

Three programs demonstrate the benefits of including parents in the literacy process: the Aboriginal Literacy and Parenting Skills program; the Home Instruction for Parents of Pre-school Youngsters program; and the Manukau Family Literacy Project. The Aboriginal Literacy and Parenting Skills (A-LAPS) program was developed in 1997 by the Further Education Society of Alberta. A-LAPS provides parents and caregivers with low-level literacy materials.

OFF-RESERVE FIRST NATIONS CHILDREN BY PARENTAL EDUCATION LEVELS

% of off-reserve First Nations children aged 6-14 by education of parent

Legend: Did not complete high school; Has university degree

Source: Statistics Canada, Aboriginal Peoples Survey, 2006.
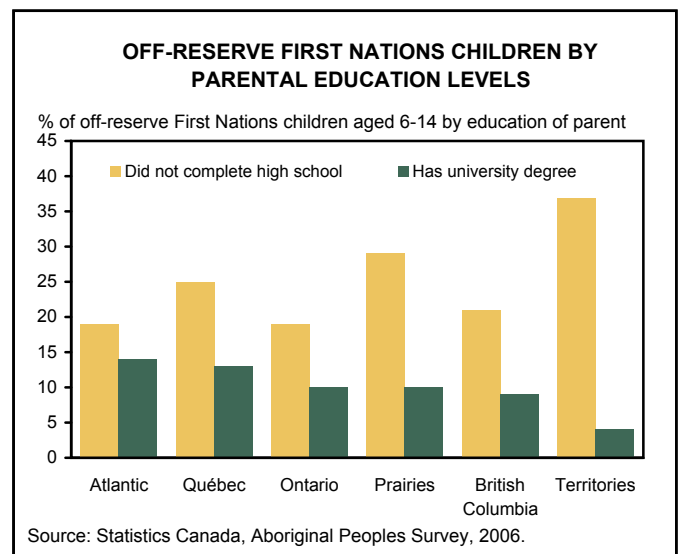
These documents contain topics that reinforce positive parenting practices.[86] Parents use the materials to help their children learn to read while also enhancing their own literacy and parenting skills. The program includes eight 2-2.5 hour sessions. Curriculum for each class is developed by engaging Elders and other leaders. A 2009 survey of A-LAPS indicated that parents who have taken part in the program have since enrolled in adult education programs and language classes, and, in many cases, have furthered their own career goals. By successfully including many Aboriginal parents in literacy programming, both children and parents have benefitted.

The Home Instruction for Parents of Pre-school Youngsters (HIPPY) Canada program was implemented in 2002 in British Columbia. The HIPPY Canada program supports parents, especially mothers, in their role as their child's first teacher by offering a structured home visit.[87] The home visitors, who share the culture of their clients, provide parents with books and 30 weeks of curriculum activities. The parents then work with their child for 15 to 20 minutes per day. By providing resources and actively encouraging parents to be involved in the literacy development of their children, this program has successfully improved the academic performance and school readiness of Aboriginal children.

The Manukau Family Literacy Project was created in New Zealand in 2002. The program has since ended, however its structure and successes should still be noted here. The purpose of this program was to offer literacy activities that involve the interaction of parents and children, to train parents to become more involved in their child's education,

and to enhance the literacy skills of parents.[23] The parents attended a literacy program and participated in literacy activities with their child for 20 minutes per day.[23] This program benefitted both parents and children. The reported benefits for children were improved literacy skills, increased motivation to attend school, and enhanced completion of homework. Parents have also benefitted as about half began a job or pursued some form of continuing education and employment, since participating in the program. It is clear from the outcomes of these programs that involving parents and children in the literacy learning process can directly benefits both parties.

2) Making Aboriginal students feel valued and welcomed will lead to improved educational outcomes.

While many deny that racism towards Aboriginal students exists, research suggests that such discrimination is widespread.[48] In many cases, the existence of racism towards Aboriginal students in schools has contributed to their poor educational outcomes.[48]

In order to eradicate discrimination in Aboriginal education, those involved must recognize that it exists and create targeted efforts to address the attitudes and behaviour.[48] The efforts must include anti-racism strategies and policies that will be used to resolve racial problems. The strategies should involve anti-discriminatory and cultural sensitivity training for staff and students, and ought to work to include Aboriginal specific content and learning approaches within the conventional curriculum.

An approach that can be implemented to ensure that Aboriginal students feel welcomed and valued is the Ojibwe Good Life Teachings model. This approach recognizes that Aboriginal self-esteem – the interconnection between the intellectual, physical, emotional-mental, and spiritual realms – must be nurtured in order to advance the educational attainment of Aboriginal students.[88] The Ojibwe Good Life Teachings model specifies the measures that schools need to take in order for Aboriginal students to succeed.[88] Actions such as celebrating Aboriginal cultures, possessing Aboriginal books, creating partnerships with communities, and acknowledging the Aboriginal territory on which the school is operating will improve the educational and literacy attainment of Aboriginal students.

PERCENTAGE OF OFF-RESERVE FIRST NATIONS CHILDREN PARTICIPATING IN ACTIVITIES*

% off-reserve First Nations children aged 6-14 by activity

Note: *Participate outside of school hours four or more times per week.
Source: Statistics Canada, Aboriginal Peoples Survey, 2006.
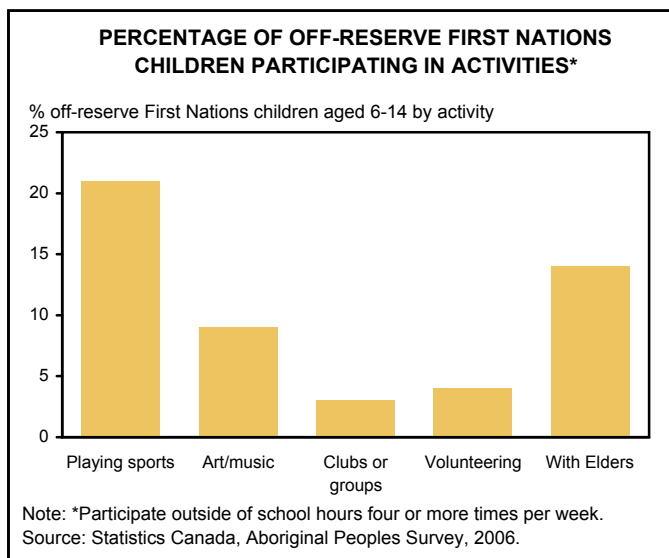
3) Incorporating Aboriginal approaches to learning into curriculum and teaching methods will increase the literacy levels.

Studies suggest that different cultures value different methods of learning.[48] For instance, many Aboriginal peoples prefer co-operative learning. Most also learn best through processes of observation, imitation, and trial and error. Evidence indicates that when these learning preferences are ignored, many Aboriginal students feel alienated in the school environment.

