Aboriginal Self-Identification and Student Data in Ontario's Postsecondary System: Challenges and Opportunities

Prepared by Stephanie Oldford and Charles Ungerleider, Canadian Council on Learning
for the Higher Education Quality Council of Ontario

Disclaimer:

The opinions expressed in this research document are those of the authors and do not necessarily represent the views or official polices of the Higher Education Quality Council of Ontario or other agencies or organizations that may have provided support, financial or otherwise, for this project.

Cite this publication in the following format:

Oldford, S. and Ungerleider, C. (2010). *Aboriginal Self-Identification and Student Data in Ontario's Postsecondary System: Challenges and Opportunities.* Toronto: Higher Education Quality Council of Ontario.

Published by:

The Higher Education Quality Council of Ontario

1 Yonge Street, Suite 2402
Toronto, ON Canada
M5E 1E5
Phone: (416) 212-3893
Fax: (416) 212-3899
Web: www.heqco.ca
E-mail: info@heqco.ca

© Queens Printer for Ontario, 2010

Table of Contents

Executive Summary 3

A. Introduction 6

Project Background 8
Problem Statement 8
Project Goals and Objectives 8
Project Scope and Limitations 9
Document Progression 10

B. Methods 10

Conceptual Framework 10
Literature Review 11
Review of Current Practices in Ontario and in Other Jurisdictions 12
Online Survey 12

C. Background 13

Aboriginal People in Canada - Terminology and Definitions 13
Aboriginal People and the Canadian Census 14
Profile of the Aboriginal Population in Ontario 18
The Ontario Public Postsecondary System 19

D. How Might we use Data to Better Understand Aboriginal Students? 21

In Summary 27

E. Issues in Aboriginal Self-Identification 28

Cultural Identity Formation 28
Self-Identification versus Third Party Identification 30
Contextual Factors 30
Ethnic Mobility 32
Question Attributes 34
Data Collection Instrument aAtributes 37
In Summary 38

F. Current Practices in Ontario 39

Ontario's K-12 Education System 39
Question Attributes and Data Collection Instruments........40
Data Integration, Analysis, and Use........42
Programs and Efforts to Encourage Self-Identification........43
Self-Identification Questions Currently in use in Postsecondary Education........43
Forms and Questionnaires
Ancestry or Ethnic Origin versus Aboriginal Identity........44
Detail of Demographic Information Requested........45
Multiple Responses........46

Supplementary Information - Examples, Rationales, and Definitions...............47
Data Collection and Use in PostSecondary Education: Multi-Year..................48
Accountability Agreements
In Summary..52

G. Online Survey Results **52**

Response Profile 53
Respondent Attitudes toward Current Data 54
The Choice to Self-Identify 59
Data Collection Instrument Attributes 64
Data Set Attributes 66
Efforts and Programs to Encourage Self-Identification 69

H. Discussion of findings **71**

Preliminary Considerations 71
Developing Trust and Informing Consent at the Time of Data Collection 72
Data-Collection Pptions 72
Definitional Issues and the Self-Identification Question 75

I. Conclusion **79**

References **81**

An **Appendix** is available upon request from info@heqco.ca.

Executive Summary

Canada's Aboriginal peoples are historically under-represented in postsecondary education (PSE). At the same time, Aboriginal populations in Canada are proportionately younger and are growing at a faster rate than the non-Aboriginal population. Improving educational outcomes is crucial to ensure that these growing numbers of Aboriginal youth have access to labour market opportunities that increasingly require postsecondary education.

However, educators and policy makers need a better understanding of Aboriginal students and how they interact with educational systems. To gain this understanding, better data about Aboriginal students is necessary.

The design, delivery, and monitoring of programs designed for Aboriginal students requires an accurate, consistent, and reliable method of identifying these students and their needs. In Ontario, Aboriginal student data at both the system and institutional levels are inadequate to provide the kind of consistent and reliable information that is valuable for decision-making and program design. Currently, Ontario has no standard approach for collecting or reporting data pertaining to Aboriginal self-identification in its PSE systems.

The Ontario Government's 2005 *Reaching Higher* plan included a $55 million investment aimed at improving PSE outcomes for Aboriginal students and other under-represented groups. Measuring the effectiveness of these and other investments requires the collection of data from disparate sources such as various student survey results and the administrative records of postsecondary institutions. If integrated, data from these various sources would hold immense analytical potential to help gain a clearer system-wide perspective.

Measuring the ways through which Aboriginal students interact with the postsecondary education system is challenging for a number of reasons. For instance, although self-identification is seen as the most appropriate method available for determining who is an Aboriginal person, individual Aboriginal students' identities can be fluid. For example, a person may be more inclined to identify him or herself as an Aboriginal person in one context as compared to another. In addition, there are a number of different terms applied to Aboriginal people in Canada, some of which carry unfavourable historical and political connotations. The words used, and the way the question is asked, must be composed to ensure against scepticism, confusion, and indignation.

These factors contribute to an issue that has been referred to under the umbrella term *Aboriginal self-identification*. The crux of this issue is how best to approach Aboriginal students to encourage their identification as such, through data collection methods that ensure the most accurate data. This report is the result of a project initiated to provide background information to the Higher Education Quality Council of Ontario (HEQCO). This project is informed by three key methods: a review of literature; a review of current practices in Ontario and other jurisdictions; and, a short online survey of those in Ontario's

postsecondary institutions who work closely with Aboriginal students and their records. A summary of key findings and conclusions follows:

Quality system-wide data is best supported by a uniform approach to data collection. It is difficult to understand system-wide performance without clear, comprehensive, and comparable data. When attempting to analyze student data on a system-wide level, a uniform approach to data collection is best. This assumption is based on the principles of data validity and reliability. Whatever data is gathered, the utility of that data will depend on the quality and the comprehensiveness of the data, as much as the ability to identify the Aboriginal student sub-population.

There are numerous factors influencing a person's decision to self-identify as an Aboriginal person in the context of data collection in any educational setting. Many of these factors are outside the control of those designing survey instruments. Identity formation, contextual factors, and the effects of ethnic mobility can result in highly variable patterns of self-identification, particularly among diverse Aboriginal student populations. This variability is exacerbated where various data collection methods and self-identification questions are in use.

Recent approaches to self-identification in Ontario PSE are unlikely to generate any useful system-wide data. A review of reports generated through the Multi-Year Accountability Agreement reporting process revealed that among Ontario's public postsecondary institutions there are a range of methods for identifying Aboriginal students and estimating their numbers. It is unlikely that any meaningful information can be gained about Aboriginal students in Ontario through the aggregation of data available through current methods. A number of survey respondents indicated that current methods of identifying Aboriginal students and estimating their numbers were laborious and time consuming, and most indicated that they were not sure that their institutions' estimates were accurate.

Survey responses revealed positive attitudes toward the adoption of a standardized self-identification question. Adopting a standardized self-identification question is essential to efforts to improve the collection of data about Aboriginal students in Ontario's postsecondary system. For numerous reasons including efficiency, expediency, and data consistency, the preferred approach also involves the development of a standardized data collection instrument(s) to be used by all postsecondary institutions in a uniform manner. Ideally this would be administered through a centralized process such as Ontario's college and university applications services. Because all students in Ontario's postsecondary sector must fill out an application form, all students have an opportunity to identify through this instrument.

Even with a standardized question, a certain amount of imprecision is to be expected when collecting ethnicity data through self-identification. Those involved in collecting ethnicity data must anticipate and accept a certain level of imprecision inherent to these efforts. Imprecision arises because of a number of factors, some of which are amenable to

changes in practices and policy, while others are not. These factors include the fluid, subjective, and context-sensitive nature of cultural identity; reluctance among some groups to self-identify in certain situations because of mistrust; imprecise definitions and ethnic classifications; and, a lack of clarity among data collectors and subjects regarding the purposes for data collection.

It is of the utmost importance that those who collect self-identification data from Aboriginal people are clear and transparent about their reasons for doing so. Those who work with Aboriginal students and their records in Ontario feel that Aboriginal students may be reluctant to self-identify for fear of being singled out or discriminated against. Under the provisions of privacy legislation it is of paramount importance that the purposes behind collecting personal information are made absolutely clear. In the context of Aboriginal self-identification, clarity around the purposes and uses of the information is also necessary to engender trust and establish appropriate protocols.

Fully implementing the Ontario Education Number (OEN) across the postsecondary level would facilitate the creation of better data systems through which to learn about all students. This will allow the tracking of students from K-12 through postsecondary education institutions. This will also enable tracking of postsecondary students year after year, so that an accurate picture of student persistence, program completion, and mobility among institutions can be gained province-wide. This would improve data for all students. The ability to identify under-represented groups within system-wide data sets would be useful for measuring the effectiveness of government initiatives that aim to increase access and improve outcomes for these students.

If postsecondary and K-12 student records were able to be connected through the OEN, this would facilitate the linkage of data at the student-record level and the tracking of students throughout Ontario's public education system, year after year. It would be possible to identify students who had classified as Aboriginal in K-12 or postsecondary data, inasmuch as this information is available. However, data integration efforts such as these require extensive efforts in inter-institutional collaboration, implementation, security, and privacy protection, not to mention data cleaning.

Inclusive, transparent communications and consultations are necessary next steps. While this report has provided extensive context and background, development of a standardized question should involve Aboriginal students, community members, and organizations from across the province. While reaching a consensus about the question will not be easy, there are examples of successful consultations in Ontario's school boards.

There is little doubt that a carefully considered, standardized approach to self-identification and system-wide data collection is the best approach. Regardless of the diversity of Ontario's Aboriginal communities or the decentralized and autonomous nature of its postsecondary systems, we are confident that a consensus can be reached that will improve the collection of data about Aboriginal students, and provide a uniform, carefully considered approach to self-identification.

A. Introduction

The Government of Ontario has made a significant investment into its college, university, and apprenticeship training systems in recognition of postsecondary education's increasing contribution to social and economic well-being. Announced in 2005, the Government's Reaching Higher plan committed to a cumulative multi-year investment of $6.2 billion that supports enhanced access, improved quality and accountability, and increased participation and success for students. The plan included a $55 million investment aimed at improving PSE outcomes for under-represented groups, including Aboriginal students.

Measuring the effectiveness of these and other investments requires the collection of data from various sources. One type of data is available through various student survey results. Another resource is the administrative records collected in the day-to-day operation of postsecondary institutions, student aid programs, and application services. If integrated, data from these various sources would hold immense analytical potential to help gain a clearer system-wide perspective, demonstrating the extent to which the Government and institutional goals are being met.

Disparate institutional practices often confound abilities to analyze data on a system-wide level. Various postsecondary institutions gather different types of data, and code and define their data elements in various ways, each managing this data through their own unique system. Even where data systems are interoperable, unique institutional characteristics and circumstances can create challenges for meaningful comparisons among institutions. Because of these common challenges, analysis of student-level data on a system-wide basis remains an elusive goal in many provinces, including Ontario. Even on an aggregate level, it is very difficult to accurately understand system-wide performance without clear, comprehensive, and comparable data.

When attempting to use data to better understand certain student sub-populations, there must be an accurate, consistent, and reliable method of identifying these students. As is the case in Ontario's public school system,

> "the availability of data on Aboriginal student achievement . . . is a critical foundation for the development, implementation, and evaluation of programs to support the needs of First Nation, Métis and Inuit students"

in the province's postsecondary system as well (Aboriginal Education Office, 2007).

In measuring whether investments are having an impact on postsecondary participation and success among Aboriginal students, government must first understand how many Aboriginal students there are in the system and where they are located. However, simply establishing an accurate baseline figure for the number of Aboriginal students in the system at any given time has proven to be difficult.

Measuring the ways through which Aboriginal students interact with the postsecondary education system is particularly challenging for a number of reasons:

- First, self-identification is seen as the most appropriate and culturally sensitive method available for determining who is an Aboriginal person. Moreover, "an unlimited right to 'self-identification' for indigenous peoples" has been advocated by global organizations promoting indigenous rights, "in order to counter possible actions of 'host' states who [sic] might deny indigenous claims within their borders" (Corntassel, 2003). However, in a phenomenon known as ethnic mobility, the cultural group with which a certain individual identifies may change over time. Additionally, a person may be more inclined to identify him or herself as an Aboriginal person in one context as compared to another. Individual Aboriginal students' identities can therefore be fluid and situational.

- Second, Aboriginal identity has "a complex history in Canada" and "has been defined and redefined by the Canadian government through treaties which imparted official status to some Aboriginal peoples and not to others" (EPI, 2008a). As an inheritance, in various contexts there are a number of different terms applied to Aboriginal people in Canada, and some of these terms carry unfavourable historical and political connotations. Because of this, the wording of questions used to identify Aboriginal people in forms and surveys varies widely, although the definitions, purpose, or appropriateness of the terms employed can be less than clear. The words used, and the way the question is asked, must be composed to ensure against scepticism, confusion, and indignation.

- Third, data collection methodologies do not always include every student in a given population. Where surveys are based on samples, sampling errors are possible. Moreover, many surveys in the postsecondary realm are open to all students and are completed on a voluntary basis. Large proportions of student populations may choose not to respond. This is a particular risk where the population in question is at risk of survey fatigue, as may be the case with Aboriginal students. In addition, basing estimates of the number of Aboriginal students on records of those who use services, programs, or funding may be misleading, as not all Aboriginal students use these services.

- Fourth, where ethnic identity or other sensitive personal information is gathered administratively or through surveys, these fields are generally voluntary. Refusal or reluctance to answer questions about Aboriginal identity or ancestry may result in under-reporting.

- Fifth, a recent research report by the Educational Policy Institute (EPI) for the Canadian Education Statistics Council (2008a) found that Ontario has no standard approach for collecting or reporting data pertaining to Aboriginal self-identification in either its K-12 or PSE systems. Given all of the complexity in collecting accurate and reliable information about Aboriginal students, aggregating and analyzing data collected through disparate methods would yield results that are unreliable if not meaningless.

All of these factors contribute to an issue that has been referred to under the umbrella term Aboriginal self-identification. The crux of this issue is how best to approach Aboriginal students to encourage their identification as such, through data collection methods that ensure the most accurate data. The goal is to create data that can be used effectively to plan and evaluate government and institutional programs aimed at ameliorating negative conditions for Aboriginal postsecondary students and increasing the visibility and success of Aboriginal student populations.

Project Background

The Higher Education Quality Council of Ontario (HEQCO) has committed to initiate research "to improve ways of tracking participation in postsecondary education by under-represented groups" (HEQCO, 2007). In April 2009, HEQCO engaged the Canadian Council on Learning (CCL) to conduct research exploring potential avenues to improve Ontario's Aboriginal student data collection and reporting. CCL committed to examining current data collection tools and methods with a particular focus on the role of self-identification, and report on possible means of improving Ontario's data collection on Aboriginal participation in higher education.

CCL undertook a literature review into reports and studies that examine the issue of indigenous self-identification, and the preferred data collection methodology in various contexts. Tangential to this literature review, a re-evaluation of policy and practice vis-à-vis Aboriginal student data collection in select jurisdictions was conducted. The research also involved a short, online survey to encourage input from those in Ontario's postsecondary institutions who work closely with Aboriginal students and student records in general.

Problem Statement

Canada's Aboriginal populations are historically under-represented in postsecondary education. However, these same populations are characterized by high birth rates and are therefore growing and young. According to Mendelson (2006), "this age profile means that improving educational outcomes is critical right now."

The design, delivery, and monitoring of programs directed at increasing participation and success among Aboriginal students requires the ability to identify these students and their needs. However, in Ontario, Aboriginal student reporting mechanisms at both the system and institutional levels are inadequate to provide consistent, reliable information. Moreover, methods for ascertaining Aboriginal identity are also inconsistent; various modes of asking questions for self-identification purposes yield different results.

Project Goals and Objectives

The goal of this project is to provide background information to HEQCO to inform their development of comprehensive policy recommendations for Aboriginal self-identification. In doing so, the project has the following three objectives:

1. To draw from existing literature background and perspective on the issue of Aboriginal self-identification, with a view to gaining a better understanding of successful and problematic approaches.
2. Through a survey administered to key informants in Ontario's postsecondary communities, to better understand the merits and weaknesses of various approaches to data collection and Aboriginal identification among those currently in use, as well as gain insight into opportunities and practices that may increase the frequency and stability of self-identification among Aboriginal individuals in Ontario.
3. To examine approaches to self-identification in the context of a broader examination of methods for data collection, storage, integration, and analysis that may provide the Government of Ontario with a broader and deeper capacity to measure and understand student success over time.

