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A Literature Review of Factors

that Support Successful Transitions by Aboriginal People

from K-12 to Postsecondary Education



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Une analyse documentaire concernant les facteurs qui contribuent au succès de la transition de l'éducation primaire-secondaire à l'éducation postsecondaire des Autochtones

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A Literature Review of Factors that Support Successful Transitions by Aboriginal People from K–12 to Postsecondary Education

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The views expressed in this report are those of the authors and do not necessarily reflect the opinion of the Council of Ministers of Education, Canada, Statistics Canada, or the Canadian Education Statistics Council.

Common Abbreviations Used in This Report

ACCC	Association of Canadian Community Colleges
AFN	Assembly of First Nations
AUCC	Association of Universities and Colleges of Canada
CCL	Canadian Council on Learning
CESC	Canadian Education Statistics Council
CMEC	Council of Ministers of Education, Canada
EI	employment insurance
FNUC	First Nations University of Canada
IIHL	indigenous institute of higher learning
IKT	Inuit Tapiriit Kanatami
INAC	Indian and Northern Affairs Canada
ISSP	Indian Studies Support Program (one of INAC's PSE Programs)
K-12	Kindergarten to Grade 12
PSE	Postsecondary Education
PSE Program	Post-Secondary Education Program (INAC umbrella funding program)
PSSSP	Post-Secondary Student Support Program (one of INAC's PSE Programs)
SMC	Strategic Management Committee of CESC
UCEP	University and College Entrance Preparation (one of INAC's PSE Programs)

Executive Summary

Background

In 2006, there were 1.17 million Aboriginal people in Canada, comprising 3.8 per cent of the total Canadian population. While a relatively small proportion of the Canadian population, the Aboriginal population grew 45 per cent between 1996 and 2006, outpacing the non-Aboriginal population, which grew only 8 per cent in the same time period (Statistics Canada, 2008).

The degree to which the Aboriginal population in Canada has obtained postsecondary education (PSE) should be an important measure of progress within Canadian society. For the Aboriginal population, achieving higher levels of PSE provides increased opportunities for employment and income. For Aboriginal communities, a more highly educated membership provides a stronger base for community development. For Canada, the Aboriginal population represents a growing segment of the country's labour force and a key part of its future social development and economic prosperity.

Given the importance of an educated Aboriginal population, the Canadian Education Statistics Council (CESC) sponsored this literature review to identify key research findings relating to the challenges facing Aboriginal people as they make the transition from their Kindergarten-to-Grade-12 (K-12) years to PSE. There is a need to have one comprehensive report that integrates all the research in this area so that policy makers, researchers, Aboriginal people, and educators can understand the complex issues that exist in the area and how these issues might be addressed using the tools at our disposal.

Purpose of Literature Review

The purpose of this literature review is to document transitions of Aboriginal persons to postsecondary education, along with the challenges they face and supports they need. It does not include an analysis of the data or a review of programs beyond that contained in available literature. The project's value to policy and practice will be in four key areas:

- identification of key individual, community, and system-level factors that affect Aboriginal educational success and transitions
- 2. possible approaches (such as provision of additional supports or alternative modes of delivery, or the creation of Aboriginal-specific educational institutions) to improve Aboriginal educational success and transitions
- applicability of the factors and approaches to subgroups of Aboriginal people, types of education, and geographical areas
- 4. prioritization of the most important approaches for practice across the country, given the resources that are currently available

Methods

The methodology included a formal and a greyarea literature search and key informant interviews. A systematic literature search was conducted to identify key published material in English or French from 1999–2009 related to factors that support successful transitions by Aboriginal people from K-12 to PSE, with a focus pan-Canadian on and provincial/territorial literature. Peer-reviewed articles and papers were identified by searching education-related and social sciences databases. A selection of relevant organization, government, think tank, and research institute websites, grey literature repositories, portals, and free Internet-accessible databases were also searched for grey literature such as books, reports, and unpublished material.

A list of potential key informant interviewees was developed, including researchers and representatives of national Aboriginal organizations, government departments and various other institutions and organizations. In total, 22 key informants were interviewed. In addition to identifying a large number of additional articles for review, the key informant crystallized interviews key issues and challenges that were further researched in the available literature. They were also helpful in formulating policy, practice, and research implications.

Throughout the paper, the authors' use of terminology related to subgroups of the Aboriginal population reflects the terms used in the original research material. When providing analysis, the terms First Nation or First Nations people were used.

Trends in Aboriginal Postsecondary Education in Canada

There is a clear and persistent gap in PSE attainment between Aboriginal and non-Aboriginal people in Canada, although there has been progress in some areas. The 2006 census showed that 35 per cent of the overall Aboriginal population aged 25 to 64 had completed a certificate, diploma, or degree, compared to 51 per cent of the overall Canadian non-Aboriginal population (Statistics 2008). Furthermore, while Canada, the proportion of Aboriginal people with a university degree increased from 6 per cent to 8 per cent between 2001 and 2006, there was also an increase in the non-Aboriginal population from 20 per cent to 23 per cent over that time frame, thereby increasing the

gap between the Aboriginal and non-Aboriginal populations (Canadian Council on Learning, 2007b; Statistics Canada, 2008).The gap is shrinking when it comes to non-university postsecondary completion, suggesting that Aboriginal students are more likely to attend and complete college or trade schools than they are to attend and complete university. For example, 19 per cent of Aboriginal people and 23 per cent of non-Aboriginal Canadians between 25 and 64 years of age had a college diploma, and 14 per cent of Aboriginal and 12 per cent of non-Aboriginal people had a trades certificate, according to the 2006 census (Statistics Canada, 2008).

That being said, there are differences in PSE attainment of the First Nations, Métis, and Inuit subgroups, with the Métis subgroup appearing to have the highest PSE attainment levels and the Inuit subgroup the lowest. As a group, Aboriginal women are more likely than Aboriginal men to complete a university degree, but Aboriginal men are more likely than Aboriginal women to complete a nonuniversity PSE credential such as a trades certificate or college diploma (Statistics Canada, 2008). Further, area of residence is a factor for Aboriginal PSE outcomes, with those living on reserves and farther from urban areas achieving lower outcomes than those living off reserves or in more urban areas (Beavon, Wingert, & White, 2009).

In terms of timing of transitions, data indicate that Aboriginal students have delayed transitions between secondary and postsecondary education relative to non-Aboriginal students. According to the British Columbia Ministry of Advanced Education and Labour Market Development, over a four-year period from 2001–02 to 2004–05, an average of 42.4 per cent of Aboriginal high school graduates made an immediate transition, compared to 51.5 per cent of non-Aboriginal high school graduates, an average gap of 9.2 per centage points. However, by four years after high school graduation, the gap is much smaller (2.5 per centage points).

Aboriginal people had lower labour market participation and employment rates and higher unemployment rates than non-Aboriginal persons, although the gap narrowed slightly between the 2001 census and the 2006 census. Not surprisingly, increased PSE attainment is associated with improved labour market outcomes for both Aboriginal people and non-Aboriginal people. In fact, education is a stronger determinant of employment among Aboriginal than among non-Aboriginal persons. Nevertheless, at every level of PSE except university, Aboriginal persons had poorer labour market outcomes than non-Aboriginal persons. At the university level, the employment and earnings outcomes of Aboriginal persons were equivalent to or better than non-Aboriginal persons, as of the 2001 census.

Factors Affecting Postsecondary Enrolment and Success

The report reviews the importance of including the Aboriginal perspective in postsecondary educational programming. In short, if Aboriginal perspectives (those of First Nations, Métis, and Inuit people) were included in an appropriate and a substantive manner, they would help Aboriginal students feel comfortable in PSE settings and help non-Aboriginal students develop an increased awareness of the Aboriginal population and its members' views.

Among the challenges to attending and completing PSE for Aboriginal people are the major ones of funding to attend PSE and PSE academic preparedness. Other major challenges include overall funding of education for Aboriginal persons (not just for PSE, but for the entire continuum), distance/dislocation from community, the needs of Aboriginal students who have to care for children and/or family members, cultural safety, role models, control over education, and the negative history of assimilationist education policies, including residential schools.

In terms of successful approaches, the main supports/structures appear to be transition programs, including "access" programs; indigenous institutes of higher learning, and programming that assists Aboriginal people in their earliest educational years, such as the Aboriginal Head Start On-Reserve program, which focus on academic readiness for younger children and parenting skills for their parents.

The literature review does not fill all the gaps in our knowledge of the factors affecting Aboriginal peoples' enrolment and success in PSE. For example, it does not provide information about the relative importance of the various barriers to PSE enrolment and success or whether there are differences in the importance of various barriers to the various subgroups of Aboriginal peoples in Canada. A large number of barriers are described, but only a limited number of studies have examined which of the barriers are most important.

As well, the biggest gap identified so far is related to Aboriginal peoples' access to PSE is the lack of information about which approaches are most effective in increasing enrolment in and completion of PSE. New initiatives should be tied to research and evaluation strategies that incorporate Aboriginal and mainstream definitions of success.

Implications for Policy and Practice

Postsecondary institutions are making progress in responding to the needs and circumstances of Aboriginal learners. Emphasis should be placed on achieving further progress, including measures to:

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- create culturally appropriate academic and professional courses and programs, in partnership with Aboriginal communities, that meet Aboriginal learning and employment needs;
- increase Aboriginal representation in the teaching and decision-making structures of postsecondary institutions;
- expand partnerships with Aboriginal organizations and learning institutions; and
- create an institutional climate where Aboriginal learners and learning are welcomed, respected, and valued.

Enhanced financial supports for Aboriginal students must be provided in recognition of the higher costs to them to access PSE, their lower level of resources, and the more uncertain return on their learning investment, including action to:

- expand federal, provincial, and territorial investment in Aboriginal postsecondary learners and learning;
- increase accountability for utilization of funds designated for Aboriginal postsecondary learning; and
- review federal and provincial student loan programs and other mainstream education funding measures with a view to increasing their relevance to, responsiveness to, and accessibility for Aboriginal learners.

Action to improve the quality of academic preparation is essential, including measures to:

 expand access to high-quality early childhood development programs emphasizing family involvement in learning;

- establish a pan-Canadian effort, facilitated by CMEC and with jurisdictional flexibility regarding implementation, to improve highschool completion rates for Aboriginal students;
- establish or expand multi-faceted supports for children, youth, and their families to encourage and facilitate progression to postsecondary learning;
- ensure that teacher training curricula foster an understanding of Aboriginal culture and issues; and
- provide greater funding and promotion of continuing and developmental programs for the large number of Aboriginal adults who need academic upgrading.

Finally, Aboriginal learners often face a more complex range of barriers and challenges than non-Aboriginal learners. Consequently, they require a greater range and level of supports if they are to enter and remain in postsecondary programs, including measures to:

- address the higher level and incidence of housing and child care needs of Aboriginal learners;
- promote the health and well-being of Aboriginal learners; and
- assist Aboriginal learners to deal with personal challenges unique to Aboriginal people and linked to their historical legacy and circumstances.

The literature indicates that such supports are most effective when delivered in a personcentred and holistic way, and that Aboriginal organizations and agencies are often highly effective in achieving this.

Implications for Data and Research

The report identifies key implications for data and research, including the need for

established milestones for Aboriginal educational achievement; ongoing tracking of enrolment and completion of PSE among the Aboriginal cohort, including the various pathways from secondary to postsecondary education; evaluative data on programs and services; a system-wide data infrastructure; and additional quantitative research on the barriers to postsecondary education among Aboriginal people. Data collected need to be released in a timely manner and to a wide audience.

Conclusions

- There is a persistent gap between the educational achievements of Aboriginal and non-Aboriginal people in Canada. For some forms of PSE attainment, the gap is growing as growth in educational participation among non-Aboriginal people outpaces growth among Aboriginal people. For other forms, the gap is shrinking, but so slowly that it will take an estimated 30 to 60 years for it to close.
- Educational attainment is even more important to the success and life opportunities of Aboriginal people than of non-Aboriginal people as a whole.
- The barriers to completing PSE for Aboriginal people in Canada are widely recognized and acknowledged, but persist. This persistence reflects a combination of factors, including deeply ingrained

philosophical approaches about PSE, and a complex, sensitive, and evolving division of jurisdictional responsibilities.

- 4. As a result, many members of the Aboriginal population continue to face barriers far greater than those faced by most non-Aboriginal Canadians, and to fall short of realizing their full human, social, and economic potential. As the Aboriginal population continues to grow rapidly, this loss will take an increasing toll on Aboriginal people themselves and on Canadian society as a whole. Action to redress this situation is imperative.
- 5. In taking action to improve PSE outcomes, it must be recognized that Aboriginal people are not a homogeneous group. Solutions to increase their PSE participation and improve their educational outcomes must reflect and respond to differences between and within First Nations, Métis, and Inuit populations.
- 6. More data, research, and evaluation are needed in order to have a clear understanding of the efficacy of various approaches being used to increase Aboriginal PSE outcomes.
- To be successful, policy changes and interventions must be decided, designed, and implemented in conjunction with Aboriginal groups and organizations.

1. Introduction

1.1 Overview of the Council of Ministers of Education, Canada, and the Canadian Education Statistics Council

This report was prepared for the Canadian Education Statistics Council (CESC) under the auspices of the Council of Ministers of Education, Canada (CMEC).

Council of Ministers of Education, Canada

CMEC is an intergovernmental body founded in 1967 by ministers of education to serve as the following:

- a forum to discuss policy issues
- a mechanism through which to undertake activities, projects, and initiatives in areas of mutual interest
- a means by which to consult and cooperate with national education organizations and the federal government
- an instrument to represent the education interests of the provinces and territories internationally

CMEC provides leadership in education at the pan-Canadian and international levels and contributes to the fulfilment of the constitutional responsibility for education conferred on provinces and territories.

CMEC is governed by an Agreed Memorandum approved by all members. A Chair is elected every two years based on rotation among the provinces. The current Chair is the Honourable Diane McGifford, Minister of Advanced Education and Literacy for Manitoba. All 13 provinces and territories are members. Ministers of Education work through CMEC on a wide variety of activities, projects, and initiatives. Among other work, CMEC is currently involved in priority activities related to Aboriginal education (the focus of this report), literacy, and postsecondary capacity.

In April 2008, CMEC released "Learn Canada 2020," a joint ministerial statement that underscores provincial and territorial responsibility for the four pillars of lifelong learning – early childhood learning and development, elementary and secondary schooling, postsecondary education, and adult learning and skills development – and proposes working collaboratively with key partners and stakeholders to ensure that all Canadians benefit from the strength and diversity of provincial and territorial education systems.

Canadian Education Statistics Council

CESC governs the Canadian Education Statistics Program, a joint initiative of CMEC and Statistics Canada, established under a protocol originally developed in 1989. CESC is composed of the deputy ministers responsible for education in the provinces and territories of Canada, the Chief Statistician of Canada, and ex officio, the Director General of CMEC and the Director General responsible for the Education Statistics Program in Statistics Canada.

The Strategic Management Committee (SMC) of CESC is composed of an assistant-deputyminister-level representative from each of the ministries and departments responsible for education and training in the provinces and territories, along with representatives from CMEC and Statistics Canada. SMC is chaired by the Director General of CMEC.

SMC provides high-level management for CESC projects, acting on recommendations from subcommittees and information provided by

Statistics Canada and CMEC staff. Responsibilities of SMC include providing policy direction and approving the proposed plans for work on both the Pan-Canadian Education Indicators Program and the Pan-Canadian Education Research Agenda, as well as making recommendations to CESC, where appropriate, and coordinating participation in international projects. Because education is а provincial/territorial responsibility, Statistics Canada's Centre for Education Statistics seeks the advice and support of SMC in the course of carrying out its data collection and reporting initiatives.

1.2 Background to This Study

In 2006, there were 1.17 million Aboriginal people in Canada comprising 3.8 per cent of the total Canadian population. While a relatively small proportion of the Canadian population, the Aboriginal population has grown 45 per cent between 1996 and 2006, outpacing the non-Aboriginal population, which grew at only 8 per cent in the same time period (Statistics Canada, 2008). The total population included 59.5 per cent First Nations people, 4.3 per cent Métis people, 33.2 per cent Inuit people, and 2.9 per cent multiple/other responses. First Nations people comprise 25.6 per cent of the total Aboriginal population onreserve and 33.9 per cent off-reserve (Statistics Canada, 2008).

There is a continuing gap in educational attainment between Aboriginal and non-Aboriginal populations in Canada (Avison, 2004). The 2006 census showed that 35 per cent of the Aboriginal population had completed a postsecondary certificate, diploma, or degree, compared to 51 per cent of the non-Aboriginal population (Statistics Canada, 2008).

Along with this gap, there are clear linkages between educational outcomes and labour force participation rates for all Canadians. Among all the Aboriginal subgroups, labour force participation rates increase when educational attainment increases. In fact, when educational attainment is taken into account, there is little difference between Aboriginal and non-Aboriginal people in terms of their labour force participation rates, especially at higher levels of educational attainment (Hull, 2005).

The degree to which the Aboriginal population in Canada has obtained postsecondary education (PSE) should be an important measure of progress within Canadian society. For the Aboriginal population, achieving higher levels of PSE provides increased opportunities for employment and income. For Aboriginal communities, а more highly educated membership provides a stronger base for community development. For Canada, the Aboriginal population represents a growing segment of the country's labour force and a key part of its future social development and economic prosperity. This is particularly true for western and northern Canada, which include a more educated Aboriginal population and a greater contributing Aboriginal workforce (Mendelson, 2006a).

Given the importance of an educated Aboriginal population, CESC sponsored this literature review to identify key research findings relating to the challenges facing Aboriginal people as they make the transition from their Kindergarten-to-Grade-12 (K–12) years to PSE. There is a need to have one comprehensive report that integrates all the research in this area so that policy makers, researchers, Aboriginal people, and educators can understand the complex issues that exist in the area and how these issues might be addressed using the tools at our disposal.

1.3 Purpose of Literature Review

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postsecondary education, along with the challenges they face and supports they need. It does not include an analysis of the data or a review of programs beyond that contained in available literature. The project's value to policy and practice will be in four key areas:

- identification of key individual, community, and system-level factors that affect Aboriginal educational success and transitions
- 2. possible approaches (such as provision of additional supports or alternative

modes of delivery, or creation of Aboriginal-specific educational institutions) to improve Aboriginal educational success and transitions

- applicability of the factors and approaches to subgroups of Aboriginal people, types of education, and geographical areas
- 4. prioritization of the most important approaches for practice across the country, given the resources that are currently available



2. Approach and Methods

2.1 Overview and Scope

The methodology included a literature search of both formal and grey-area literature (focusing mainly on papers and reports produced within the past 10 years), interviews of key informants to identify gaps and other grey-area literature, a structured approach to reporting, and analysis of policies and practices.

The scope of the research included review of the following:

- recent research, including various pan-Canadian and provincial/territorial literature sources and a search of formal databases for peer-reviewed literature
- recent grey-area research that might be relevant to the topic
- additional literature suggested by key informants – seminal researchers and representatives of Aboriginal organizations, relevant government departments, and other organizations – in order to ensure that the body of literature reviewed was complete
- recent statistical research papers

2.2 Research Questions and Analytical Lenses

Within this scope, the research questions below were addressed by applying a series of analytical lenses. The lenses focused on the following:

- the different subgroups within the Aboriginal population, such as First Nations, Métis, and Inuit
- the emotional, social, financial, cultural, historical, and regional factors that can affect each of the research questions

- the region of the country and, within it, the remoteness of the location where the Aboriginal subgroup resides
- labour market issues, including the employment and earnings of Aboriginal people with different levels of education

The meta-research question to be answered was, what are the challenges Aboriginal people face in their transition from K–12 to PSE?

This question was broken into sub-research questions, listed below, that formed the basis of the work. For each research question, particular attention was paid to subgroups within the Aboriginal population and the geographical regions to which the information applies (as noted above).

1. a. What major challenges do Aboriginal students face in completing high school and making the transition to a postsecondary education program?

b. How have Aboriginal students overcome these challenges?

c. What supports have been most useful in helping Aboriginal students overcome these challenges?

- 2. What are the various pathways that Aboriginal students make in the transition to postsecondary education, including a variety of pathways that Aboriginal students may take between the labour market and postsecondary education?
- 3. a. Why do Aboriginal students choose not to enter postsecondary education?

b. What are the factors that determine whether Aboriginal students will pursue postsecondary education? c. What are the factors that determine what type of postsecondary education program Aboriginal students will pursue?

4. a. What are the primary reasons that Aboriginal students withdraw from a postsecondary education program?

b. What are the key factors that contribute to Aboriginal students completing a postsecondary education program?

- 5. What are the prevalent demographic characteristics of Aboriginal postsecondary education completers?
- 6. a. When do Aboriginal students enter postsecondary education?

b. What is the average length of time Aboriginal students take to complete their studies?