Some initiatives have been implemented to incorporate Aboriginal learning into the mainstream education system. A joint initiative between the First Nations and Métis peoples and the Saskatchewan government was created in 2003.[89] This framework represents a commitment by the Saskatchewan government to share the administration of the education system with Aboriginal groups. It also captures efforts to reflect Aboriginal culture and world views in the curriculum and teaching methods.[48]

Furthermore, Holistic Lifelong Learning Models were developed in 2007 by Aboriginal learning professionals, researchers, analysts, and community practitioners, for First Nations, Métis, and Inuit communities in Canada.[23] For each community, the group developed a graphic to depict the cycles of learning and the factors that contribute to learning. These models have been disseminated to every province and territory.

Other initiatives have developed educational resources specifically for Aboriginal students. For example, a business textbook was recently written for Aboriginal learners.[90] The textbook contains pictures of Aboriginal youth and Aboriginal case studies, and it was designed to be easily transportable for students who travel long distances. Phil Fontaine, former National Chief of the Assembly of First Nations, suggests that Aboriginal-specific resources could be developed for every subject. Creating materials that directly incorporate Aboriginal approaches to learning will help to engage Aboriginal students.

Roughly half of First Nations children living off-reserve take part in traditional practices and activities such as singing and drum dancing.[91] The Canadian Language and Literacy Research Network argue that these traditional activities should be incorporated into literacy programs. By doing so, the programs will be more culturally relevant and help Aboriginal children grasp the initial steps of reading.[91]

Other initiatives have focused on a bilingual approach to literacy – an Aboriginal language and French or English.[64] The National Strategy for Inuit Education proposes that a bilingual initiative should be developed for Inuit peoples.[64] In order to do so, common Inuit language materials would have to be produced and disseminated. Teaching English or French literacy to Aboriginal students along with their own language will engage students in literacy learning.

4) Increasing access and targeted funding for literacy programs and supports for those Aboriginal peoples in rural and remote areas.

Many Aboriginal people live in remote areas. This reality compounds the challenge of delivering literacy programming. Furthermore, Aboriginal communities often have trouble providing comprehensive literacy programming to their members because the formal education systems in these communities are often new[23] or lack adequate funding.[75]

Programs have attempted to overcome this problem in two ways: (1) by offering literacy training on the computer; and (2) by providing Aboriginal communities with funding to carry out their own proposed literacy projects. The Good Learning Anywhere (GLA) program is an online learning program catered primarily to adults. The program incorporates literacy into all of its courses.[23] Between 2010 and 2011, GLA reached 33 Aboriginal communities in Northern Ontario. Program evaluations indicate that 86% of students gained employment, furthered their education/training, and/or strengthened their independence.[23] A United Nations Educational, Scientific and Cultural Organization (UNESCO) report suggests that the success of this program can largely be attributed to the fact that it overcomes the geographic barrier to literacy opportunities.[23]

Some other computer-based literacy programs are READ 180 and Fast ForWord Phonics. READ 180 is an interactive reading program, which includes software that enables educators to track students' strengths and weaknesses and offer targeted lessons to help each child.[59] This program has raised reading achievement considerably. Fast ForWord attracts Aboriginal students because of its technology-based approach. Teachers suggest that this program has also worked to increase students' literacy skills.[59] It is clear from these examples that using the computer to deliver literacy programs to remote communities achieves positive results. An advantage of these programs is that the curricula is delivered via a computer, but does not require broadband internet. This is particularly important given the limited access to the internet for some Aboriginal communities.

Frontier College – Aboriginal Summer Literacy Camps

Since 2005, Frontier College has partnered with Aboriginal communities to create 82 summer literacy camps in more than 65 communities in Ontario, Manitoba, Alberta, British Columbia, Saskatchewan, New Brunswick and Québec.[95] The camps operate for three to six weeks, are free of charge and are targeted towards children and youth aged four to sixteen. The main goals of the program are to prevent summer learning loss and to improve educational outcomes in Aboriginal communities.

Frontier College provides each community with trained, paid counsellors, the majority of whom are hired from the community. All camp counsellors are given extensive training on topics such as the stages of reading and writing, incorporating culture, and evaluation, by Frontier College staff, returning counsellors and community members. The counsellors use resources and a basic camp framework, which includes the use of indoor and outdoor games and activities to teach literacy and to cultivate a love of reading, writing, and learning. Although the same framework is used in all camps, Frontier College works with community members to develop culturally-relevant content for each camp that reflects traditional learning.

Additionally, community members, parents, caregivers, and Elders participate by leading activities and reading with the campers. Adult participation works to foster community ownership and provide campers with a positive message about learning. By engaging the community and parents, camp organizers integrate Aboriginal cultures and practices and incorporate Aboriginal approaches to learning.

In summary, Frontier College's Aboriginal Summer Literacy Camps have effectively employed all of the success factors discussed in this paper.

- more than 4,000 children benefitted from the camps;
- over 150 local community members received training to deliver literacy activities;
- around 120 individuals gained employment;
- about 1,000 community members helped deliver activities;
- over 20,000 free books were given to children and their families; and
- campers read at least twice the amount required to combat summer learning loss.[95,96]

To help foster this beneficial program, TD is proud to be a national partner of Frontier College in its Aboriginal literacy initiatives. Frontier College hopes to further expand its program over the next four years to offer literacy camps in every province, in 150 communities, and to 6,000 to 8,000 children and youth per year.[97]

Another policy response to overcome the remote barrier has been to offer funding to Aboriginal communities to carry out their own innovative literacy programs. As part of the Government of Canada's Reforming First Nations Initiative, it created the First Nation Student Success Program (FNSSP).[59] This program provides support to First Nations educators on-reserve to plan and implement initiatives in the areas of literacy, numeracy, and student retention. The program is proposal-driven, meaning that Aboriginal communities submit proposals about their initiative to the government and the government grants funding to the communities with the best proposals. Since 2008, First Nation communities have received about $141 million through the FNSSP.[59] This funding has worked to overcome the geographic barrier, and simultaneously support many unique and effective literacy programs across the provinces.[59]

The Government of Saskatchewan's Ministry of Educa-

tion also funds on- and off-reserve Aboriginal organizations and communities. These groups, in turn, deliver adult and family literacy services. Like the FNSSP, the funding is granted to the highest scoring proposals. It is clear from these examples that by giving funding directly to Aboriginal community literacy initiatives, the obstacle of remoteness can be minimized.

5) Delivering teacher support/training ensures that literacy programs are high quality and sustainable.

To ensure that sustainable and high quality literacy training and education are given to Aboriginal individuals and communities, teachers must be allocated proper ongoing support, training and resources. However, with a limited amount of funding for education on-reserve, teacher training is often neglected.[75] Several programs have sought to rectify this situation by providing high quality literacy training and

support to teachers of Aboriginal students.

The FNSSP currently funds some teacher training initiatives. Examples of initiatives underway helped in part by FNSSP funding include:[59]

- Schools in Manitoulin Island, Ontario have hired Literacy Resource Teachers (LRTs) to train teachers, help create lesson plans, implement systems to track student progress, and guide the improvement of literacy levels in the classroom.