Project Scope and Limitations

Although there are numerous indigenous populations in the world, this report is concerned with regions that share similar historical, political, and demographic profiles with Ontario vis-à-vis Aboriginal and non-Aboriginal populations. Relevant jurisdictions are other Canadian provinces, the United States, Australia, and New Zealand.

The issue of system-wide integration and management of student records and data is a broad and large area of inquiry that is worthy of extensive research in itself, particularly where jurisdictions are seeking greater system quality, accountability, and responsiveness. The current project is concerned with this area only inasmuch as it relates to gaining a better perspective of the participation and success of Aboriginal students in Ontario. Issues such as security, privacy, governance, and data warehousing will not receive any detailed treatment.

This project is focussed on the public postsecondary institutions of Ontario, including universities and colleges. There are many private postsecondary institutions in Ontario, some of which operate on a not-for-profit basis. Among these are a number of Indigenous Institutes of Higher Learning, postsecondary institutions that operate largely through public grants and serve Aboriginal students and their communities. We recognize that these institutions are an important part of the Aboriginal education system; however, the issue of self-identification among Aboriginal students in these settings is quite different from the issue in the context of the broader public postsecondary system. Aboriginal/Indigenous postsecondary institutions are therefore not included in this study, although there may be opportunities in the future to include these institutions as provincial data collection practices evolve.

Finally, the researchers acknowledge that a full treatment of the issue of Aboriginal self-identification among Aboriginal postsecondary students in Ontario would involve the gathering of the opinions and experiences of the students themselves. Resource constraints did not permit research methods through which we would be able to interact with Aboriginal students through focus groups, interviews, and other methods. While much can be learned through the steps we have taken, a clearer picture of the reasons for which Aboriginal students choose not to self-identify would be gained through conversations with Aboriginal youth, organizations, and

communities. The goal of successful implementation of province-wide policies or guidelines for Aboriginal self-identification would suggest that these conversations should be held.

Document Progression

In the section to follow, a brief description of the methods and conceptual framework used in the research will be discussed. This will be followed by a section providing a brief background about historical definitions of Aboriginal peoples in Canada and the provenance of some common terminology. The background will also provide a brief look into recent Census data about the Aboriginal population in Ontario, and an overview of the province's postsecondary system. Subsequently a brief discussion of student records and data will be necessary to provide the context for the sections that follow.

Resulting from the literature review, various issues in self-identification among Aboriginal people will be discussed. A review of current practices in Ontario, supplemented by results from the online survey, will precede a discussion of the findings of the research placed in the context of key findings from the review of practices in other jurisdictions. A concluding section will review what the report suggests for improving Aboriginal student data collection and reporting in Ontario's postsecondary system.

B. Methods

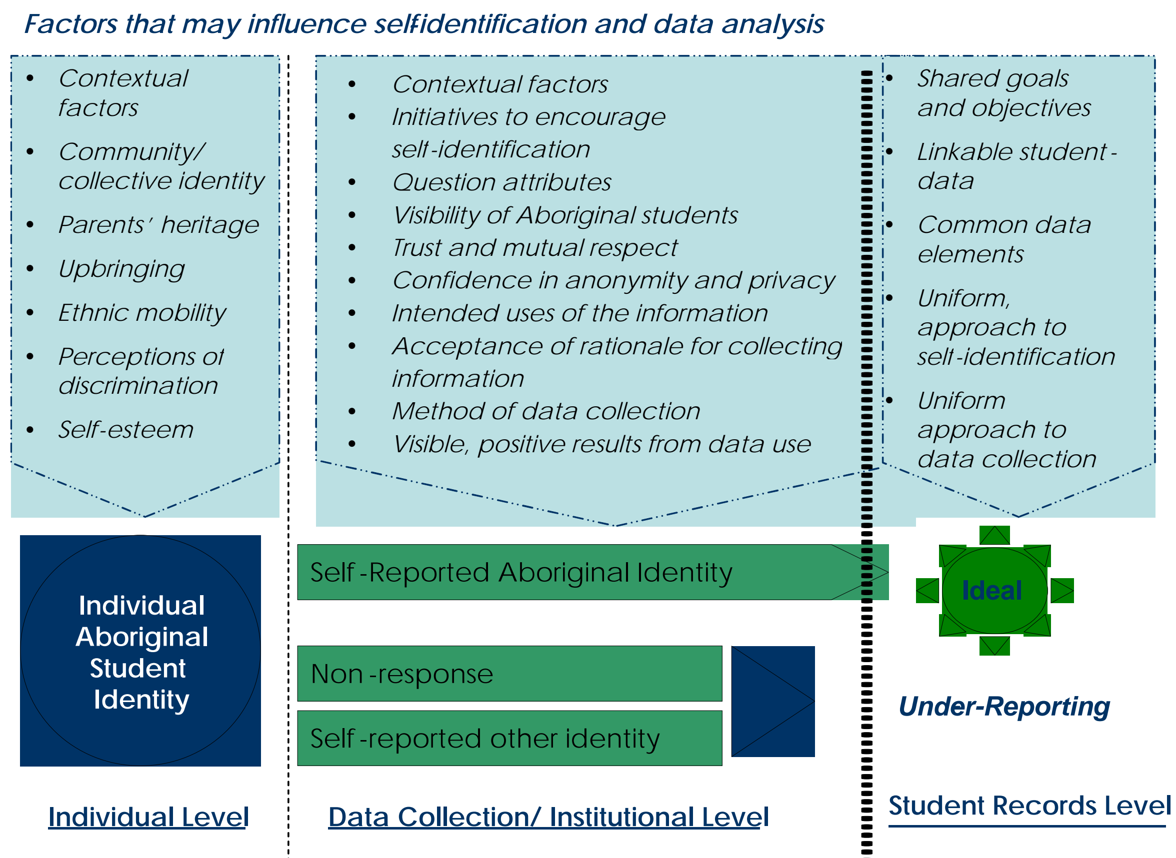
This research is informed by three key methods. First is a review of academic and policy literature regarding Aboriginal identity and the self-declaration thereof in institutional contexts (e.g., education, justice, health, Census enumeration). The second method is a review of current practices in Ontario and in other jurisdictions, from government policy, accountability, and research reports. The third method was a short online survey of those in Ontario's postsecondary institutions who work closely with Aboriginal students as well as those who work closely with student records in general. The research and its methods are situated within a conceptual framework, namely, ideas of how the project's intrinsic concepts relate to one another and assumptions that guide the research effort.

Conceptual Framework

Figure 1 below is a schematic representation of the conceptual framework that guides this research. It shows that the essential focus of the investigation is the process through which an Aboriginal student chooses to self-report his or her Aboriginal identity to an institution or service. We are seeking to understand how methods of data collection influence both the self-identification decision and the ability to aggregate, analyze, and understand the resulting data. We have postulated a number of factors that potentially influence these behaviours and outcomes, including various programs and initiatives aimed at increasing frequency of self-identification. It is also understood and recognized that an individual's identity as an Aboriginal person is a highly personal, subjective construct that may itself be influenced by several factors. The ideal represented in the schematic below is for students who perceive themselves as Aboriginal persons to identify themselves as such.

The conceptual framework guiding this research assumes that, when attempting to analyze student data on a system-wide level, a uniform approach to data collection is best. This assumption is based on the principles of data validity and reliability. Whatever data is gathered, the utility of that data in providing information to assist in the design and evaluation of programs for Aboriginal students will largely depend on the quality and the comprehensiveness of the data as much as the ability to identify the Aboriginal student sub-population.

Figure 1: Conceptual Framework



Literature Review

To identify literature relevant to the investigation, we have employed a variety of searches of electronic databases devoted to native or Indigenous studies, social sciences, economic, political geography and demography, and postsecondary education. We found a number of relevant articles in the health (e.g., epidemiology) and justice literature. Where retrieved documents cited other works that appeared to be relevant to our purposes, these works were also reviewed. We also searched opportunistically for literature not typically captured in

academic databases including such sites as Statistics Canada, the United Nations, and various government departments. We retrieved and reviewed all articles that we felt were relevant. Information gathered through the literature review informs all discussion to follow.

Review of Current Practices in Ontario and Other Jurisdictions

In reviewing current practices in Ontario, we were primarily concerned with the questions used to solicit self-identification from Aboriginal students in educational settings, as well as the methods through which this data was collected and reported. This required a review of questions employed to solicit self-identification from Aboriginal students in student surveys and forms, as well as a review of documents submitted to the Ministry under the Multi-Year Accountability Agreement (MYAA) framework. These methods were supplemented with background documentation supplied by HEQCO. Online survey responses also informed the review of current practices toward Aboriginal self-identification in Ontario's postsecondary institutions.

As noted in the Education Policy Institute's 2008 report on Aboriginal self-identification, some jurisdictions (Australia, New Zealand, and the United States) have developed a standard, national approach to enumeration of ethic and/or racial data. While this is a significant finding in itself, further investigation into the development of standards, questions, definitions, and methods for soliciting self-identification is warranted. Searches for such information were carried out through government websites such as the Office of Management and Budget (U.S.) and the Australian Bureau of Statistics.

Significant information about Aboriginal self-identification practices in other Canadian jurisdictions was provided in the Education Policy Institute's comprehensive 2008 report on the subject. In that report, British Columbia and Alberta stood out as provinces with highly developed system-wide postsecondary education data management schemes wherein systematic-approaches to self-identification among Aboriginal students had emerged. We focus on these jurisdictions, situating self-identification approaches within these established data management systems.

Online Survey

In preparing the online survey, we thought it best to gain a better understanding of institutional records pertaining to Aboriginal students from those who work closely with Aboriginal students, and those who are intimately involved with student records in their day-to-day work. In our experience, those who work closely with student records and related data are most aware of the possibilities and limitations of these data sets. As well, in the absence of input from actual Aboriginal students, we felt that those who work closely with Aboriginal students would be well suited to advise us as to best practices in self-identification.

In order to identify participants, we searched staff directories of all public colleges and universities in Ontario, attempting to identify at least two potential respondents from each institution: one who worked closely with student records in general (e.g., registrar, institutional

researcher) and one who worked closely with Aboriginal students (e.g., Aboriginal student advisor, Director/Manager of Aboriginal Student Services).

The questionnaire is attached in Appendix A. Drafts of the questionnaire were reviewed by HEQCO and staff of the Aboriginal Education Office (AEO), who provided feedback on the content and architecture prior to the administration of the survey. Although the survey was originally only available in English, feedback from some francophone respondents indicated that a French version would be desirable. We made a translated version of the survey available to those who made this request.

C. Background

Aboriginal People in Canada - Terminology and Definitions

> *Inevitably, the process of developing and asserting identity becomes intertwined with terminology.*
>
> *- M.F. Dunn, 1994.*

Canada's Aboriginal populations are not monolithic; they are rich in cultural and linguistic diversity. Accordingly there are many dimensions of Aboriginality in Canada, and many terms and definitions are applied to the concept. There are few legal definitions of these terms. Section 35(2) of the *Constitution Act, 1982* identifies the "aboriginal peoples of Canada" as including three distinct major sub-groups, the "Indian, Inuit and Métis peoples of Canada". However, as noted by Guimond, Kerr, and Beaujot (2004), while the Constitution "recognises these three broadly defined Aboriginal groups, it does not actually define what constitutes their populations".

Broadly, the term *Indian* refers to all Aboriginal people in Canada who are not Inuit or Métis. A legal definition does exist for that subset of Aboriginal people who are registered under the *Indian Act.* The scope of this definition was expanded considerably with the advent of Bill C-31 in 1985. Those who fit the *Indian Act* definition and who are indeed registered are often referred to as *Status* or *Registered Indians*. The continued use of the term *Indian* is likely a result of its entrenchment in the Constitution and the *Indian Act*, although the term is anachronistic and some find it offensive. Instead, the term *First Nation* has come to be used to refer to North American Indians in Canada and their communities or bands. As with the term *Indian,* the term *First Nation* includes all Aboriginal people who are not Inuit or Métis, regardless of their legal status under the *Indian Act,* as there are many First Nations people in Canada who are not registered under that *Act*.

In the Inuktitut language, the word *Inuit* means "the people," and this word is used by people who are indigenous to Arctic and sub-Arctic regions (NAHO, 2003). The singular form of the word is *Inuk.* The word *Eskimo* was once used by others to label the people of this culture. As the Inuit find the term offensive, it is now considered inappropriate. Inuit do not fall under the *Indian Act*. However, in 1939 the Supreme Court of Canada made a decision in a jurisdictional

reference that Inuit should be considered as Indians for the purposes of Section 91(24) of the *Constitution Act, 1867.* Matters relating to Inuit therefore fall under the jurisdiction of the federal government, which also has a fiduciary responsibility toward them.

The Métis National Council defines a *Métis* person as someone "who self-identifies as Métis, is of historic Métis Nation Ancestry, is distinct from other Aboriginal Peoples and is accepted by the Métis Nation" (MNC, 2002). However, there exists no legal definition of the *Métis* population and the word is subject to various different interpretations. Andersen (2008) argues that interpretations of the term *Métis* can be constructed on both racial and national terms. In French, *Métis* means mixed and was historically "applied to people born of mixed Indian and White, usually French, blood." (Dunn, 1994) However, as Dunn (1994) argues, this historical understanding of the Métis population "does not go far enough to give any real understanding of even the basic hereditary background of modern Métis peoples". Métis identity can also be constructed in terms of nationhood, and in this sense refers to a distinct "hybrid culture" that developed in certain regions of Ontario and Manitoba during pre-confederation. According to Guimond et al. (2004), the Métis culture

> . . . cannot be associated with any specific language or ethnic origin - it is rather a cultural, linguistic and territorial mosaic with which a population has identified and developed an original culture. The sense of belonging to this culture has varied over time and in response to political and social events.

Much like the word *Eskimo,* which has been replaced with the more acceptable term *Inuit*, the terms *Indian* and *Métis* did not originate within the communities to which they refer. According to Dunn (1994):

> There were no "Indians" in North America before 1492. Certainly there were Hopi, and there were Déne and there were Anishnawbe, but there was no population who referred to themselves as Indians. It was an externally imposed terminology and, as we have seen, involved externally imposed definitions. In a slightly different context, the same can be said of the term "Métis".

The only clear concept discussed above is that of Status or Registered Indian, as this is the only term with a clearly defined referent. The word *Aboriginal* refers collectively to *Indians, Inuit,* and *Métis,* but the definitions of these three constituent terms are unclear. *First Nations, Inuit,* and *Métis* are commonly defined as those Aboriginal people who are members of one group but not the other two. These are circular definitions that do not take into account the existence of individuals with multiple Aboriginal identities. Still, the concept of *Aboriginality* has further, even more complex, dimensions.

Aboriginal People and the Canadian Census

According to Guimond et al. (2004), "the Canadian census is the most comprehensive source of demographic data on Aboriginal peoples in Canada, and is the exclusive source of demographic data for many Aboriginal groups". In the 2006 Census there were four questions in the Long Form (2B) Questionnaire from which information about Aboriginal populations might be gleaned.

The Long Form (2B) is sent to only one in five households. The short form that is completed by 80 per cent of households has no question relating to Aboriginal or other ethnic origins. A noteworthy exception is the Long Form (2D), the Census questionnaire used to enumerate all households in the northern territories and on reserves, almost all of which are enumerated in the context of the Census.[1]

The Aboriginal ancestry of respondents is derived from responses to Question 17 (Form 2B) which reads:

> What were the ethnic or cultural origins of this person's ancestors?
> *An ancestor is usually more distant than a grandparent.*
> *For example, Canadian, English, French, Chinese, Italian, German, Scottish, East Indian, Irish, Cree, Mi'kmaq (Micmac), Métis, Inuit (Eskimo). . . .*

Examples provided in the question in the Census 2D questionnaire are slightly different, and read as follows:

> What were the ethnic or cultural origins of this person's ancestors?
> *An ancestor is usually more distant than a grandparent.*
> *For example, Cree, Ojibway, Mi'kmaq (Micmac), Dene, Blackfoot, Inuit, Métis, Canadian, English, French, German, etc.*

Of note is that *Cree*, *Mi'kmaq, Inuit,* and *Métis* are provided as examples, whereas *Aboriginal*, *American Indian,* or *First Nations* are not. This, however, does not preclude an individual from providing these categories as answers. Moreover, while the question is worded in terms of ancestry/ethnic origin, the answers that a person provides may be informed as much by his or her own cultural identity as that which they attribute to their ancestors. As noted by Guimond et al. (2004):

> Persons of Aboriginal ancestry may deny their origins, others may have a passionate commitment to these origins, while others still, may be somewhat passive, indifferent or simply unaware.