- 7. Are there different entrance/persistence rates for Aboriginal postsecondary attendees at institutions close to home, institutions that use traditional delivery methods, Aboriginal institutions, or institutions that use various distance learning methods?
- 8. a. What are the preferred postsecondary education programs for Aboriginal students?
 - b. What are the completion/failure ratios?

2.3 Search Methodology and Results

A systematic literature search was conducted to identify key material published in English or French from 1999–2009 related to factors that support successful transitions by Aboriginal people from K–12 to PSE (either directly or indirectly), with a focus on pan-Canadian and provincial/territorial literature. Recent international literature was included, where deemed relevant. Specific search parameters (e.g., inclusion/exclusion criteria, jurisdictions, time frame) were developed in consultation with the CESC advisory committee during initial planning sessions.

Peer-reviewed articles and papers were identified by searching education-related and social sciences databases with international coverage, as outlined in the summary tables found in Appendix A. Where subjects were well-indexed, subject headings were used only to increase the relevance and precision of search results and to ensure that a manageable number of items were retrieved; where subjects were less well-indexed, key words were added to increase the likelihood of retrieval. Subject headings used were database-dependent.

А selection of relevant organization, government, think tank, and research institute websites, grey literature repositories, portals, and free Internet-accessible databases were also searched for grey literature such as books, reports, and unpublished material. Literature was selected for inclusion in the review based on examination of abstracts and indexing (subject headings) where available, and on full text or table of contents, if accessible. Websites for Canadian federal, provincial, and territorial ministries responsibility for education, as well as education and teachers' associations, were searched for pertinent documents and key informants. Resources searched are summarized in table format in Appendix A.

Finally, a large number of potentially useful grey-area documents were identified in the process of conducting key informant interviews (see below).

The items identified were reviewed in more depth and abstracted (see next subsection) for use in the study, where deemed relevant to one or more of the research questions listed above.

2.4 Policy and Practice Review

A policy and practice review of key findings was conducted based on the experience of the consulting team, the findings of the key informant interviews, and a discussion with the SMC. The ability to generalize findings to various subgroups of Aboriginal people, different geographical areas, and different types of education and training was assessed as a key component of this review.

While many papers informed the policy and program recommendations of this paper, a number of specific papers included conclusions and recommendations on these issues that were reviewed for relevance to the current report. These papers included Bear Spirit Consulting (2007), Brigham (2006), Canadian Council on Learning (CCL) (2007a), Corrigan & Robertson (2004), House of Commons Standing Committee on Aboriginal Affairs and Northern Development (2007), Human Capital Strategies (2005), Inuit Tapiriit Kanatami (ITK) (2008), Mendelson (2006b), Mendelson (2008), Peters & White (2009), and R.A. Malatest & Associates Ltd. & Stonechild (2008).

2.5 Key Informant Interviews

A list of potential key informant interviewees was developed, including researchers and representatives of national Aboriginal organizations, government departments, and various other institutions and organizations. The key informant list was developed based on the knowledge of the consulting team and suggestions from the SMC, and included selected authors of published papers identified through the literature search. Interviews were conducted using the guide set out in Appendix B.

The key informant interviews were helpful in the following ways:

- identifying other grey-area literature not identified through the above search strategies
- providing input on gaps in existing research and what is needed to address those gaps
- 3. providing advice as to the policy and practice relevance of research studies
- providing information as to whether additional analyses are possible with existing databases

Over 50 potential key informant interviewees were contacted, though not all responded, were interested in participating, or were available to participate. In total, 22 key informants were interviewed (see Appendix C). The results of these key informant interviews are summarized briefly in this report; they also informed the policy and practice analysis. Furthermore, these key informants suggested over 40 additional documents that were included in the grey-area literature review. Many of these documents are unpublished and internal to organizations.

2.6 Study Limitations

The limitations to this study include the following:

- Despite the identification of a large number and range of reports and documents, limited information was available to address some research questions.
- information is specific to Some particular subgroups of Aboriginal particular jurisdictions, peoples, particular types of PSE, etc., and it is not known to what extent this information is applicable or generalizable to other types of education, other geographical regions

of Canada, or other subgroups of Aboriginal people. While it is positive to have information about specific populations of Aboriginal people, any research conducted on subgroups cannot necessarily be generalized to other subgroups, or to Aboriginal people in general

- Where information is available findings about comparing the Aboriginal population to those about the non-Aboriginal population, it is included. However, many research articles were specific to Aboriginal populations and did not included comparative data, nor was it within the scope of this paper to conduct additional literature searches to determine if these findings applied to the non-Aboriginal population of Canada.
- While many relevant policy and practice implications were identified, there is limited information demonstrating their effectiveness in improving the access of Aboriginal persons to PSE and the success of Aboriginal persons in PSE. This issue will be addressed further in section 6 of this report.
- While effort was taken to include the input of Aboriginal key informants and authors, this research was conducted by non-Aboriginal authors for mainstream organizations (CMEC/CESC), and therefore it may not fully take into account the perspectives of Aboriginal persons.

In addition to the specific limitations of this study, there are a number of generic challenges to conducting research on Aboriginal people in Canada that may have affected the specific research articles reviewed for this report. These limitations include the following:

- There are definitional issues related to Aboriginal people and the subgroups within this population (see Fuzzy Definitions and Population Explosion: Changing Identities of Aboriginal Groups in Canada, Indian and Northern Affairs Canada, [2003], for an excellent analysis of this issue). Government definitions and Aboriginal selfdefinitions for various subgroups often differ, in some instances based on linkages to legislation, funding, programs, historical rights, and other issues.
- There are issues related to statistical monitoring, in that monitoring of Aboriginal enrolment by institutions has historically been limited, leaving the census as the most coordinated effort in the country. Because of the significant degree of distrust among Aboriginal people of the census, a degree of bias is inherent in the census data (R.A. Malatest & Associates Ltd., 2004a).
- The proportion of Aboriginal persons self-identifying in the census and other surveys appears to be increasing. While this development is positive for those researching Aboriginal education trends, it may make it difficult to determine the extent to which some of the improvements seen are due to greater self-identification.
- Sampling of the Aboriginal population is often hindered by the small sample sizes in some Aboriginal communities, and by related issues of privacy and disclosure. There are also logistical issues related to regions; for example, the more remote regions in the north

and west, as well as the changing definition of different subgroups, which varies among regions (such as the differences in the definition of Métis used in Quebec versus the one used in Manitoba). Finally, Aboriginal subgroups themselves are becoming more "concrete" in terms of how they participate in research. For example, they want to be informed of research findings for projects in which they participate, they want to participate in interviews face to face, and they want to know the policy implications of the research (Parriag, 2006). The "Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans" lays out best practices in research involving Aboriginal persons that are above and beyond standard ethical considerations, including "good practices" that include but are not limited to the following:

- "To respect the culture, traditions and knowledge of the Aboriginal group;
- "To conceptualize and conduct research with Aboriginal group as a partnership;
- "To consult members of the group who have relevant expertise;

- "To involve the group in the design of the project;
- "To examine how the research may be shaped to address the needs and concerns of the group;
- "To make best efforts to ensure that the emphasis of the research, and the ways chosen to conduct it, respect the many viewpoints of different segments of the group in question;"

(Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada, 1998 with 2000, 2002, and 2005 amendments, p. 6-3)

The amount of research conducted by Aboriginal researchers and organizations is limited, due to a variety of factors such as their limited involvement in many mainstream educational institutions, limited funding for Aboriginal-controlled institutions or institutes, etc. As a result, the available research may have a Eurocentric focus.

3. Summary of Key Informant Interviews

3.1 Synopsis of Interviews

Interviews were conducted with key informants who are experts in the field of Aboriginal postsecondary education. It was anticipated that the interviewees would identify additional resources that should be included in the literature search, as well as additional experts who could provide even more context and information on Aboriginal peoples' transitions to postsecondary education. In all, 22 key informants were interviewed. These informants were from academic sectors, provincial and federal government sectors, and nongovernmental/arm's-length agencies that were involved in postsecondary education for Aboriginal students. As well, all five national Aboriginal organizations were contacted. Two were able to participate within the timelines of the study. No regional organizations were contacted. Overall, approximately half of the 22 interviewees were First Nations, Métis, or Inuit people. and half were non-Aboriginal. Interviewees resided across the country, with representation from every province, but none of the territories.

It should also be noted that, when preliminary results from the literature review were presented to the Canadian Education Statistics Council (CESC) advisory committee, the committee provided comments and suggestions on additional information to be considered, additional resources to be included and additional interviewees. All suggested interviewees were contacted as part of this project, though not all were available to participate or interested in participating.

Resources suggested by interviewees were examined for inclusion in the literature search within the time available for this project. Approximately 40 additional papers, reports, books, conference proceedings, newspaper articles, and journal submissions were considered for inclusion in this review at the suggestion of key informants.

3.2 Key Findings

While the interviewees represented a range of perspectives, some common themes emerged related to Aboriginal peoples' transitions to PSE, which are presented below. Additional information will be included in other sections of the report, where relevant.

 The perspective and/or involvement of First Nations, Métis, and Inuit people (both individuals and communities) must be taken into account in any initiatives involving the PSE of Aboriginal people.

This point was made clearly by both Aboriginal and non-Aboriginal interviewees. There was a sense that the efforts to move Aboriginal people's participation in PSE forward would have only limited success without this perspective or involvement. Interviewees often highlighted initiatives that they felt were successful because of the inclusion of a particular community, or efforts to be culturally relevant and appropriate. Some specifically mentioned the positives gained by the inclusion of elders, for example.

At the same time, many interviewees acknowledged the difficulties that exist in using this perspective to increase PSE outcomes for Aboriginal students who are living in a dominant non-Aboriginal culture. For example, the starting premise for research must be modified if it is to include an Aboriginal perspective. That being said, interviewees felt that some Aboriginal concepts are difficult for the dominant culture to understand; for example, the recognition of treaties between Aboriginal people and the Crown (though it should be noted that Saskatchewan is currently working to address this through its curriculum renewal process and mandatory treaty education) and the recognition of "place" – that is, a connection to the surrounding land and environment.

Some interviewees noted that the questions that needed to be asked to conduct research on Aboriginal students moving through the education system are critical, complex, and often not asked correctly. For example, questions around definitions of "success" in PSE should not be the same for Aboriginal students, given that "success" might mean doing well in school, but at the cost of the students leaving their home communities and living in an alien culture. As another example, interviewees suggested it would be very difficult to ask questions of Aboriginal students within a learning model that leaves out much of the holistic learning that Aboriginal culture includes. Others discussed how non-Aboriginal culture and institutions are threatened by the inclusion of Aboriginal perspectives. For example, the involvement of elders in curricula development and delivery at certain PSE institutions created concerns among non-Aboriginal faculty worried about the comparability of credentials, salaries, and status.

 Definitions of "success" must be relevant for both Aboriginal and non-Aboriginal communities.

While this issue was alluded to above, under the need to include the Aboriginal perspective, its implications are far-reaching and deserve further discussion. Some interviewees mentioned that data are being collected from only a Eurocentric view, and this focus always places Aboriginal students at a disadvantage. Such data make them appear "less successful," as the data are devoid of much of the context that should be acknowledged for Aboriginal students. As an example, a few interviewees pointed out that, because many Aboriginal communities offer only lower-skilled jobs, students who acquire a postsecondary education are unlikely to return to their communities to work.

Furthermore, current definitions of success seem to focus on an ability to master skills that non-Aboriginal people use and find important, without placing any value on a holistic model or on indigenous knowledge, areas where Aboriginal people would be more likely to be successful. As a result, many Aboriginal communities and students are leery of participating in these data collection exercises. Conversely, other interviewees felt that using a metric from the dominant culture within which Aboriginal students would be working after completing their PSE was a more realistic indicator for those students and their communities.

• Data must be collected.

Regardless of the issues around data collection, if there are no or limited data, there is little quantifiable understanding of how money is being spent, what is being achieved, and what remains to be done. This point was made across interviews, repeatedly even as interviewees mentioned the lack of resources to set up data collection systems and to disseminate the results of data collection, and even as they discussed the problems with current uneven data collection practices and resistance among Aboriginal students to being involved in these data collection exercises.

• Successful initiatives exist across the country.

Every interviewee mentioned successful efforts to increase the PSE outcomes for First Nations, Métis, and Inuit students. While few projects were formally evaluated, there was anecdotal evidence that these initiatives were appreciated by the students and made their educational experience more successful.

 Funding for education of First Nations, Métis, and Inuit students needs to be increased for the entire education system, from K–12 to PSE.

The issue of funding was raised by almost every interviewee. There was a clear recognition that, without a political will to prioritize this issue, the amount of funding devoted to Aboriginal education will not increase. Some interviewees discussed their concerns around funding inequities between non-Aboriginal students and Aboriginal students as well as inequities between various subgroups of Aboriginal students, including concerns about federal funding structures and policies. Others spoke of funding issues that they felt were faced by "bridging" projects that helped specific Aboriginal students make the transition to PSE. Inadequate funds were perceived as limiting success.

Some interviewees felt that the research questions asked in this literature search needed to be broader. Most saw this issue as one that begins with early childhood education and continues right through to PSE completion. As such, efforts to fund only PSE were seen to be of limited use without concurrent increases in funding across the educational spectrum. These funding increases should apply from early childhood education onward, and they should recognize the discrepancies that exist when Aboriginal students attend provincial schools.

• Politics are problematic.

Perhaps an obvious point, but one that was raised repeatedly, is the impact of political agendas of and drivers from both non-Aboriginal and Aboriginal agencies on the success of different initiatives, systems, and approaches to Aboriginal education. Many spoke of the "death" of a project because of a change in political direction. Mention was made of the politics around dispensing funds from federal sources as well as those around administering funds within First Nations' communities.

Other interviewees referred to a "politics of definition," which allows for funding for First Nations students, but only to a limited degree for Inuit students, and not at all for Métis and First Nations students living off-reserve. While First Nations people view education at all levels as an inherent Aboriginal and treaty right, the federal government acts on statutory authority to fund the elementary and secondary education of First Nations students who live on reserve land (regardless of school location), and it funds PSE of on- and off-reserve First Nations and Inuit students as a matter of social policy (House of Commons Standing Committee and Aboriginal Affairs Northern on Development, 2007). This issue is discussed further in section 5.5 of this report.

3.3 Summary of Key Findings

In addition to identifying a large number of additional articles for review, the key informant interviews crystallized a number of key issues and challenges that were further researched in the available literature. The interviews were also helpful in formulating the policy, practice, and research implications outlined in sections 6 and 7 of this report.

The incorporation of Aboriginal perspectives and definitions of success was seen by interviewees to be critical. Furthermore, they felt that additional and consistent data collection is required to expand our understanding of Aboriginal persons' access to postsecondary education. They noted that, although successful initiatives do exist, the evidence of their effectiveness is limited. As well, there was broad acknowledgement that inadequate funding is a critical challenge to moving forward. Finally, the need for political will to tackle the issue and the impact of a variety of political agendas on the ability to move forward were noted.



4. Trends in Aboriginal Postsecondary Education in Canada

4.1 Overview

This section provides an overview of statistical data related to PSE enrolment and completion for Aboriginal peoples and for various subgroups of Aboriginal persons, including First Nations, Métis, and Inuit people. The trends in PSE are further examined by gender, age, location, and other relevant demographic characteristics. The types (trades, college, university) and levels of PSE attainment (certificate, diploma, degree) are reviewed. Data on Aboriginal persons' transitions from secondary school to PSE and/or the labour market are summarized. Finally, gaps in the available knowledge are discussed and the section ends with a summary of key points.

4.2 PSE Enrolment and Attainment

Aboriginal people access postsecondary education through a broad spectrum of institutes and programs. Analysis of the relevant literature indicates that the primary data sources for analyses of Aboriginal enrolment and PSE attainment are Statistics Canada's census and the data collected in British Columbia (BC) by the BC Ministry of Education. While key informants referred to Statistics Canada's Youth in Transition Survey (YITS), a 2000 longitudinal telephone survey of 18 to 20 year old students, including 782 youth who self-identified as Aboriginal, as a possible source of comprehensive data, very few papers used this source, likely because of the small Aboriginal sample included. Some papers analyzed Indian and Northern Affairs Canada (INAC) program data for First Nations and Inuit students.

Research consistently indicates a gap between the proportion of Aboriginal people and the proportion of non-Aboriginal people who attend and complete PSE (Aman & Ungerleider, 2008; Assembly of First Nations [AFN] Education Secretariat, 2006; Association of Canadian Community Colleges [ACCC], 2005; BC Ministry of Advanced Education and Labour Market Development, 2008; Human Capital Strategies, 2005; Maxim & White, 2006; Mendelson, 2006a; Morin, 2006; Spence & White, 2009; Statistics Canada 2008). The 2006 census revealed that 44 per cent of Aboriginal people between 25 and 64 years of age and 61 per cent of non-Aboriginal Canadians in the same age group reported having completed some form of PSE (INAC, 2008; Statistics Canada, 2008). The 2006 census also showed that 35 per cent of the Aboriginal population age 15 or older had completed a postsecondary certificate, diploma, or degree, compared to 51 per cent of the Canadian non-Aboriginal population age 15 or older (R.A. Malatest & Associates Ltd. & Stonechild, 2008). Furthermore, while the proportion of Aboriginal people with a university degree increased from 6 per cent to 8 per cent between 2001 and 2006, there was also an increase in the non-Aboriginal population from 20 per cent to 23 per cent over that time frame, thereby increasing the gap between the Aboriginal and non-Aboriginal populations (CCL, 2007b; Statistics Canada, 2008).

Data presented in section 4.5 of this report show that the gap in both university completion and in any PSE completion between Aboriginal and non-Aboriginal populations is largest among those aged 25 to 34, intermediate among those 35 to 44, and smallest among those aged 45 and older (Richards, 2008). These findings are likely due to the delay in Aboriginal persons' completion of PSE. The gap is shrinking when it comes to completion of non-university PSE credentials, suggesting that Aboriginal students are more likely to attend and complete college or trade schools than they are to attend and complete university. For example, 19 per cent of Aboriginal people and 23 per cent of non-Aboriginal Canadians between 25 and 64 years of age had a college diploma, and 14 per cent of Aboriginal and 12 per cent of non-Aboriginal people in the same age group had a trades certificate, according to the 2006 census (Statistics Canada, 2008). The smaller gap in college diploma attainment and higher rates of trades certificate attainment may be related to the challenges faced by Aboriginal people who want to attain PSE credentials (described in section 5.3 of this report), which may be less of an issue with respect to community colleges or trade schools than universities. For example, community college and trades PSE may be offered closer to rural communities than universities, have lower tuition costs (or be eligible for EI funding), or have lower entrance requirements in some cases, and therefore they may be more feasible to attend for Aboriginal persons, who are more likely to be older and have family and/or child care responsibilities than non-Aboriginal students. This important issue requires further exploration.

Further analysis indicates that, consistent with findings derived from previous years of census data, Aboriginal women 15 years of age and over are more likely to graduate from university than are Aboriginal men; Aboriginal men 15 years of age and older are more likely than Aboriginal women to graduate from a trades program (Kapsalis & Data Probe Economic Consulting Inc., 2006). As of the 2001 census, the gender gap in university attainment was larger among Aboriginal persons (10 per cent of females versus 5 per cent of males) than among the non-Aboriginal population (22 per cent of females versus 20 per cent of males) (Kapsalis & Data Probe Economic Consulting Inc., 2006). As well, PSE outcomes for Aboriginal people living on-reserve at the time of the census are lower than those for Aboriginal people off-reserve (Kapsalis & Data Probe Economic Consulting Inc., 2006). Offreserve, Aboriginal persons living in cities had the highest levels of education, followed by those living in towns and rural areas, though those living in rural areas had higher outcomes than those living on-reserve (Human Resources and Social Development Canada, 2007). However, looking at the total population regardless of age, Aboriginal people living onreserve are less likely than those living offreserve to have graduated from any PSE institution, or specifically from university, trades or college, or non-university PSE (Kapsalis & Data Probe Economic Consulting Inc., 2006). It should be noted that this statistic reflects the population living on-reserve at the time of the census. It does not mean that persons living on-reserve are less likely to complete PSE, as it is possible that many PSE graduates move off-reserve for employment or do not return after completing their PSE offreserve.

Some of the differences in PSE attainment described above are likely due to relative rates of secondary school completion. The 2006 census reveals a gap between Aboriginal and non-Aboriginal people in terms of secondary school completion, but the gap is nuanced. Here, 34 per cent of Aboriginal people aged 25 to 64 had not completed high school, while 21 per cent had a high school diploma as their highest level of education. By comparison, 15 per cent of the non-Aboriginal population in the same age group had not completed high school, while 24 per cent had a high school diploma as their highest level of education (Statistics Canada, 2008). Thus, Aboriginal persons aged 25 to 64 appear more than twice as likely to have less than high-school completion, compared to non-Aboriginal students, but almost as likely to have a high school diploma as their highest level of education. Looking at those aged 25 to 34 in the 2006 census, 32 per cent of Aboriginal persons had not completed high school compared to 10 per cent of the non-Aboriginal population, while 26 per cent of Aboriginal persons had completed it compared to 22 per cent of non-Aboriginal persons (Richards, 2008). Thus, the difference between the proportion of Aboriginal and non-Aboriginal persons who had not completed high school is actually higher among those aged 25 to 34 (22 per cent higher for Aboriginal persons) than among those aged 25 to 64 (19 per cent higher for Aboriginal persons).