- The Battleford Agency Tribal Chiefs in Saskatchewan provides teachers with continuous and rigorous training. During monthly sessions, teachers acquire new teaching methods from reading specialists. Between the monthly meetings, education assistants offer extra support to teachers by working directly with students to improve their literacy levels.

- The Northwest Nations Education Council of Saskatchewan has developed a Catalyst Mentor Program.[59] This program invites skilled educators into schools to mentor and work hand-in-hand with teachers to develop and implement unique literacy initiatives.

The Australian Aboriginal Literacy Strategy (ALS) has also worked to offer supports to teachers in order to ensure the sustainability of literacy programming. The ALS is a structured literacy program, offered in 52 school sites, in which students receive a daily literacy lesson from their teachers.[93] An evaluation of the ALS revealed that the program was more successful in sites where there were ongoing supports for teachers, principals, Aboriginal and Torres Strait Islander Education Officers and Education Assistants provided by specialist staff.[94] Further, the evaluation also revealed that the programs were more successful in schools where the principal took on an active leadership role in the literacy sessions.[94] This experience suggests that providing teachers with supports through training and ongoing leadership from a principal has a direct impact on the success of a literacy program.

All of these programs have worked to enhance student literacy skills in a sustainable way.[59] These programs demonstrate that initiatives that focus on providing support and training to teachers on literacy-related topics have a positive and long-lasting effect on the literacy of Aboriginal students.

The multitude and variety of initiatives discussed give promise that it is possible to raise Aboriginal literacy levels by removing the existing barriers to literacy. Another example of several of these best practices put into action is Frontier College's Aboriginal Summer Literacy Camps (see text box). TD is proud to be a national partner of Frontier College in its Aboriginal literacy initiatives.

Bottom line

Literacy is both a fundamental human right and a foundation for lifelong learning. While the definition of literacy continues to evolve, literacy refers to prose, document, numeracy and problem-solving abilities. These skills will become increasingly essential as the Canadian economy becomes even more knowledge-intensive, especially amid the demographic shift associated with ageing baby boomers. Aboriginal peoples are increasingly looked at to help fill these upcoming labour shortages. While our own research indicates that Aboriginal peoples are increasingly leaving their economic mark on the national stage, slightly more than 60% of the demographic falls below the desired threshold, equivalent to high school completion. Moreover, in every literacy category that Statistics Canada surveyed, Aboriginal peoples fell below the national average.

For Aboriginal individuals and communities, barriers to improving literacy skills are plentiful. They range from geographic challenges associated with remoteness to a more holistic definition of literacy adopted by Aboriginal communities. However, if we change our language, perspective and tone, barriers are just opportunities in disguise. Many success factors in literacy-related programs and services have been identified. This toolkit holds the keys to unlocking the literacy potential of Aboriginal peoples. All Canadians – Aboriginal or non-Aboriginal – stand to benefit from improved literacy proficiency.

Sonya Gulati
Senior Economist
416-982-8063

Appendix 1: Literacy levels and definitions in the 2003 International Adult Literacy and Skills Survey

TABLE 1: LITERACY LEVELS AND DEFINITIONS IN THE 2003 INTERNATIONAL ADULT LITERACY AND SKILLS SURVEY

Level	Prose[98]	Document[98]	Numeracy[1]	Problem Solving[1]
Level 1 (0-225 points)	• Tasks: the respondent must read a short text to find information that is synonymous with or the same as information presented in the question. • When plausible but incorrect information is contained in the text, it appears in a different part of the text than the correct answer	• Tasks: the respondent is directed to either find specific information in relation to a literal match or to submit information based on personal knowledge into a document. • Distracting information is rarely present in this task.	• Tasks: the respondent is required to demonstrate an understanding of basic numeracy by performing easy tasks in familiar settings. All questions consist of basic tasks (e.g. counting or simple arithmetic). • The mathematical questions are explicit and contain very little text.	• Tasks: respondents are required to make basic inferences based on a small amount of information from a familiar context. Respondent must come up with the information using the information provided or their own knowledge.
Level 2 (226-275 points)	• Tasks: respondents are required to either find a specific piece of information contained in the text (text could contain distractors, plausible but incorrect information, or simple inferences) or to combine different pieces of information. In some cases respondents may need to compare and contrast easily distinct information.	• Tasks: respondents may need to match information that could contain distractors or simple inferences, sift through information, or combine and utilize information contained in multiple parts of the document.	• Tasks: respondents must identify and comprehend fundamental mathematical concepts in familiar contexts. • Questions require respondents to conduct one or two-step processes using whole numbers, simple percentages and fractions, simple graphs, and basic measurements. • The mathematical content is obvious and few distractors are present	• Tasks: respondents have to weigh alternatives in line with the stated criteria. The respondent may have to demonstrate reasoning in a linear manner. • The question may require the respondent to combine information from different test sections.
Level 3 (276-325 points)	• Tasks: respondents may be asked to match text and information literally, synonymously, or based on simple inferences. Other tasks include utilizing information from a dense text that lacks organizational aids or writing responses on information easily identifiable in the text. • Distracting material will be contained in the text but located in a separate area than the correct information.	• Tasks: respondents may need to incorporate various pieces of information contained in one or multiple documents or may be required to navigate complex graphs and tables that contain unrelated information.	• Tasks: respondents are required to show that they understand mathematical content in many forms (e.g. numbers and graphs). Respondents must demonstrate spatial sense, understanding of patterns and relationships, and the ability to comprehend proportions, data, and statistics. • Relatively simple texts with some potential distractors.	• Tasks: respondent may be required to order information based on a criteria, define an action/events sequence, or determine a solution while taking multiple constraints into account. • Non-linear reasoning will be utilized, which will require the respondent to self-regulate. • Goals may be ill-defined.
Level 4 (326-375 points)	• Tasks: respondents are required to conduct feature matches and to combine or synthesize information contained in intricate or long texts. • Respondents must make more complex inferences and must consider conditional information contained in the text.	• Tasks: respondents will conduct feature matches, sift through texts, and integrate material. • The respondent must utilize a higher degree of inference, failing to stipulate how many responses are needed in the questions, and having the respondent consider conditional information contained in the text.	• Tasks: respondents must take many steps to reach solutions as well as utilize more complex reasoning and interpretation. • Respondents must understand mathematical content that is more abstract and presented in various ways. • Questions might require the respondent to use proportions or formulas or provide explanations.	• Tasks: respondents must determine if multiple criteria are complete, consistent, and/or dependent. Respondents are usually required to describe how they came to a solution and why the solution is correct. • The respondent must take into account all possible solutions and problem solving states. • Criteria and goals will have to be inferred.