In either questionnaire, there are four blank spaces in which respondents may provide their answer, and they are encouraged to specify as many origins as are applicable. The concept of Aboriginal ancestry is complicated by the existence of multiple responses in this context. Census respondents have been able to report multiple ethnic origins since 1981, leading many more people to report Aboriginal ancestry. In 1981, fewer than half as many respondents reported Aboriginal ancestry as in 2001 (491,465 compared to 1,319,890). However, 57per cent of those reporting some sort of Aboriginal ancestry in 2001 did so in the context of multiple ethnic origin responses (Guimond et al., 2004).

[1] According to Statistics Canada, there were 22 reserves and settlements that were incompletely enumerated in 2006.

In 2007, Statistics Canada undertook regional discussions with users of Aboriginal data across Canada, reviewing Aboriginal questions from the 2006 Census. Here it was discovered that respondents felt the ancestry/ethnic origin question to be confusing, yielding imprecise data. Perhaps for this reason "the question on Aboriginal identity was reportedly the most important for analysis and policy needs" (Statistics Canada, 2008).

The Aboriginal identity question was introduced in the 1996 Census,

> . . . in recognition of the fact that Aboriginal ancestry does not necessarily imply identification with Aboriginal culture . . . The raison d'être of this item was to more carefully determine whether or not individuals feel an allegiance or association with Aboriginal culture, beyond reporting Aboriginal ancestry (Guimond et al., 2004).

In the 2006 2B Questionnaire, the Aboriginal identity question reads as follows:

> Is this person an Aboriginal person, that is, North American Indian, Métis, or Inuit (Eskimo)?
>
> ☐ No ☐ Yes, North American Indian
>
> ☐ Yes, Métis ☐ Yes, Inuit (Eskimo)

Those who answer "No" are prompted to go on to a question regarding other ethnic identities from which information on visible minorities is derived. Those who answer "Yes" must ascribe to one of the three Aboriginal groups, and respondents are encouraged to mark only one box that "best describes the person now". However, census data indicate that some respondents indicate multiple Aboriginal identities.

All long form respondents are prompted to answer questions 20 and 21, regardless of their answers to the ancestry/ethnic origin and Aboriginal identity questions. Question 20 reads as follows:

> Is this person a member of an Indian Band/First Nation?
>
> ☐ No ☐ Yes
>
> *Specify Indian Band/First Nation (for example, Musqueam)*
>
> ____________________

Question 21 identifies *Registered* or *Status Indians* and asks:

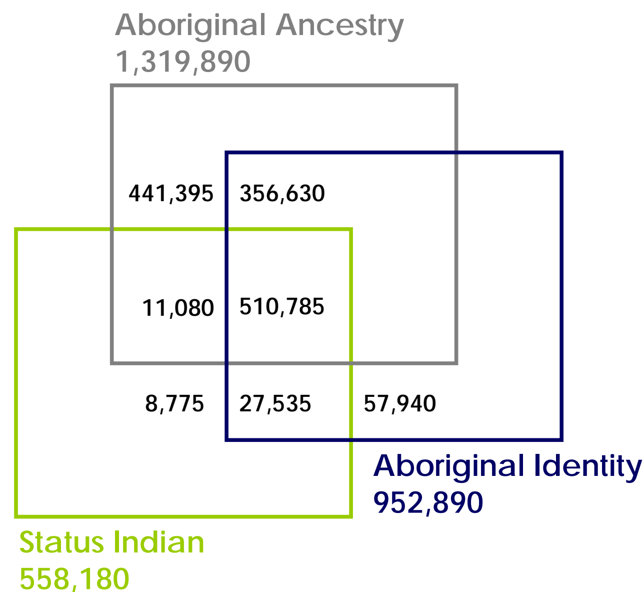
> Is this person a Treaty Indian or Registered Indian as defined by the *Indian Act* of Canada?
>
> ☐ No ☐ Yes, Treaty Indian or Registered Indian

As noted by Guimond et al. (2004), one might expect a certain logic to emerge between the various categories of Aboriginal ancestry, identity, band membership, and status/registration:

> . . . the registered Indian population could be a subset of the Aboriginal identity population, which could be a subset of the broader Aboriginal origin population.

However, this is not the case, as Figure 2 below reveals. In this figure, which is based on data from the 2001 Census, there are seven different categories of the Aboriginal population depicted, based on the three dimensions of ancestry, identity, and status. The largest group are those who report being a Registered Indian as well as having Aboriginal ancestry and identity (510,785); followed by those who are registered and report Aboriginal ancestry but not identity (441,395); followed by those who report Aboriginal ancestry and identity but are not registered (356,630). There are two groups who report Aboriginal identity but not ancestry—27,535 who are registered and 57, 940 who are not. Finally, a small number of Registered Indians report neither Aboriginal ancestry nor identity (8,775).

Figure 2: Population profile for different Census definitions of Aboriginal persons



Source: Statistics Canada, 2001 Census of Canada. Adapted from Beavon, D (2007), "Canadian Aboriginal Demographics: Populations Size, Growth and Well-Being", Indian and Northern Affairs Canada. A similar graphic is found in Guimond et al., 2004.

Across Canada, no uniform approach to collecting data about Aboriginal people has been developed, nor has a common framework for definitions, classifications, and terminology been adopted. However, even within the context of a standardized data collection instrument and questions, which is best represented by the Census, there are multiple, fragmented versions of the Aboriginal identity among the native people. Consider for a moment that this analysis does

not include the *Indian/Inuit/Métis* dimension, the issue of multiple responses to the ancestry/ethnic origin question, or any information related to band/First Nation membership. Perhaps this should not be surprising. As Weaver (2001) notes:

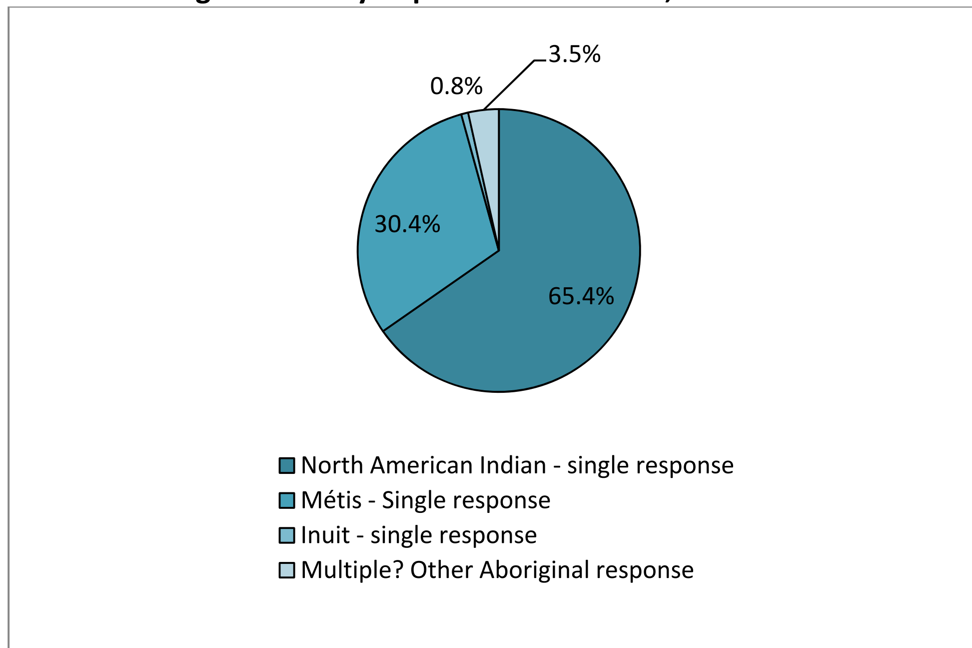
> Indigenous identity is a truly complex and somewhat controversial topic. There is little agreement on precisely what constitutes an indigenous identity, how to measure it, and who truly has it. Indeed, there is not even a consensus on appropriate terms. Are we talking about Indians, American Indians, Natives, Native Americans, indigenous people, or First Nations people? Once we get that sorted out, are we talking about race, ethnicity, cultural identity, tribal identity, acculturation, enculturation, bicultural identity, multicultural identity, or some other form of identity?

Profile of the Aboriginal Population in Ontario

In 2006, there were 242,490 individuals reporting Aboriginal identity in Ontario. This represents almost 21 per cent of the Aboriginal identity population across Canada but only 2% of the overall population in Ontario. In comparison, Manitoba accounts for 15% of those in Canada reporting Aboriginal identity and these individuals make up 15% of the overall population of that province. Of the provinces, Ontario has the highest number of individuals reporting Aboriginal identity. The Census indicates that there are 123,595 individuals who report being a Registered Indian in Ontario, half as many as the number of individuals who report some sort of Aboriginal identity.

As shown in Figure 3 below, Inuit make up a very small proportion of the Aboriginal identity population in Ontario. The majority of the Aboriginal identity population in Ontario identify as North American Indians, but there are also a large proportion of those who identify as Métis. This is important to note for those in postsecondary settings, as Métis and non-registered First Nations people often do not have access to the same kind of funding supports as band members and Registered Indians. For instance, Indian and Northern Affairs Canada’s (INAC) Post-Secondary Student Support Program provides grants to registered/treaty First Nation and Inuit students pursuing postsecondary education, but is not available to Métis or non-registered First Nations.

Figure 3: The Aboriginal Identity Population in Ontario, Census 2006



According to Census 2006 data, among the Aboriginal identity population in Ontario aged 25 to 34, 24 per cent had not obtained any sort of educational credential, including a high school diploma. About 28.5 percent had not obtained any educational credential after their high school diploma. About 24 per cent had completed a college certificate or diploma program, while over 11per cent had some sort of university degree. Analysis of Census information might give postsecondary institutions in Ontario a good idea of how many Aboriginal youth are in their regions. Such an approach was taken in the case of Kwantlen Polytechnic University in British Columbia in their 2004 report entitled *Data to Inform Development of an Aboriginal Admissions Policy.* However, the applicability of Census data is limited, not in the least because the Census is only carried out every five years, with a two-year delay before any data is released.

Over time, Census data can provide us with information as to trends in the educational attainment of Aboriginal people in Ontario. However, this type of information is not valuable toward steering any program design or policy decision at the institutional or system level. More frequent and timely information is required about enrolment, persistence, and attainment - and the best source for this type of information is the postsecondary system and its constituent institutions.

The Ontario Public Postsecondary System

The Ontario public postsecondary system consists of 24 colleges (21 colleges of applied arts and technology and 3 college institutes of technology and advanced learning) and 19 universities. There are 2 colleges and 9 universities that offer programming in French or in both French and English. Some of these institutions have Aboriginal education as a part of their

mission (e.g., Lakehead University), while others have a strong focus on Aboriginal education (e.g., Algoma University). The college and university sectors in Ontario are quite distinct from one another.

Each sector has a service centre where applications for admission are handled centrally, through a common form and process. Students in either sector can access student financial aid through the Ontario Student Assistance Program (OSAP). These services are potentially rich sources of administrative data about students in the Ontario system, especially where the forms they use ask Aboriginal students to self-identify. Application services' databases are particularly rich, as these also contain information about postsecondary registration and students' program choice, as well as information about the secondary school attended, high school grades, and whether applicants are pursuing postsecondary directly after high school.

Public postsecondary education institutions across Canada enjoy high levels of institutional autonomy, and are directly accountable to the communities they serve. However, public institutions are also largely funded by the government. As such, postsecondary institutions are accountable to provincial governments that are, in turn, accountable to the citizens. However, according to the Higher Education Quality Council of Ontario (2008):

> Ontario has a highly decentralized PSE system, with colleges and universities having considerable scope to establish their own missions, set their own goals and structure academic activities accordingly.

As the Educational Policy Institute (2008b) notes, "there is an increasing need for governments to have data which permits them to quantify the effects of their investments". Common definitions and a uniform approach to data collection and reporting among institutions are required in order to produce useful and reliable system-wide data. Colleges and universities in Ontario annually report to the Ministry a set of commonly defined statistics in key areas such as the number of degrees awarded, student enrolment and graduation rates, as well as tuition fees and student survey results. However, much of this data is not made public. An exception is the Common University Data Ontario initiative (CUDO). According to the Council of Ontario Universities, the Common University Data Ontario is an online tool intended to provide information for prospective students, their parents, and the general public.

Government-proposed initiatives for system-wide accountability through common data schemes are not always welcomed by institutions for numerous reasons. As the Educational Policy Institute (2008b) notes:

> As soon as anything is measured on a common scale, universities and colleges are well aware that there will be a temptation on the part of some not just to compare one institution against another, but also to place all institutions (or whatever academic unit is being measured) in an ordinal fashion depending on the results. In short, as soon as anything is measured, the results can be ranked, and this creates a certain amount of trepidation among institutions.

Moreover, institutions can view governmental attempts to measure their performance, quality, or accountability through a select group of quantitative indicators as overly simplistic or reductive given the complexity of the educational enterprise. Some view these measures as encroachments upon institutional autonomy.

The Higher Education Quality Council of Ontario was established as an arm-length agency to evaluate the postsecondary education system and to report its findings to the Minister of Training, Colleges and Universities and the public. HEQCO also plays an important role in "developing an improved accountability framework" for which "government has determined that targets and measures should be set to monitor the quality and performance of the postsecondary education sector" (HEQCO, 2009).

This framework has thus far been manifested in the Multi-Year Accountability Agreements (MYAAs) that have been in place for 2006/07, 2007/08, and 2008/09. The MYAAs will be discussed in forthcoming sections of this report, with a view to the information they yield regarding Aboriginal students. According to HEQCO (2009), a transitional accountability agreement will be established for 2009/10 while work proceeds on the development of "a new comprehensive framework for 2010/11 and beyond." CCL's report is concerned with current and future accountability frameworks only insofar as they provide useful data about Aboriginal students' postsecondary participation and outcomes to government and the public. As such, there is a need to touch on the subject of how data can help us to understand students' interactions with postsecondary systems, and issues and limitations affecting student data.

D. How Might we use Data to Better Understand Aboriginal Students?

In the context of this research project, government's objectives for the system are quite clear: to expand participation and improve outcomes in postsecondary education for Aboriginal students in Ontario. What is not clear is how progress toward this goal might be measured, or what kind of data would be required in order to do so. Dougherty (2008), writing for the United States Data Quality Campaign, tells us that there are three basic requirements involved in creating a data system that can provide "the right information to users when they need it":

1. The data must be readily available in a user-friendly format;
2. The intended users must know how to interpret the data; and,
3. The data must help answer questions in which the users are interested.

The measurement of Aboriginal student success is facilitated in those jurisdictions with integrated education data management initiatives (e.g., Alberta and British Columbia). These initiatives involve the establishment of common data elements (including a category for Aboriginal identification), the assignment of a unique personal identifier, and a common data warehouse in which to store longitudinal records of snapshots of data taken at established intervals. In Alberta, there is a standardized question for ascertaining Aboriginal identity across

the educational system, while plans are underway for a standardized methodology in British Columbia (EPI, 2008). However, no such integrated education data initiative is in place in Ontario's public postsecondary system at this time.

It may be useful at this point to conduct a thought experiment. Presuming that the data required were available in an integrated, system-wide, and user-friendly format and that interpretations of the data were clear, government would be likely to pose the following five questions of this data:

1. *How many students in Ontario postsecondary institutions self-identify as Aboriginal?*
2. *What are the program completion rates of those who self-identify as Aboriginal students?*
3. *What are the patterns of transition from high school to postsecondary education among those who self-identify as Aboriginal students?*
4. *How does the postsecondary education experience of students who self-identify as Aboriginal compare with the experience of non-Aboriginal students?*
5. *How do students who self-identify as Aboriginal finance their postsecondary education? Do they experience financial hardship?*

In the following section, we will approach each one of these questions in terms of the type of data that could provide the best and most comprehensive answers. Through this method, we can begin to envision the features of a database that might answer our most pertinent questions without being constrained by current realities.