Analysis of data from the BC Ministry of Advanced Education and Labour Market Development (2008) shows recent graduation rates for a specific cohort of BC students (as opposed to the cross-section of ages across Canada presented above). As of the 2006–07 school year, the BC Dogwood (secondary school certificate of graduation) completion rate for Aboriginal students was 49 per cent, while that for non-Aboriginal students was 83 per cent. Furthermore, an examination of eligibility criteria for university indicated that only 9 per cent of Aboriginal students in this cohort, compared to 32 per cent of non-Aboriginal students, were eligible for university entry in 2004-05. This raises the question of whether Aboriginal students are being "streamed" into programs and courses that do not prepare them for PSE or, alternatively, whether broader issues, such as inadequate funding of on-reserve schools, etc., cause the lower levels of preparedness.

Take-away points:

 While Aboriginal people have made gains in non-university PSE, a gap between Aboriginal and non-Aboriginal people in PSE attendance and completion remains, primarily in the completion of university degrees.

- Aboriginal people aged 25 to 64 are more than twice as likely as non-Aboriginal people in that age group to leave high school without a diploma. Among those aged 25 to 34, they were more than three times as likely.
- Aboriginal women are more likely than Aboriginal men to complete university (this gender gap is larger than that for non-Aboriginal persons); however, Aboriginal men are more likely than Aboriginal women to complete a trades certificate.
- The educational attainment of Aboriginal people is lowest among those living on-reserve (i.e., at the time of the census), intermediate in rural areas and towns, and highest among those living in cities.

4.3 Subpopulations of Aboriginal Peoples

While the PSE attainment of Aboriginal people is broadly characterized as lagging behind that of non-Aboriginal people in Canada, examination of the subpopulations of Aboriginal people suggests that PSE achievement is uneven among these groups. A review of the PSE attainment of First Nations, Métis, and Inuit people in Canada illuminates the key differences in achievement between Aboriginal and non-Aboriginal people.

In general, census data indicate that Métis people tend to have the highest PSE outcomes and Inuit people the lowest of the three Aboriginal identity groups included in the census (Mendelson, 2008; Statistics Canada 2008). For example, 50 per cent of Métis people, 42 per cent of First Nations people, and 36 per cent of Inuit people between the ages of 25 and 64 had completed any form of PSE in 2006 (Statistics Canada, 2008). More specifically, 9 per cent of Métis people, 7 per cent of First Nations people, and 4 per cent of Inuit people between 25 and 64 years of age had a university degree (Statistics Canada, 2008). When it comes to non-university outcomes, 21 per cent of Métis people and 17 per cent of both Inuit and First Nations people had a college diploma. Similarly, a slightly higher proportion of Métis people (16 per cent) had a trades certificate, compared to both First Nations and Inuit people (13 per cent for both).

Of note, First Nations and Inuit youth appear to hold high educational aspirations. Among First Nations and Inuit youth surveyed in 2005, 88 per cent planned to acquire a postsecondary education (EKOS Research Associates Inc., 2005a). Of this proportion, 50 per cent planned to attend university, 25 per cent planned to attend community college, and 10 per cent planned to do apprenticeship training or attend vocational school (EKOS Research Associates Inc., 2005a), very different proportions from the proportions of those who actually graduate from university, community college, and trade school, according to the census, in each of these subpopulations.

First Nations People and Registered Indians

Of adults aged 25 to 64 who identified as North American Indians or First Nations people in the 2006 census, 42 per cent had a PSE qualification, 38 per cent had not completed high school, and the remaining 20 per cent had a high school diploma as their highest level of educational attainment. Looking at postsecondary qualifications, First Nations people were most likely to have a college diploma (17 per cent) or trades certificate (13 per cent); they were less likely to have obtained a university degree (6 per cent) (Statistics Canada, 2008). The AFN has suggested that, at the current rates of will educational attainment, it take approximately 60 years to close the postsecondary education gap between First Nations people and other Canadians (AFN Education Secretariat, 2006). Chapter 5 of the 2004 *Report of the Auditor General of Canada to the House of Commons* stated that it would take 28 years to close the education gap (in terms of the proportion of the population aged 15 and over with a high school diploma or above) between First Nations people living on reserves and the Canadian population as a whole (Office of the Auditor General of Canada, 2004).

Furthermore, data from the 2006 census indicate that First Nations and Registered Indians living on-reserve have lower rates of educational attainment than those living offreserve. For example, 50 per cent of First Nations people aged 25 to 64 living on-reserve and 30 per cent of those in the same age group living off-reserve had not completed high school. Fifteen per cent of First Nations people on-reserve had a high school diploma, compared to 24 per cent of those living offreserve. These differences continue in postsecondary education, where, for example, 14 per cent of First Nations on-reserve, but 20 per cent of those living off-reserve, have a college diploma. As well, while the proportions for both groups are low, 4 per cent of First Nations on-reserve and, more than double that number, 9 per cent of those living off-reserve have a university degree. These proportions appear to have stayed relatively similar to those found in 2001 census data (INAC, 2008). Only with trades certificates is there parity for the two groups: about 13 per cent of First Nations people on-reserve and 14 per cent of those living off-reserve hold this certification (Statistics Canada, 2008).

Similar trends were observed for those people who reported that they were Registered Indians. One-half (50 per cent) of Registered Indians aged 25 to 64 years living on-reserve and 31 per cent of those in the same age group living off-reserve had not completed high school in 2006 (Statistics Canada, 2008). Fifteen per cent of Registered Indians living on-reserve, but 23 per cent of those living off-reserve, had a high school diploma as their highest level of attainment. As well, a smaller proportion of onreserve Registered Indians had a college diploma (14 per cent) or university degree (4 per cent) than those living off-reserve (19 per cent and 9 per cent, respectively). The proportions have remained stable since 2001. In 2006, about 13 per cent of Registered Indians had a trades certificate, regardless of whether they lived on- or off-reserve (Statistics Canada, 2008). As noted earlier, the on-reserve statistics reflect the population living onreserve at the time of the census. They should not be taken to indicate that persons onreserve are less likely to complete PSE, as it is possible that many PSE graduates move offreserve for employment or do not return after completing their PSE off-reserve.

Vermaeten, Norris, and Buchmeier (2006) analyzed INAC data on First Nations students who are on the nominal roll or in the PSE database. They found that the retention rates of INAC-funded students in Grades 11 and 12 are around 50 per cent, but are improving, more so in First Nations schools on-reserve than in provincial schools. Rates of promotion to the next grade for students also increased between 1981 and 1987.

<u>Métis People</u>

Among Métis people, according to the 2006 census, half (50 per cent) of the population aged 25 to 64 were postsecondary graduates. The rest of the Métis population was split almost evenly between those who had obtained their high school diploma (24 per cent) and those who had not (26 per cent). In 2006, just over one fifth (21 per cent) of Métis people had a college diploma, while 16 per cent had a trades certificate. Nine per cent of Métis people had a university degree in 2006, up from 7 per cent in 2001 (Statistics Canada, 2008).

Examining the 2006 census data and looking at demographic breakdowns within the Métis subgroup, Wilk, White, and Guimond (2009) found that, among the population aged 15 and older (a broader age grouping than the one discussed above), Métis women were more likely than Métis men to have some form of PSE - 67.7 per cent versus 63 per cent respectively (as opposed to being postsecondary graduates). In comparison, there was a negligible gender difference in the non-Aboriginal population, where 77.1 per cent of women and 76.6 per cent of men were PSE graduates. Métis women were more likely than Métis men to earn non-university certificates or diplomas (19.8 per cent versus 13.8 per cent) and more likely to graduate from university (8) per cent versus 5.9 per cent) in 2006. When it comes to trades, the pattern is reversed. Métis men were more likely than Métis women (16.8 per cent versus 9.6 per cent) to receive trade or apprenticeship certification. Similar gender differences were seen in the PSE achievement of the non-Aboriginal population in 2006, other than for university achievement, where similar proportions of non-Aboriginal women and men (18.5 per cent versus 18.7 per cent, respectively) earned a degree (Wilk, White, & Guimond, 2009). Breaking down the 2006 census data by age reveals that the highest proportion with PSE credentials were those in the 35 to 39 age group – 53.3 per cent of Métis individuals in this group had completed some form of PSE. Among non-Aboriginal people, the highest per centage of individuals with any form of PSE is in the 30 to 34 age group, where 69.1 per cent have completed some form of PSE (Wilk, White, & Guimond, 2009). Thus, one conclude that enrolment and/or can completion of PSE occurs at a later age among Métis people than among the non-Aboriginal population.

Wilk, White, and Guimond (2009) report on the variation in Métis people's PSE achievement in the different jurisdictions. For example, more Métis people living in Quebec (46.3 per cent) and in the "Northern Canada Region" made up of Nunavut, Northwest Territories, and Yukon (46.7 per cent) had completed any form of PSE compared to those living in other parts of the country. Those in Manitoba (35.9 per cent) and Saskatchewan (34.7 per cent) had the lowest proportion of PSE achievement. Examining the gaps between Métis and non-Aboriginal PSE achievement, the authors reported that the biggest gap was in the Northern Canada Region (14.4 per cent) and the smallest gaps were in the Atlantic provinces (4.5 per cent) and Quebec (6.6 per cent). Examining the data according to area of residence, the authors looked at Métis populations living in urban census metropolitan areas (CMAs), urban non-CMAs, rural areas, and on reserves. They found that Métis living in more populated areas had the highest level of PSE attainment; that is, 43.3 per cent of Métis in urban areas, 38.4 per cent of those in urban non-CMAs, 36.4 per cent of Métis living in rural areas and 34.3 per cent of Métis living on-reserve had some form of PSE credentials. While the trend was similar for non-Aboriginal respondents, the gap in PSE attainment between Métis and non-Aboriginal people was greatest in urban CMAs.

Inuit People

In 2006, while 51 per cent of Inuit adults aged 25 to 64 had not completed their high school education, 36 per cent had a PSE certificate, diploma, or degree. The highest level of educational attainment for 13 per cent of Inuit people was а high school diploma. Approximately 4 per cent of Inuit people had a university degree in 2006 (double the 2 per cent who held this credential in 2001). As with the other subgroups, a larger proportion of Inuit people held college (17 per cent) or trades (13 per cent) certification (Statistics Canada, 2008).

Penney (2009) reported on education trends among the Inuit population from 1981 to 2001. During that time period, the proportion of Inuit people aged 15 and older (which is broader than the age grouping discussed above) with less than a high school education decreased from 60 per cent to less than 25 per cent. The proportion that had completed high school as its highest level of education increased from 3 per cent to 7 per cent in the same time period. Completion of college and university also increased in the same time span: from 2 per cent to almost 10 per cent and from 1.5 per cent to 3 per cent respectively. However, the non-Inuit population was also making gains at the same time; for example, the proportion of the non-Inuit population with less than a Grade 9 education decreased from 20 per cent to 10 per cent between 1981 and 2001. In terms of geographic indicators, Inuit people in the north have lower attainment levels than those living south of the 60th parallel. Furthermore, while Inuit men and women were equally likely to have less than a Grade 9 education or to have completed high school, males were more likely not to have completed high school but to have completed a trades certificate. Females were more likely to have completed college or university.

Take-away points:

- The education gap between Aboriginal and non-Aboriginal people is found in each of the subgroups, but appears greatest for Inuit people and lowest for Métis people, with First Nations people and Registered Indians in between.
- PSE attainment levels are lower for First Nations people and Registered Indians living on-reserve than for those living off-reserve, and lower for First Nations and Registered Indian men

than for First Nations and Registered Indian women.

- The PSE gap between Aboriginal and non-Aboriginal people persists, even though Aboriginal PSE attainment levels are improving.
- Métis people living in more urban areas have better PSE attainment levels than those in all other areas.
- Inuit people have lower PSE outcomes than do Métis and First Nations peoples, with outcomes being lower for those living north of the 60th parallel than for those living in the south.

4.4 Other Factors Affecting PSE Attainment Levels

Research indicates that other demographic trends in Aboriginal PSE attainment levels should be examined. While the literature in this area is limited, some key papers that will be discussed below focus on the proportion of low-income families in the neighbourhood, the proportion of Aboriginal students in the classroom, the mobility or "churn" of Aboriginal students, the educational attainment of the neighbourhood in which the Aboriginal students resides, and the effect on Aboriginal students of having more than one child in the home.

School completion rates are related to the clustering of low-income families and the proportion of Aboriginal students in classrooms. Aman (2009) and Aman and Ungerleider (2008) examined data from the BC Ministry of Education as well as from the 2001 census. Statistical modeling revealed that when there were higher proportions of low-income families in the neighbourhood, the school completion rates of Aboriginal students diminished (Aman & Ungerleider, 2008). Further, the higher the proportion of Aboriginal students in the classroom, the greater the

completion rates of Aboriginal students (Aman, 2009).

The issue of mobility or "churn" of Aboriginal families is the subject of a number of papers (including Aman, 2009; Aman & Ungerleider, 2008; Beavon, Wingert, & White, 2009; CCL, 2008b). For the purpose of these papers, "churn" refers to the movement of Aboriginal people in and out of cities, between reserves and more urban areas, and within neighbourhoods in cities (Beavon, Wingert & White, 2009). The CCL (2008a) summarized data that indicate that Aboriginal people move more often than non-Aboriginal people; for example, in the year prior to the 2001 census, 22 per cent of Aboriginal, but only 14 per cent of non-Aboriginal, people had moved at least once. The CCL (2008b) also reported data that indicate that the greater the mobility, the lower the secondary school outcomes (in terms of six-year high- school completion rates).

However, the relationship between mobility and secondary school education is more complex. Beavon, Wingert, and White (2009) conducted a multinomial logistic regression on data from Statistics Canada's 2001 Aboriginal specifically looking Peoples Survey, at Aboriginal people not living in First Nations communities or reserves. Results indicated that among 15- to 19-year-olds, frequent moves increased the likelihood of their dropping out of secondary school. Interestingly, however, some movement was associated with the highest probability of attending PSE. The authors surmised that some movement normally is a part of the high-school completion trajectory, but that frequent movement was detrimental. Among 20- to 24year-olds, those who had moved three or more times in the previous five years were most likely to not graduate from secondary school, in comparison to non-movers. Similarly to the younger age group, those who had moved only two or three times in the previous five years were more likely to have attended PSE. Aman and Ungerleider (2008) added to this picture, showing that in BC, a higher proportion of Aboriginal students who completed secondary school had experienced no change of schools during their high school years. Further, they found that when Aboriginal students changed schools, regardless of whether the move was within or between school districts, there was a deleterious effect on their school completion rates.

Research also indicates that the presence of two or more children in the family has a strong positive effect on graduation rates (Spence & White, 2009). Further, in their analysis, these authors found that higher education levels in the community had an effect on increasing the graduation rate and on reducing the withdrawal rate. Related to this finding, the authors also found that level of educational success was affected by the proportion of Aboriginal individuals in the community with a trades certificate or other non-university credential.

Take-away points:

- Living in neighbourhoods with higher proportions of lower-income families can have a detrimental effect on Aboriginal people's educational outcomes.
- Although a moderate level of mobility is positively associated with PSE attendance, excessive mobility or "churn" of Aboriginal students can be detrimental to their educational outcomes.
- Both a larger number of children in the family and a higher educational level in the community are related to improved educational outcomes for Aboriginal people.

4.5 Timing of Transitions

While a number of studies note the delayed transitions of Aboriginal persons from high school to postsecondary education, there are few detailed breakdowns of the data. The BC Ministry of Advanced Education and Labour Market Development (2008) provides the most detail available on such transitions for self-identified Aboriginal students in BC. According to this study, the gap between Aboriginal and non-Aboriginal PSE enrolment is greatest in the year following secondary school graduation and lessens over time, as a greater proportion of Aboriginal students transition to PSE two or more years after secondary school completion. Specifically:

- From 2004-05 to 2005-06, 40 per cent of Aboriginal high school graduates made an immediate transition to a BC public PSE institution in the following school year, compared to 51.3 per cent of non-Aboriginal high school graduates. Looking at high school graduates over a four-year period from 2001-02 to 2004-05, the report noted that an average of 42.4 per cent of Aboriginal high school graduates made an immediate transition, compared to 51.5 per cent of non-Aboriginal high school graduates, an average gap of 9.2 per centage points.¹
- For 2001–02 high school graduates, the gap in PSE enrolment within 4 years of high school graduation was smaller, with 67.7 per cent of Aboriginal high school graduates enrolling compared to 70.2 per cent of non-Aboriginal high school graduates, a gap of only 2.5 per centage points. This smaller gap is due to higher transition rates of Aboriginal high school graduates 2, 3, and 4 years

¹ Calculations by present authors.

after graduation. For example, looking at 2001-02 to 2003-04 graduates, an average of 12.2 per cent of Aboriginal school graduates made high а transition to PSE 2 years after high school graduation, compared to 10.7 per cent of non-Aboriginal graduates, an average gap of 1.4 per centage points in favour of Aboriginal students. For every year from 2 to 4 years after high school graduation, the proportion of Aboriginal high school graduates entering PSE was higher than the proportion of non-Aboriginal high school graduates.

The type of enrolment also differed. Aboriginal high school graduates were more likely to immediately enrol in the BC college system after high school (half of immediate Aboriginal PSE enrolees did so) than non-Aboriginal high school graduates (35 per cent). Conversely, Aboriginal high school graduates were less likely to immediately enrol in university (14 per cent of immediate Aboriginal PSE enrolees) compared to non-Aboriginal high school graduates (35 per cent).

It is important to note that these analyses pertain to high school graduates only, and a smaller proportion of Aboriginal than non-Aboriginal students graduate from high school. Even though the PSE-enrolment gap between the two populations narrows by four years after high school graduation, the narrowing applies only to those who have graduated high school. Further, as mentioned earlier, a smaller proportion of Aboriginal than non-Aboriginal high school graduates meet university entrance requirements.

The delayed transition of Aboriginal students to PSE has also been documented, though in somewhat less detail, at a pan-Canadian level. Hull (2000) presented postsecondary continuation rates² by age and showed that Aboriginal youth (both Registered Indians and those identifying with other Aboriginal subgroups) aged 15 to 24 were much less likely than non-Aboriginal youth to continue with PSE studies. Aboriginal persons aged 25 to 44 were somewhat less likely to continue with PSE than non-Aboriginal persons, while there was virtually no difference among those aged 45 and older. The gap between Aboriginal and non-Aboriginal persons was smaller for females than for males. Similarly, Guimond and Cooke (2008) noted that the proportion of Registered Indians with a high school certificate or higher rises from 50.5 per cent of those aged 20 to 24 to 60.6 per cent of those aged 25 to 29 (an increase of 10.1 per cent, reflecting later transitions), whereas the proportion of other Canadians with the same level of educational qualifications was higher and rose only slightly from 84.4 per cent of those aged 20 to 24 to 85.9 per cent of those aged 25 to 29.

Richards (2008) analyzed the gap between Aboriginal and non-Aboriginal people's education levels by age, and found that the gap between the two populations was highest for those aged 25 to 34, dropped for those aged 35 to 44, and was lowest for those aged 45 and older.

In a rare "cohort analysis," Clement (2008) tracked the progress of various age cohorts over time using census data from 1981 to 2001. Among Registered Indians, the age cohorts of 25 to 29 and 30 to 34 had the highest attainment 20 years later. For other Canadians, the age cohorts under 30 years in 1981 had the

² Postsecondary continuation rate = (population with any postsecondary, attending or not attending school) ÷ (population with any postsecondary, attending or not attending school) + (population with a secondary school certificate, not attending school full-time)

highest level of university completion after 20 years (i.e., in 2001).

Maxim and White (2006) analyzed Statistic Canada's 2000 YITS data. As noted earlier, YITS was a longitudinal telephone survey of 18 to 20 year olds, including 782 youth who selfidentified as Aboriginal. Maxim and White showed that 22 per cent of Aboriginal and 11 per cent of non-Aboriginal persons are high school "leavers" (i.e., dropouts). They also found that there is a large gap in employment outcomes for Aboriginal and non-Aboriginal school leavers, with 75 per cent of Aboriginal leavers and 48 per cent of non-Aboriginal leavers employed within a year. The authors concluded that the higher rates of high school leavers among Aboriginal respondents may be related to "pull" factors that cause Aboriginal students to leave school early, rather than "push" factors related to the school environment. The "pull" factors may have to do with the socioeconomic conditions of Aboriginal leavers, who may be under more pressure to generate employment income for themselves or their families.