Appendix 1: Literacy levels and definitions in the 2003 International Adult Literacy and Skills Survey

	TABLE 1: LITERACY LEVELS AND DEFINITIONS IN THE 2003 INTERNATIONAL ADULT LITERACY AND SKILLS SURVEY			
Level	Prose[98]	Document[98]	Numeracy[1]	Problem Solving[1]
Level 5 (376-500 points)	• Tasks: respondents may be required to locate information in a complex text containing many plausible distractors, to make sophisticated inferences, to draw on their own background knowledge, or to compare and contrast difficult information.	• Tasks: respondents are required to either navigate through difficult displays containing many distractors or to make sophisticated inferences and utilize their own background knowledge.	• Tasks: respondents will need to integrate many kinds of mathematical information, make inferences, or come up with mathematical justifications. • Information might be contained in complex texts and require the respondents to understand formal mathematical ideas.	• No Level 5 for Problem Solving

Appendix 2: Inter-jurisdictional comparison of Aboriginal peoples and literacy initiatives

TABLE 2: INTER-JURISDICTIONAL COMPARISON OF ABORIGINAL PEOPLES AND LITERACY INITIATIVES

Factor	Canada	Australia	New Zealand	United States
Aboriginal Populations 2006 Census (unless otherwise stated)	• 1.4 million (4.3% of the population) (National Household Survey, 2011) • About 59,000 Inuit; 452,000 Métis; and 852,000 First Nation[99]	• 517,200 (2.5% of the total population)[100] • 463,900 Aboriginal; 33,100 Torres Strait Islander; 20,200 both[100]	• 643,977 (Māori descent) • 565,329 (identify with Māori ethnic group[101])[102] • 15% of the total population[103]	• 5.2 million identified as either American Indian or Alaska Native or both (in year 2010)[104] • 0.9% of the total population[104]
Aboriginal Literacy	• Aboriginal adults are more likely to possess literacy Levels 1 and 2[105]	• Over one third of indigenous students do not possess adequate reading and writing skills[23]	• 25–40% of Māori adult population has Level 3+ literacy skills in prose, document and numeracy domains • Proportion of Māori youth with literacy Levels 3-5 decreased between 1996 and 2006[26]	• N/A
Previous Aboriginal Education System	• Residential Schools	• Residential Schools—stolen generation	• Mission Schools	• Boarding Schools
Languages	• Official national languages: English and French • Nunavut and Northwest Territories include Aboriginal languages as official languages[106] • 60 Aboriginal languages (12 distinct language families)[107]	• Official national language: English[108] • 145 Aboriginal languages	• Official national languages: English, Māori, and New Zealand Sign Language[109]	• No official national language • English is the most commonly used language • 154 Indigenous languages still spoken[110]
Literacy Legislation	• N/A	• N/A	• N/A	• Adult Education and Family Literacy Act (1998)
Strategy	• N/A	• Aboriginal Literacy Strategy (2005)[111] • Aboriginal and Torres Strait Islander Education Action Plan (2010–2014)[112]	• New Zealand Adult Literacy Strategy – More than Words (2001)[113] • Literacy Strategy for Māori Medium Education (2007)[114]	• N/A
Initiatives	• Commitments made in 2008, 2011, and 2012 Federal Budgets • Reforming First Nation Education Initiative (2010)[115]	• Expansion of Intensive Literacy and Numeracy Programs Initiative (2011)[116] • Aboriginal Early Childhood Education Initiative (2013)[117]	• Tūwharetoa Adult Literacy Initiative[118]	• N/A
Programs	• See Appendix 3	• Aboriginal Tutorial Assistance Scheme (2013)[119] • National Accelerated Literacy Program (2004)[120] • Dare to Lead (2013)[121] • High Achievers Project (2012)[122] • ABC of Two-Way Literacy and Learning[123] • Aboriginal Language Speaking Students Program (2012)[124]	• Whakatō te Mātauranga: Youth Training Programme[125] • The Manukau Family Literacy Project (2002)[126]	• Family and Child Education (FACE) Programme (1992)[127]

Appendix 3: Overview of selected Aboriginal literacy programs in Canada

TABLE 3: OVERVIEW OF SELECTED ABORIGINAL LITERACY PROGRAMS IN CANADA

Program	Province	NGO/Government	Description	Evaluation
Good Learning Anywhere (2003 – present)	Ontario	• NGO: Sioux-Hudson Literacy Council	• Virtual classrooms for 35 First Nations communities in Northern Ontario • Literacy is embedded into courses such as First Nations management and pre-GED courses	• Student stated goals upon entry: employment; further education; and independence—86% of students met their goals upon completion[23]
Nbaakaawin Kwe Learning Program (present)	Ontario (Toronto)	• NGO: Native Women's Resource Centre	• Offers individual and group instruction in math, English and workforce literacy • Customized learning programs are developed for each woman and group activities include book circles[128]	
Aboriginal Literacy and Parenting Skills (1997 - present)	Alberta	• NGO: Further Education Society	• A family literacy program that encourages parents to use literacy materials that incorporate positive parenting topics to help themselves and their children learn how to read and write	• 90% of those enrolled in the training are still using it • Over 900 A-LAPS programs have run across Canada • Participants have moved on to adult education programs[23]
Programs funded by the Government of Saskatchewan (2013)	Saskatchewan	• Government of Saskatchewan	• The Ministry of Education funds seven organizations (e.g. Cote First Nation and Nipawin Oasis Co-operative) that provide adult and family literacy services for aboriginal people living on and off-reserve	• No evaluation yet[92]
HIPPY (Home Instruction for Parents of Preschool Youngsters) Program (2002 – present)	British Columbia (Aboriginal sites)	N/A	• Home visitors deliver books and 30 weeks of curriculum activities to parents • Parents work for 15 to 20 minutes a day with their child	• Helped more than 6000 mothers • Children display improved academic performance and school readiness[87]
Aboriginal Summer Reading/Literacy Camps (2005 – present)	Ontario, Manitoba, Saskatchewan, British Columbia, New Brunswick, and Quebec	• Frontier College	• Frontier College partners with Aboriginal communities to create 3 to 6 week long summer literacy camps for children and youth aged 4 to 16. • Community members are involved in the planning and delivery of camp activities. • Encourages traditional learning	• In 2012, more than 4,000 children benefitted; • 20,000 free books given to children to take home; • 150 local community members received training to deliver literacy activities; • Over 87% of campers improved their reading score over the summer[95]
First Nation Student Success Program (2008 – present)	Canada-wide	• Government of Canada	• Part of Reforming First Nation Education Initiative • Provides support to First Nation educators on reserve to plan and implement initiatives in the three priority areas of literacy, numeracy, and student retention; proposal-driven program	• 90% of band-operated schools and students are supported by the FNSSP • Since 2008, government has invested about $141 million in this program • Has supported many literacy programs in Quebec, Ontario, Saskatchewan, Alberta and Manitoba, including teacher training programs[59]
Northern Adult Basic Education Program (2012 – present)	Nunavut, Yukon, Northwest Territories	• Government of Canada	• Investing $27 million over five years to improve adult basic education (including literacy) in the territories • Programming delivered by Territorial colleges[129]	• No evaluation yet

Notes and References

1. "Literacy for Life: Education for All Global Monitoring Report" (2006) United Nations Educational, Scientific and Cultural Organization. <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/efareport/reports/2006-literacy/ >

2. "Building on our Competencies: Canadian Results of the International Adult Literacy and Skills Survey", Statistics Canada, Catalogue No. 89-617-XIE, November 30, 2005. < http://www.statcan.gc.ca/pub/89-617-x/89-617-x2005001-eng.pdf >

3. "Education, economy and society: Adult Literacy", Organisation for Economic Co-operation and Development, <http://www.oecd.org/edu/country-studies/adultliteracy.htm>

4. "Promoting Literacy", Canadian International Development Agency < http://www.acdi-cida.gc.ca/acdi-cida/ACDI-CIDA.nsf/eng/FRA-28162230-T3M>

5. Pirbhai-Illich, Fatima; Turner, K.C. Nat; and Austin, Theresa Y. (2009) "Using Digital Technologies to Address Aboriginal Adolescents' Education: An Alternative School Intervention", Multicultural Education and Technology Journal, Vol. 3, No. 2, 2009.