Question 1: How many students in Ontario postsecondary institutions self-identify as Aboriginal?

Answering this question requires the ability to filter the available data on all students into two sub-sets for those who have and those who have not self-identified as an Aboriginal person. We are assuming that users know how to interpret the data, which implies that a uniform method for collecting this information has been established across institutions. With this ability to filter the records, we are now able to understand the distribution of Aboriginal and non-Aboriginal students for all of the other variables in the dataset (e.g., students' gender, age, institution, field of study, program, credential level, and/or GPA). In simply understanding clearly how many students self-identify as Aboriginal, we are able to answer many other pertinent questions.

However, this necessitates that Aboriginal students have at some point been asked to self-identify through a form, questionnaire, or some other method. Forthcoming sections will take a closer look at the instrument and question that might best be used for these data collection purposes. However, it is necessary to elucidate some legal and human rights considerations at this point.

According to the Ontario *Freedom of Information and Protection of Privacy Act (FIPPA)*, information relating to the race or national or ethnic origin of an individual is classified as

personal information. As such, collection of such information must be "expressly authorized by statute, used for the purposes of law enforcement or necessary to the proper administration of a lawfully authorized activity" (s.38 (2)). Universities and colleges have fallen under the ambit of the *FIPPA* since 2005, requiring that they follow specific guidelines with respect to the collection, use, and disclosure of personal information in their custody.

There are a number of reasons to be cautious in evoking the collection and use of data based on sub-populations characteristics. Paraphrasing Loue (2006), these may include the following considerations:

- The ethnic categories used change over time, making comparisons difficult;
- The categories may not be valid where a person notes two or more categories or a mixed category is used;
- Self-reported data is not valid because a person's self-perception may change over time or in different contexts;
- Grouping people based on socially-constructed categories reinforces differences among persons occupying different categories, rather than similarities; and
- Categories developed for classifying individuals based on attributed or self-perceived group membership often use dominant groups as the reference point of comparison, portraying some groups in a negative way.

Despite cautions such as these, the Ontario Human Rights Commission allows the collection and analysis of data based on enumerated grounds such as race or ethnicity only inasmuch as the collection is for purposes that are legitimate under the *Ontario Human Rights Code.* Such purposes include the "monitoring and evaluating of discrimination, identifying and removing systemic barriers, ameliorating disadvantage and promoting substantive equality" (OHRC, 2003). The stated objective of "expanding participation and improving outcomes in postsecondary education for Aboriginal students in Ontario" falls within *Code*-legitimate purposes.

Question 2. What are the program completion rates of those who self-identify as Aboriginal students?

In order to understand a student's success, we need to understand how the student progresses through a given program of study, and whether or not he/she meets his/her educational goals. This requires the ability to follow particular students and cohorts of students from the time they enter a given program of study through to program completion. A longitudinal dataset is therefore required, where the same information is collected from, and recorded for, students at different points in their education trajectories.

If each institution's database contained a set of data elements common to all institutions, wherein information is collected and defined in the same way, then this subset of information could be integrated for system-wide evaluation and planning. However, this requires a system-

wide approach to identifying an individual student record to ensure that students are not being double counted when the data are integrated.

A number or unique personal identifier (UPI) for each student record is the preferred method for accomplishing this. Numbers are preferable as there may be numerous students in the system at any given time with similar names. In addition, the use of a number allows for a student's record to be dissociated with his or her personal information (e.g., name, address, phone number), making the individual student record less identifiable. This is important for protecting student privacy and anonymity in the context of an integrated student record database. Another key function of a UPI is to link records. Because the number is “unique” to the individual to whom it is assigned, it can be used to identify and link an individual's records across disparate data sets and databases. Use of a system-wide UPI enables the tracking of students through various schools and institutions over time.

Question 3: What are the patterns of transition from high school to postsecondary education among those who self-identify as Aboriginal students?

Lower proportions of Aboriginal students have completed high school than non-Aboriginal students for many years. For this reason, Mendelson (2006) opined that high school completion rates are "likely the single most critical factor in determining PSE attainment levels”. High school completion is, in most cases, a pre-requisite for admission into postsecondary studies, and many institutions and programs have admission requirements that demand certain levels of achievement in specific high school courses. Whether we are speaking about Aboriginal students or not, programs that focus on increasing postsecondary education participation and attainment would benefit from an understanding of how many youth are leaving high school and qualify for different types of postsecondary programming.

In addition, where common applications forms and services exist, these services could potentially amass data that could tell us how many high school graduates in a given year apply to college or university, how many of these applicants meet admission requirements, and how many register for studies. However, this requires the ability to link K-12, application service, and postsecondary system data so that students may be tracked through the transition process. This is enabled where the same UPI is used for students in both the K-12 and postsecondary systems.

While many provinces (including Ontario) have established student identification numbers in their K-12 systems, only British Columbia, Alberta, and Quebec have instituted systems whereby this number is carried with students as they move into postsecondary institutions.[2] This has made initiatives such as British Columbia's Student Transitions Project (STP) possible. The STP links data held in numerous locations, including the province's K-12 data warehouse,

[2] In Ontario and Manitoba, some postsecondary institutions use the K-12 number if it is available on the incoming student's high school transcript, but the practice is not system-wide at this time.

data provided by research universities, and the Central Data Warehouse.[3] Through the STP, policy makers in British Columbia have access to data about how many students make immediate transitions from high school to postsecondary as compared to those who delay postsecondary for one, two, or three years. Moreover, they are able to compare these statistics regionally and investigate trends for Aboriginal populations.

Like the STP, the dataset that we are envisioning is based on administrative data gathered and stored in the day-to-day business of schools, institutions, and applications services. The use of administrative data has certain advantages. One of the key advantages is that administrative datasets contain data collected from the entire population in question (e.g., college applicants, university students, student financial assistance clients). Another key advantage is the longitudinal nature of these datasets.

However, the kinds of information that administrative data can provide are limited to administrative functions. There is rarely an opportunity to understand students' attitudes, opinions, or experiences through this kind of data. Student surveys are most often employed to elicit this kind of rich information.

Question 4: How does the postsecondary education experience of students who self-identify as Aboriginal compare with the experience of non-Aboriginal students?

Truly understanding the Aboriginal student population in the Ontario postsecondary education system would require more than statistics based on comings and goings, it would also require an understanding of the experiences and attitudes of the students. Such information may be gathered through interviews, focus groups, and other methods. However, to have data that is comparable across institutions requires a standardized questionnaire, administered in the same manner across the sector. In Ontario, there are a number of these standardized multi-institutional student engagement/satisfaction surveys in use, including the Ontario College Student Engagement Survey (OCSES) in the college sector which is now no longer in use,[4] and the National Survey of Student Engagement (NSSE) in the university sector. Both of these surveys ask respondents to self-identify as Aboriginal students, meaning that they could be used to better understand the experiences and attitudes of Ontario's Aboriginal students.

However, surveys collect information from only a sample of the population under examination. Data may therefore not be as precise. Different sampling methods produce different types of potential bias that may confound the ability to generalize results to the larger population. Porter (2004) notes that "as the demand for survey research has increased . . . survey response rates have been falling". Many student surveys are conducted on a voluntary basis, and non-response may bias survey results:

[3] Data from colleges, institutes and some universities are housed in the British Columbia Central Data Warehouse.

[4] HEQCO advises that a revised Key Performance Indicator Student Satisfaction Survey will be implemented, replacing some of the OCSES functions.

> Those who choose not to respond to surveys … tend to be less educated and older. My own experience with student surveys indicates that females, whites, and first and second-year students are more likely to respond to surveys than are other student groups. To the extent that respondents differ from non respondents in attitudes and beliefs, surveys with low response rates will be unrepresentative of the population under study. Any conclusions drawn from such unrepresentative data may be erroneous, which is problematic when such data are used for planning purposes (Porter, 2004).

Often, in the postsecondary education context, student surveys are conducted on a voluntary basis via the web. Where campus e-mail is used to invite participants, "it is quite possible that many students use these addresses infrequently, relying instead on email accounts that they have set up on other internet service providers" (Sax, Gilmartin, and Bryant, 2003).

Another potential issue in non-response bias is survey fatigue. In addition to standardized multi-institutional surveys such as NSSE, many institutions and departments also conduct their own surveys of students for various reasons. However, Porter, Whitcomb, and Weitzer (2004), note that:

> Even if the number of surveys on a campus is limited, the timing of the surveys could be such that two surveys may overlap or be administered back-to-back. On many campuses this may even happen unknowingly, as different offices administer their particular survey unaware of the actions of other offices.

As Aboriginal students are a group in which multiple stakeholders have keen interest, it may be the case that they are surveyed more often than other students both within and outside of the institutional setting, leading to higher levels of fatigue. Lavin and Gauthier (2001) point out that:

> Over the past three decades . . . the need for information on First Nations has increased dramatically. As a result, the number of surveys and studies of person on reserves has become onerous. . . .Adding to the total burden are the facts that some of the topics covered by some surveys can be sensitive and that sampling ratios are usually very high in small geographic areas like reserves.

Another common issue with survey data is that response rates and sample sizes may not elicit enough information about certain sub-populations to allow any meaningful analysis. This is of particular importance given our interest in Aboriginal students.

At this point, it is evident that both administrative data and student surveys have their applications and limitations when it comes to understanding students; and Aboriginal students in particular. However, some questions are best approached through combining these data sources, for instance, using administrative data as the framework through which to create a survey sample.

Question 5: How do students who self-identify as Aboriginal finance their post-secondary education? Do they experience financial hardship?

For example, answering the above question might be accomplished by using student financial aid and awards administrative records to identify a sample of Aboriginal students who have funded their education in different ways, and then administering a survey to that sample about any experienced hardships, delays, or frustrations. If there were also the ability to link student financial data and survey results to the aforementioned longitudinal dataset, we may be able to understand if different financial arrangements are associated with delays, interruptions, or cessations of study.

In Summary

At the conclusion of our thought experiment, we have envisioned a database that can respond not only to our original five questions, but is also likely to yield much more useful information about Aboriginal and non-Aboriginal students alike. The result is a centralized, longitudinal data-system that integrates selected student data elements from many sources including K-12, postsecondary applications services, student loan information, postsecondary institution administrative data, and student survey responses.

An example of such a database exists in Florida's Education Data Warehouse (EDW), which includes student data from Kindergarten to graduate-level study (K-20). The EDW goes further than what we have imagined above, integrating data from test scores, teachers, course information, awards, and information on employment outcomes. Florida is at the forefront of a movement towards integrated, high-quality education data systems across the United States led by the Data Quality Campaign.

The Data Quality Campaign (2006) reviewed existing longitudinal data systems for education data in four successful states (including Florida), identifying 10 critical elements for success that include:[5]

1. A unique state-wide student identifier;
2. Student-level enrolment, demographic, and program participation information;
3. Student-level transcript information, including information on courses completed and grades earned;
4. Student-level graduation and dropout data;
5. The ability to match student records between the K–12 and higher education systems;
6. A state data audit system assessing data quality, validity and reliability.

These characteristics are similar to those of the dataset we have imagined. If such a dataset were available in Ontario, policy-makers and researchers would be able to understand the ways

[5] Three critical elements in the American context relate to standardized test scores, which are not appropriate for consideration in this context. An additional element of successful longitudinal education data systems identified by the Data Quality Campaign is the ability to identify teachers and link teachers to their students.

that students progress through secondary studies and on to postsecondary education. This would be extremely beneficial in understanding the educational pathways of Aboriginal students. In forthcoming sections, we will discuss the steps that might be taken toward such a dataset. However, the most fundamental element is the ability to identify Aboriginal students with the greatest possible accuracy and stability through the most acceptable and appropriate means.

E. Issues in Aboriginal Self-Identification

Cultural Identity Formation

In the absence of rare exceptional circumstances, demographic attributes such as gender remain stable over the life course. This cannot be said of a person's cultural or ethnic identity. The process under investigation in this report, namely, the process through which an Aboriginal student chooses to self-report his or her Aboriginal identity to an institution or service, begins with the formation of an individual student's Aboriginal identity. However, the formation of personal and cultural identity occurs over the lifespan and may have not yet solidified at any given point when a student is approached to self-identify.

To delve into the issue of personal and cultural identity formation is mammoth task far beyond the scope of the present endeavour. However, it is important to note that Erik Erikson, a prominent psychological theorist on identity formation, posited that "the final assembly of all converging identity elements" occurs in adolescence (1994). However, Jensen (2003) makes a clear distinction between Eriksoninan views of personal identity formation and the formation of cultural identity:

> . . . the Eriksonian identity formation task centers on deciding what distinguishes you as an individual among the members of your cultural community, whereas forming a cultural identity involves deciding on the cultural communities to which you will belong—a task that has become more complex as more and more people have exposure to multiple cultural communities with their diverse and divergent custom complexes. In fact, forming a cultural identity becomes mainly a conscious process and decision when you have exposure to more than one culture.

Aboriginal people in Canada are exposed to at least two cultures. Cultural identity relates both to one's individual and collective identity, that is, a cultural group has its own behaviours, traditions, language, and worldviews; and a person's cultural identity is formed through interactions with cultural groups. The family and the community in which one is raised heavily influence one's cultural identity. In some Aboriginal cultures, the family dimension is particularly important to identity and "prevails into the introduction of oneself" (Jerome, 2008). Jerome offers the following translation from Vine Deloria Jr. (1997), explaining the conceptualization of the self:

> When you meet an Indian, most of the time, the question is 'Where are you from?' followed by 'Who is your family?' In American society, you are asked where you are from and what you do.

In a study of Australian Aboriginal and Torres Strait Islander children:

> Students reported that, in terms of identity as an Aboriginal or Torres Strait Islander person, it was generally in the context of the home that they heard the stories and learned the skills associated with their culture (Purdie, 2003).

Furthermore, in a study of Sami[6] adolescents, Kvernmo and Heyerdahl (1996) found that:

> . . . .ethnic self-identification was strongly related to the ethnicity of the parents. Children from monoethnic parentage make their first identifications with parents representing one ethnic group. However, adolescents with mixed heritage face the challenge of dealing with at least two cultures. Our results indicate that even though strong ethnic socialization is more likely in monoethnic families, nearly half of the adolescents from mixed families still identified with their ethnic group of origin.

Weaver (2001) notes that "the strong emphasis on the collectivity in indigenous cultures" may be problematic for those who self-identify as Aboriginal yet have no validation of that identity from the community, as historical circumstances

> . . . led to thousands of Native people being taken from their communities and raised without community connections through mechanisms such as interracial adoption, foster case and boarding [residential] schools.

Different levels of proximity and exposure to one's cultural heritage during development may affect the strength of one's identification with that community, as well as the stage in life where cultural identity is solidified. Identification with an ethnic group is an inherently subjective process. Dunn (1994) identified four "situations in which Aboriginal people can find themselves" that relate very much to their cultural identity as Aboriginal people:

- There are Aboriginal people who live in a "traditional" land-based culture in both a physical and spiritual sense;
- There are other Aboriginal people who are, for most purposes, completely assimilated into Euro-Canadian life;
- There are still other Aboriginal people who are in transition between those two "states" of being; and,
- Some of these people live their lives in a bi-cultural mode or in a state of dual identity.

---

[6] The Sami are a group of people indigenous to Scandinavia.

Context may affect one's self-perceived identity. In addition, contextual factors can affect whether that identity is reported.

Self-Identification versus Third Party Identification

One of the key contextual factors affecting whether a person's Aboriginal identity is reported is the method of ascribing that identity to a person. Self-declaration of ethnicity is seen as the most appropriate and culturally sensitive method available for establishing an individual's Aboriginal identity.

The alternative to self-identification would require formulating a definition of Aboriginality along with a third-party determination of whether definitional criteria are met. It is inappropriate for non-Aboriginal entities to define who is and who is not Aboriginal. Weaver (2001) asserts that "external, nonindigenous validation of Native identity, unlike community validation, is not grounded in a reasonable foundation".

At the same time, the diversity of Aboriginal populations in Canada hinders the ability to create a group that is sufficiently representative to develop definitions on behalf of all of Aboriginal people in Canada. In any case, the external observation approach risks excluding some individuals who would otherwise self-identify as Aboriginal persons.