The high proportion of high school leavers means that an extra step of academic upgrading is necessary before many Aboriginal persons can apply to PSE. Brigham (2006) noted that about one third of Aboriginal postsecondary students had enrolled in "access," upgrading, preparatory, or transfer programs prior to program admission.

Take-away points:

- Aboriginal persons delay the start of PSE for a variety of reasons, and they tend to complete PSE later in life than non-Aboriginal persons.
- Aboriginal persons are more likely than non-Aboriginal persons to work, care for family, address personal issues, or take academic upgrading between

secondary school completion and PSE enrolment.

• A high proportion of Aboriginal persons require additional supports to enable them to enrol in PSE.

4.6 Labour Market Outcomes and Their Relationship to Education

A number of studies examined the relationship between PSE attainment and employment and earnings outcomes for Aboriginal persons versus non-Aboriginal persons. Some of these studies also explored the complex demographic patterns underlying this relationship. Data supporting these analyses come mainly from the 1996 and 2001 censuses, although other survey data sets are sometimes examined. This section includes a summary of the findings on labour market outcomes for Aboriginal populations, as well as the findings of studies linking education and labour market outcomes.

Tait (1999) reported 1996 census data showing a clear decrease in unemployment levels with an increase in education levels for both Aboriginal and non-Aboriginal young adults (aged 20 to 29) who were not in school. While the trend was the same for both groups, there was a stark difference in unemployment levels for each level of education. The unemployment levels for young adults without a high school diploma were 40 per cent and 20 per cent for Aboriginal and non-Aboriginal young adults respectively. The corresponding figures for those with secondary school completion were 23 per cent and 13 per cent, with college completion they were 20 per cent and 9 per cent, and with university degrees they were 9 per cent and 5 per cent respectively. At every level of education, Aboriginal youth had roughly double the level of unemployment.

Hull (2000) looked further into a number of labour market indicators from the 1996 census and compared Registered Indians, other Aboriginal persons, and non-Aboriginal persons. Generally speaking, Registered Indians had poorer labour market indicators than others who identified as Aboriginal people, and there were consistent gender and location differences. Specifically:

- Labour force participation was lower among Registered Indians (59 per cent) than among others with Aboriginal identities (69 per cent) and non-Aboriginal persons (68 per cent). Males had higher participation rates than females in all three groups. Furthermore, Registered Indians with some PSE had higher participation rates on-reserve than off-reserve (even though unemployment is generally higher on-reserve, as noted in the last point in this list).
- The gap in employment rates was higher than the gap in labour force participation. Employment was lower among Registered Indians (43 per cent) than among others with Aboriginal identities (56 per cent) and non-Aboriginal persons (62 per cent). The employment rates of men were higher than those of women for all three groups, though the gender gap was smallest among Registered Indians.
- Conversely, the unemployment rate was higher among Registered Indians (26 per cent) than among others with Aboriginal identities (19 per cent) and non-Aboriginal persons (9 per cent). Unemployment levels were lower for those with PSE attainment, though the gap between groups was still apparent. Among men with PSE. the unemployment rate was higher among Registered Indians (23 per cent) than among others with Aboriginal identities (15 per cent) and non-Aboriginal persons (6.5 per cent). Among women

with PSE, the unemployment rate was also higher among Registered Indians (16 per cent) than among others with Aboriginal identities (13 per cent) and non-Aboriginal persons (6.5 per cent). Unemployment was generally higher on-reserve than off-reserve, though the gap was less so for Registered Indians.

Hull (2008) presents 2001 census data showing that employment rates are heavily influenced by educational attainment, with employment rates for the Aboriginal population rising with higher levels of education, reaching 80 per cent employment for those with a university education. However, at all but one level of attainment, educational Aboriginal employment rates are lower than those of other Canadians. Encouragingly, among those with university educations, the rates of employment for persons with Aboriginal identities and for other Canadians are equivalent.

Mendelson (2007) also presented 2001 census data. He found that the gender gap in various labour market indicators is smaller for the Aboriginal population than for the non-Aboriginal population ,and that the gap between Aboriginal and non-Aboriginal populations is narrowing somewhat, as follows:

 The labour market participation rate for Aboriginal males was 67 per cent³, compared to 73 per cent for non-Aboriginal males, a gap of 6 per centage points. The participation rate for Aboriginal females was 57 per cent compared to 61 per cent for non-Aboriginal females, a gap of 4 per centage points. Overall, the gap between the Aboriginal population and the non-Aboriginal population decreased by 2 per centage points

³ Numbers rounded by present authors.
(down to 5 per centage points) from the 1996 to the 2001 census.

- The employment rate for Aboriginal males was 53 per cent, compared to 68 per cent for non-Aboriginal males, a gap of 15 per centage points. The employment rate for Aboriginal females was 47 per cent, compared to 56 per cent for non-Aboriginal females, a gap of 9 per centage points. Overall, the gap between the Aboriginal population and the non-Aboriginal population decreased by 3 per centage points (down to 12 per centage points) from the 1996 to the 2001 Census.
- The unemployment rate for Aboriginal males was 21 per cent, compared to 7 per cent for non-Aboriginal males, a gap of 14 per centage points. The unemployment rate for Aboriginal females was 17 per cent, compared to 7 per cent for non-Aboriginal females, a gap of 10 per centage points. Overall, the gap between the Aboriginal population and the non-Aboriginal population decreased by 2 percentage points (down to 12 per centage points) from the 1996 to the 2001 census.
- the Looking within Aboriginal population, labour market participation and employment rates were higher Aboriginal among men, while unemployment was lower among Aboriginal women (the latter was not the case with the non-Aboriginal population, where males and females had a nearly identical unemployment rate).

There were also clear differences among various subgroups of Aboriginal persons. Mendelson (2007) presented data showing that Métis people had the strongest labour market outcomes, while Inuit people had similar or slightly better outcomes than First Nations peoples. Métis people's employment and participation levels were actually similar (within 3 per cent) to those of non-Aboriginal people.

- The Métis population had a 69 per cent labour market participation rate, which was slightly above the non-Aboriginal population's rate of 67 per cent, followed by the Inuit population at 63 per cent and the First Nations population at 57 per cent.
- The non-Aboriginal population had a 62 per cent employment rate, followed closely by the Métis population at 59 per cent, whereas Inuit and First Nations populations had 49 per cent and 45 per cent employment rates respectively.
- Finally, the non-Aboriginal population had a 7 per cent unemployment rate, the Métis population was intermediate at 14 per cent, and both First Nations and Inuit populations had 22 per cent unemployment rates.

Mendelson (2007) also presented an important breakdown by area of residence. The Aboriginal population "on-reserve" had the weakest labour market indicators. The labour market outcomes for "total urban," "off-reserve," and "rural off-reserve" were very similar to each other (within 3 per cent) for the Aboriginal population.

- The labour market participation rate was much lower on-reserve, at 52 per cent, whereas the Aboriginal populations in other areas of residence were between 64 per cent and 65 per cent, nearly the same rate as the non-Aboriginal average (67 per cent).
- Employment rates on-reserve were 38 per cent compared to 52 per cent to 55 per cent in other areas of residence

and 62 per cent in the non-Aboriginal population.

 Unemployment rates were 28 per cent for the Aboriginal population onreserve, compared to 16 per cent to 19 per cent for Aboriginal persons in other areas of residence – still much higher than the rates for non-Aboriginal persons (7 per cent).

Mendelson (2007) further concluded that the labour market outcomes of Aboriginal persons in western Canada appear to be more strongly linked to education than to Aboriginal status. For example, Aboriginal persons with a university degree had higher employment rates (84 per cent) than non-Aboriginals with a university degree (77 per cent), a gap of 7 per centage points. This gap in favour of Aboriginal persons was even higher (11 per centage points) for Aboriginal women with university degrees than for their non-Aboriginal counterparts. It is not known to what extent the larger Métis populations in western Canada contributed to this finding. Mendelson (2006a) contains extensive data on labour market indicators and income, and should be referred to for those wishing additional detail on labour market patterns among Aboriginal persons.

Two studies - Ciceri and Scott (2006) and Walters, White, and Maxim (2004) – used more advanced statistical models to examine the relationship between education and labour market indicators. These analyses have the advantage of assessing the impact of education while controlling for demographic factors. They tend to show that the impact of education was even stronger than expected for Aboriginal persons and that earnings outcomes were very strong for Aboriginal university graduates. They also show that the differences in labour market outcomes between Aboriginal and nonwere *not* due Aboriginal persons to demographic differences between the two groups. While confirming the smaller gender

gap in labour market outcomes among Aboriginal persons, one study cast some doubt on the pattern of differences between Aboriginal subgroups described above. Here are more details from the reports.

- Ciceri and Scott (2006) showed, using logistic regression, that Inuit people were slightly more likely to be employed than Métis people, who were in turn more likely to be employed than First Nations people, after controlling for demographic factors. Other findings include the following:
 - Even statistically controlling Aboriginal status and other known predictors of employment, each higher degree earned increased the likelihood of employment significantly. The magnitude of the impact of education on employment was higher among Aboriginal persons than non-Aboriginal persons. For example, controlling for various predictors of employment, Aboriginal university graduates were five times more likely to be employed than Aboriginal persons without a degree or diploma. The corresponding odds ratio for non-Aboriginal persons was three and a half times.
 - This study also confirmed that gender has a smaller impact on employment among the Aboriginal population than among the non-Aboriginal population, though Aboriginal females were still only 69 per cent as likely as Aboriginal

males to be employed, holding other factors constant.

- Finally, holding the co-variates in the statistical model constant, Aboriginal people as a group were still only 48 per cent as likely to be employed as non-Aboriginal people.
- Walters et al. (2004) conducted an indepth analysis of various levels of education and associated labour market outcomes among Aboriginal Canadians, visible minorities, and other Canadians, controlling for field of study, gender, age, and other demographic characteristics. They used data from the 1995 National Graduates Survey (a two-year follow-up survey of 1995 graduates that was conducted in 1997) that included over 1,100 PSE graduates who identified as Aboriginal people. Findings included the following:
 - Aboriginal respondents were more likely to have completed trades and college and less likely to have completed university than visible minorities or the rest of the population.
 - Visible minorities earn more than Aboriginal respondents and the rest of the population due to their greater likelihood of obtaining higher levels of PSE and their socioeconomic characteristics. However, when controlling for sociodemographic characteristics, the earnings difference disappears. Furthermore, when controlling for field of study and level of PSE attained,

visible minority graduates actually earn less than Aboriginal graduates.

- The level of earnings was largely dependent on level of schooling, in that Aboriginal earnings were generally the as non-Aboriginal same earnings for college and trade school graduates. However, male and female Aboriginal university graduates earned significantly more than non-Aboriginal university graduates. In fact, male Aboriginal persons with a university degree were at the top of the earnings hierarchy. Males also earned more than females in each group, although differences in earnings are small with higher levels of PSE attainment.
- A different picture emerged looking at full-time employment. Employment prospects for male and female Aboriginal respondents were higher for college and trade school graduates than for university graduates. Aboriginal university graduates actually had the worst full-time employment outcomes compared to other university graduates (visible minorities and other Canadians). (This is different from the picture described above by Mendelson [2007], who looked at both fulltime and part-time employment.)

In addition to the complexity of the patterns of overall employment, there are also differences between the Aboriginal and non-Aboriginal populations in type and level of occupations. Kapsalis and Data Probe Economic Consulting Inc. (2006) examined 2001 census data for the extent of and reasons for occupational differences between Aboriginal and non-Aboriginal workers and the impact of these differences on wages. This analysis showed that Aboriginal workers are more likely to be working in lower-skill jobs (skill level D in the National Occupational Classification, or NOC) and less likely to be working in managerial or professional occupations (NOC), and to earn less, across all occupational levels. Kapsalis and Data Probe concluded that: "... educational differences explain most of the occupational differences between Aboriginal and non-Aboriginal workers. This means that closing the education gap between the two groups would eliminate most of the occupational differences. However, almost two-thirds of the wage gap between the two would still persist" (p. 3.) As Kapsalis and Data Probe noted, it does not explain all the differences in occupational levels. This issue was highlighted by Ciceri and Scott (2006), who noted that even when Aboriginal persons have acquired a higher education, they are more likely to be employed in a job that doesn't match their skills (NOC levels A, B, and C) than non-Aboriginals. By contrast, Aboriginal persons with low levels of education (skills required for NOC level D) were more likely than non-Aboriginal persons to have a job that matches their skills.

Take-away points:

- Education is a stronger determinant of employment for Aboriginal persons than for non-Aboriginal persons, though not the only determinant. The level of earnings of Aboriginal PSE graduates is generally the same or better than that of non-Aboriginal PSE graduates.
- There is a clear gradient in employment indicators among Aboriginal subgroups,

with Métis and Inuit people having stronger labour market indicators than First Nations people, depending on whether socio-demographic factors are taken into account.

- The differences in labour market participation rates between Aboriginal and non-Aboriginal populations are generally smaller than the differences in employment and unemployment indicators, suggesting that gaps are more related to employment success than to willingness to participate in the labour market.
- Area of residence is a major determinant of labour market outcomes, with on-reserve outcomes weaker than off-reserve outcomes.
- There is a gender gap in employment and earnings outcomes among Aboriginal persons, though it is smaller than the one among non-Aboriginal persons.

4.7 Gaps in Knowledge

While the amount of research on and analysis of Aboriginal access to PSE, particularly in the past few years, has increased, gaps remain in our knowledge that are relevant to the research questions covered in this paper, including the following:

- a clear and agreed-upon measurement of success in educational outcomes. The data reviewed in this section focus on non-Aboriginal metrics for success. There is a need to integrate Aboriginal indicators of success as well, in order to more accurately reflect Aboriginal people's educational experience and culture in a more appropriate manner.
- a lack of quantitative data (especially prospective, longitudinal data) on the

experiences of Aboriginal persons between secondary school completion and PSE enrolment; that is, focusing on the trends in transition

- a lack of national data on Aboriginal people's PSE attainments and achievements other than data derived from the census. Most papers included in this analysis focused on the census. While this data source has its applications, there are also clear limitations to using a cross-sectional survey with an admittedly incomplete census of First Nations people on reserves.
- a lack of data in the various jurisdictions that are readily available and that can show links between reserves and PSE institutions and between secondary schools and PSE institutions. BC appears to have the most integrated system in this regard.
- a better understanding of the factors underlying consistently higher PSE outcomes, at the university level, for Aboriginal women over Aboriginal men
- Also, greater insight is needed into the differences in PSE outcomes between First Nation populations living on- and off-reserve
- a better understanding of the various pathways that Aboriginal students take between the labour market and PSE, and of the roles of employment and economic circumstances (such as the need to generate employment income) in delaying their enrolment in PSE

4.8 Summary of Key Trends

There is a clear and persistent gap between the PSE attainment levels of Aboriginal and non-Aboriginal people in Canada, although there is progress in some areas. In 2006, 44 per cent of Aboriginal people between 25 and 64 years of age and 61 per cent of non-Aboriginal Canadians in the same age group reported having completed some form of PSE (Statistics Canada, 2008). The 2006 census also showed that 35 per cent of the Aboriginal population age 15 or older had completed a postsecondary certificate, diploma, or degree, compared to 51 per cent of the Canadian non-Aboriginal population age 15 or older (R.A. Malatest & Associates Ltd. & Stonechild, 2008). Furthermore, while the proportion of Aboriginal people with a university degree increased from 6 per cent to 8 per cent between 2001 and 2006, there was also an increase in the non-Aboriginal population from 20 per cent to 23 per cent over that time frame, thereby increasing the gap between the Aboriginal and non-Aboriginal populations (Canadian Council on Learning, 2007b; Statistics Canada, 2008).

The gap is shrinking when it comes to nonuniversity PSE completion, suggesting that Aboriginal students are more likely to attend and complete college or a trades school than they are to attend and complete university. For example, 19 per cent of Aboriginal people and 23 per cent of non-Aboriginal Canadians had a college diploma, and 14 per cent of Aboriginal and 12 per cent of non-Aboriginal people had a trades certificate, according to the 2006 census (Statistics Canada, 2008).

That being said, there are differences in the PSE attainments of the First Nations, Métis, and Inuit subgroups, with the Métis subgroup appearing to have the highest level of PSE attainment and the Inuit subgroup the lowest. As a group, Aboriginal women are more likely than Aboriginal men to complete a university degree, but Aboriginal men are more likely than Aboriginal women to complete a nonuniversity PSE credential such as a trades certificate or college diploma (Statistics Canada, 2008).

Transitions by Aboriginal People from K–12 to Postsecondary Education

Further, area of residence is a factor for Aboriginal people's PSE outcomes, with those living on reserves and farther from urban areas achieving lower outcomes than those living off reserves or in more urban areas (Beavon, Wingert, & White, 2009).

In terms of the timing of transitions between secondary and postsecondary education, the data indicate that Aboriginal students have delayed their transitions relative to non-Aboriginal students. According to the BC Ministry of Advanced Education and Labour Market Development, from 2004-05 to 2005-06, 40 per cent of BC's Aboriginal high school graduates made an immediate transition to a BC public PSE institution in the following school year, compared to 51.3 per cent of the non-Aboriginal province's high school graduates. Looking at high school graduates over a four-year period from 2001-02 to 2004-05, the ministry found that an average of 42.4 per cent of Aboriginal high school students made an immediate transition, compared to 51.5 per cent of non-Aboriginal high school graduates, an average gap of 9.2 per centage

points. However, by four years after high school graduation, the gap is much smaller (2.5 per centage points).

Aboriginal people had lower labour market participation and employment rates and higher unemployment rates than non-Aboriginal people, though the gap narrowed slightly between the 2001 and 2006 censuses. Not surprisingly, increased PSE attainment is associated with improved labour market outcomes for both Aboriginal and non-Aboriginal people. In fact, education is a stronger determinant of employment among Aboriginal persons than among non-Aboriginal persons. Nevertheless, at every level of PSE except university, Aboriginal persons had poorer labour market outcomes than non-Aboriginal persons. At the university level, Aboriginal persons' employment and earnings outcomes were equivalent to or better than non-Aboriginal persons, as of the 2001 census. The gender gap in various labour market indicators is smaller for the Aboriginal than for the non-Aboriginal population.

5. Factors Affecting PSE Enrolment and Success

5.1 Overview

This section begins with a discussion of the different perspectives that Aboriginal and non-Aboriginal people have toward postsecondary education. The key challenges to Aboriginal people's access to PSE are presented and briefly described. Supports and approaches to improve Aboriginal access to PSE are also outlined. As well, the critical issue of funding is analyzed in some depth. Finally, gaps in available knowledge are discussed, and the section ends with a summary of key points.

5.2 A Matter of Perspective

While the focus of this report is increasing Aboriginal persons' access to PSE, in order to facilitate partnerships with Aboriginal organizations, it is important to understand differing perspectives. A number of articles reviewed for this report described the historical background and differing perspectives of Aboriginal and non-Aboriginal persons regarding education.

Mainstream governments and institutions tend to approach access to PSE for Aboriginal persons in terms of fulfilling the needs of the labour market and in terms of equality of access to PSE Most Aboriginal researchers and leaders also perceive education as a tool to promote equality, and a necessity in fulfilling labour market needs, both inside and outside their communities. They do so, however, within the context of the assimilationist and colonizing policies previously in effect - through the negative history of residential schools, for example. They may view education in terms of "decolonizing" Aboriginal persons, affirming Aboriginal identity, promoting traditional ways, and taking control over their own education. Aboriginal persons may also have a more expansive view of education as lifelong learning, nation/community building, healing, language revitalization, etc. As one key informant remarked, "Aboriginal intelligentsia is growing," and this was seen as a clear sign of progress. Another key informant commented on the frustration felt by Aboriginal students that their views was are not represented in the mainstream approach to education.

Jenkins (2007) reviewed barriers facing indigenous PSE institutions in Canada and the United States, and notes that "... Indigenous post-secondary institutions engender the decolonizing of Indigenous minds while providing the community with programs that directly counter colonial structures and graduates trained to fill key roles in Indigenous communities striving toward selfdetermination" (p. 11). These issues are raised in poetic form by Graveline (2002, p. 11-19):

> I offer these words in this alternative form to be a spark to fuel your desires for change to transform us and our lives together...

We will continue to Resist Acculturation Assimilation Extinction in whatever forms including written ones...

Exemplary Indigenous education requires us to activate all people to take up the challenge of personal change sociocultural revitalization in any and all contexts... How can we expect White bureaucracies to be invested in challenging Eurocentric hegemony? in revitalizing Tradition? Governance issues continue to arise. Is Indigenous self-government possible Within university contexts?