6. Alexander, Craig (2012) "Literacy: Don't Take it For Granted," TD Economics, Perspective, September 7, 2012. < http://www.td.com/document/PDF/economics/special/ca0912_literacy.pdf>

7. Murray, Scott, "The Economic Benefits of Literacy", Canadian Language and Literacy Research Network, < http://literacyencyclopedia.ca/index.php?fa=items.show&topicId=300>

8. Coulombe, Serge; Tremblay, Jean-François; and Marchand, Sylvie (2004) "International Adult Literacy Survey Literacy scores, human capital and growth across fourteen OECD countries", Statistics Canada, Human Resources and Skills Development Canada, Catalogue no.89-552-MIE. < http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?lang=eng&catno=89-552-mie>

9. Alexander, Craig (2009) "Literacy Matters: Helping Newcomers Unlock their Potential," TD Bank Financial Group, September 28, 2009. < http://www.td.com/document/PDF/economics/special/ca0909_literacy.pdf>

10. "Ministers Build on Learn Canada 2020 Vision" (2009), Joint Declaration Provincial and Territorial Ministers of Education, Council of Ministers of Education, Canada, September 3, 2009. < http://www.cmec.ca/278/Press-Releases/Ministers-Build-on-Learn-Canada-2020-Vision.html?id_article=279>

11. "Aboriginal Peoples in Canada: First Nations People, Métis and Inuit", National Household Survey (NHS), 2011, NHS in Brief, Catalogue No. 99-011-XIE2011001, Statistics Canada. < http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011001-eng.cfm>

12. Gulati, Sonya (2013) "A Demographic Overview of Aboriginal Peoples in Canada," Observation, TD Economics, May 15, 2013. < http://www.td.com/document/PDF/economics/special/sg0513_aboriginal_nhs.pdf >

13. "Aboriginal Peoples and Language" (2013), National Household Survey (NHS), 2011, NHS in Brief, Catalogue No. 99-011-X2011003, Statistics Canada. < http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011003_1-eng.cfm>

14. Raymond Jr. Gordon. (2005). "Ethnologue: Languages of the World," 15th Edition, Dallas, Texas: SIL International. ISBN 1-55671-159-X. < http://en.wikipedia.org/wiki/Aboriginal_peoples_of_Canada>

15. Burleton, Derek; Gulati, Sonya (2012) "Debunking Myths Surrounding Canada's Aboriginal Population", Special Report, TD Economics, June 18, 2012. <http://www.td.com/document/PDF/economics/special/sg0612_aboriginal_myth.pdf >

16. "The Government of Canada's Approach to Implementation of the Inherent Right and the Negotiation of Aboriginal Self-Government", Aboriginal Affairs and Northern Development Canada, < http://www.aadnc-aandc.gc.ca/eng/1100100031843/1100100031844>

17. Burleton, Derek and Drummond, Don (2009) "Aboriginal People in Canada: Growing Mutual Economic Interests Offer Significant Promise for Improving the Well Being of the Aboriginal Population", TD Economics Special Report, June 11, 2009. <http://www.td.com/document/PDF/economics/special/td-economics-special-db0609-aboriginal.pdf >

18. Gulati, Sonya and Burleton, Derek (2011) "Estimating the Size of the Aboriginal Market in Canada: $32 billion in combined income across households, business and governments by 2016", Special Report, TD Economics, June 17, 2011. <http://www.td.com/document/PDF/economics/special/sg0611_aboriginal.pdf>

19. "Projections of the Aboriginal Populations, Canada, Provinces and Territories: 2001 to 2017", Statistics Canada, Catalogue no. 91-547-XIE, < http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=91-547-XIE&lang=eng>

20. "Adult Literacy Facts", ABC Life Literacy Canada, < http://abclifeliteracy.ca/about-us>

21. We should receive updated literacy figures in the Fall 2013. With this data, we will be able to test the hypothesis that the literacy gap across Aboriginal vs. non-Aboriginal Canadians remains noteworthy.

22. Aboriginal Adult Literacy Assessment Tool – (AALAT)", Saskatchewan Aboriginal Literacy Assessment Tool, < http://saln.ca/programsandser-

vices/assessment-services/aalat/>

23. UNESCO (2012). "Strengthening Adult Literacy Among Indigenous Populations in Canada and Other OECD Countries," UNESCO, <http://unesdoc.unesco.org/images/0021/002178/217867E.pdf>

24. "State of the World's Indigenous Peoples" (2009), Economic and Social Affairs, United Nations, ST/ESA/328. < www.un.org/esa/socdev/unpfii/documents/SOWIP_web.pdf>

25. Bougie, Evelyne (2009) "Aboriginal Peoples Survey, 2006: School Experiences of Off-Reserve First Nations Children Aged 6 to 14" Analytical Paper, Statistics Canada, Catalogue No. 89-637-X – No. 001, ISSN 1710-0224, January 2009. < http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?lang=eng&catno=89-637-X2009002 >

26. Te Puni Kōkiri (2011). "Improving Literacy and Numeracy for the Māori Workforce," <http://www.tpk.govt.nz/en/in-print/our-publications/publications/improving-literacy-and-numeracy-for-the-maori-workforce/>

27. Weterf, Rongo H. (2009) "Addressing the Literacy Issues of Canada's Aboriginal Population: A Discussion Paper", ArrowMight Canada. <www.nald.ca/library/research/issues_aboriginal/issues_aboriginal.pdf>

28. Ontario Native Literacy Coalition, Literacy Facts, <http://onlc.ca/literacy-facts/>

29. Green, David and Riddell, Craig (2007) "Literacy and its Consequences Among Canada's Aboriginal People."

30. McCracken, Mike and Murray, T. Scott (2009) "The Economic Benefits of Literacy: Evidence and Implications for Public Policy", <http://www.dataangel.ca/en/CLLRNet%20fnal%20Benefits%20of%20Literacy.pdf>

31. The John Howard Society of Canada (1997). "Understanding Literacy: A Judicial Imperative," Retrieved June 14, 2013 from <http://www.johnhoward.ca/document/undrstnd/english/cover.htm>

32. Boe, Roger (1998). "A Two-Year Release Follow-Up of Federal Offenders Who Participated in the Adult Basic Education (ABE) Program," Correctional Service of Canada, Retrieved June 13, 2013 from < http://www.csc-scc.gc.ca/text/rsrch/reports/r60/r60e-eng.shtml#ack>