There are many reasons why identification by external observation is problematic, not the least of which is misidentification in the use of this method. Various studies of health records in the United States have revealed issues of validity in racial and ethnic classifications in the data resulting from misclassification through external observation. Results of one study indicated that "the observed low cancer incidence in Native Americans relative to Whites in the Northwest is at least partially attributable to racial misclassification" (Frost, Taylor & Fries, 1992). A second study found that 95.9per cent of subjects who classified themselves as *American Indian* in initial interviews were, at the time of their death, classified as *White* on their death certificate, this being an observation reported by a funeral director (Hahn, Truman & Barker, 1996).

While it is inappropriate to question the validity of someone's self-declared identification as an Aboriginal person, instances do arise where errors can be made through self-identification. The Educational Policy Institute (2008a) reported incidents where international students were identifying as Aboriginal persons as a result of misunderstanding the question.

Contextual Factors

Where an individual's identity as an Aboriginal person is fully developed and stable, there may yet be a variety of contextual reasons for which individuals may be disinclined to declare their Aboriginal identity. Some of these situations are posited by the Educational Policy Institute (2008a) as follows:

- If an individual is enrolled in a school with few Aboriginal students, he or she might not want to be singled out in fear of racism or mistreatment.

- Parents might not want to fill out the information due to a political stance against data collection on First Nations or Métis status due to history of misuse.
- Lack of clear definitions of what it means to be Aboriginal or part of one of the different identity groups.
- If they move to another jurisdiction, then they might change the community with whom [sic] they identify.

With these considerations, the visibility of other Aboriginal people on campus may affect how comfortable an individual is in identifying himself or herself as an Aboriginal person. This may be particularly true where youth are leaving the Aboriginal community to attend postsecondary education.

Weaver (2001) recognized that the choice of accepting a Native identity may be "influenced by social, economic, and political factors," providing the examples where:

> . . . a climate filled with discrimination may lead an individual to reject a Native identity, whereas a climate in which a Native identity is seen as fashionable and perhaps financially profitable may lead an individual to assert an indigenous identity.

In a study of American Indians pursuing higher education programs in the "helping professions" (e.g., nursing, social work, and psychology), Weaver (2000) found that respondents in all disciplines reported struggling with stereotypes and racist attitudes in the postsecondary setting. Reflecting on this study, Weaver (2001) noted that:

> Sometimes these stereotypes are held by people of other cultural groups, but often they are held by other Native people who make assumptions based on cultural identity based solely on physical appearance.

In order to self-identify, Aboriginal persons must have established a level of confidence and trust in the agency collecting the information. Ethics frameworks, human rights codes, and privacy legislation have established a social justice infrastructure that seeks to protect all Canadians from discriminatory treatment. However, this infrastructure may not go far enough to allay scepticism and mistrust. In providing advice to school boards in the development of policies for Aboriginal self-identification, Ontario's Aboriginal Education Office (2007a) found through its consultations with Aboriginal people that they:

> . . . expressed concerns about the uses and possible misuses of their personal information and about the issue of security and the ability of institutions to protect the data they have collected. Such concerns are rooted in previous experiences involving the tracking of, and reporting on, Aboriginal peoples by governments and other organizations.

Perhaps for these reasons, and in recognition that "success in developing a student self-identification policy depends on the support of Aboriginal students, parents, and communities," the Ontario Aboriginal Education Office (2007) suggested that implementation of such policies involve a broad range of consultations:

> . . . individuals and groups need to understand, first of all, that student self-identification as First Nation, Métis, or Inuit is voluntary. Second, they need to know how Aboriginal children benefit from the collection of the data.

Contextual factors include the community and environment in which a person is asked to self-identify, the agency requesting the identification and the levels of established trust between the individual, Aboriginal communities, and that agency. In addition, Statistics New Zealand (2005) pointed to context effects in "the way people respond to how (the mode) and where/why (the circumstances) the information is collected":

> A common cause of change relates to the perceived purpose of the data, e.g., a person's responses may differ where they understand the data in one collection relates to familial information and in another collection to social environments. This does not necessarily mean people are completing a form irresponsibly; rather, they may be providing ethnicity responses to best reflect how they identify themselves relative to what they understand to be the purpose of the information. . . .perceptions of the purpose of ethnicity questions may include the indication of cultural needs, identifying cultural resources, and other positive, or indeed negative, discriminatory purposes, e.g., people may identify themselves differently when completing educational enrolments, benefit applications and census forms.

Self-identification approaches are explored in this project to facilitate the collection of data that can be effectively used to plan and evaluate government and institutional programs aimed at ameliorating conditions for Aboriginal postsecondary students, thus increasing the visibility and success of Aboriginal student populations. If these purposes are to be clearly stated as the rationale for collecting self-identification data, the benefits derived from the collection and use of data should be clearly visible to the public, if not showcased. If, over time, no benefit is derived from the provision of such data, or if alternative outcomes are perceived, Aboriginal people may become reluctant to participate and share their information in the future.

Ethnic Mobility

Ethnic mobility is another phenomenon that may create variance in an individual's response to questions about Aboriginal self-identification. Not only can the response to a question of Aboriginal identity vary depending on the context or the question employed, but an individual may also change his or her attitude towards his or her identity over the course of his or her life. In this sense, there is a temporal, dynamic component to identity:

> Cultural identity is not static rather, it progresses through developmental stages during which an individual has a changing sense of who he or she is, perhaps leading to a rediscovered sense of being Native (Weaver, 2001).

Ethnic mobility is somewhat different from the contextual factors discussed above; however, ethnic mobility is not independent from social context:

> At an individual level, these changes generally relate to personal social changes but are not independent of the wider social context. Hence, underlying real-world societal

> changes cause wide-scale ethnic mobility, often over a relatively short period of time (Statistics New Zealand, 2005).

Guimond et al. (2004) make reference to observations of rapid population growth in the Aboriginal populations of the United States, Australia, and New Zealand over recent decades that are "largely driven by shifts in self-reporting of Aboriginality". North American observations point to a series of societal changes over this period that may have resulted in a higher propensity to report Aboriginal heritage on a wide-scale:

> Of particular importance in this context was a new sense of political awareness and self-confidence, which has contributed to a raising of North American Indian consciousness in certain individuals who had heretofore not identified with this culture.

In reviewing population growth among Native American populations in the United States, Passel (1997) found that geography has a potential effect on large-scale ethnic mobility:

> . . .shifts in identification are more likely to occur in areas without large concentrations of American Indians or significant reservation populations. In the 'Indian' areas, which have reservations and large concentrations, identification as American Indian is more established by both self and community and so is less likely to change over time.

Ethnic mobility refers to changes in how people identify their ethnicity over time (Statistics New Zealand, 2005). Identity formation over the course of one's youth, which was discussed in previous sections, may be interpreted as one form of ethnic mobility.

The observation of self-identification trends among Aboriginal youth in British Columbia's K-12 system by Hallett et al. (2007), identified five separate identification patterns among students when asked whether they were of Aboriginal ancestry year over year, as paraphrased below:

1. Students who *always declared* (answered "yes") that they were of Aboriginal ancestry;
2. Students who *declared once*, but answered "no" on every other occasion;
3. Students who began by *previously declaring* "yes" at least twice, and then switched to "no" for the remainder of their time in school;
4. Students who began by answering "no" more than once and *subsequently declared* "yes" more than once; and,
5. Students who *inconsistently declared* "yes" and "no" answers throughout their school years.

Patterns of self-identification may be a significant predictor of educational success. Hallett et al. (2007) found that the high school dropout rate for those students who *always declared* (60.7per cent) was much higher than that of the group of students who did not declare for a number of years, and then *subsequently declared* their Aboriginal identity (36.36per cent). In addition, the

researchers found that a high proportion of Aboriginal children living on reserve *always declared* (94.2per cent) compared to those not living on reserve (32per cent).

This kind of data would not be possible without repeating the process of asking Aboriginal people to self-identify on a frequent, if not regular, basis. The issue of unstable self-identification complicates the measurement of the effectiveness of programs and interventions designed to bring about increases in Aboriginal participation and success in PSE. In this context it is difficult to determine whether observed increases are attributable to program effect or increasing frequency of self-identification.

In British Columbia, Aboriginal students are asked to self-identify many times throughout their educational career. To facilitate analysis, a tag on individual student data records exists to indicate whether a student has ever been identified as Aboriginal in either the K-12 or postsecondary context. This "Aboriginal-ever tag" is useful in aggregate reports, but may be too blunt an instrument for more detailed analysis regarding self-identification patterns over time.

The British Columbia Representative for Children and Youth discovered discrepancies in the number of Aboriginal students between the data sets of the Education Ministry and the Ministry of Children and Family Development. They noted that "a large number of children who were identified as Aboriginal in the Ministry of Education's system were not identified as Aboriginal in the Ministry of Children and Family Development's system" (RCYBC, 2007). Addressing these discrepancies raised the percentage of Aboriginal children in care in the study population from 32.8per cent to 43.9per cent.

The Representative speculated that this issue might arise *because of* the frequency with which children are asked to self-identify:

> It is possible that, once the form has been filled out for a child, it is regarded as tombstone information and is rarely changed after that (RCYBC, 2007).

The frequency with which a person is asked about their Aboriginal identity or ancestry relates to the ability to measure ethnic mobility. This is an important aspect of the mode of soliciting this information, as are the way in which the question is posed, the words used, and the medium in which the question is situated.

Question Attributes

Morning (2008) compared approaches to ethnic enumeration in 141 countries, based on a data set compiled by the United Nations Statistical Division. She found that while 65 per cent of nations enumerated their populations according to some sort of national or ethnic classification, there was a wide variety of approaches,

> . . .as evinced by the spectrum of terms employed; "race", ''ethnic origin,'' ''nationality,'' ''ancestry'' and ''indigenous,'' ''tribal'' or ''aboriginal'' group all serve to draw distinctions within the national population. The picture is further complicated by the ambiguity of the

> meanings of these terms: what is called ‘‘race’’ in one country might be labelled ‘‘ethnicity’’ in another, while ‘‘nationality’’ means ancestry in some contexts and citizenship in others.

While the "conceptual borders" among these terms are vague, Morning notes that "they share a common connotation of ancestry," each concept relying on "shared roots" in cultural practices, physical traits or geographic location (2008).

In the discussion of the Canadian Census questions above, we identified a number of *dimensions* of Aboriginality that are explored in the context of that questionnaire, and the *modes of response* that are enabled in the 2006 questionnaire. These are:

1. Ancestry/Ethnic Origin (open response - multiple responses possible)
2. Aboriginal Identity (yes/no)
3. Identification as a North American Indian, Métis, or Inuit individual (select one)
4. Legal status as a treaty or registered Indian (yes/no)
5. Membership in a First Nation, Indian Band or Aboriginal Community (yes/no)
6. Specific community of which one is a member (open response - single response only).

An additional concern with regard to Aboriginal people is the place of residence, be that classified as urban versus rural, First Nations people living on or off reserve, or Inuit people living in the north or south. These variables can be derived through the questionnaire used and/or the respondent's reported geographic address.

In their review of current approaches to Aboriginal self-identification in Canada, the Educational Policy Institute (2008a) investigated whether questions in various contexts asked individuals about their identity or ancestry:

> The first [approach asks] whether they identify themselves with a specific cultural group (e.g., Anishnaabe). The second is to ask about ancestry or, roughly, how they would describe their parents and grandparents. Because of ethnic intermarriage, the number of people claiming ancestry of a particular group is always larger than the number of people claiming identity with that group.

While this is true, as discussed by Guimond et al. (2004) and as shown by Census data presented in Figure 2 above, having reported an Aboriginal Identity does not in all cases presume the concurrent reporting of Aboriginal ancestry. Moreover, Lee and Edmonston (2009) note that:

> Identification with particular ethic origins is highly symbolic along several dimensions. It can indicate awareness of one's ancestry, an awareness that may vary by place of birth, length of history and settlement in a country, context or place of residence. . . Choosing to report particular ethnic origin(s) is likely associated with personal identification with

> those origins. For example, when an individual reports her ethnic origin as "Greek", her response can be interpreted as indicative of an identification of self as "Greek".

Cultural identity and ancestry or ethnic origin are undoubtedly linked; however, if the purpose is to determine who among a certain population considers themselves to be an Aboriginal person, then it would seem that the identity approach is more direct than the ancestry approach. In addition, in response to a review of the 2006 Census questions, discussants indicated that it is not clear what is being asked in the ancestry or ethnic origin question:

> The concept of 'ancestry' was thought to be confusing, [in terms of] how far back [in one's family history] to go [and] why not to include parents and grandparents. . . . several groups indicated that this question is of academic interest only, and that the identity question is the most useful. Answers [to the ancestry] question are potentially imprecise, being affected by what one remembers, by what ancestry is unknown, and by the examples that are given in the question (Statistics Canada, 2008).

According to Morning (2008) censuses vary in the extent to which they use *examples* in ethnic classification questions, and that "given typical space constraints, this strategy is not widespread". An alternative approach is to provide a list of response categories with checkboxes. In addition, Morning (2008) discovered a number of approaches to *phrasing* questions, providing a number of examples including the following:

- 'What is your ethnic group?' (U.K.)
- 'To which of the following communities do you think you belong?' (New Caledonia)
- 'How does [the person] classify himself/herself?' (Philippines)
- 'Do you consider yourself as belonging to an indigenous ethnic group?' (Paraguay)
- 'Is there someone in this household who considers him/herself a descendant of or belonging to an indigenous people?' (Argentina)
- How would (the person) describe him/herself in terms of population group?' (S. Africa)

As these examples show, questions of ethnicity can be phrased in terms of being or belonging to a group, considering one's self as belonging to a group, and thinking of or describing one's self in a certain way.

Another attribute of a self-identification question, separate from the phrasing, is the *terminology* used. As described in previous sections, certain terms, such as *Eskimo* are no longer seen as appropriate for usage, and in other cases, there may be preference for one term over another. Terminology must also be grammatically correct. For instance, it is not correct to ask "Are you an Inuit?" because *Inuit* is a word in the plural form. However, the singular form *Inuk* is less well known. For this reason, Simon and Germain (2009), after qualitative testing, recommended that this response category in the Census 2011 Aboriginal Identity question be changed to "Inuk (Inuit)".

At this point it is evident that there are various attributes to consider when developing a question for Aboriginal self-identification:

- Which *dimensions* of Aboriginality are being asked about (e.g., ancestry, identity, status)?;
- What are the *response options* available (e.g., single response, open response, multiple responses)?;
- Are *examples* provided, and if so, what are they?;
- How is the question *phrased* (e.g., in terms of being a First Nations person, or belonging to a First Nation)?; and,
- What is the appropriate *terminology* to use in the question (e.g., First Nation or North American Indian)?

Guimond et al. (2004) suggest that:

> If political and legal issues are of priority, then a legal criterion might be emphasized (i.e., who exactly is registered under the *Indian Act*). If the main objective of research is to distinguish various ethno-cultural groups, then First Nations membership might be emphasized. Presently, for policy and social planning purposes, Federal departments typically use some sort of blended "identity/registration/First Nations membership" definition.

However, it may be the case that the most important questions are: "Why are we asking this question?" and, "What do we really need to know for our purposes?" Considerations such as these will also influence the situation and medium through which the question is asked.

Data Collection Instrument Attributes

There are potential opportunities to ask Aboriginal students to self-identify in almost every situation where other demographic information is provided, whether this is in the context of a survey, an application form, or in the course of accessing specific programs, services or funding opportunities. Regardless of the type of instrument through which data is collected, one of the primary concerns should be the strength of protocols through which security, confidentiality, and privacy are ensured. In the context of Aboriginal self-identification, the next concern should be coverage and the overall purpose of the data collection instrument.

Generally, the primary purpose of a student survey is not to establish the demographic characteristics of a population. Rather, it is to understand something about a sample of a given student population, whether it is their level of engagement, satisfaction, or attitudes. Usually, a survey includes demographic variables only so that the overall results can be better understood vis-à-vis the different characteristics of groups of respondents. The limitations of sampling have been discussed earlier, but it is important to understand that without a representative sample,

estimating the number of Aboriginal students in a given institution based on the number who self-identify as Aboriginal in a student survey is not likely to yield accurate results.