5.3 Challenges

A large number of barriers and challenges have been identified that impede Aboriginal people's access to PSE. At least 40 studies and reports have identified one or more barriers through research, experience, or a review of existing studies. Much of this information is recent, with 24 of these items published in 2006 or later.

These challenges are presented below as "major challenges" versus "other challenges," depending upon whether authors identified them as major challenges and how often they were identified in the literature. Before reviewing individual challenges, it is useful to discuss the nature of the challenges faced and whether they are unique to Aboriginal persons.

More information on and overviews of challenges to PSE enrolment and completion by Aboriginal persons are available in several articles, including those by the ACCC (2005); Bear Spirit Consulting (2007); Brigham (2006); Farrington, DiGregorio, and Page (1999) – an Australian study; and R.A. Malatest & Associates Ltd. and Stonechild (2008) – with respect to First Nations only.

Nature of Challenges

In reviewing the available literature on challenges to PSE access by Aboriginal peoples, it became clear that the challenges could be categorized in various ways. One way that appears relevant for the present purpose is the extent to which certain challenges are specific to Aboriginal persons. Some challenges listed in this section are faced by Aboriginal persons and by other Canadians or subgroups of other Canadians, such as rural and low-income Canadians and visible minorities. These include parental education and engagement, personal issues or addictions, life skills, housing, attitudes toward and expectations of PSE, racism, etc.

- Some challenges faced by Aboriginal persons are similar to those faced by other groups of Canadians, but they are faced to a greater degree by Aboriginal persons because of the demographic and geographical characteristics of Aboriginal populations in Canada. These include financial barriers, and the need to care for family members or children. It is important to recognize that Aboriginal persons are more likely to face these challenges than other Canadians because of the greater proportion of the Aboriginal population living in rural and remote locations, having lower income, etc. Furthermore, there may be a layering effect, whereby the higher prevalence of various challenges compound each other's effects. For instance, greater distance to PSE institutions means greater costs; a greater proportion of Aboriginal students with children also raises costs. Thus, special approaches will be required that recognize the greater extent of these barriers among Aboriginal persons. It is not sufficient to assume that existing programs will be able to address barriers and, in any event, there is a pattern of lower access to some existing programs (such as student loans) for Aboriginal students..
- A number of important challenges are fairly specific to Aboriginal persons in Canada, and specific approaches or

supports are required to address them. These include the related challenges of the historical legacy of residential schools. assimilationist education policies, the systematic underfunding of on-reserve schools, public school systems that may not include cultures and languages, Aboriginal control Aboriginal lack of over education, and limitations on PSE institutions. Aboriginal Other specific challenges are the issues of cultural safety and the racism that may be faced by Aboriginal students when attending mainstream PSE institutions. Yet others include the lack of inclusion of traditional Aboriginal learning styles and languages in mainstream institutions, the quality of academic preparation available in First Nations and other rural/remote schools, and how band control of funding influences individual Aboriginal persons' access to PSE.

Another way to examine the challenges is to look at the level at which they apply. Some challenges apply at a population level, others at a community level, and still others at an individual/family level. For the most part, challenges intrinsic to individuals, such as personal motivation, self-discipline, and selfesteem, are not emphasized in this section unless they are shown to be relevant to the relative success of Aboriginal populations (see Sloane-Seale, Nunoda, & Carriere, A., 2003, for a discussion of dispositional factors versus systemic factors).

Each challenge is explored further below. While challenges are presented individually, it is important to recognize the overlap between them and how they compound each other for a multiplicative effect on individuals.

Major Challenges

The two major challenges most frequently mentioned include finances/funding for individuals to access PSE and lack of academic preparation/low high school graduation rates.

> Financial issues, including the costs of PSE and the availability of adequate funding for PSE, were frequently mentioned as challenges in at least 16 articles reviewed. They were mentioned as a major or critical challenge by ACCC (2005), Bear Spirit Consulting (2007), Brigham (2006), CCL (2007b), Waslander (2007), and Katenies Research and Management Services and Chigneto Consulting Group (Katenies & Chigneto) (2006). One study found that it was not the most frequently mentioned challenge for First Nations people currently enrolled in PSE or planning to enrol in PSE, but compounded other challenges such as child care, distance of PSE institutions from remote First Nations communities, etc. (R.A. Malatest & Associates Ltd. & Stonechild, 2008). The same study noted that lack of funding was a major challenge for those returning to PSE, due in part to restrictions in funding for returning First Nations students. The lack of funding for adults requiring academic upgrading, such as literacy training, high-school completion, etc., is also an issue. There was concern about the availability of funding for sufficient numbers of students in particular jurisdictions, variability of local band administration of funding, inequities of funding between subgroups of Aboriginal persons (especially with regard to limited funding for Métis people), the extra cost of transportation from remote

communities, the need to care for members, etc. Inadequate family funding can also cause stress in other areas, such as housing and child care. First Nations youth living on-reserve also have limited awareness of the financial options available to them, or they may be less motivated to seek out financial supports due to a variety of reasons (R.A. Malatest & Associates Ltd. & Stonechild, 2008). Bear Spirit Consulting (2007) also noted the lack of knowledge among Aboriginal people in Manitoba of the financial resources available to students. Furthermore, it is likely that some supports, such as universal tax credits and skills development funding linked to eligibility for employment insurance (EI) benefits, may be less accessible to Aboriginal persons planning to enrol in PSE due to their lower income or lower employment levels, depending on the population and level of education.

Aboriginal people's much lower high graduation rates and/or school inadequate academic preparation for PSE were mentioned by at least 17 articles, including being described as a major or critical challenge by Brigham (2006) and R.A. Malatest & Associates Ltd. and Stonechild (2008). Section 4 of this report outlines the gap in high school graduation rates between Aboriginal and non-Aboriginal students and also the lower rates of Aboriginal students meeting university entrance requirements. Many students realize that their grade level does not equal their skill level, and students who "start out behind" quickly lose confidence in their ability to succeed (Bear Spirit Consulting, 2007). Inadequate high school preparation is directly related to a lack of study skills, fulfillment of program requirements, and math and science knowledge (Hardes, 2006, quoted in Preston, 2008). Location of the secondary school may also play a role: Hull (2009) found (in a study of a single First Nations reserve) much higher rates of PSE completion among students attending high schools in a nearby town or other location than among those attending the high school on-reserve.

Lower high school graduation rates and/or inadequate academic preparation for PSE in turn lead to higher enrolment rates of Aboriginal persons in continuing and developmental programs (BC Ministry of Advanced Education and Labour Market Development, 2008). One key informant was particularly worried about this issue, mentioning that PSE institutions would adapt – eventually – to fill the needs of Aboriginal students, as PSE is a business. However, in this informant's view, K-12 education was not a business, and therefore was slow to change. The informant commented, "We have an aging society and we are not taking care of all our children. I have an issue with that."

Other major challenges mentioned in the literature include overall funding of education for Aboriginal persons (not just for PSE, but along the entire continuum, starting with K–12), distance of PSE institutions/dislocation from community, the need of Aboriginal students to care for children and/or family members, cultural safety, role models, control over education, and the negative history of assimilationist education policies, including residential schools, as follows:

 There is a per student gap in overall federal funding of education for Aboriginal persons at early childhood, elementary, and secondary school levels. There is also inadequate funding from all sources for independent and affiliated Aboriginal PSE institutions. Key informants also cited these challenges and, by way of support, provided numerous literature sources that describe the extent and nature of the funding gaps.

- The distance from remote and rural Aboriginal communities to PSE institutions is an issue, due to the extra costs involved and the stress of dislocation from community and family. This challenge is related to the higher proportion of Aboriginal persons enrolling in colleges or institutions closer to their home community rather than in more distant PSE institutions. It can also be related to Aboriginal students' feelings of loneliness and isolation while attending distant PSE institutions. Distance learning, while one potential solution, was seen to present a number of challenges to Aboriginal learning styles, as noted by Bear Spirit Consulting (2007).
- The need to care for children and/or family members often occupies Aboriginal people's time in the period between their high-school completion and their later enrolment in PSE. This challenge is related to the issue of lack of affordable child care. Family responsibilities were the main reasons for not completing PSE, according to the Aboriginal Peoples Survey conducted in 2001 (ACCC, 2007). In contrast, Hull (2009) found that Aboriginal women with dependants had higher completion rates than those without dependants, although the reverse was found with men (again,

this was a study of *one* First Nations reserve).

- Cultural safety issues, such as a lack of cultural sensitivity or outright racism experienced by Aboriginal students at mainstream PSE institutions, can compound the stress and isolation resulting from the students' removal from their communities. One particular informant discussed kev how debilitating the racism at PSE institutions could be for Aboriginal students who had begun their PSE with feelings of inferiority. Métis students also cited concerns related to their Aboriginal identity sometimes being challenged by other Aboriginal persons (Bear Spirit Consulting, 2007).
- A lack of Aboriginal role models with PSE credentials within Aboriginal communities and a lack of counsellors to advocate for PSE were seen as challenges.
- The negative history of assimilationist education policies, including residential schools, is a challenge that causes Aboriginal people to distrust mainstream education systems.
- A related challenge is Aboriginal people's lack of control over their own education, including barriers to both independent and affiliated Aboriginal PSE institutions when degree-granting and accreditation control and PSE funding remain under the control of other levels of government and mainstream PSE institutions.

Other Challenges

A variety of other challenges are described in the literature, as follows:

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- the language, learning styles, communication modes, and cultural patterns of many PSE institutions, which differ greatly from the traditional teaching approaches of Aboriginal people (Preston, 2008)
- arranging and paying for safe and suitable housing, which is related to the cost of PSE, especially for those caring for children and/or other family members
- poverty in Aboriginal communities and the need for Aboriginal people to find employment to support themselves and their families
- a lack of information about PSE options among students and/or parents
- low socioeconomic status of Aboriginal parents, which is associated with poorer educational outcomes
- concern over the availability of jobs in rural and remote Aboriginal communities that match the PSE desired or attained (i.e., lack of return on the educational investment)
- personal issues, such as addictions
- lack of life skills, self-esteem, or selfconfidence
- language issues, such as students' limited ability in the non-Aboriginal language of instruction or limited resources for the community to develop the resources necessary to educate Aboriginal students in their own languages
- lack of Aboriginal teachers/instructors or qualified teacher/instructors generally

 lack of Aboriginal content or perspectives in postsecondary curricula

Note: None of the papers reviewed explored the relationship between the high rates of disability in the Aboriginal population and access to PSE.

Attitudes and Expectations

Among the factors sometimes mentioned as challenges, but for which there is contradictory evidence, are the attitudes about and expectations for PSE. Some studies have shown that expectations for attending PSE are the same among Aboriginal and non-Aboriginal persons (EKOS Research Associates Inc., 2005b). Some Aboriginal students express pride in being the first person in their family to complete PSE. Conversely, some complain of "lateral oppression," or being seen to be "too good for your reserve" (Bear Spirit Consulting, 2007), though this complaint is not mentioned as frequently in the literature.

Take-away points:

- Lack of individual student funding for PSE and overall lack of funding and limited finances are major barriers to Aboriginal persons' access to PSE.
- Low graduation rates, poor academic preparation, and an inability to meet requirements for university the admission are major barriers to PSE and enrolment success among Aboriginal persons, and likely the reasons a high proportion of Aboriginal students are enrolled in preparatory or developmental courses. Related to these challenges is the inadequate level of funding for elementary and secondary schools in First Nations communities and all Aboriginal postsecondary institutions.

- A number of other barriers are faced to a greater extent by Aboriginal than by non-Aboriginal persons, such as the need to care for family members and children and greater distance/dislocation from home communities due to the greater proportion of Aboriginal persons living in rural and remote locations and thus farther away from PSE institutions.
- A number of other barriers are specific to Aboriginal persons, such as the historical legacy of residential schools, assimilationist education policies, lack of control over education, and barriers to Aboriginal PSE institutions. Another challenge is the issue of cultural safety and the racism that Aboriginal people may face when attending mainstream PSE institutions. Other challenges include the absence, in postsecondary curricula and institutions, of traditional Aboriginal learning styles and languages (though some institutions are working on this), the quality of academic preparation available in First Nations and other rural/remote schools, and how band control of funding may influence individual access to PSE.

5.4 Successful Approaches

The literature does not focus as much, on the whole, on supports and structures that could assist Aboriginal people in transitioning from K–12 to PSE, as it does on barriers to this transition. Further, many supports and structures appear to be discussed in terms of a desired mechanism or a best-practices model that could be introduced in the future, rather than on existing mechanisms. That being said, few of these supports and structures are well evaluated; instead, the literature tends to include testimonials and anecdotal evidence

about efficacy. All of this taken together highlights the difficulty involved in assessing which supports and structures are "best" and should be more fully described. Furthermore, there is no consistent terminology regarding various bridging, access, and other transition programs and the populations of students they serve. In developing this report, the entire list of papers that outlined supports and structures in any form were reviewed and the supports and structures that were discussed most often were selected for greater focus (Alcorn & Levin, n.d.; 1998; Anaquod, AFN Education Secretariat, 2007; Association of Universities and Colleges of Canada [AUCC], 2006; Barnhardt, 1991; Bear Spirit Consulting, 2007; CCL, 2008b; CCL 2009; Coates, 2000; Cooke-Dallin, Rosborough, & Underwood, 2000; Corrigan & Robertson, 2004; Farrington et al., 1999; House of Commons Standing Committee on Aboriginal Affairs & Northern Development, 2007; Hull, 2009; Ignace, R., Ignace, M.B., Layton, Sharma, & Yerbury, 1996; ITK, 2008; Jones, Shanahan, Padure, Lamoureux, & Gregor, 2008.; Katenies & Chigneto, 2006; Levin & Alcorn, 1999; National Council of Welfare, 2007; Preston, 2008; R.A. Malatest & Associates Ltd., 2004b; R.A. Malatest & Associates Ltd. & Stonechild, 2008; Sloane-Seal et al., 2003; Spence & White, 2009; Taylor, Friedel, & Edge, 2009; Wright, 1998). These supports and structures include access or transition programs; Aboriginal control over curriculum development and delivery as exemplified by the indigenous institutes of higher learning; and support programs that provide funding and counselling, child care, help in coping with workloads, mentoring programs, job searching, and so on, either within the K–12 system or at PSE institutions.

A number of transition programs across the country exist to bridge the gap for Aboriginal students in particular, as they come out of secondary school and enrol in PSE (mentioned by Alberta Advanced Education, 2006; Alcorn &

Levin, 1998; AUCC, 2006; Human Capital Strategies, 2005; Ignace et al., 1996; Levin & Alcorn, 1999; among others). While the exact nature of the programs varies in terms of curriculum, delivery, duration, and funding, among other aspects, the programs appear to have been created primarily in response to the gap in PSE attainment levels that has existed between Aboriginal and non-Aboriginal people for decades. In Manitoba, for example, the province's ACCESS programs are based on the premise that addressing social, financial, and academic barriers to PSE will create a situation where disadvantaged students will enrol in and complete PSE at the same rate as nondisadvantaged students (Alcorn & Levin, 1998). By recognizing that students are not homogeneous and require varying levels and types of supports, these programs give potential students who would have been "failures" previously labelled a greater opportunity to succeed. Alcorn and Levin (1998) make the point that, in order for these programs to be accepted by PSE institutions, myths around "success" at PSE institutions have had to be challenged. That is, PSE institutions had previously considered the number of their students who failed to attend or complete PSE as indicators of the institutions' rigorous standards for scholarship. With the ACCESS programs, this idea has had to be reconfigured, requiring institutions to accept that enabling more students to complete PSE does not in and of itself lower academic standards (Alcorn & Levin, 1998).

The principles of the ACCESS programs in Manitoba include active recruitment of students who might otherwise remove themselves from the PSE process; selection of prospective program candidates who need the services of the program in order to succeed; understanding that these students require integrated supports; provision of financial support (this has decreased markedly in the last 10 years); academic support and improvement; and personal supports (Alcorn & Levin, 1998). While there have been few formal evaluations of these ACCESS programs, Alcorn and Levin (1998) cite several authors who conducted studies into the programs' efficacy. According to Alcorn and Levin (1998), each of these authors found the ACCESS programs to be efficient and useful in assisting Aboriginal students transition into PSE. There are very few statistics attached to transition programs in the literature, with most referring to anecdotal evidence of efficacy. A number of key informants discussed their experiences with these programs, with a few mentioning that they simply would not have been able to complete their postsecondary education without them.

The ACCESS program model is being implemented across the country in other jurisdictions. While these programs do not lead to a credential in and of themselves and there is limited information on their effectiveness, they must be considered as part of the umbrella of programs that are offer support to Aboriginal people.

Aboriginal control over curriculum development and delivery is discussed by many authors as a clearly positive support for Aboriginal students moving into PSE. More Aboriginal faculty and staff, more involvement by Elders, program delivery within Aboriginal communities, and teaching models that are more in keeping with Aboriginal beliefs all work together to create a more welcoming atmosphere for Aboriginal students. Removing the barrier of an alien environment appears to provide emotional and psychological support that translates into a higher likelihood of PSE completion. For example, one key informant spoke of the 91 per cent graduation rate and the 90 per cent employment rate seen at an indigenous institute in recent years. Many papers reported qualitative evidence of the importance of more Aboriginal control over PSE, where students described their sense of empowerment in achieving their degree or diploma in a culturally relevant setting. A number of key informants referred to the positive developments that they saw first-hand in students who were able to receive PSE instruction in an Aboriginal-controlled environment.

This being said, key informants in particular mentioned that incorporating Aboriginal control over curriculum development and delivery in mainstream institutions was often challenging. In some instances, non-Aboriginal faculty were challenged to understand the type of instruction that was taking place and how it could be equivalent to their type of instruction. There are issues around how Elders should be credentialed, and even whether they need to be credentialed in a mainstream sense. There were reflections among authors as well on how non-Aboriginal students reacted to Aboriginalcontrolled courses and the challenges related to racism and ignorance that were faced by both Aboriginal and non-Aboriginal students in the classroom. Aboriginal control over curriculum development and delivery in PSE settings is not simple, and it is an evolving process.

Indigenous institutes of higher learning (IIHLs) might represent the very best of Aboriginal control over curriculum development and delivery at the PSE level. IIHLs are PSE institutions that have been initiated, and are governed and managed, by Aboriginal people, with culturally sensitive curricula and environments supportive for Aboriginal students. Many of these institutes have programs to help students bridge the gap between secondary and postsecondary education, and thev offer certificates, diplomas, and degree programs that must all (other than the First Nations University of Canada [FNUC]) be offered in partnership with mainstream institutions (Barnhardt, 1991;

Katenies & Chigneto, 2006). IIHLs were created within the context of growing Aboriginal "concerns about maintaining Indigenous knowledge, cultures and traditions within education" (Katenies & Chigneto, 2006, p.17).

As an example of Aboriginal programming, one key informant described the "intensive mode style" of programming that they used. In this style of teaching, classroom time was concentrated between 9 a.m. and 5 p.m. in a one-week block, after which students were expected to remain out of the classroom, completing reading assignments, work placements, and papers over a four- to fiveweek period. During this out-of-classroom time, students required academic and social support. This instructional style was created to be "adult-friendly," as it allows students the opportunity to remain in their home communities while attending PSE. Further, the program's delivery style has allowed the institute to deliver programs across the province as well as internationally.

In a survey of 13 IIHLs, respondents from these institutes commented on the uniqueness of the organizations, the supports the IIHLs provide for students, the proportion of Aboriginal staff, and the management's inclusive approach, as well as the resource and capacity issues encountered by IIHLs. A key issue for IIHLs is that they are not able to offer university credentials to their students unless done through partnerships with accredited mainstream universities, creating а paternalistic relationship between mainstream and Aboriginal institutions.

There appears to be a consistent need across IIHLs for increased recognition from the federal government and for multi-year and/or guaranteed funding at an appropriate level for success to be maintained. FNUC is the only IIHL to currently have a multi-year funding agreement under INAC's Indian Studies Support Program (ISSP); yet ISSP provides only 29 per cent of FNUC's overall budget (Katenies & Chigneto, 2006). One key informant mentioned that the IIHLs are a viable alternative to the "tobacco economy" and the high unemployment that can plague First Nations communities, and given that in at least one instance an institute generates an annual cash flow of \$6 million, the federal government should see these institutes as economic powerhouses and support them more fully.

While authors and key informants highlight the positive elements of IIHLs, there are few quantitative or evaluative studies on the enrolment and completion rates of Aboriginal students at these institutes. As one key informant explained, there is much more to the "success" of an IIHL than just numbers. Numbers tell only part of the story and describe only part of the story and describe only part of the educational experience. That being said, at least one of the institutes reviewed has a well-developed system of indicators, including a record of every potential student who applies, every student who is accepted, and where they are in the educational process.

In one example, Katenies and Chigneto (2006) reference data from the Aboriginal Institutes' Consortium (2005), which refer to a 92 per cent increase in enrolment over five years" and an 80 per cent to 90 per cent success rate, and mention that these data are consistent with results found for other IIHLs in North America. While this is encouraging, the data, and documentation of the data, are limited, and it is not clear what success represents.