33. Office of the Correctional Investigator (2012). "Annual Report of the Office of the Correctional Investigator 2011-2012: IV Aboriginal Issues," Retrieved June 14, 2013 from < http://www.oci-bec.gc.ca/cnt/rpt/oth-aut/oth-aut20121022info-eng.aspx>

34. "What Determines Health?", Public Health Agency of Canada, < http://www.phac-aspc.gc.ca/ph-sp/determinants/#determinants>

35. "Achieving Health for All: A Framework for Health Promotion", Health and Welfare Canada, 1986, < http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/1986-frame-plan-promotion/index-eng.php>

36. Collin, Dominique and Strategies, Waterstone (2011) "Aboriginal Financial Literacy in Canada: Issues and Directions", Research paper prepared for the Task Force on Financial Literacy, Catalogue F2-201/2011E-PDF, February 9, 2011. <http://publications.gc.ca/site/eng/391773/publication.html>

37. "Digital Divide", Digital Divide in Canada, <http://cleach.wordpress.com/digital-divide-in-canada/>

38. Hui, Stephen (2012) "B.C.'s First Nations Lack of Broadband Internet Access Called 'Ridiculous'", February 22, 2012, StraightTalk.com < http://www.straight.com/news/bc-first-nations-lack-broadband-internet-access-called-ridiculous>

39. Canada's Economic Action Plan, 2009 Federal Budget, Department of Finance Canada, < http://www.budget.gc.ca/2009/pdf/budget-planbugetaire-eng.pdf>

40. "The Stimulus Phase of Canada's Economic Action Plan: A Final Report to Canadians", Government of Canada, Finance Canada, 2012 Federal Budget, < http://www.budget.gc.ca/2012/plan/pdf/Plan2012-eng.pdf>

41. Rosenbluth, Ellen Kachuck (2012) "Indigenous Issues in Post-Secondary Education: Building on Best Practices", School of Policy Studies, Queen's University, June 12-14, 2011. <http://www.cou.on.ca/policy-advocacy/policy---advocacy-pdfs/indigenous-issues-in-post-secondary-education---co>

42. Wilson, David and Macdonald, David (2010) "The Income Gap Between Aboriginal Peoples and the Rest of Canada", Growing Gap, Canadian Centre for Policy Alternatives, April 2010. < http://www.policyalternatives.ca/publications/reports/income-gap-between-aboriginal-peoples-and-rest-canada >

43. Collin, Chantal; Jensen, Hilary (2009) "A Statistical Profile of Poverty in Canada", Parliament of Canada, Social Affairs Division, September 28, 2009. <http://www.parl.gc.ca/content/lop/researchpublications/prb0917-e.htm>

44. Ball, Charlene L. "Demystifying Adult Literacy for Volunteer Tutors: A Reference Handbook and Resource Guide", Literacy Partners of Manitoba, < http://www.nald.ca/library/learning/demyst/demyst.pdf>

45. Muhajarine, Nazeem; Puchala, Chassidy; and Magdalena, Janus (2011) "Does the EDI Equivalently Measure Facets of School Readiness for Aboriginal and Non-Aboriginal Children?", Soc. Indic Res (2011) 103:299-314, April 27, 2011.

46. University of British Columbia: Human Early Learning Partnership. "Early Development Instrument," <http://earlylearning.ubc.ca/edi/>

47. Battiste, Marie (2007) "Nourishing the learning spirit". Opening keynote address, Awasis 2007. Saskatoon, Saskatchewan.

48. "Improving Literacy Levels Among Aboriginal Canadians", Canadian Council on Learning, Lessons in Learning, September 4, 2008.

49. St. Denis, Verna; Hampton, Eber (2002) "Literature Review on Racism and the Effects on Aboriginal Education" Prepared for Minister's National Working Group on Education, Indian and Northern Affairs Canada, Ottawa, Ontario.

50. "Residential Schools: A History of Residential Schools in Canada: FAQs on Residential Schools and Compensation", CBC News, May 16, 2008 < http://www.cbc.ca/news/canada/story/2008/05/16/f-faqs-residential-schools.html>

51. "Statement of Apology to the Former Students of Residential Schools", Aboriginal Affairs and Northern Development Canada, June 11, 2008. < http://www.aadnc-aandc.gc.ca/eng/1100100015644/1100100015649>

52. "Phase II Field Development: Moving Towards Action", Ontario Native Literacy Coalition, 2003, < http://www.nald.ca/library/learning/empower/13.htm>

53. George, Priscilla (2002) "Position Paper on Aboriginal Literacy", Prepared by the National Aboriginal Design Committee, October 2002. < www.nald.ca/library/research/position/position.pdf>

54. George, Priscilla (2001) "The Holistic/Rainbow Approach to Aboriginal Literacy", Work in Progress, Ningwakwe/Rainbow Woman, Chippewas of Saugeen First Nation, Ontario. < http://www.nald.ca/library/research/abo-hol/cover.htm >

55. Richards, John; Hove, Jennifer; and Afolabi, Kemi (2008) "Understanding the Aboriginal/Non-Aboriginal Gap in Student Performance: Lessons from British Columbia" C.D. Howe Institute Commentary, No. 276, December 2008. < http://www.cdhowe.org/pdf/commentary_276.pdf >

56. "How are we Doing? Aboriginal Performance Data", Aboriginal Report 2007/08 - 2011/12, British Columbia Ministry of Education, < http://www.bced.gov.bc.ca/abed/performance.htm >

57. "2000 April Report of the Auditor General of Canada", Chapter 4: Indian and Northern Affairs Canada - Elementary and Secondary Education, Office of the Auditor General of Canada, < http://www.oag-bvg.gc.ca/internet/English/parl_oag_200004_04_e_11191.html>

58. "2011 June Status Report of the Auditor General of Canada", Chapter 4: Programs for First Nations on Reserves, Office of the Auditor General of Canada, < http://www.oag-bvg.gc.ca/internet/english/parl_oag_201106_04_e_35372.html>

59. "First Nation Student Success Program", Aboriginal Affairs and Northern Development Canada, < http://www.aadnc-aandc.gc.ca/eng/1100100033703/1100100033704>

60. "First Nation Education Partnerships and Agreements", Aboriginal Affairs and Northern Development Canada, < http://www.aadnc-aandc.gc.ca/eng/1308840098023/1308840148639>

61. "Developing a First Nation Education Act: Discussion Guide", Aboriginal Affairs and Northern Development Canada, 2012. < http://www.aadnc-aandc.gc.ca/eng/1355150229225/1355150442776 >

62. Andrew Sharpe, Jean-Francois Arsenault, Simon Lapointe and Fraser Cowan, Centre for the Study of Living Standards, The Effect of Increasing Aboriginal Educational Attainment on the Labour Force, Output and Fiscal Balance, May 2009.