An application form, on the other hand, covers everyone whose intention it is to enrol in a university or college program. Moreover, the purpose of the application form is to collect all of the information necessary for consideration of the application itself and the administration of the application process overall. Collecting demographic information is not necessarily required for this purpose, but if an applicant chooses to report demographic information (e.g., gender, ethnicity, first language) this demographic information is easily associated with a data subject's educational profile.

Moreover, centralized services with common application forms imply an approach that is inherently standardized across institutions. A standardized approach is likely to yield more useful data that are more amenable to interpretation. However, a potential disadvantage of this approach is that submitting an application to one institution does not ensure that a student will register, or remain registered at that institution. This suggests that the information yielded through application forms is most useful when validated against institutional enrolment data contained in administrative files, as is routinely done in Ontario.

Some institutions in Ontario have chosen to circulate a form or survey specifically for the purpose of identifying Aboriginal or other under-represented students. This approach may yield different results than would data collection through a broader instrument, such as a satisfaction survey or application form. An issue that merits further investigation is whether this approach results in more frequent self-identification among Aboriginal students than would embedding the self-identification in another instrument. Statistics New Zealand (2005) suggests that the specific purpose for which information is collected, as indicated by a particular form or instrument (e.g., application or scholarship form), may influence a person's response to ethnicity questions:

> … perceptions of the purpose of ethnicity questions may include the indication of cultural needs, identifying cultural resources, and other positive, or indeed negative, discriminatory purposes, e.g. people may identify themselves differently when completing educational enrolments, benefit applications and census forms (pg. 4).

One self-identification form that we reviewed indicated potential benefits from self-identification to the respondent, such as being included on various mailing and informational lists. However, no reference was made in the form to other potential uses, such as statistics and institutional research, improving programs for Aboriginal students, or tracking students through their studies. Nevertheless, it is likely that the information garnered through this form is used for these purposes. In this case the form itself may raise scepticism and discourage response.

In Summary

There are numerous factors influencing a person's propensity to self-identify as an Aboriginal person in the context of data collection in an educational setting. Many of these are outside the

control of those designing survey instruments and self-identification questions. Identity formation, contextual factors, and the effects of ethnic mobility are all likely to impact upon the response, and these are highly dependent upon the age of the respondent and the environment in which the information is being collected. The inevitable result is highly variable patterns of self-identification, particularly among Aboriginal student populations that are more diverse in age and background.

At the same time, there are elements of the process of self-identification over which researchers do have control and these elements are also highly influential on the responses of individuals. These elements are:

1) the attributes of the self-identification question;
2) the data collection instrument employed;
3) the manner in which data are integrated stored, analyzed, and used; and
4) programs aimed at encouraging self-identification. The remainder of this report will focus on these four areas.

F. Current Practices in Ontario

Ontario's K-12 Education System

In 2007 the AEO embarked upon an initiative "to help Ontario school boards develop effective policies and practices for voluntary, confidential Aboriginal student self-identification". According to the *Ontario First Nation, Métis, and Inuit Education Policy Framework* school boards "are encouraged to develop policies for voluntary, confidential Aboriginal student self-identification that would provide a basis for gathering the relevant information" (AEO, 2007b).

The Ministry of Education requires self-identification measures to be implemented in order to establish baseline data in alignment with 10 specific quantitative and qualitative performance measures that "will be used to gauge the success of the implementation of the framework" (AEO, 2007b).

A number of guidelines and expectations were set out for school boards in the document *Building Bridges to Success for First Nation, Métis, and Inuit Students.* The first was that the policy should recognize the diversity of the Aboriginal student population. Policies for self-identification were expected to be able to identify:

1) First Nations students who live in First Nation communities but attend provincially funded elementary or secondary schools under tuition agreements;

2) First Nation students who live in the jurisdictions of school boards and attend provincially funded elementary or secondary schools;

3) Métis students who attend provincially funded elementary or secondary schools; and,

4) Inuit students who attend provincially funded elementary or secondary schools (AEO, 2007a).

In addition, boards were advised to consider the Constitution, privacy legislation, and the *Ontario Human Rights Code* in the development of their policies, consulting with legal counsel and freedom of information coordinators "to ensure the legal accuracy of the policies they are developing" (AEO, 2007a).

Boards were also expected to engage in broad consultations with Aboriginal students, parents, and their communities in the development of their policies to answer questions, to emphasize that self-identification is voluntary, and to describe the benefits that Aboriginal children and youth would derive from the collection of data. Boards were also advised that implementation would be facilitated through their clear articulation of their intended uses of the data and to whom the data would be disclosed (AEO, 2007a). Aside from these guidelines and expectations, the Ministry has allowed school boards considerable latitude in the development of these policies.

Question Attributes and Data Collection Instruments

The *Building Bridges* document largely focussed on providing advice to boards about how to involve Aboriginal communities in policy development and what information should be emphasized in the consultation of these conversations (i.e., that self identification is voluntary and confidential). Beyond the requirement of being able to identify First Nations (tuition agreement or not), Métis and Inuit students, there was little advice or parameters around terminology or how to approach the question. Through this approach, issues can arise that confound the ability to aggregate the data collected from various school boards to a system level.

Consider the following four examples drawn from forms designed for the specific purpose of Aboriginal self-identification:

1. Limestone District School Board Voluntary, Confidential Self-Identification Form
   http://www.limestone.on.ca/Parents/Aboriginal_Parents/Documents/Self_Id_form.pdf

___ My child is/children are of Aboriginal ancestry or I am of Aboriginal ancestry (students 18 years of age or older)
Indicate the People or Peoples related to your ancestral origin. If of mixed ancestry, check off all that apply.
___First Nation ___________________________________(identify)
___Metis [sic] ___Inuit

2. Trillium Lakelands District School Board Voluntary & Confidential First Nation, Métis and Inuit Self-Identification Form http://www.tldsb.on.ca/documents/FirstNationVoluntaryID-FIN.pdf

I consider my child to be of Aboriginal ancestry __Yes __No The categories that apply to my child are checked below: __ First Nation Tuition (student living on reserve and attending a TLDSB school under a tuition agreement) __ First Nation __ Métis __ Inuit

3. Simcoe County District School Board, First Nation, Métis, and Inuit Ancestry Brochure http://scdsb.on.ca/media/files/programs-and-services/aboriginal-education/Ancestry%20BrochureJan-09.pdf

First Nation, Métis and Inuit Ancestry: I consider my child to be of First Nation, Métis and Inuit ancestry. ___Yes __ No The categories that apply to my child are checked below: __ First Nation Status __ First Nation Non-Status __ Métis __ Inuit Language of First Nation, Métis or Inuit Ancestry: __ Ojibwe __Cree __Oji-Cree ___ Mohawk __Michif __Inuktitut __English Other, please identify ________________________

4. Lakehead District School Board Parent/Guardian Information Sheet http://www.lakeheadschools.ca/content/media/510.pdf

What does the question look like on the student registration and update forms? Please select one of the following choices: __First Nation (Status/Non-Status) __ Métis __Métis __ Inuit __Non-Aboriginal Languages spoken at home: __English __French __Ojibway __Oji-Cree __Cree __Other (please specify):________________

Within the four examples given above there are four different treatments of the First Nation category - even though all are framed in terms of ancestry. In the first, there is no distinction made between status and non-status First Nations, but respondents are asked to identify a

particular nation of ancestry. In the second example, one can choose First Nation Tuition and/or the less specific First Nation, but no reference is made to status. In the third example, there is no general First Nations category, but respondents can identify as either First Nations Status or Non-Status. In the last example there is only one First Nation category, and it is clear that this category is for either status or non-status individuals. However, the third example in the group is the only case where multiple responses are not allowed.

Data Integration, Analysis, and Use

School boards have been advised that their self-identification policy should enable the identification of First Nations students living on reserve, other First Nations students, Métis students, and Inuit students. It is therefore presumable that the information collected through various approaches and forms will be able to be aggregated across these categories.

However, the aggregation of data collected through these various forms may prove to be difficult. Just in the examples provided above, there are four different categories of First Nations student (e.g., First Nations, First Nations Tuition, First Nation Status, and First Nation Non-Status). If two or more of these groups were to be combined, how should these data be interpreted? In a province with 72 school boards, it is likely that a non-standardized approach will result in data that, if aggregated to a province-wide level, would be unintelligible. In such circumstances, the objective for baseline data outlined in the *Framework* would not be achievable.

At the same time, adding locally relevant questions, such as the language questions in examples three and four, does not detract from the purposes of collecting meaningful and useful self-identification data. One or two standardized questions would not preclude school boards from tailoring their self-identification forms for their own purposes.

Another potential issue is emerging through this approach in the realm of definitions. In earlier sections of this report, issues around terms used to refer to Aboriginal people in Canada and their definitions (or lack thereof) were discussed. In encouraging school boards to pursue localized approaches, some school boards have attempted to define the terms used in their forms. This opens the potential door for boards to develop inconsistent, competing definitions.[7] Inconsistent definitions have implications for data integration and interpretation, and there are also political concerns. Government and other data users might find themselves in a difficult position in trying to decide which of the competing definitions is most appropriate.

Avoiding the definitional issue altogether would be a better approach if the concern is to enumerate those who self-identify as Aboriginal, whether that identity is First Nations, Métis, or Inuit. The aim of these policies is to encourage, not to discourage, self-identification.

[7] In fact, at least two definitions of the word Métis were discovered in school boards Aboriginal self-identification policy documents in the course of this study.

Programs and Efforts to Encourage Self-Identification

In essence, the entire process that led to the *Building Bridges* report can be considered as a program to encourage self-identification. Through the funding and direction provided to school boards by the Ministry of Education, numerous consultations and meetings with Aboriginal parents, Aboriginal communities, and leaders were held. In the report, a number of school boards and Aboriginal organizations indicate that these meetings were essential for building trust that data would be confidential, fostering a common understanding about why data was being collected and how it would be used (AEO, 2007). In addition, some school districts have developed informational brochures explaining the self-identification initiative that will inform parents of new students as they arrive each year for studies.

Self-Identification Questions Currently in use in Postsecondary Education Forms and Questionnaires

Appendix C contains a variety of questions regarding Aboriginal self-identification from a variety of student surveys and forms; most from Canadian jurisdictions. Among the examined surveys and forms in use in Ontario (including surveys that are also in use Canada-wide, such as NSSE and CUSC), there are various approaches. At first glance, these questions may seem quite similar, but, in fact, there is little consistency (See Table 1 below). This section explores the benefits and disadvantages of the various questions listed in Appendix C, taking into consideration the previous discussion of Census questions.

Table 1: Summary of Question Attributes

Survey/ Form Title	Ancestry versus Identity	Multiple Responses Permitted	Specify First Nations, Inuit or Métis
Ontario College Application Service	Ancestry	No	Yes
Ontario University Application Centre	Identity	No	Yes
National Survey of Student Engagement (Canadian Version)	Identity AND Ancestry (2 separate	Yes	Yes
Canadian Graduate and Professional Student Survey	Identity OR Ancestry	No	No
Ontario College Student Satisfaction Survey	Ancestry	Yes	No
National Physician Survey	Identity	Yes	Yes
Canadian University Survey Consortium	Ethnic or Cultural Group	Yes	Yes
Mohawk Aboriginal Self-Identification Form	Identity	No	No
Laurentian Survey of Underrepresented Students	Ancestry	Yes	Yes
Academica Group's University College Applicant Survey	Identity	No	No

Ancestry or Ethnic Origin versus Aboriginal Identity

One of the first considerations in formulating a question through which Aboriginal people may self-identify is whether to frame the question in terms of ancestry or origins or to frame the question in terms of Aboriginal identity. For each approach, there are various phrasing options. For instance, in an example of the ancestry approach, the 2008 Australasian Survey of Student Engagement asks the question in terms of origin/descent: "*Are you of Aboriginal or Torres Strait Islander origin? Are you of Maori descent?"*[8] The Canadian NSSE 2007 questionnaire asks a question about the ethnic or cultural group to which one's ancestors belong, listing possible Aboriginal responses as examples.[9] This is a similar approach to the ethnic origin question in the Canadian Census long form questionnaire from which Aboriginal ancestry figures are derived.

[8] http://www.acer.edu.au/ausse/AUSSE_SEQ2008.pdf

[9] http://nsse.iub.edu/pdf/NSSE2007_Canada_English_Web_Questionnaire.pdf

The simplest way to pose a question regarding Aboriginal identity is to ask: *Are you an Aboriginal person?* This is the approach taken in the Census, and in numerous examples provided in Appendix C. However, some questions are phrased in a manner that emphasizes the primacy of self-perception (e.g., Do you consider yourself to be an Aboriginal person?; Do you identify yourself as an Aboriginal person?), whereas other modes of phrasing emphasize membership with a group (e.g., to which group do you belong?; Are you a member of any of the following groups?). The latter method is generally employed where a long list of potential ethnicities follows, and respondents are encouraged to check any and all categories that they feel apply to themselves. The former, more direct, approach is often used where the question focuses on respondents' Aboriginal identity.

Census 2001 data indicate that significantly more people in Canada reported some sort of Aboriginal ancestry (1,319,890) than reported Aboriginal identity (952,890). Recall that a respondent may list up to four "ethnic origins" and that Aboriginal ancestry indicates at least one Aboriginal response among the four options. Such a response does not necessarily indicate that a person self-identifies as an Aboriginal person. However, as Figure 2 above shows, although there is considerable overlap between those reporting Aboriginal ancestry and identity; Aboriginal identity does not necessarily imply ancestry.

An inclusive approach would be to combine the concepts of identity and ancestry. For instance, the Canadian Graduate and Professional Student Survey (CGPSS) asks: "*Do you self-identify with, or have ancestry as an Aboriginal person (status or non-status Indian, Métis or Inuit)?*"[10] Presumably, those who answer the CPGSS question will answer "yes" whether they view themselves as Aboriginal people *or* they recognize Aboriginal ancestry. The OCSES 2007 questionnaire asks "*Do you consider yourself to be a person of Aboriginal or native ancestry?"* This is another question that combines the concepts of ancestry and identity.

The approach taken can depend upon numerous considerations, the most important of which are the purposes for which the self-identification information is being collected. If the purpose favours a more inclusive approach, the CPGSS approach may be best. The identity approach is more focussed on those people who consider themselves to be Aboriginal, and may not include some respondents who would otherwise report ancestry.

Detail of Demographic Information Requested

Most questions listed in Appendix C ask respondents to self-identify as First Nations, Métis, or Inuit persons through a follow-up question or through a list of various possible cultural origins. There may be numerous advantages in collecting this level of information. It is important to know what proportion the Aboriginal student body is Métis or Inuit versus those who are First Nations to ensure that the special needs of these sub-groups are being addressed.

Responses to the online survey and the analysis of Multi-Year Accountability Agreement (MYAA) reports indicate that some methodologies for estimating numbers of Aboriginal students

[10] http://www.uottawa.ca/services/irp/docs/GPSS-final_EN.pdf

are based on the number of sponsored or band-funded students. However, these figures are not likely to include all Aboriginal students, as Métis and non-Status First-Nation students do not qualify for band funding. Therefore, another level of information that may be useful is to ask those who identify as First Nations persons whether they are registered under the *Indian Act.*

Knowing whether a student is receiving band funding was reported as being important by 75per cent of respondents to this study's online survey.[11] At the same time, knowing that a student belongs to a specific First Nation community, or that he/she is registered under the *Indian Act* may not be sufficient to determine whether the student receives funding support through the federal PostsecondaryStudent Support Program. According to David Holmes (2006):

> Even for status Indians eligible for federal funding, there is not always enough money to go around. …funding has not kept pace with demand, especially during the government expenditure constrictions of the 1990s. Indeed the student support program has suffered from the dual effects of expenditure constraints and university tuition fee increases so that the number of students funded by INAC has dropped in recent years from a peak of 27,183 in 1995-96 to around 25,000 today. The Assembly of First Nations estimated that 8,475 eligible students did not get any funding in 2000-01 when 25,305 students were funded by INAC (p. 13).

Laurentian University's recently implemented survey of under-represented student groups directly asks Aboriginal students whether they receive sponsorship or funding support and, if so, to list the sources of funding (Laurentian University, 2009). This is a simple method of gathering this information. However, this would be an inappropriate question to ask in the context of some data collection instruments. For example, a student applying to a postsecondary institution may not yet be aware if they will receive funding or from whom. Moreover, it is likely that through data linkages or cross-referencing, information about sponsorships and funding can be derived from elsewhere. A number of respondents to our survey indicated that this sponsorship information was available through their existing student information system.