The literature includes several mentions of support programs that provide funding and counselling, child care, help coping with workloads, mentoring programs, and job search and other supports. These programs appear to take many forms, may be delivered through communities, K–12 schools, or PSE institutions, and may be administered by peers,

mentors, elders, counsellors, or ad hoc, by admissions officers, among others.

At the earliest educational levels, a unique program that is considered a best practice is Aboriginal Head Start On-Reserve (AUCC, 2006; Corrigan & Robertson, 2004; National Council of Welfare, 2007). This program has been designed to prepare young First Nations children (between 3 and 5 years of age) for their K–12 schooling and beyond by nurturing their emotional, social, health, nutritional, and psychological needs. The initiative encourages the development, in First Nations communities, of community-based and -controlled projects that provide parenting skills, improve family relationships, and help both children and their parents develop emotionally and socially and become more confident. Research has found that, on the whole, children who attend this program are close to 40 per cent less likely to repeat a grade in subsequent years (National Council of Welfare, 2007).

When support programs for children 5 years of age and older are administered through K–12 schools, they involve large components of career counselling, planning for PSE admissions, increasing awareness around PSE options, and funding strategies. Often elders are involved and, in a best practices context, the student's parents are also involved (Jones et al., 2008; R.A. Malatest & Associates, 2004a).

Take-away points:

- ACCESS programs are one example of programming that assists Aboriginal people in transitioning from K–12 to PSE.
- IIHLs are PSE alternatives that are culturally appropriate and Aboriginalfocused. However, they face a number of challenges, such as inadequate funding and lack of independence.

 Other types of programs, such as Aboriginal Head Start On-Reserve, can assist Aboriginal people in their earliest educational years. These programs focus on academic readiness for younger children and parenting skills for their parents.

5.5 Funding Issues

A consistent theme that emerged from the literature is the need for funding. Adequate funding is key to implementing supports for and removing barriers to the transition of Aboriginal people from K-12 to postsecondary education, as well as to many of the policy options that will be presented later in this report. Given the obvious impact of funding issues — not only for PSE, but also for elementary and secondary schooling, for First Nations people on reserves, for Aboriginal individuals, and for specific programs, institutions. and federal and provincial jurisdictions - this issue is discussed in this section.

Before discussing the issues around funding for PSE, it is important to address funding issues related to education on-reserve for First Nations people. While 43.1per cent of First Nations people lived on-reserve as of the 2006 census, not all attended schools off-reserve. Education is a continuum; thus, issues that develop as a result of underfunding K-12 schools can also play a role in the academic preparation of First Nations students for their transition to PSE (R.A. Malatest & Associates, 2004a; Mendelson, 2008). While INAC funding applies to First Nations students whether they attend band-operated schools on-reserve or provincial schools off-reserve, research has consistently shown that First Nations K-12 schools on reserves are underfunded and under-resourced, and that the quality of education they offer is often lower than it should be to enable the students to be fully prepared for PSE (Bear Spirit Consulting, 2007;

R.A. Malatest & Associates, 2008). There is a persistent perception among First Nations people themselves that when they graduate from a K–12 school on-reserve, they are two years behind non-Aboriginal students who have graduated from provincial schools (EKOS Research Associates Inc., 2005b).

While INAC aims for a principle of "comparability" in funding band-operated K-12 schools, whereby the First Nations schools would receive comparable funding from INAC to that for provincially run K-12 schools, this principle has never been put into action. Furthermore, INAC does not know definitively how close it is to achieving this principle because no data are collected that compare provincial K-12 funding levels to those for onreserve K-12 schools. INAC has also not taken into consideration for the remoteness of some First Nations communities in its K-12 funding structure. As well, many provinces have increased their budgets beyond the 2 per cent cap that INAC has imposed on its education spending for some time now, with the result that INAC's funding levels are unlikely to be the same as the provinces' unless it is by chance (Mendelson, 2008). According to the AFN Education Secretariat (2006), in 2004-05, there was a funding gap of close to \$2,000 per student between First Nations students living on-reserve and attending First Nations schools and those living on-reserve and attending provincial schools. Furthermore, funding per student increased at a faster rate for provincial schools (34 per cent) than for First Nations schools (8 per cent) between 1996 and 2005, increasing the gap in student funding for First Nations students enrolled in First Nations schools relative to those in provincial schools, from 5 per cent to 30 per cent. Key informants spoke of having consultations with INAC officials, pointing out the disparity, and asking for additional funds, only to realize that there was little political will to enforce the principle of comparability.

In addition, there is no accountability mechanism for First Nations schools, that is, other than occasional inspections by INAC officials. There is no equivalent to school boards, or to provincial education systems, that can enforce standards or examine the quality of the building structures, materials, teaching credentials, and other items and issues (Bear Spirit Consulting, 2007). Key informants mentioned the "crumbling structures" within which First Nations K-12 students are forced to learn, the lack of teachers with credentials for the schools, and the lack of resources that forces schools to offer some courses and not others (for example, advanced science could not be offered in one community because, while there was a lab, there were no supplies in the lab). Key informants and researchers also mentioned the need for an overarching mechanism that could insert a level of accountability that would increase education standards on reserves to those maintained in provincial schools (Mendelson, 2008; Taylor & Steinhauer, 2008).

For Aboriginal individuals with PSE aspirations, lack of funding is one of their greatest barriers. While this is not a surprise to most PSE students and aspiring PSE students, whether Aboriginal or non-Aboriginal, there is a layering effect that occurs for Aboriginal students. They not only need money to attend PSE, they are often not certain of where to obtain this money and have not planned to obtain it beyond applying to the band. In fact, a few authors have found that while band funding is often seen by potential students as an opportunity, the process of securing that funding is often seen as complicated to the point of being a deterrent to applying (R.A. Malatest & Associates & Stonechild, 2008).

There are also clear barriers to Aboriginal people being able to save the money required for PSE. In fact, in terms of saving for PSE, 29 per cent of youth and 59 per cent of adults in a

2005 survey of First Nations people living onreserve said that it was not at all realistic to expect that people with a low income, making under \$35,000 a year per household, could save for a child's PSE. By comparison, 50 per cent of parents in the general population felt that this was not realistic. As well, while 58 per cent of First Nations respondents felt that the government had the greatest responsibility for paying for PSE, 44 per cent of youth and 46 per cent of adults would be willing to take out a government student loan if the government programs to assist First Nations youth with their PSE were not adequate. Concerns related to successful completion of PSE and later employment were seen as deterrents to taking out a student loan (EKOS Research Associates Inc., 2005b).

This issue of PSE funding has further complexities that should be considered, including the following: the issue of Aboriginal students requiring more money than other students to go from their PSE institutions back to their rural or remote reserves for visits or between terms; and the issue of Aboriginal students moving their entire families, often including dependants, to the school location, thus requiring greater funding than do non Aboriginal students for items such as child care and transportation (EKOS Research Associates Inc., 2005a, 2005b; R.A. Malatest & Associates, 2004a).

Funding issues also play a role in the success of access and other transition programs that are delivered on-reserve, in communities offreserve, and in institutions, among other locations. These programs are often touted as important bridges for Aboriginal students who would not otherwise be able to attend PSE. As outlined previously, however, a lack of or inadequate funding curtails the range and level of services these programs are able to offer.

Numerous analyses have been conducted entirely on the issue of funding for Aboriginal

IIHLs (Aboriginal Institutes' Consortium, 2005; Alberta Advanced Education, 2006; AUCC, 2006; among others). The theory behind Aboriginal-controlled institutions is that they develop and offer programs based on the principle that PSE is a treaty right for Aboriginal people and should be Aboriginal-controlled. The programs combine technical and academic skills and knowledge with Aboriginal values, traditions, history, and ways of knowing, in areas such as business and community development; Aboriginal, First Nations, and Native studies; natural resources and the environment; and early-childhood education and child care. Under the current funding regime, most of the IIHLs, which are not funded by provincial/territorial operating grants, have to partner with mainstream institutions so that students can receive legislatively their approved PSE credentials. The institutes want recognition from provincial governments or a more effective articulation process between the two institutional "streams." As one key informant said, "Our institutes are really expressions of self-determination." As such, the IIHLs see the need to partner with mainstream institutions as constituting an expression of lack of respect from the federal and provincial governments.

Direct funding for the IIHLs comes from four main sources: operating grants/base funding; tuition; provincial/territorial government programs; and First Nations bands. The funding challenges include insufficient program funds funding or student provided by provincial/territorial Aboriginal program funding or by INAC's ISSP and Post-Secondary Student Support Program (PSSSP) (see below for more on these programs). Furthermore, IIHLs have limited sources of funding to access because they, aside from Nicola Valley Institute of Technology in British Columbia, do not funding from receive base provincial governments. As well, project-based funding has limitations for long-term and sustainable approaches to programming and planning.

Funding available from Human Resources and Skills Development Canada (HRSDC) through the Aboriginal Human Resources Development Strategy (AHRDS) and funding received by the provinces and territories under labour-marketdevelopment agreements have limitations. Much of the funding for individuals is tied to eligibility for EI benefits, which is limited in rural and remote areas with high unemployment. Many Aboriginal learners need to spend long periods for upgrading, obtaining adult basic education, acquiring literacy or essential skills, or acquiring high-schoolequivalent credentials that may fall outside of the program's eligibility criteria.

INAC funds the education of status Indians and Inuit students through one primary umbrella program, Post-Secondary Education its Program (PSE Program). This program provides a portion of First Nations and Inuit students with access to education at the PSE level under the guiding philosophy that the investment will lead to greater PSE participation rates, highschool completion rates, and, ultimately, higher employment rates for First Nations and Inuit people. The program is made up of three subprograms: the ISSP and PSSSP referred to above and the University and College Entrance Preparation (UCEP) Program. The PSSSP and the UCEP fund students directly, while the ISSP funds institutions that develop and deliver PSE programs specifically designed for First Nations and Inuit students (House of Commons Standing Committee on Aboriginal Affairs and Northern Development, 2007; R.A. Malatest & Associates, 2005).

As mentioned by some key informants, it is important to remember the perspective of First Nations toward education funding. This funding is seen as part of the umbrella of rights negotiated with the federal government years ago — it is a right, not a privilege nor a gift. The House of Commons Standing Committee on Aboriginal Affairs and Northern Development (2007), in its report No Higher Priority, raised the issue that, while the federal government sees funding for elementary and secondary education for First Nations as included in the Indian Act and the responsibility of the federal government, First Nations do not agree that the funding is limited to those education levels alone. Their view that the federal government is responsible for First Nations education, up to and including PSE, affects First Nations' views toward funding from INAC, funding through band councils, and the taking out of student loans. In fact, research on First Nations youth and their attitudes toward funding, while often not uncovering the foundational view of PSE as a right, does highlight the students' reluctance to take on student loans. In EKOS Research Associates Inc.'s 2005 research, it was found that, among First Nations youth on reserves across the country, one of the main barriers for not going on to PSE was the need to wait for band funding and the corresponding reluctance to take on a student loan. An analysis of survey data regarding student-loan access found that 21.6 per cent of Aboriginal students accessed government student loans, compared to 32.6 per cent of all students, although Aboriginal students' access to grants/bursaries was higher (Junor & Usher, 2004). In terms of specific barriers to attending PSE, in the same research, 53 per cent cited inadequate funding as the most prevalent barrier, more so than three other barriers tested (the other three barriers were not being academically prepared, not feeling welcomed on campus, and no jobs in community).

The PSSSP and the UCEP account for 92 per cent of the PSE Program's funding. They provide support in the categories of tuition (including fees for registration, tuition, and the cost of course books and materials); travel support for students who leave their home communities, to allow them and any dependents to return home once every semester; and living expenses for full-time students (including the costs of food, shelter, transportation, and child-care services) (INAC, 2008).

PSSSP funding is delivered to INAC's regional which have a procedure for offices, determining how much of their core program funding will be allocated to PSE. The regions also have funding agreements with First Nations that specify the amount and timing of payments for these programs. The money is then received by the First Nations communities, who distribute it according to their own procedures. Due to the limited funds available for PSE allocated to communities by regional INAC offices and to other PSE related pressures on funds at the local level, only a portion of eligible students receive funding.

PSSSP funds are provided for a portion of First Nations and Inuit students who live in Canada, have been accepted by an eligible PSE institution (one that grants PSE certification recognized by the province or territory) or into a university or college program, and enrol and then maintain a satisfactory academic standing in the program. Métis students have no access to this funding per se and must use the same channels as non-Aboriginal students to fund their PSE. Under the program's terms and conditions, only Inuit students who are outside of Northwest Territories or Nunavut are eligible for this funding. In 2006, Inuit students constituted almost 1 per cent of those funded; according to key informants, this proportion has remained consistent to date.

The PSSSP and UCEP funding envelope increased by about 6 per cent between 2002-03 and 2006-07. During this period, tuition costs increased by 21 per cent, and Canada's consumer price index increased by 12 per cent. As a point of comparison, Canada Student Loans funding increased by 19 per cent over the same period (Indian and Northern Affairs, 2008). Clearly, the funding available through the PSSSP and the UCEP dropped in real terms. The actual number of students being supported decreased from 23,744 to 22,278 over the same period, a 6-per cent decrease (INAC, 2008).

Furthermore, funding varies across jurisdictions, with Ontario and British Columbia supporting the highest number of Aboriginal students and Yukon and Northwest Territories supporting the lowest number, per capita. From 2005 to 2006, the number of Aboriginal students supported in each jurisdiction decreased, except in Atlantic Canada.

While the funding available through the PSSSP and the UCEP may be increasing, tuition costs are also rising, and the number of First Nations and Inuit students who are of postsecondary age (20 to 24 years of age) is increasing (from 49,285 in 2006, the number is projected to grow to 62,640 in 2010) (INAC, 2008). AFN (Waslander, 2007) reported that 10,589 students were denied funding between 2001 and 2006. This number was estimated to increase by another 2,858 students in 2007 (INAC, 2008; Waslander, 2007). Furthermore, previous reviews of the PSE Program have determined that students were deferring their education because of a lack of funding. As well, the funding levels of the PSE Program have been found to be below that of the Canada Student Loans Program (INAC, 2008).

Another major challenge to the funding levels in the PSSSP and the UCEP is the time restriction for funding periods. For example, UCEP funding is available to each student for one year, which is not enough time to cover prerequisite courses or transition programs as well as the courses required for a degree or diploma (INAC, 2008).

Consideration of the 2004 Report of the Auditor General of Canada to the House of Commons (Office of the Auditor General of Canada, 2004) likewise reveals areas of concern for PSE for Aboriginal learners. The report indicates that INAC itself struggles with effective administration of PSE programs, noting "ambiguity in the Department's roles and responsibilities, potential inequities in how funds are allocated, a lack of clearly defined expected results, limited program and performance information, and discrepancies in the information provided to the Treasury Board" (section 5.65). The report goes on to reveal that the department does not appear to fully make use of the information it receives from First Nations to monitor program implementation: "...it does not compare program spending with the number of students assisted to assess whether the two correspond. Nor does it use the information on students and study programs to obtain assurance that only eligible students taking eligible courses are receiving funding... the Department does not collect information on how much financial assistance individual students are receiving and how many eligible students are not being funded" (section 5.78.) These revelations imply that INAC is unaware, for example, of the number of students who are eligible, yet unfunded. In conclusion, of these and other concerns highlighted by the OGR, it was determined that INAC's planning for future years of funding is deficient (House of Commons Standing Committee on Aboriginal Affairs and Northern Development, 2007).

Additional challenges presented by the PSSSP and the UCEP are as follows: there is a 2 per cent cap on spending increases for the entire PSSSP; the funding provided to students is not reflective of the actual costs of their education and the costs for their dependants, who often accompany them; living costs are not adequately covered by the PSSSP and the UCEP; and "Bill C-31 Indians" (those people who gained Indian status when the *Indian Act* was modified in 1985) (R.A. Malatest & Associates, 2004a) have little relationship with their bands and so are less likely to obtain funding through them. Furthermore, students who drop out of PSE programs may have more difficulty subsequently securing funding from band councils, and some students charge that band funds are allocated according to nepotism rather than merit (Bear Spirit Consulting, 2007; EKOS Research Associates Inc., 2005b; R.A. Malatest & Associates, 2004a).

The ISSP component of INAC's PSE budget is used to fund institutions and educational organizations. INAC creates an annual ISSP funding envelope, which is up to a maximum of 12 per cent of its total PSE budget. ISSP funding can be accessed by PSE institutions, IIHLs (that have a relationship with a mainstream university that allows them to accredit programs through that institution), Indian education organizations (these can be a band council, a tribal council, a district chiefs' council, or an education authority incorporated/established by these councils and recognized by INAC), and FNUC. Interestingly, while expenditures of the PSE program increased 6 per cent between 2002-03 and 2006-07, the ISSP only increased 1.5 per cent in the same period (AFN, 2008; INAC, 2008).

One challenge presented by the ISSP is that, given that it is optional, most INAC regional offices allocate less than the 12 per cent maximum to the ISSP in order to maximize the number of students who can be funded from the PSE budget overall. In fact, INAC (2008) reported that the average funding allocated through the ISSP did not exceed 6 per cent of the total PSE expenditure in the several previous years.

There is a perception about the lack of accountability within the ISSP and the PSSSP of the program recipients, perhaps due to a perceived lack of standardized reporting, that should be acknowledged as problematic and addressed. The Audit of the Post-Secondary Education Program of INAC (Indian and Northern Affairs Canada, 2009) provides clarity to this issue by outlining how funds are transferred to First Nations through various block-funding financial instruments. This audit explains how First Nations are required to submit extensive reporting forms provided by INAC, in addition to audited annual statements. Otherwise, they are not eligible to receive additional funds in the following year.

Other challenges include the following: PSE institutions in the territories are not eligible for funding because provincial agreements are in place that compete against agreements in the territories; and mainstream universities can access ISSP funding for programs that fit under their mandates, thus removing more funding from underfunded IIHLs.

Take-away points:

- Funding is an issue at every level of education for Aboriginal people, particularly First Nations (and, to some extent, Inuit) people, who see funding for PSE as a treaty right.
- First Nations individuals face a number of funding barriers that may include issues related to their relationships with their band councils and communities, the arbitrary nature of PSE funding in individual First Nations communities, time and program limits attached to the funding, and funding amounts that are not sufficient to cover PSE costs realistically.
- Access and other bridging programs face funding challenges across the country, even while they are seen as successful in meeting their mandates.
- Funding problems with INAC's PSE programs have been well documented, even at the federal standing-committee level, yet changes are slow to be made.

5.6 Gaps in Knowledge

There has been a large number of articles and papers on the challenges and supports for Aboriginal access to postsecondary education. The main gaps in the available knowledge about the factors affecting PSE enrolment and success include the following:

- Information is missing on the relative importance of the various barriers to PSE enrolment and success, and whether there are differences in the importance of various barriers to the various subgroups of Aboriginal people in Canada. A large number of barriers are described in the literature, but only a limited number of studies have examined which of the barriers are most important.
- The biggest gap identified so far related to Aboriginal people's access to PSE is the lack of information about which approaches and supports are most effective in increasing enrolment in and completion of PSE. New initiatives should be tied to research and evaluation strategies that incorporate Aboriginal and mainstream definitions of success.

5.7 Summary of Key Findings

This section reviewed the importance of including the Aboriginal perspective in PSE programming. In short, if Aboriginal perspectives (those of First Nations, Métis, and Inuit people) were included in an appropriate and a substantive manner, they would help Aboriginal students feel comfortable in PSE settings and help non-Aboriginal students develop an increased awareness of the Aboriginal population and its members' views.

Among the challenges to attending and completing PSE for Aboriginal people are the

major ones of funding to attend PSE and PSE academic preparedness programs. Other major challenges include overall funding of education for Aboriginal persons (not just for PSE, but for the entire continuum, starting with K–12), distance/dislocation from community, the needs of Aboriginal students who have to care for children and/or family members, cultural safety, role models, control over education, and the negative history of assimilationist education policies, including residential schools.

In terms of successful approaches, while there are fewer of these mentioned in the literature than barriers, the main supports/structures appear to be transition programs, including access and other transition programs; IIHLs; and programming that assists Aboriginal people in their earliest educational years, such as Aboriginal Head Start On-Reserve, which focus on academic readiness for younger children and parenting skills for their parents.

Funding is an issue at every level of education for Aboriginal people, particularly for First Nations (and, to some extent, Inuit) people, who view it as a treaty right. Aboriginal individuals who need funding assistance face a number of barriers that may include issues related to their relationships with their band councils and communities, the arbitrary nature of PSE funding in individual First Nations communities, time and program limits attached to the funding, and funding amounts that not enough to cover PSE costs in a realistic manner. Access and other bridging programs face funding challenges across the country, even while they are seen as successful in meeting their mandates. Funding problems with INAC's PSE programs have been well documented, even at the federal standing committee level, yet changes are slow to be made.