63. Etkin, Carol E. "Native Literacy Programmes: Two Case Studies in Implementation."

64. "First Canadians, Canadians First", National Strategy on Inuit Education 2011

< https://www.itk.ca/publication/national-strategy-inuit-education >

65. Campion-Smith, Bruce (2012) "Education would solve aboriginal challenges, advocate Roberta Jamieson says Former chief Roberta Jamieson is hopeful that Tuesday's meeting between First Nations and Ottawa will produce investments in education", Toronto Star, January 22, 2012. < http://www.thestar.com/news/canada/2012/01/22/education_would_solve_aboriginal_challenges_advocate_roberta_jamieson_says.html>

66. Simpson, Jeffrey (2013) "Aboriginal Education Vexes Canada (and Paul Martin)", The Global and Mail, May 15, 2013. < http://www.theglobeandmail.com/commentary/aboriginal-education-vexes-canada-and-paul-martin/article11912835/ >

67. Kelly, Patrick (1991) "The Value of First Nations Languages", BC Studies, No. 89, Spring 1991

68. Sachdev, Itesh (1995) "Language and Identity: Ethnolinguistic Vitality of Aboriginal Peoples in Canada", The London Journal of Canadian Studies, 1995, Volume 11

69. McGlusky, N., and Thaker, L (2006) Literacy support for Indigenous people: Current systems and practices in Queensland. Adelaide, SA: National Centre for Vocational Education Research (NCVER) <http://www.ncver.edu.au/publications/1659.html>

70. Métis National Council. "Taanishi Kiya" Michif Revival Strategy, 2000-2002 and Beyond. April 2000. <http://www.metisnation.ca/ARTS/michif1.html>

71. Longfield, Judi (2003) "Raising Adult Literacy Skills: The Need for a Pan-Canadian Response", Report of the Standing Committee on Human Resources Development and the Status of Persons with Disabilities", June 2003. < www.nald.ca/library/research/raisinge/raisinge.pdf>

72. "Native Language Preservation Bill Becomes Law" (2006), Native American Affairs, December 15, 2006 < http://www.nysaaac.org/native_american_affairs.htm>

73. Harvey, E., & Houle, R. (2006). "Demographic Changes in Canada and their Impact on Public Education." Toronto: The Learning Partnership.

74. Ryan, James; Pollock, Katina; and Antonelli, Fab (2009) "Teacher Diversity in Canada: Leaky Pipelines, Bottlenecks, and Glass Ceilings" Canadian Journal of Education 32, 3 (2009) 591-617

75. St. Germain, Gerry; Dyck, Lillian Eva (2011) "Reforming First Nations Education: From Crisis to Hope", Report of the Standing Committee on Aboriginal Peoples, December 2011. < www.parl.gc.ca/content/sen/committee/411/appa/rep/rep03dec11-e.pdf >

76. George, N. 2008. "Aboriginal Adult Literacy: Nourishing Their Learning Spirits" University of Saskatchewan, Aboriginal Education Research Centre and First Nations and Adult Higher Education Consortium <http://www.ccl-cca.ca/pdfs/ablkc/NourishingSpirits_LitReview_en.pdf>

77. British Columbia Ministry of Education (2001). "Over-Representation of Aboriginal Students Reported with Behaviour Disorders," <http://www.bced.gov.bc.ca/abed/abed_over.pdf>

78. R.A. Malatest and Associates (2004) "Aboriginal Peoples and Post-Secondary Education: What Educators have Learned. Canadian Millennium Scholarship Foundation. <http://www.turtleisland.org/education/postseced.pdf>

79. "A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 1999 to 2003", Health Canada, February 2009, HC Pub.: 3555, Cat: H34-193/1-2008E-PDF, ISBN: 978-0-662-48920-7 <http://www.hc-sc.gc.ca/fniah-spnia/pubs/aborig-autoch/2009-stats-profil/index-eng.php#fig9>

80. "Substance Abuse Prevention in Aboriginal Communities", Council on Drug Use, <http://drugabuse.ca/substance-abuse-prevention-aboriginal-communities>

81. "The Human Face of Mental Health and Mental Illness in Canada, 2006", Cat. No. HP5-19/2006E, ISBN 0-662-43887-6 <http://www.phac-aspc.gc.ca/publicat/human-humain06/pdf/human_face_e.pdf>

82. "Fetal Alcohol Spectrum Disorder", Health Canada, Public Health Agency of Canada, <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/diseases-maladies/fasd-etcaf-eng.php>

83. Reports used in this section were Canadian Council on Learning, 2008; George, Ningwakwe and Murray, T. Scott, 2012; Standing Senate Committee on Aboriginal Peoples,2011; Aboriginal Affairs and Northern Development Canada, 2012.

84. Government of Manitoba (2007). "Aboriginal Education Action Plan," <http://www.edu.gov.mb.ca/abedu/action_plan/highlights_report_yr2.pdf>

85. The Advisory Committee on Literacy and Essential Skills (2005). "Towards a Fully Literate Canada: Achieving National Goals Through a Comprehensive Pan-Canadian Literacy Strategy, <http://www.nald.ca/library/research/towards/towards.pdf>

86. UNESCO (n.d.). "Effective Literacy Practice: The Manukau Family Literacy Project," Retrieved June 17, 2013 from <http://www.unesco.org/uil/litbase/?menu=9&programme=114>

87. HIPPY Canada (2013). "HIPPY Canada: Because Mothers Matter," HIPPY Canada, <http://www.hippycanada.ca/hippycanada.php>

88. Toulouse, Pamela Rose (2008). "What Works? Research into Practice: Integrating Aboriginal Teaching and Values into the Classroom," The Literacy and Numeracy Secretariat, <http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/Toulouse.pdf>

89. Saskatchewan Learning (2003). "Building Partnerships: First Nations and Métis Peoples and the Provincial Education System: Policy Framework for Saskatchewan's Prekindergarten to Grade 12 Education System," <http://www.education.gov.sk.ca/building-partnerships>

90. Perkins, Tara (2011). "New High School Textbook Aimed at Aboriginal Youth Means Business," The Globe and Mail, <http://www.theglobeandmail.com/news/national/education/new-high-school-textbook-aimed-at-aboriginal-youth-means-business/article4183781/>

91. Walton, Patrick D., Ramirez, Gloria (2012). "Reading Acquisition in Young Aboriginal Children," Canadian Language and Literacy Research Network, <http://literacyencyclopedia.ca/index.php?fa=items.show&topicId=309>

92. Information provided to us upon request by the Saskatchewan Ministry of Education.

93. Australian Department of Education (2013). "Aboriginal Literacy Strategy," Retrieved June 17, 2013 from <http://www.det.wa.edu.au/aboriginal-education/detcms/navigation/teaching-and-learning/literacy-and-numeracy/aboriginal-literacy-strategy/>

94. Purdie, Nola, Meiers, Marian, Cook, J., and Ozolins, C. (2009). "Evaluation of the Western Australian Aboriginal Literacy Strategy," Retrieved June 17, 2013 from <http://works.bepress.com/nola_purdie/52/>

95. Frontier College (2012). "Aboriginal Summer Literacy Camps Across Canada," <http://www.collegefrontiere.ca/bulletin-qc/english/pdf/report_camps.pdf>

96. "What We Do: Aboriginal Communities," <http://www.frontiercollege.ca/pdf/aboriginal_communities.pdf>.