Multiple Responses

Multiple responses are made possible within questions that address Aboriginal ancestry/identity in the context of a broader ethnicity or cultural origin question. Enabling multiple ethnicity responses in this manner raises the issue of how to address multiple responses when they arise. For example, if a person indicates five or six different ethnicities, among which only *one* is Aboriginal, should this be considered as an instance of Aboriginal self-identification?

One approach is to exclude multiple responses from data analysis. In another approach, referred to by Liebler and Halpern-Manners (2008) as the *all-inclusive approach*, a person who indicates both First Nation and Métis ancestry would be double-counted as an individual in both categories. A third approach is to establish a *single residual group* for multiple Aboriginal

[11] A full discussion of the online survey results is forthcoming in pages 52-70.

responses. Each of these approaches can be problematic, particularly if multiple datasets are to be linked or aggregated.

A question format that discourages multiple responses is a simple solution, particularly because the main concern in this study is Aboriginal self-identification rather than the collection of information about broader ethnic/cultural origins. Questions phrased in terms of Aboriginal identity may also permit multiple responses where First Nations, Métis, or Inuit responses are available; however, because any one of these responses is an Aboriginal response, multiple responses are less of a concern for the purposes of establishing who is Aboriginal.

Supplementary Information - Examples, Rationales, and Definitions

It may be useful, in a preface to the question, to offer some guidance as to why the question is being posed, the potential uses of information, and examples or definitions of response categories. For instance, the Ontario University Application Form provides this preamble to the Aboriginal self-identification question:

> *The Aboriginal and Treaty rights of the Aboriginal peoples of Canada are recognized and affirmed in the Constitution Acts of 1867 to 1982 (section 35). Section 35(2) indicates that Aboriginal peoples include Indian (First Nation), Inuit and Métis peoples. In keeping with this definition, you may self-identify by answering Yes to the question. You may further specify one of First nation, Métis or Inuit. If you do not meet this definition or do not wish to declare your status, leave the field blank or choose 'No/Undeclared'.*

According to Educational Policy Institute (EPI) (2008a), some jurisdictions have discovered that international students who misunderstood the meaning and intent of self-identification questions were mistakenly identifying themselves as Aboriginal students (pg.40). The definition supplied in the Ontario University Application Form may control against this type of misidentification.[12]

It is also clear in the preamble that response is voluntary, and that respondents may either submit a blank response or choose "No/Undeclared". However, this approach situates Aboriginal identity within the context of an externally imposed definition, which may be problematic for some who feel that their Aboriginal identity cannot be affected by legal definitions.

When collecting personal information it is critical in some cases, under privacy legislation, to provide supplemental information. According to Section 39(2) of Ontario's *Freedom of Information and Protection of Privacy Act,* when personal information is collected on behalf of an institution, either directly from that person or indirectly from another source, the institution must

[12] In the Ontario College Application Service another approach is taken to control for international students mistakenly reporting themselves as Aboriginal. Only when applicants identify themselves as Canadian citizens in a previous response will the opportunity to identify their "status in Canada" as being of "Aboriginal ancestry" arise. However, this approach may in itself be problematic as it could give the impression that the applicant is being forced to choose between being a Canadian citizen or being an Aboriginal person. This is not the case, however, as respondents will have already reported their Canadian citizenship in a previous question to have the opportunity to report their Aboriginal ancestry.

notify the individual of that collection. The requirements for a Notice of Collection are that it clearly states: a) the legal authority for the collection; b) the principal purpose(s) for which the personal information will be used; and, c) the contact information of an official who can answer the individual's questions about the collection (OIPC, 2008). These requirements are reflected in the Notice of Collection that accompanies Laurentian University's online survey of under-represented students:

Laurentian University Survey of Under-represented Students: Notice of Collection

Laurentian receives provincial funding to help under-represented students attend university. …

By accepting to help Laurentian understand the characteristics of its student population, ***you will help your university obtain funding and improve services to students.***

Filling in the questionnaire is optional. *You may refuse to participate, refuse to answer a given question, or stop anytime with no consequences to you. …We collect this information under the authority of the Laurentian University of Sudbury Act, 1960.*

Only authorized Laurentian staff persons, or authorized external researchers, will use the information to prepare reports on under-represented groups. Their analysis may require the linking of information collected through this questionnaire to other Laurentian information records. All reports and analyses will show only aggregate summaries. They will not reveal information on individuals. The information may be used internally or externally to help compare Laurentian's under-represented groups with other student groups at Laurentian or at other institutions. If you have questions about the collection, use, and disclosure of this information, please contact Laurentian's Director of Institutional Research.

Data Collection and Use in PostSecondary Education: Multi-Year Accountability Agreements

The Multi-Year Accountability Agreements (MYAAs) that have been employed for data collection regarding Aboriginal and other under-represented student groups in Ontario's public postsecondary institutions follow a similar approach to that of school boards. In either approach, institutions or school boards are highly autonomous, but are encouraged to operate within certain guidelines or parameters. In such an approach, data are often collected in a non-standard manner and therefore cannot be aggregated across institutions. However, if the way in which a single institution collects data remains the same over time, this can allow the establishment of a baseline and the measurement of increases or decreases in the number of Aboriginal students over time.

Since 2006/07, each year at the end of July, institutions have been expected to submit to the Ministry of Training, Colleges and Universities (MTCU) an annual report that includes a copy of the institution's audited financial statements and the "MYAA report-back." The "report-back" is a template through which institutions are expected to report on progress toward achieving objectives laid out in numerous contexts, including the institution's strategic plan and in the Multi-year Accountability Agreement between each institution and the Ministry.

For the purposes of this project, we are concerned only with the "report-back" provisions for measuring the number of Aboriginal students in a given institution. We collected and analyzed at least one "MYAA report-back" for each Ontario university and college, focussing on what was entered in the fields of the first table under the heading *A. Access*. A table summarizing this analysis can be found in Appendix B. In the MYAA report-back template, colleges are instructed as follows vis-à-vis completing the section under examination:

> Referring to your approved MYAA Action Plan, list the measurement methodologies your college uses to determine the presence of under-represented groups (Aboriginal students, first generation students, students with disabilities, and mature students) and Francophone students in its student population. Describe the instrument being used and the categories of students being surveyed. Particularly valuable are methodologies and results that complement those of the Ontario College Student Engagement Survey (OCSES) – for instance, those that address participation in part-time, transition or apprenticeship programs.
>
> Individual students may belong to more than one group. In the cells counting respondents for each under-represented group, do not adjust for this potential double-counting. Eliminate any double-counting in the column, "Total Number Self-Identifying as Member of Under-represented Group".

The instructions above are provided to guide institutions in populating the fields in a table that is pre-existing in the template (see example in Figure 4 below). In the template, an opportunity for providing explanatory notes is available beneath the table.

As Figure 4 shows, Canadore College in 2007 supplied all of the information that the template required. However, the table above would provide more information if it requested institutions to also indicate their total student headcount, the response rate of surveys from which data are drawn, and their own calculations of the proportion of their student population that identifies as Aboriginal given the data they are reporting.

Figure 4: Example of MYAA Report Back access for under-represented students table

Measurement Methodology (including description)	Student Groups in Your Student Population				Total Number Self-Identifying as Member of Under-represented Group	Francophone Students	Total Number of Students Surveyed, if applicable
	Aboriginal	First Generation	Students with Disabilities	Mature Students			
	#	#	#	#			
OCSES data totals	55	104	59	7	186	26	332
Aboriginal self-identification data from College's Student Information System	309						
Registered self-identified students with disabilities with Canadore's Special Needs department		653					
The number in the OCAS non-secondary category (1st year enrolment only)				803			

Source: Canadore College. (2007). Annual Report
http://www.canadorec.on.ca/AboutCanadore/upload/MYAAReportBack07-08-2.pdf

Among college MYAAs, 14 out of 24 reported using the Ontario College Student Engagement Survey as the method for establishing the reported number of Aboriginal students. This is an online survey that is open to all students in the institution for response. In many reports, it was not clear how many students responded to the survey, and if so what proportion of the potential population of respondents this number represented. If it is not clear what proportion of the overall population has responded to the survey, then providing the number of self-identifying Aboriginal respondents does little to help anyone estimate how many self-identifying Aboriginal students are in the overall student population. Fortunately, in the above example, the institution has supplemented the survey data with data from their administrative records.

Despite being encouraged to use the OCSES in their methodology, 10 colleges either preferred another method or had unclear methods for determining their numbers. Some may not have chosen to report OCSES data because of low response rates. One institution listed a number of methods as follows: self-identification, Ontario College Application Service (OCAS) application, sponsorship information, internal student survey. It is unclear whether the number provided is an amalgam of these sources or how any instances of double-counting among these sources were addressed.

The report-back template for universities contains similar instructions as does the template for colleges for filling out a table similar to that exemplified in Figure 4 above. However, universities had previously delineated their methodologies for tracking under-represented student groups in an approved planning document. Unlike colleges, universities are advised in the report-back

that "the ministry recognizes that these measurement methodologies may require students to self-identify, which may result in under-reporting”.[13]

Among the MYAA reports submitted by universities, the most common method employed for estimating numbers of Aboriginal students is the National Survey of Student Engagement. Twelve out of 21 universities reported using this method, either alone or in conjunction with another survey (e.g., Canadian Undergraduate Survey Consortium, Canadian Graduates and Professional Student Survey), and/or with administrative data. However, the NSSE survey is only administered every two years, and it is administered to two separate student populations: first-year students and senior-year students. A number of universities using NSSE to identify Aboriginal students did not clarify between the results for first and senior year students, and at least one university did not indicate the year of the survey from which data was drawn.

Moreover, similar issues prevail in universities with the NSSE as in the colleges with the OCSES. While some universities reported sample size and provided ranges of error for their estimates, others failed to indicate sample size or the size of the student population surveyed.

Seven universities made reference to what is presumed to be an administrative data set in explaining the provenance of their estimates. However, in these cases it was unclear how the administrative datasets were populated or where the information about Aboriginal self-identification came from.

Some universities provided notes explaining the methodology employed in developing their estimates. Queen's University, in their 2007/08 MYAA report provided the following technical notes:

> Cell entries above reflect the lower bound, midpoint and upper bound of 95per cent confidence intervals, where sample counts are prorated up to the known population size (population definition as stated). Some estimation was involved. The following point estimates are considered the most appropriate based on the data for the entire student populations . . . Point estimates below should be interpreted with caution given the width of the confidence intervals noted above.

The University of Waterloo in their 2006/07 MYAA provided the following feedback to the Ministry:

> Identification of aboriginal students is problematic. We have looked at several ways-- NSSE self-identification, OUAC indicator and student financial records-- to measure/reflect this characteristic with each method producing inconsistent results. As a result, we have undertaken a new project to formally register Aboriginal students for Aboriginal services allowing us to better identify and track these students.

[13] For an example, refer to http://www.trentu.ca/oirsp/includes/documents/08MYAAreportbackforTrent.pdf

With considerations such as those provided by Waterloo, and taking into account the technical data issues delineated by Queen's, it is doubtful that the Ministry or HEQCO would be able to derive any sort of meaningful aggregate number through which to establish a baseline understanding of the number of Aboriginal students in the system. However, it appears that this approach has been helpful to institutions in their development of effective methodologies for understanding the number of Aboriginal students under their auspices. Through these efforts, institutions will likely be better able to provide advice, and perhaps even reach consensus, on the best method for establishing a system-wide baseline.

In Summary

There are a variety of approaches to Aboriginal self-identification in Ontario, both in terms of questions and data collection instruments. There is a widespread desire for a better understanding of the number of Aboriginal students in Ontario's education system. Postsecondary institutions and school boards seek to identify their Aboriginal students and gain a better understanding of their experiences. Over time, if data collection methods remain consistent, individual institutions and school boards should gain a better understanding of the Aboriginal people they serve, although there may be variations in the level of under-reporting depending upon the question and data collection method used in each instance.

However, it is unlikely that any meaningful information can be gained about Aboriginal students in Ontario through the aggregation of data available through current methods. In their analytic review of the discussions at the 2007 Aboriginal University Education Roundtable, Mendelson and Usher (2007) assert that

> "a consistent way has to be found to ask Aboriginal students to self-identify, or there will be no possible way to say with any accuracy which institutions - and by extension which practices - are increasing Aboriginal success in postsecondary education". This statement applies to postsecondary education in Ontario as much as it does to the whole of Canada.

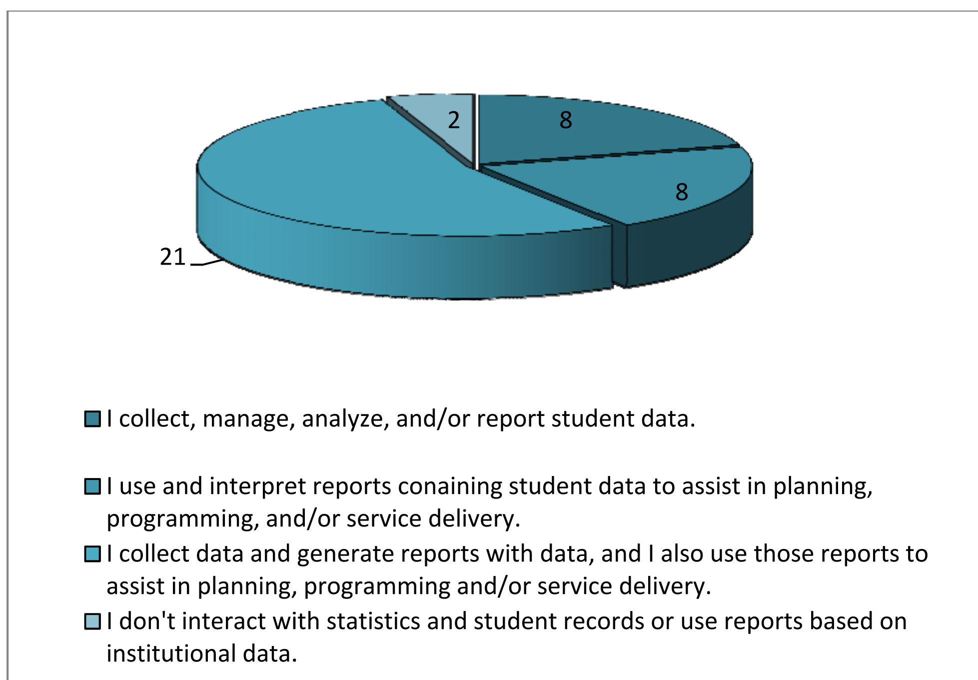
G. Online Survey Results

As mentioned above, in preparing the online survey, we sought input from those who work closely with Aboriginal students, and those who are intimately involved with student records in their day-to-day work. The online survey was mainly concerned with these respondents' interactions with and uses of student data, as well as their attitudes toward current methods for data collection and Aboriginal self-identification. A total of 169 contacts were identified, based on their job situation and title: 88 whom we presumed to work closely with data and 81 whom we presumed to work closely with Aboriginal students.

Response Profile

Thirty-two complete responses and seven partial responses to the survey were received. It is suspected that partial responses occurred because respondents may have thought they had completed the survey after submitting only one or two pages although further questions remained. Partial responses are included in the analysis, therefore the numbers of respondents for each question vary. The overall response rate was 22.4per cent. The survey was conducted between late May and June, a time when many institutional staff are busy with conferences, meetings, and vacations. Because of the low response rate, we have chosen to present the counts, rather than the frequencies of responses, to ensure accurate interpretation of the data.