The literature review does not fill all the gaps in our knowledge of the factors affecting Aboriginal peoples' enrolment and success in

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PSE. For example, information is missing on the relative importance of the various barriers to PSE enrolment and success, and whether there are differences in the importance of various barriers to the various subgroups of Aboriginal people in Canada. A large number of barriers are described in the literature, but only a limited number of studies have examined which of the barriers are most important.

The biggest gap identified so far is related to Aboriginal peoples' access to PSE is the lack of information about which approaches and supports are most effective in increasing enrolment in and completion of PSE. New initiatives should be tied to research and evaluation strategies that incorporate Aboriginal and mainstream definitions of success.



6. Implications for Policy and Practice

6.1 Overview

The discussion of challenges set out in section 5 indicates that Aboriginal people face a broad range of barriers and issues related to their enrolment and success in postsecondary education:

- some of which are identical for Aboriginal and non-Aboriginal people;
- some of which are similar in nature for Aboriginal and non-Aboriginal people, but greater in severity or incidence for Aboriginal people; and
- some of which are unique to Aboriginal people.

Even those challenges unique to Aboriginal persons may vary greatly for subgroups, such as First Nations (on- and off-reserve), Métis, and Inuit people.

The task facing policy makers is to define an appropriate mix of broad-based and targeted policy measures to respond to these different challenges.

This section opens with a discussion of a key element of this issue: determining a balance of policies that seek to adapt the overall PSE system versus further developing an Aboriginalled parallel system. Next, it examines means to make the PSE system (the supply side) more responsive to the needs and circumstances of Aboriginal learners. This is followed by a discussion of funding issues, with regard to both PSE providers and PSE learners. Next, the section turns to policy implications and measures related to learners (the demand side).It discusses the clear need for better academic preparation of Aboriginal learners in the elementary and secondary education systems, and then examines policies and strategies related to providing Aboriginal learners with multi-faceted social supports to promote their engagement and retention in PSE learning. It concludes with a summary of key insights.

6.2 Balancing Perspectives

A fundamental issue for policy makers is to define the respective roles of the conventional PSE system and the emerging Aboriginal-led PSE system. The policy balance between these two approaches in turn will determine the nature and mix of strategies with regard to both PSE providers (supply side) and Aboriginal learners (demand side).

The primary approach to date has been to promote Aboriginal participation in the conventional PSE system through strategies designed to:

- make conventional PSE institutions more responsive to Aboriginal learners' culture and circumstances, with regard to both curriculum and institutional climate;
- facilitate access to those institutions through academic bridging programs and financial and other supports; and
- provide various supports to individuals to better prepare them to adapt to and succeed in conventional PSE milieus.

An emerging approach, strongly supported by many in the Aboriginal subgroups, involves delivering PSE to Aboriginal people through their own institutions or at least through their own component of a conventional institution. This approach is driven both by its alignment with broader Aboriginal goals of selfdetermination and decolonization and by its capacity to more fully respond to the distinctive realities and expectations of Aboriginal learners. As well, the newer approach has the potential to better serve learners living in areas remote from mainstream educational institutions, and to make a significant contribution to the economic and social development of those remote communities. Also, indigenous institutions often recruit and educate students who would not normally be accepted into mainstream PSE institutions. At present, only a relatively small number of such including Arctic College in institutions, Nunavut, and Yukon College in Yukon, have a significant degree of independence from mainstream PSE institutions. The remaining Aboriginal institutions must partner with conventional institutions, and they operate in a less secure and stable funding environment.

The literature suggests varying policy perspectives on the roles and relationships over time of these two approaches. At one end of the policy continuum, priority is placed on conventional PSE institutions as the appropriate destination for all learners. A softer version of this view sees the Aboriginal institutions playing a useful supporting or feeder role to the conventional institutions until the latter can more fully meet the needs of Aboriginal learners and the outcomes of the elementary and secondary Aboriginal education systems can be improved. Further along the continuum of policy opinion are those seeing conventional PSE institutions as a short- to medium-term option en route to a developed, autonomous Aboriginalfully controlled PSE system. At the far end of the continuum are those who reject conventional PSE as assimilationist, Eurocentric, and based on definitions of success and outcomes that do not reflect Aboriginal aspirations and priorities.

Underlying these different perspectives are different paradigms about PSE. Jenkins (2007) notes the strong Canadian belief that education is a public responsibility and should be provided in a way that provides equal, highquality results, resulting in a relatively small number of similar institutions with little variance in their standards of entry – yielding equality of outcomes, but inequality of access. Further, there is a deeply held belief that these institutions have a responsibility to adapt as necessary to fully respond to the diversity of Canadian society. Jenkins (2007) contrasts this to the American pluralist model, which values individual choice and sees competition as the way to meet diverse needs and promote quality and access -- resulting in a "vast, multilevel system of degree-granting independent institutions" (p.13). As one element of this philosophy, the US has a long tradition of institutions. minority-serving As such. Aboriginal institutions in the form of tribal colleges are an accepted component of PSE in the US, while in the Canadian context, a parallel system of Aboriginal institutions would not be consistent with the paradigm of a standardized PSE system serving all comers.

In reflecting on the potential role of each approach, it is also useful to consider whether the end goal is training or education. Where learners are obtaining a credential related to labour market requirements involving clearly defined occupational standards, the scope for alternative or customized approaches may be more limited. This would be true whether the program is delivered by a conventional community college or an Aboriginal institution. It would appear that this reality has some acceptance, as the data indicate that Aboriginal people have a higher level of trade credentials than non-Aboriginal people and are approaching non-Aboriginal levels of college credentials. It is in the area of university education, where Aboriginal people are significantly underrepresented, that more debate exists regarding alternative approaches to learning goals, content, and delivery.

Provincial decision makers must take the division of jurisdictional responsibilities into

account when accrediting institutions. As the provinces are responsible for PSE, they play the lead role in taking measures to make conventional PSE institutions more responsive to all learners. They are also responsible for the accreditation of PSE institutions. However, as the system of Aboriginal-controlled education continues to evolve beyond on-reserve elementary and secondary education into the realm of PSE, the lead responsibility for core funding of such institutions is held to lie with the federal government. This situation constrains the provinces' capacity to accredit Aboriginal institutions, as such a measure would open a complex and sensitive range of interjurisdictional issues with implications beyond the field of education.

A further consideration for provinces is the need to maintain and enhance the quality and viability of their overall PSE systems. It is important for PSE institutions to adapt their offerings and their environment to meet the needs of the rapidly growing learner group for this level of education. Such measures are of value not only to Aboriginal learners, but also to other PSE students, creating a richer and more diverse learning climate for all, and building in non-Aboriginal people an awareness and understanding of Aboriginal culture and beliefs. These approaches are further discussed in section 6.3.

As well, provinces play an important, though not primary, role in the provision of financial support to Aboriginal learners. As discussed in section 5.5, financial support was identified as the single most important barrier to Aboriginal participation in PSE. Policy implications related to funding are discussed in section 6.4 below.

The quality of academic preparation for PSE is the second major barrier identified in the literature. Responsibility for this area is split, with provinces responsible for off-reserve education and the federal government and bands sharing responsibility for on-reserve education. Policy implications related to academic preparation are discussed in section 6.5.

The provinces also play important roles in funding and delivering many of the social services and supports that facilitate access to PSE for learners and help them overcome barriers. Policy implications and directions related to social supports are discussed in section 6.6.

6.3 Enhancing the Responsiveness of the PSE System to the Needs of Aboriginal Learners

The literature identifies a range of measures that PSE institutions can take to better serve Aboriginal learners.

- Curricula could be expanded to include courses entirely focused on Aboriginal content, or those combining Aboriginal and mainstream content. Examples of the latter include the following:
 - The Integrative Science 0 Bachelor of Science program at Cape Breton University (CBU) brings together Aboriginal and Eurocentric ways of knowing and understanding science. The program has made dramatic increases in the recruitment and retention of Aboriginal learners into the field of science, and contributes to CBU's achievement of having the largest enrolment of Mi'kmaq learners in eastern Canada.
 - The Master of Education program in Leadership in Learning at the University of Prince Edward Island has just graduated its first cohort of 21 Inuit educational leaders from Nunavut. Designed in

partnership with the Nunavut Department of Education, the Arctic College, and St. Francis Xavier University, this is the first graduate degree program offered in Nunavut.

To be effective, these initiatives must go beyond attempts to "bead and feather" the curriculum, as summarized by one researcher (Jenkins, 2007, p. 14). As in the examples cited above, these programs should be designed and implemented in a spirit of respect for Aboriginal culture and in with partnership Aboriginal communities create culturally to appropriate academic and professional programming that meets the learning employment needs of the and community, while at the same time preparing Aboriginal students for broader labour market success.

- More broadly, mainstream institutions could integrate into their programming an Aboriginal-led component, which, at a minimum, would have advisory and advocacy roles and may have decisionmaking and implementation roles as well. Examples of this approach include the First Nations House of Learning at the University of British Columbia and the Mi'kmaq College Institute at Cape Breton University.
- Going one step further, mainstream institutions could expand and diversify their affiliations and partnerships with Aboriginal-led educational organizations and institutions. Provinces could support these partnerships by providing more stable long-term funding for Aboriginal institutions to support public policy priorities related to education and

economic and community development.

- Individual institutions could also be encouraged to take action to increase the representation of Aboriginal people in their faculty, administration, and governance structures.
- Institutions could also place strong emphasis on measures that ensure their Aboriginal learners feel, at a minimum, a sense of cultural safety and freedom from racism, and, ideally, feel welcome, respected, and valued. Some PSE institutions are pursuing this goal by creating centres for Aboriginal learners. While these centres can have value in providing Aboriginal students with a "place to go to" and in creating venues for the efficient provision of targeted services and supports, they also run the risk of becoming "oases" of cultural safety in otherwise mainstream environments and of isolating Aboriginal learners. To avoid these negative aspects, institutional measures could also include efforts to build a welcoming and accepting environment for Aboriginal students throughout all aspects of the campus community.

It cannot be emphasized too strongly that these initiatives should be designed and implemented in partnership with Aboriginal organizations, communities, and learners if they are to have maximum benefit.

6.4 Financial Supports

As discussed earlier in this report, Aboriginal learners face a daunting range of financial challenges. Their costs to access PSE are often higher than those of non-Aboriginal learners. Factors in these costs include the high proportion of Aboriginal learners who must relocate from their communities to access PSE programs, and the much higher proportion of Aboriginal than non-Aboriginal learners with family responsibilities. Aboriginal students' personal resources to meet these costs are lower than those of non-Aboriginal students, given Aboriginal people's lower incomes, lower level of accumulated household and family wealth and savings, and poorer labour market outcomes.

Aboriginal students' capacity to gain access to financial support is constrained on several fronts. Their ability to obtain student loans may be affected by lack of assets, past credit history, or unfamiliarity with or distrust of the student loan system and/or the administrative complexities of the application process. Their ability to gain support for skills development and training may be constrained by the requirement to be eligible for EI benefits (though some Aboriginal Human Resources Development Agreement funding is available to those who are not EI-eligible and is not tied to status or residency requirements). Their capacity to access financial support specific to Aboriginal people may be limited by their Aboriginal status, their residency on-versus offreserve, and the financial priorities and allocation processes of their band's leadership. Moreover, as described in section 5.5 of this report, the federal funding available to Aboriginal PSE learners dropped in real terms between 2002 and 2007, despite strong growth in the learner pool (driven in part by a growing Aboriginal youth population) and the rising costs of tuition.

A final factor is that the individual return on investment in PSE learning is more uncertain and variable for Aboriginal than for non-Aboriginal learners. As described in section 4.6 of this report, employment outcomes improve with improved educational attainment among both Aboriginal and non-Aboriginal learners. However, Aboriginal employment outcomes continue to lag behind non-Aboriginal outcomes at all levels of educational attainment, except among those with university credentials. This lag has an impact on both the direct "payback" on a PSE credential for Aboriginal learners, and on the relevance to their situation of existing tax credits and tax expenditure approaches.

Taken together, these factors call out for additional investment in financial supports for Aboriginal PSE learners. Enhanced financial supports for Aboriginal students must be provided, in recognition of these students' higher costs to access PSE, their lower resources, and their more uncertain return on their learning investment.

At the federal level, the overall funding envelope for PSE students in eligible Aboriginal categories could be increased to reflect the rising costs of participation and the growing size of the learner cohort. As well, individual funding levels and maximums could be increased to reflect real costs. Measures could also be taken to increase band accountability for funding distribution, to ensure that funds designated for PSE learners are not reallocated to other purposes, and that they are deployed in a transparent and equitable way. As well, the federal government could examine its student loan program, tax credits for PSE participation, and employment-linked skills training supports, to ensure that they are more responsive to the distinct characteristics of Aboriginal learners.

At the provincial level, student loan programs could also be reviewed to ensure that they meet the needs of Aboriginal learners and that they are accessible and user-friendly. Such supports are particularly important for Aboriginal learners falling outside federal support categories, including non-Registered Indian and Métis learners. As well, employment programming could be designed to assist more Aboriginal learners to become eligible for federal skills training supports. Some student assistance is delivered through social assistance programs, and the content and delivery of those could be reviewed to ensure that Aboriginal learners are treated in an equitable and respectful way. PSE institutions can also be encouraged to increase their emphasis on scholarships and bursaries for Aboriginal learners.

Across all of those categories, measures to support Aboriginal PSE participation and success must be made more public and accessible to the First Nations, Métis, and Inuit people they are designed to serve. Such measures would address the lack of awareness that Aboriginal people often cite as a barrier.

6.5 Academic Preparation

As discussed in sections 4.2, 4.5, and 5.3 of this report, many Aboriginal learners are constrained in their ability to access PSE by low levels of academic preparation at the elementary and secondary levels. This means that many Aboriginal learners must invest substantial time and resources in developmental and preparatory programs following their public schooling. The current quality of academic preparation many Aboriginal people receive adds to the cost of their PSE, delays their ability to achieve improved labour market outcomes, and may affect their self-esteem, confidence, and attitude toward learning. It also increases the public investment required to help these learners complete their PSE. The evidence suggests that these concerns are generally most severe with regard to on-reserve schooling, which may feature a significantly lower investment per student than provincially delivered off-reserve schooling.

A clear need exists for increased investment in and public policy commitment to improved educational experiences and outcomes for Aboriginal children and youth.

- The evidence suggests significant benefits would result from investments in early childhood development. An increased emphasis in this area would also facilitate efforts to engage parents in their children's education from a very young age onward.
- A comprehensive pan-Canadian effort, facilitated by CMEC and with jurisdictional flexibility regarding implementation, is needed to improve high-school graduation rates and academic preparation for Aboriginal students coming out of the K–12 system. While specific components can be tailored to First Nations, Métis, and Inuit communities within specific geographic regions, they all need to have some linkage to standards and expectations that are consistent across Canada.
- Given that many Aboriginal families lack a tradition of PSE participation, a range of measures are needed to encourage and facilitate progression to PSE. While the evidence suggests that aspirations are already high, attainment is falling far short of hopes. Proven measures include mentoring by role models, orientation to and familiarization with PSE settings, and career counselling. For maximum effectiveness, these measures should begin in the early intermediate years when decisions about PSE are taking shape, should involve families and communities, and should feature continuity and a multifaceted approach.
- Emphasis could be placed on ensuring that teacher training curricula and approaches build an awareness of Aboriginal issues and the particular challenges faced by Aboriginal students. As well, efforts could be strengthened to recruit and retain Aboriginal people in teacher training programs.
- Greater funding and promotion of continuing and developmental programs is

needed to address the large numbers of Aboriginal adults who need academic upgrading in order to successfully enrol in PSE; many of whom lack the financial resources for such upgrading.

6.6 Social Supports and Services

As noted at the beginning of this section, Aboriginal learners often face a more complex range of barriers and challenges than non-Aboriginal learners, including the following:

- A greater proportion live in rural and remote areas and must relocate to access PSE programs. Relocation not only increases the cost of their PSE participation, but also creates challenges involving dislocation, loneliness, and isolation, which affect retention and completion.
- Aboriginal learners are also more likely to have family responsibilities, with regard to both children and extended family. These responsibilities often cause them to delay entry to PSE, and increases the demands, costs, and burdens of responsibilities during their studies.
- Aboriginal people experience a greater incidence and severity of many health and social conditions, which again both increases the costs for and places greater demands on learners. In part, these conditions are due to the legacy of residential schools and other historical policy approaches now recognized as negative and inappropriate.

Taken together, these factors mean that many Aboriginal learners require a higher level of broad-based supports (e.g., housing, child care, health services) than non-Aboriginal learners. As well, some require targeted services designed to respond to challenges unique to Aboriginal learners.

These supports, where they have been implemented, play a key role in ensuring a higher rate of Aboriginal PSE participation and success. The literature suggests that such supports are particularly effective when delivered in a holistic and individualized way by Aboriginal organizations and agencies. As such, expanded investment in such supports, and expanded partnerships with Aboriginal delivery organizations, would complement the other measures described above and promote Aboriginal transitions to and retention in PSE.

6.7 Summary of Key Implications

- Postsecondary institutions are making progress in responding to the needs and circumstances of Aboriginal learners. Emphasis should be placed on achieving further progress, including measures to:
 - create culturally appropriate academic and professional courses and programs, in partnership with Aboriginal communities, that meet Aboriginal learning and employment needs;
 - increase Aboriginal representation in the teaching and decisionmaking structures of postsecondary institutions;
 - expand partnerships with Aboriginal organizations and learning institutions; and
 - create an institutional climate where Aboriginal learners and learning are welcomed, respected, and valued.
- Enhanced financial supports for Aboriginal students must be provided, in recognition of these students' higher

costs for accessing PSE, their lower resources, and their more uncertain return on their learning investment, including action to:

- expand federal, provincial, and territorial investment in Aboriginal PSE learners and learning;
- increase accountability for utilization of funds designated for Aboriginal PSE learning; and
- review federal and provincial student loan programs and other mainstream education funding measures with a view to increasing their relevance and responsiveness to and accessibility for Aboriginal learners.
- Action to improve the quality of academic preparation is essential, including measures to:
 - expand access to high-quality early childhood development programs emphasizing family involvement in learning;
 - establish a pan-Canadian effort, facilitated by CMEC and with jurisdictional flexibility regarding implementation, to improve academic preparation and increase high-school completion rates for Aboriginal students;
 - establish or expand multi-faceted supports for children, youth, and their families to encourage and facilitate progression to PSE;
 - ensure that teacher training curricula foster an understanding of Aboriginal culture and issues; and
 - provide greater funding and promotion of continuing and

developmental programs for the large number of Aboriginal adults who need academic upgrading.

- Finally, Aboriginal learners often face a more complex range of barriers and challenges than non-Aboriginal learners. Consequently, they require a greater range and level of supports if they are to enter and remain in PSE programs, including measures to:
 - address the higher level and incidence of housing and child care needs of Aboriginal learners;
 - promote the health and well-being of Aboriginal learners; and
 - assist Aboriginal learners to deal with personal challenges unique to Aboriginal people and linked to their historical legacy and circumstances.

The literature indicates that such supports are most effective when delivered in a personcentred and holistic way, and that Aboriginal organizations and agencies are often highly effective in achieving this.

In conclusion, the data indicate that progress is being made on many fronts with regard to Aboriginal PSE participation and completion. Many examples of successful approaches exist across Canada that could be adapted more broadly. While the specific features may vary, the core characteristics remain constant: respect for Aboriginal learners, recognition of and responsiveness to Aboriginal needs and circumstances, inclusion of Aboriginal content, and involvement of Aboriginal people in decision making and implementation. Taken together, these principles hold promise to achieve a brighter future for Canada's Aboriginal population.

7. Implications for Data and Research

7.1 Overview

At this point we do not have all the information needed to properly develop policy and programs to increase Aboriginal access to postsecondary education. As one key informant said, "You can't measure, you can't manage. If you can't manage, what kind of result can you expect?" The appropriate data for relevant policy development need to be gathered. The question is, what are "relevant" data? Related questions are, what are the correct questions to be answered by the data gathering and who will raise these questions?

While these large issues are still not clear, outlined below are some approaches that could be taken in the data gathering and research related to the transitions of Aboriginal people to PSE.

7.2 Education Indicators

- Milestones should be set for Aboriginal educational achievement across the educational spectrum. including measures for achievement in early childhood "ready to learn, early literacy, and elementary and secondary school programs, in student engagement, and so on. The milestones should be quantitative in nature, so that it will be clear whether or not they are met. These milestones should be created collaboratively by Aboriginal communities, governments, and both mainstream and indigenous educational institutions. They will require compromises among the various agencies.
- Enrolment and completion of PSE among the Aboriginal cohort needs to be tracked in an ongoing manner. This

tracking must cover a rich level of detail that includes an analysis of different levels of PSE, different regions (urban, rural, remote) and different sub-groups (First Nations, Métis, and Inuit people) in sufficient numbers to allow for conclusions. The establishment of unique identifiers that allow for the tracking of students across different systems is necessary. While it might be difficult to determine the exact nature of what should be tracked, some work in this area is being done already and can be built upon. If data are not collected, there is no way to measure progress or success.