97. Frontier College (2013). "Aboriginal Summer Literacy Camps: National Viceregal Program 2014-2018."

98. "Addressing Canada's Literacy Challenge: A Cost/Benefit Analysis," DataAngel Policy Research Incorporated (2009). <http://www.dataangel.ca/en/cost-benefit-jan26.pdf>

99. Statistics Canada (2011). "National Household Survey: Aboriginal Peoples in Canada, First Nations People, Inuit, and Métis," Statistics Canada, <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011001-eng.cfm>

100. Australian Bureau of Statistics (2007). "Population Distribution, Aboriginal and Torres Strait Islander Australians, 2006," ABS, <http://abs.gov.au/ausstats/abs@.nsf/mf/4705.0>

101. Māori are counted in two ways in the Census: those who identify with the Māori ethnic group and those of Māori descent.

102. Statistics New Zealand (2006). "2006 Census Data – QuickStats About Māori," Statistics New Zealand, <http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats/quickstats-about-a-subject/maori.aspx>

103. Government of New Zealand. (2010). "Ethnic Composition of the Population," The Social Report, <http://www.socialreport.msd.govt.nz/people/ethnic-composition-population.html>

104. Norris, Tina, Vines, Paula L., and Hoeffel, Elizabeth M. (2012). "The American Indian and Alaska Native Population: 2010: 2010 Census Briefs," United States Census Bureau, <http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf>

105. Murray, T. Scott and Shillington, Richard (2011). "Understanding Aboriginal Literacy Markets in Canada: A Segmentation Analysis," <http://www.towes.com/media/30403/aboriginal-oles_jun%2022-2011.pdf>

106. Norris, Mary Jane (2009). "Aboriginal Languages in Canada: Emerging Trends and Perspectives on Second Language Acquisition," Statistics Canada, < http://www.statcan.gc.ca/pub/11-008-x/2007001/pdf/9628-eng.pdf>

107. Statistics Canada (2013). "Aboriginal Languages in Canada: Over 60 Aboriginal Languages Reported in 2011," Statistics Canada, < http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-314-x/98-314-x2011003_3-eng.cfm>

108. Creative Spirits (2013). "Aboriginal Languages," Creative Spirits, <http://www.creativespirits.info/aboriginalculture/language/>

109. Human Rights Commission (2013). "New Zealand's Official Languages," Human Rights Commission, <http://www.hrc.co.nz/enquiries-and-complaints-guide/faqs/new-zealands-official-languages>

110. Ethnologue Languages of the World (2013). "United States," Ethnologue, <http://www.ethnologue.com/country/US>

111. Australia Department of Education (2013). "Aboriginal Literacy Strategy," <http://www.det.wa.edu.au/aboriginaleducation/detcms/navigation/teaching-and-learning/literacy-and-numeracy/aboriginal-literacy-strategy/>

112. Ministerial Council for Education, Early Childhood Development and Youth Affairs (2010). "Aboriginal and Torres Strait Islander Education Action Plan: 2010-2014," <http://www.mceecdya.edu.au/verve/_resources/a10-0945_ieap_web_version_final2.pdf>

113. Office of the Minister of Education (2001). "More Than Words: The New Zealand Adult Literacy Strategy," <http://www.minedu.govt.nz/~/media/MinEdu/Files/EducationSectors/TertiaryEducation/AdultLiteracyStrategy.pdf>

114. New Zealand Ministry of Education (2007). "Te Reo Matatini: Māori Medium Literacy Strategy," <http://www.minedu.govt.nz/~/media/MinEdu/Files/EducationSectors/MaoriEducation/TeReoMatatiniEnglish.pdf>

115. Aboriginal Affairs and Northern Development Canada (2010). "Backgrounder – Reforming First Nation Education Initiative," <http://www.aadnc-aandc.gc.ca/eng/1100100016026/1100100016027>

116. Australia Department of Education, Employment and Workplace Relations (2012). "Closing the Gap – Expansion of Intensive Literacy And Numeracy Programs," <http://deewr.gov.au/closing-gap-expansion-intensive-literacy-and-numeracy-programs>

117. Australia Department of Education (2013). "Aboriginal Education: Early Childhood," <http://www.det.wa.edu.au/aboriginaleducation/detcms/navigation/teaching-and-learning/early-childhood/?oid=Category-id-7059973>

118. Te Puni Kōkiri. "Tūwharetoa Adult Literacy Initiative," <http://www.tpk.govt.nz/en/in-print/our-publications/publications/improving-literacy-and-numeracy-for-the-maori-workforce/download/Maori%20Literacy%20and%20Numeracy%20Case%20Study%20Tuwharetoa.pdf>

119. Australia Department of Education (2013). "Aboriginal Education: Aboriginal Tutorial Assistance Scheme 2013," <http://www.det.wa.edu.au/aboriginaleducation/detcms/navigation/teaching-and-learning/aboriginal-tutorial-assistance-scheme/?oid=Category-id-7168810>

120. National Accelerated Literacy Program (2013). "What Is Accelerated Literacy?" <http://www.nalp.edu.au/what-is-accelerated-literacy/overview-final.html>

121. Australia Department of Education (2013). "Aboriginal Education: Dare to Lead," <http://www.det.wa.edu.au/aboriginaleducation/detcms/navigation/leadership/dare-to-lead/>

122. Australia Department of Education (2013). "Aboriginal Education: High Achievers Program 2012)," <http://www.det.wa.edu.au/aboriginaleducation/detcms/navigation/teaching-and-learning/literacy-and-numeracy/high-achievers/>

123. National Adult Literacy Database (2012). "ABC Project of Two-Way Literacy and Learning," National Adult Literacy Database, <http://www.nald.ca/library/research/abo-aus/p33.htm>

124. Australia Department of Education (2012). "Aboriginal Language Speaking Students Program," <http://det.wa.edu.au/curriculumsupport/eald/detcms/navigation/english-as-an-additional-language-or-dialect-for-aboriginal-students/programs-for-aboriginal-language-speaking-students/>

125. Te Puni Kōkiri. "Whakatō te Mātauranga," <http://www.tpk.govt.nz/en/in-print/our-publications/publications/improving-literacy-and-numeracy-for-the-maori-workforce/download/Maori%20Literacy%20and%20Numeracy%20Case%20Study%20Wairoa.pdf>

126. UNESCO (nd). "The Manukau Family Literacy Project," <http://www.unesco.org/uil/litbase/?menu=9&programme=114>

127. UNESCO (nd). "The Family and Child Education Programme (FACE)," <http://www.unesco.org/uil/litbase/?menu=4&programme=87>

128. Native Women's Resource Centre of Toronto. "Employment and Education," <http://www.nwrct.ca/employment_education/index.php>

129. Prime Minister of Canada Website (2012). "New Northern Adult Basic Education Program," <http://www.pm.gc.ca/eng/media.asp?id=4667>