 It would also be helpful to track pathways from secondary to postsecondary education, including labour market experiences. Further, it would be helpful to track the aspirations, expectations, attitudes, and beliefs about education held by Aboriginal youth. More of this kind of tracking is needed so that education policy makers can respond directly to what learners need.

7.3 Research and Evaluation

- There is a lack of evaluative data on programs and services supporting Aboriginal transitions from K–12 to PSE. Without quantitative evidence on the efficacy or shortcomings of programming, it is difficult to make improvements that might be needed, or to assess that a program is a best practice.
- There is a need for a "system-wide data infrastructure that allows for detailed longitudinal tracking in a K-20 perspective and across the educational

jurisdictions in Canada" (Jones et al., 2008).

- The categorization of barriers for PSE students the barriers that affect both Aboriginal and non-Aboriginal students, but are greater in severity for Aboriginal students, and those that affect Aboriginal students alone should be used to underpin future research in this area. This will allow for the separation of the effects of the barriers in a more structured manner.
- Additional quantitative research on the factors affecting and barriers to PSE for Aboriginal people is also needed; for example, geographical access to PSE programs, income, health, family structures, social determinants. This work would complement the qualitative research in the area.
- Concern was expressed about the removal of the "less than grade 9" indicator from the census questionnaire, which may make it more difficult to determine the extent of academic upgrading required.

7.4 Data and Research Dissemination

- Data that are collected need to be released in a timely manner and to a wide audience.
- Data and research must be widely disseminated through a culture of sharing and communication. The silo mentality within which research and data collection are often conducted needs to be reviewed and modified. Further, significant resources have to be directed toward this endeavour.

7.5 Summary of Key Implications

The key implications for data and research are as follows:

- Milestones should be set for Aboriginal educational achievement across the educational spectrum, including measures for early childhood "ready to learn," early literacy, and elementary and secondary school programs, in student engagement, and so on.
- Enrolment and completion of PSE among the Aboriginal cohort needs to be tracked in an ongoing manner.
- It would also be helpful to track pathways from secondary to postsecondary education, including labour market experiences. Further, it would be helpful to track the aspirations, expectations, attitudes, and beliefs about education held by Aboriginal youth. More of this kind of tracking is needed so that education policy makers can respond directly to what learners need.
- There is a lack of evaluative data on programs and services supporting Aboriginal transitions from K–12 to PSE.
- There is a need for a "system-wide data infrastructure that allows for detailed longitudinal tracking in a K-20 perspective and across the educational jurisdictions in Canada" (Jones et.al., 2008).
- The categorization of barriers for PSE students into barriers that affect both Aboriginal and non-Aboriginal students, but are greater in severity for Aboriginal students, and those that affect Aboriginal students alone – should be used to underpin future research in this area.
- Additional quantitative research on the factors affecting and barriers to PSE for Aboriginal people is also needed; for example, geographical access to post-

Transitions by Aboriginal People from K–12 to Postsecondary Education

secondary programs, income, health, family structures, social determinants.

- Data that are collected need to be released in a timely manner and to a wide audience.
- Data and research must be widely disseminated through a culture of sharing and communication.



8. Conclusions

- There is a persistent gap between the educational achievements of Aboriginal and non-Aboriginal people in Canada. For some forms of PSE attainment, the gap is growing as growth in educational participation among non-Aboriginal people outpaces growth among Aboriginal people. For other forms, the gap is shrinking, but so slowly that it will take an estimated 30 to 60 years for it to close.
- Educational attainment is even more important to the success and life opportunities of Aboriginal people than of non-Aboriginal people as a whole.
- The barriers to completing PSE for Aboriginal people in Canada are widely recognized and acknowledged, but persist. This persistence reflects a combination of factors, including deeply ingrained philosophical approaches about PSE, and a complex, sensitive, and evolving division of jurisdictional responsibilities.
- 4. As a result, many members of the Aboriginal population continue to face barriers far greater than those faced by

most non-Aboriginal Canadians, and to fall short of realizing their full human, social, and economic potential. As the Aboriginal population continues to grow rapidly, this loss will take an increasing toll on Aboriginal people themselves and on Canadian society as a whole. Action to redress this situation is imperative.

- 5. In taking action to improve PSE outcomes, it must be recognized that Aboriginal people are not a homogeneous group. Solutions to increase their PSE participation and improve their educational outcomes must reflect and respond to differences between and within First Nations, Métis, and Inuit populations.
- 6. More data, research, and evaluation are needed in order to have a clear understanding of the efficacy of various approaches being used to increase Aboriginal PSE outcomes.
- 7. To be successful, policy changes and interventions must be decided, designed, and implemented in conjunction with Aboriginal groups and organizations.
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Appendix A: Detailed Search Methodology

This appendix provides additional detail on the search of formal databases and the Internet search for grey-area literature. A third source of documents was those identified by key informants, as described in section 2 of this report.

The search terminology used for formal research databases (in English only) is outlined in the following table:

Subject Headings*	Text Words*
Population:	
 Canada Natives Eskimos** Indigenous Populations 	 (Canada OR Canadian) Aboriginal* (Canada OR Canadian) Indian* (Canada OR Canadian) indigenous people (Canada OR Canadian) native* Eskimo* first (nation* OR people) Inuit Métis off-reserve on-reserve
PSE:	
 Adult Education Colleges Community Colleges Continuing Education Post-secondary Education Technical Institutes Two Year Colleges Universities Vocational Education 	 college (post-secondary OR post-secondary OR post high school OR tertiary OR higher OR further (education OR institution) technology institute university
	Canada OR Canadian
	[names of provinces and territories]

^{*} Subject headings from ERIC database. For text word searching, both singular and plural forms were used as appropriate.

^{** &#}x27;Eskimo' is an outdated term, but it is kept as a subject heading since the indexing process trails behind new terminology, as indexers want to make sure a term is going to be widely accepted before making changes.

It was noted during a preliminary search of ERIC database using terminology for (1) First Nations, (2) postsecondary education, and (3) barriers, that only three items dealing with Canada were identified. The search was therefore performed incrementally using as many synonyms as possible for both the concepts of population group and postsecondary education. Terms for the third concept as indicated in the table below (sociocultural and socioeconomic factors, transitioning, barriers and other relevant factors) were not introduced to refine the search, due to the low number of results without inclusion of these concepts.

Search Terminology – To Expand or Narrow Database Search If Necessary & for Geographic Comparisons	
Subject Headings*	Text Words*
Population:	
 American Indians Alaska Natives 	 (Australia OR Australian) (aborigine OR Aboriginal) (Australia OR Australian) indigenous people (Australia OR Australian) native [terms for United States population if needed]
Influencing Factors:	
 Social Influences Social Indicators Socioeconomic Status Socioeconomic Influences Socioeconomic Background Economic Factors Cultural Differences Access to Education Transitional Programs Jurisdiction:	 barrier* access OR accessibility support transition OR transitional OR transitioning (social OR socioeconomic OR economic OR financial OR cultural) factor
	 Australia OR Australian United States OR America OR American

* Subject headings from ERIC database. For text word searching, both singular and plural forms were used as appropriate.

The potentially useful items identified by formal databases for more in-depth review were as follows:

Information Sources: Number of Documents Identified by Resource Type		
Database/Resource*	Items Identified (Unique)**	
ERIC	75/328	
Education Index	0/0	
PsycINFO	1/4	
Sociological Abstracts	12/51	
SocINDEX	0/16	
Campbell Collaboration	0	
CBCA	14/23	
Grey literature resources	67	
Total literature	169	

* Listed in order searched.

** Numbers refer to Canadian studies (e.g., ERIC had 328 Canadian studies, of which 75 appeared to be in scope)

The grey literature resources searched via the Internet are listed in the following table. Searches were conducted in both English and French, as relevant.

Government and International Agencie	s
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Canada – Federal

Aboriginal Affairs Directorate (AAD) <u>http://www.hrsdc.gc.ca/eng/corporate/about_us/careers/hire.shtml#3_1</u>

Aboriginal Canada Portal

http://www.Aboriginalcanada.gc.ca/

Aboriginal Human Resources Development Strategy (AHRDS) <u>http://www.rhdcc-hrsdc.gc.ca/eng/employment/Aboriginal_employment/index.shtml</u>

Government and International Agencies

Association Québécoise d'Information Scolaire et Professionnelle <u>http://www.aqisep.qc.ca</u>

CanLearn (Government of Canada) http://www.canlearn.ca/eng/index.shtml

Human Resources and Social Development Canada. Learning and Post-Secondary Education http://www.hrsdc.gc.ca/en/learning/index.shtml

Indian and Northern Affairs Canada (INAC) <u>http://www.ainc-inac.gc.ca/</u>

Maritime Provinces Higher Education Commission http://www.mphec.ca/

Canada – Provincial

Alberta Education <u>http://www.education.alberta.ca/</u>

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Alberta Advanced Education and Technology
http://www.advancededucation.gov.ab.ca/
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British Columbia Ministry of Advanced Education and Labour Market Development http://www.gov.bc.ca/aved/

British Columbia Ministry of Education http://www.bced.gov.bc.ca/

Government Education Research Network (CMEC) <u>http://www.cmec.ca/gern/</u>

Manitoba Aboriginal and Northern Affairs http://www.gov.mb.ca/ana/

Manitoba. Education and Literacy gateway http://www.edu.gov.mb.ca/

Maritime Provinces Higher Education Commission <u>http://www.mphec.ca/</u>

New Brunswick Education http://www.gnb.ca/0000/index-e.asp New Brunswick. Aboriginal Affairs Secretariat http://www.gnb.ca/0016/Agreement/index-e.asp New Brunswick. Commission on Post-Secondary Education http://www.gnb.ca/CPSE-CEPS/03-e.asp Newfoundland and Labrador Department of Education http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment http://www.ece.gov.nt.ca/ Nova Scotia Department of Education. Mi'kmag Liaison Office
New Brunswick. Aboriginal Affairs Secretariat http://www.gnb.ca/0016/Agreement/index-e.asp New Brunswick. Commission on Post-Secondary Education http://www.gnb.ca/CPSE-CEPS/03-e.asp Newfoundland and Labrador Department of Education http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment http://www.ece.gov.nt.ca/ Nova Scotia Department of Education http://www.ednet.ns.ca/
http://www.gnb.ca/0016/Agreement/index-e.asp New Brunswick. Commission on Post-Secondary Education http://www.gnb.ca/CPSE-CEPS/03-e.asp Newfoundland and Labrador Department of Education http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment http://www.ece.gov.nt.ca/ Nova Scotia Department of Education http://www.ednet.ns.ca/
http://www.gnb.ca/0016/Agreement/index-e.asp New Brunswick. Commission on Post-Secondary Education http://www.gnb.ca/CPSE-CEPS/03-e.asp Newfoundland and Labrador Department of Education http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment http://www.ece.gov.nt.ca/ Nova Scotia Department of Education http://www.ednet.ns.ca/
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http://www.gnb.ca/CPSE-CEPS/03-e.asp Newfoundland and Labrador Department of Education http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment http://www.ece.gov.nt.ca/ Nova Scotia Department of Education http://www.ednet.ns.ca/
http://www.gnb.ca/CPSE-CEPS/03-e.asp Newfoundland and Labrador Department of Education http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment http://www.ece.gov.nt.ca/ Nova Scotia Department of Education http://www.ednet.ns.ca/
Newfoundland and Labrador Department of Education <u>http://www.ed.gov.nl.ca/edu/</u> Newfoundland and Labrador. Labrador and Aboriginal Affairs <u>http://www.laa.gov.nl.ca/laa/default.htm</u> Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs <u>http://www.laa.gov.nl.ca/laa/default.htm</u> Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
http://www.ed.gov.nl.ca/edu/ Newfoundland and Labrador. Labrador and Aboriginal Affairs <u>http://www.laa.gov.nl.ca/laa/default.htm</u> Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
Newfoundland and Labrador. Labrador and Aboriginal Affairs <u>http://www.laa.gov.nl.ca/laa/default.htm</u> Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
http://www.laa.gov.nl.ca/laa/default.htm Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
Northwest Territories. Education, Culture and Employment <u>http://www.ece.gov.nt.ca/</u> Nova Scotia Department of Education <u>http://www.ednet.ns.ca/</u>
http://www.ece.gov.nt.ca/ Nova Scotia Department of Education http://www.ednet.ns.ca/
Nova Scotia Department of Education http://www.ednet.ns.ca/
http://www.ednet.ns.ca/
http://www.ednet.ns.ca/
Nova Scotia Department of Education, Mi'kmag Liaison Office
http://mikmaq.ednet.ns.ca/links.shtml
Council on Mi'kmaq Education
http://cme.ednet.ns.ca/index.shtml
Nova Scotia Office of Aboriginal Affairs
http://www.gov.ns.ca/abor/
Nunavut Department of Education
http://www.gov.nu.ca/education/eng/
Ontario Ministry of Education
http://edu.gov.on.ca/
Prince Edward Island Department of Education and Early Childhood Development
http://www.gov.pe.ca/educ/
Prince Edward Island Aboriginal Education Committee
http://www.gov.pe.ca/educ/index.php3?number=79878

Government and International Agencies

Quebec Ministry of Education, Leisure and Sport (translation) <u>http://www.mels.gouv.qc.ca/GR-PUB/m_englis.htm</u> (English) Ministère de l'Éducation, du Loisir et du Sport <u>http://www.mels.gouv.qc.ca/</u>

Quebec Secretariat of Aboriginal Affairs (translation) http://www.autochtones.gouv.qc.ca/index_en.asp

Saskatchewan Ministry of Education <u>http://www.sasked.gov.sk.ca/</u> First Nations and Métis Education Branch <u>http://www.sasked.gov.sk.ca/branches/fn-me/</u>

Yukon Department of Education <u>http://www.education.gov.yk.ca/</u> Advanced Education <u>http://www.education.gov.yk.ca/advanceded/index.html</u>

Organizations and Research Institutes

Canada

Aboriginal Education Association of BC <u>http://bctf.ca/aea/</u>

Assembly of First Nations http://www.afn.ca/

Association of Canadian Community Colleges <u>http://www.accc.ca/</u>

Association of Universities and Colleges of Canada <u>http://www.aucc.ca/</u>

British Columbia Teachers' Federation Aboriginal Education Program http://bctf.ca/lssuesInEducation.aspx?id=5664

Caledon Institute of Social Policy http://www.caledoninst.org/

Canada Millennium Scholarship Foundation <u>http://www.millenniumscholarships.ca/en/index.asp</u>

Canadian Association for Distance Education http://www.cade-aced.ca

Organizations and Research Institutes
Canadian Council on Learning http://www.ccl-cca.ca/CCL/Home/index.htm?Language=EN
Canadian Education Association <u>www.cea-ace.ca/</u> Aboriginal Education Issues <u>http://www.cea-ace.ca/foo.cfm?subsection=lit&page=pol&subpage=lan&subsubpage=abo</u>
Canadian Education Statistics Council <u>http://www.cesc.ca/</u>
Congress of Aboriginal Peoples <u>http://www.abo-peoples.org/</u>
Council of Ministers of Education, Canada http://www.cmec.ca/index.en.html
First Nations Adult & Higher Education Consortium (FNAHEC) (Canada) <u>http://www.fnahec.org/</u>
Government Education Research Network (CMEC) http://www.cmec.ca/gern/
National Aboriginal Achievement Foundation <u>http://www.naaf.ca/html/education_program_e.html</u>
Neither a Moment nor a Mind to Waste http://www.neitheramoment.com/
Society for the Advancement of Excellence in Education http://www.saee.ca/
International
Campbell Collaboration http://www.campbellcollaboration.org/
UN Permanent Forum on Indigenous Issues http://www.un.org/esa/socdev/unpfii/
World Indigenous Nations Higher Education Consortium http://www.win-hec.org/

Appendix B: Key Informant Interview ^I Guide

Canadian Education Statistics Council

A Literature Review of Factors That Support Successful Transitions by Aboriginal People from K–12 to Postsecondary Education

Key Informant Interview Guide

Introduction

Thank you for agreeing to participate in this interview for the study of Factors That Support Successful Transitions by Aboriginal People from K–12 to Postsecondary Education that we are conducting for the Canadian Education Statistics Council (a partnership between the Council of Ministers of Education, Canada (CMEC) and Statistics Canada). Interviews with researchers, policy makers, and program representatives like you will contribute to the final report for this study.

This interview will take approximately 30 to 45 minutes. Any information shared is confidential. Your comments will not be attributed directly to you in any reports or publications that are written. However, you will be listed as an interviewee in the final report. Any information you share will be used only for the purpose of this study.

Do you have any questions about this study?

We would like to record this interview to help us write up the notes. The recording will be erased after the notes are written and will not be shared.

Do you consent to participating in this interview under these conditions?

Icebreaker

1. Please describe your (your organization's) involvement in research, policy, or programs related to Aboriginal access to postsecondary education (PSE).

Previous research

- 2. Please describe any previous research projects, policy initiatives, or programs related to Aboriginal access to PSE that you have been involved in.
 - Are there written reports or statistics available? If so, can you forward me the link/document?
 - What were the main findings?
 What does it tell us about Aboriginal persons' access to PSE?
 - Emotional, social, financial, cultural, historical, or regional factors affecting access or success/drop-out
 - Possible approaches (supports, alternative modes of delivery, or creation of Aboriginalspecific educational institutions) to improve access/success
 - What subgroups of Aboriginal people, types of education, and geographical areas were included?
- 3. Are you aware of other relevant research publications, statistics, policy

papers, or programs that are related to this issue? If so, what organization or person should I contact to find out more?

Gaps

4. Based on your work and other work that you are aware of, what are the gaps in available knowledge on this topic? What do we need to know to design interventions to improve Aboriginal persons' access to PSE? What further research is needed?

Policy Implications

5. What do you see as the main policies or programs (e.g., supports, alternative modes of delivery, or creation of Aboriginal-specific educational institutions) that are needed to increase Aboriginal persons' access to PSE?

Other Comments

6. Do you have any other thoughts or comments about Aboriginal persons' access to PSE?

Thank you for assisting with the study.

Appendix C: List of Key Informant Interviewees

Key information Interviewees		
Key Informants	Institution	
Dr. Marie Battiste	University of Saskatchewan	
Dr. Jim Silver	University of Winnipeg	
Kathy Mallett	Canadian Centre for Policy Alternatives – Manitoba	
Dr. Sacha Senecal	Indian and Northern Affairs Canada	
Miriam Kramer	Education Policy Institute	
Anne Mott	Canada Millennium Scholarship Foundation	
Joseph Berger	Canada Millennium Scholarship Foundation	
Jeremy Hull	Prologica Research Inc.	
Eric Guimond	Indian and Northern Affairs Canada	
John Clement	Indian and Northern Affairs Canada	
Candy Palmeter	Nova Scotia Department of Education	
Alfred Linklater	Human Resources and Skills Development Canada	
Leah Fleetwood	Human Resources and Skills Development Canada	
Brian MacDougall	Human Resources and Skills Development Canada	
Charles Ungerleider	Canadian Council on Learning	
Stephanie Oldford	Canadian Council on Learning	
Terry Thompson	Canadian Council on Learning	
Peter Garrow	Assembly of First Nations	
Gerry Hurton	Assembly of First Nations	
Brenda Merasty	Assembly of First Nations	
Maria Wilson	Inuit Tapiriit Kanatami	
Karihwakeron Tim Thomson	First Nations Technical Institute	

The following is a list of the 22 key informant interviewees:

<u>Note:</u> Some of the interviewees from the same organizations took part in a group interview.

A Literature Review of Factors that Support Successful Transitions by Aboriginal People from K-12 to Postsecondary Education

The purpose of this literature review is to document transitions of Aboriginal persons to postsecondary education, along with the challenges they face and supports they need. It does not include an analysis of the data or a review of programs beyond that contained in available literature. The project's value to policy and practice is in four key areas:

- 1. identification of key individual, community, and system-level factors that affect Aboriginal educational success and transitions
- possible approaches (such as provision of additional supports or alternative modes of delivery, or the creation of Aboriginal-specific educational institutions) to improve Aboriginal educational success and transitions
- 3. applicability of the factors and approaches to subgroups of Aboriginal people, types of education, and geographical areas
- 4. prioritization of the most important approaches for practice across the country, given the resources that are currently available

Also available in French under the title:

Une analyse documentaire concernant les facteurs qui contribuent au succès de la transition de l'éducation primaire-secondaire à l'éducation postsecondaire des Autochtones

www.cmec.ca/publications