Figure 5. Which of the following best describes how you interact with institutional data about Aboriginal students in your work? (Question 4, n=39)



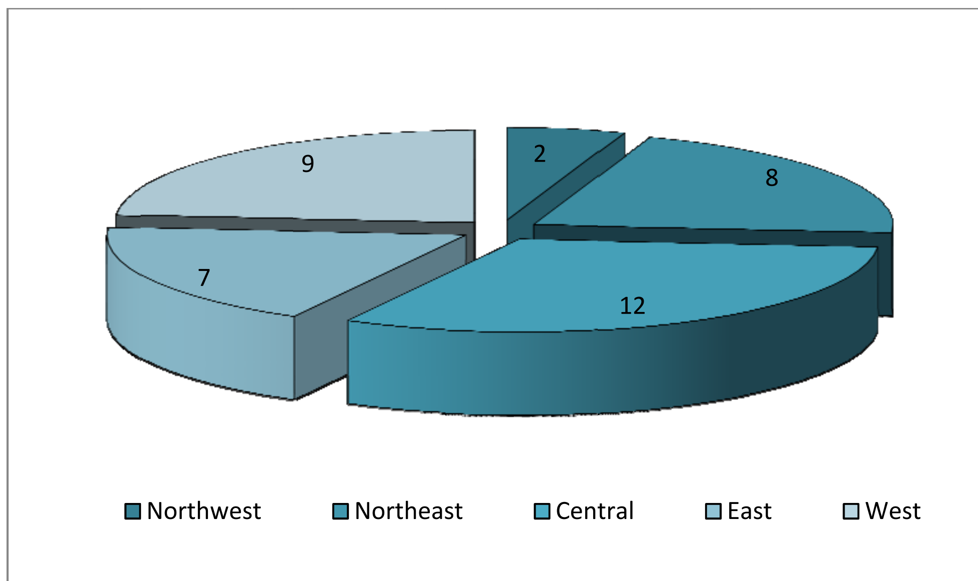
The 39 responses were distributed equally among those who work as institutional researchers or registrars and those who work as Aboriginal student services/counsellors, with 19 respondents reporting job titles or functions that fit into either category. A majority of respondents reported collecting and generating data reports, as well as working with these reports to assist in planning, programming or service delivery (Figure 5, above). A total of 20 responses were gathered in the university sector, while 18 were submitted by those who work in Ontario's colleges.

Table 2: Online Survey Respondent Profile - Sector (Question 1, n=39)

Which of the following terms best describes the sector in which you work?	
University	20
College	18
Other	1

It is not surprising that the highest proportion of responses (12) was submitted by those who worked at institutions in Central Ontario, as postsecondary institutions are highly concentrated in this densely populated region. Nine respondents were from western Ontario and another eight were from the Northeast region. Only seven were from eastern Ontario. The region submitting the smallest number of responses was the Northwest, with only 2 responses.

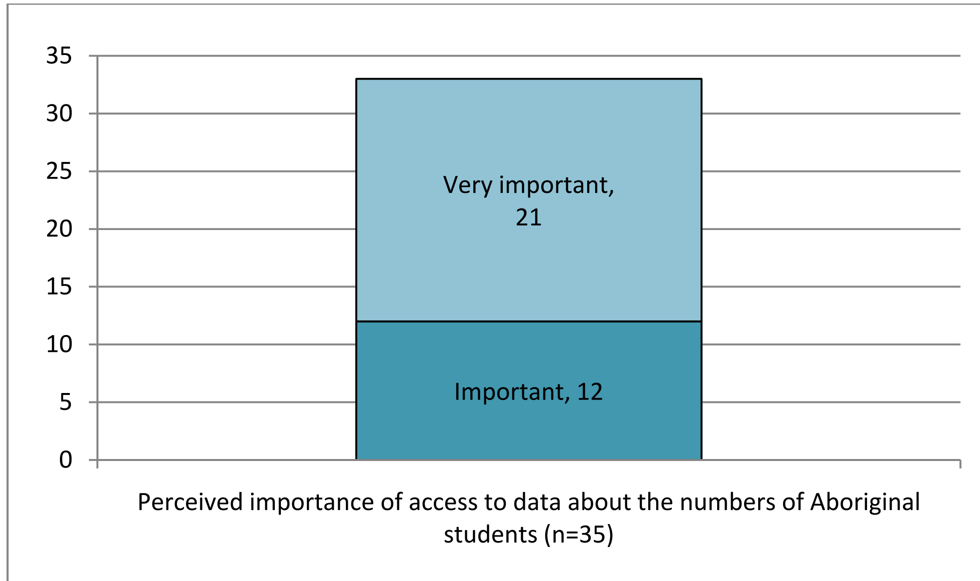
Figure 6: Online Survey Respondent Profile: Region (n=38)



Respondent Attitudes toward Current Data

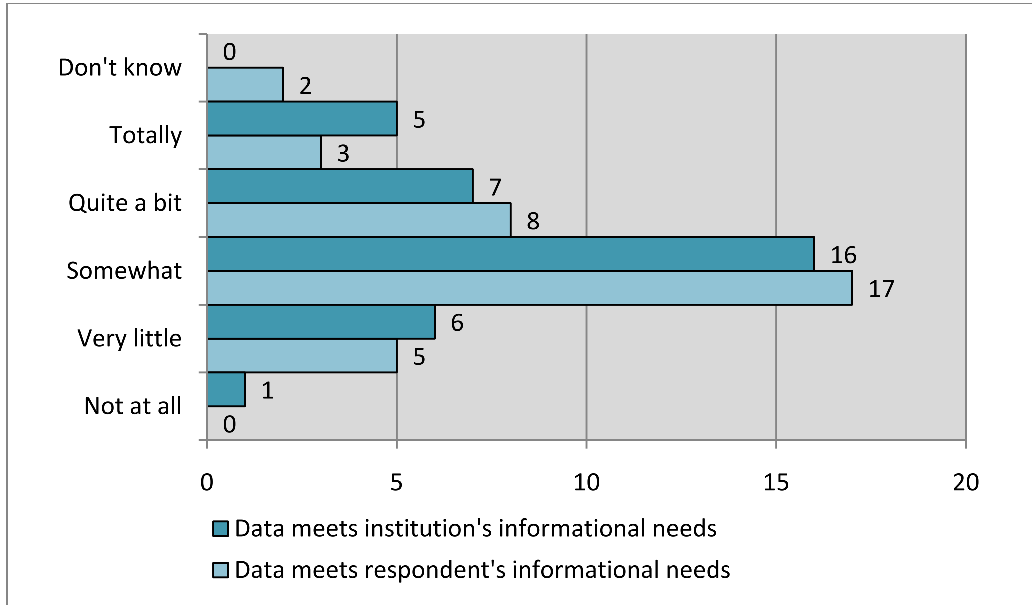
Most respondents (94per cent) felt that it was important or very important, for the purposes of their work, to have access to data about the numbers and proportions of Aboriginal students in their institution, year to year (Question 12, Figure 7 below).

Figure 7: **Respondent attitudes about the importance of access to data about Aboriginal students (n=35)**



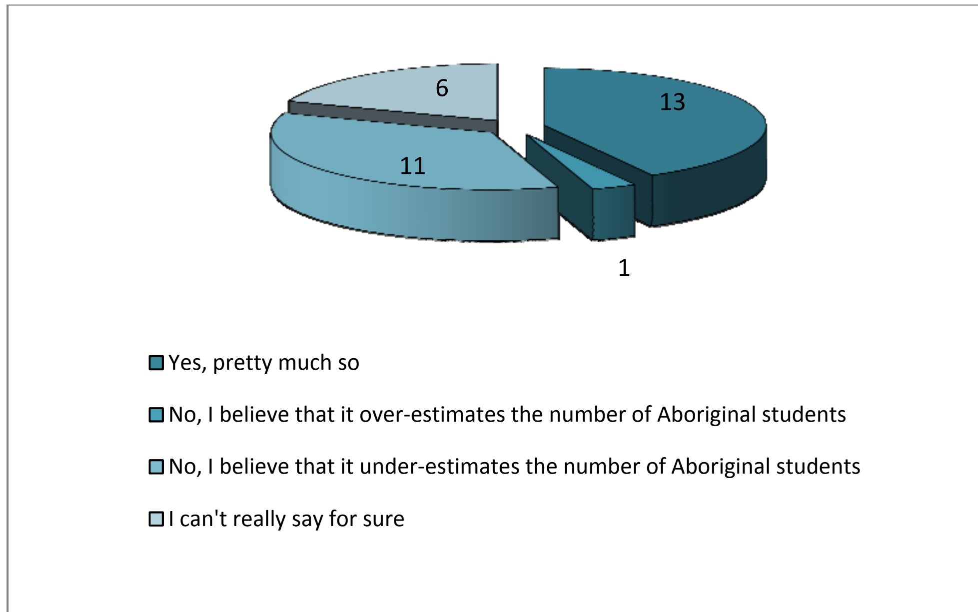
However, few respondents felt that their individual or institutional needs were being met by the data currently available to them (Figure 8, below). Those who indicated that they worked as institutional researchers or registrars were equally as likely as those who work more directly with Aboriginal students to report that their institution's needs were only somewhat met. Most felt that their own needs and the institution's were only somewhat satisfied. However, more respondents felt that *their own* informational needs were being met "totally" than said the same for their *institution's* informational needs (5 vs. 3).

Figure 8: **Respondent attitudes about whether available institutional data about Aboriginal students meets informational needs (n=35, Questions 10 and 11)**



Despite the data shortcomings identified by many respondents, almost all respondents indicated they were aware of the estimated number of Aboriginal students in their respective institutions (Question 29, n=31). Thirteen reported that they feel this estimate is accurate (Question 30, n=31). Eleven respondents believe that their institution under-estimates its number of Aboriginal students, while six others were unsure about the accuracy of institutional estimates.

Figure 9: Is the estimated number of Aboriginal students at your institution accurate? (Question 30, n=31)



When asked to describe the source of the inaccuracy (Question 31), 22 respondents provided explanations for their attitudes; however, five of these explanations were provided by those who felt that their institutions estimates were indeed accurate. One such respondent offered the following explanation for being confident in the estimates:

> *We go through a painstaking process of identifying each aboriginal student from an [alphabetical] list, confirmed through sponsorship and students accessing services, many person hours are put into arriving at this number.*

Among those who did not feel sure that estimates were accurate, seven felt that reluctance to self-identify among Aboriginal students was the primary cause. Another seven respondents attributed the perceived inaccuracy or unreliability of the estimates to the methodology used to generate the numbers. Three explanations cited both a lack of self-identification and methodological issues. Some examples follow:

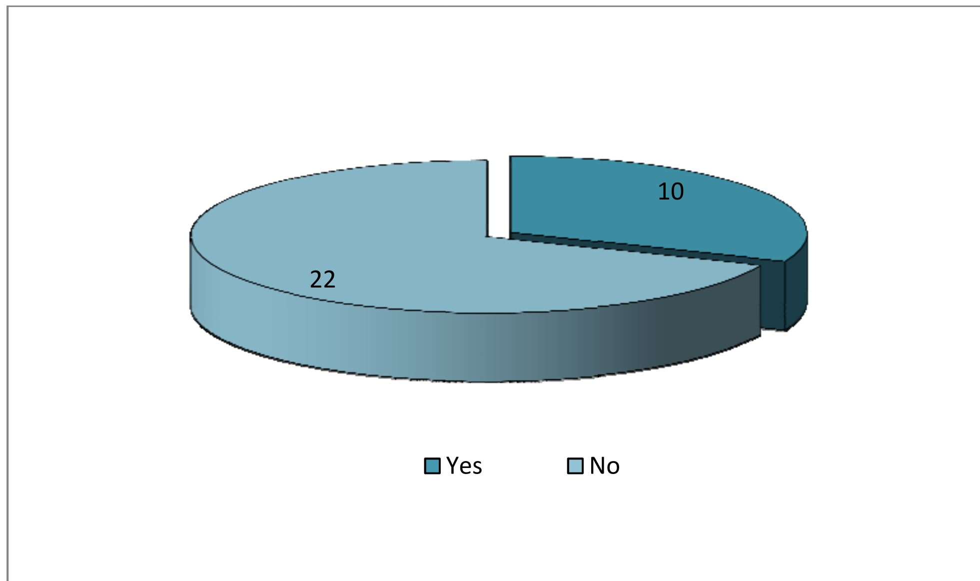
> *Each year the numbers change a lot, we are always running behind in getting the appropriate numbers so approximating the numbers for funding because we are always lacking enough money and the other aspect is the lack of true self-identification of selffunded students, sponsored students can be found on the system but self-funded cannot.*

> *[There is] no single way for students to identify and no single way to designate that information in our system. We gather information from [applications], band sponsorship,*

socio-economic status (SES), Aboriginal Student Centre and cobble together a list based on unique student numbers. Extremely frustrating and time consuming.

Some respondents cited reliance on sample-based surveys as a source of inaccuracy. Question 16 asked whether respondents felt that survey response data are sufficient to make estimates regarding the number of Aboriginal students, to which 22 respondents answered "no."

Figure 10: Are survey response data sufficient to make estimates regarding the number of Aboriginal students in attendance at your institution from year to year? (Question 16, n=32)



A number of respondents indicated that they felt survey data were adequate but that more reliable means of collecting information would be preferable. When asked to explain their attitudes toward survey-based data, some took the opportunity to temper their "yes" responses:

It's better than no information or estimates based on anecdotal or participation in on-campus events, BUT margin of error is troublesome with small percentages - very difficult to have any confidence in determining whether proportions have increased or decreased over time…

Qualify the yes with the following:

- *definition of 'aboriginal' has changed to be far more inclusive and many 'metis - aboriginal' students do not realize they should participate in surveys, entitled to services, etc.*

- *a statistically significant number of aboriginal students will not participate in any stats gathering and will not identify themselves or have indigenous services 'hide' their participation because they do not trust anyone with their info.*
- *aboriginal students don't necessarily see the point to identify themselves unless there is a reason to come forward i.e. scholarships, awards, …*

Among those who felt that survey-based data are insufficient, reasons cited included low survey response rates; a lack of resources to follow identified students; a lack of recognition, by students, of their own heritage; and a perceived general reluctance among Aboriginal students to respond to surveys. One respondent noted a perceived lack of relevance of survey instruments to Aboriginal respondents. Others cited considerable variations in self-identification from year to year and across survey instruments.

The survey did not pose any specific questions regarding the methodology of deriving Aboriginal student numbers from records associated with student sponsorships and band funding, although responses to other questions revealed that respondents have different opinions about this approach. While some respondents recognized that using this method excludes self-funded Aboriginal students, others spoke of the importance of using sponsorships/funding to identify Aboriginal students:

> *Funded students are the ones identified. Aboriginal students not receiving funding are not well tracked.*
>
> *Many aboriginal students do not participate in surveys, many do not complete self-identification forms. It has always been important to start with sponsorship numbers, talk with students directly and have visible services for students to connect with.*

The Choice to Self-Identify

Twenty-eight respondents provided an answer to Question 21, an open-ended question that elicited opinions about why an Aboriginal student may choose not to self-identify. Most respondents cited fear, mistrust, perception of bias, or discrimination as reasons for Aboriginal students' decisions not to self-identify. Some suggested that perceptions of systemic and overt discrimination exist in some institutional settings.

> *They do not want anyone to know they are Aboriginal because other students make racist remarks about Aboriginals.*
>
> *Fear that information may adversely or inappropriately positively impact their treatment by the institution.*

It is unclear what the respondent meant by "inappropriately positive" impacts. To speculate, this comment may reflect the perception that some Aboriginal students may not want to be singled

out for special treatment, even if the intention behind those treatments is benevolent. This may still be interpreted as a form of discrimination.

Some speculated that individuals feared being singled-out or identified because they are not certain that the information will be treated confidentially, or that some choose not to self-identify because they do not understand the benefits of doing so. Respondents recognized that suspicion and scepticism arise when the purposes of collecting this information are not clear.

For instance, some may perceive that governmental interests are behind the collection of this data:

> *. . . being targeted or held as "representative" of a culture; protesting the term and questioning the intent of the Canadian government. . .*
>
> *Racism - fear of being treated differently, INAC funding / fear of data what they will do with it. Fear of government relations/institutions. Benefits to the students.*

One respondent listed many possible reasons for choosing not to self-identify. This perspective is consistent with literature suggesting that ethnic self-identification in a highly subjective process sensitive to contextual factors:

> *. . . lack of cultural knowledge, to not be treated differently, not aware of the benefits; lack of cultural pride and connection, feeling of not being "Indian" enough; not feeling accepted, wanting to be invisible or blending in?; already overwhelmed and unsure of the implications and expectations*

One respondent speculated that confusion about the way a question is worded might contribute to a decision against self-identifying as an Aboriginal student. Moreover, in an answer to an earlier question (Question 16, above), one respondent recognized that the way a self-identification question is worded can also have an impact upon responses.

> *. . . survey wording differs across survey instruments (even across time for the same survey, i.e., NSSE). Any small change results in differences.*

Question Attributes

One of the fundamental principles of privacy is that the purposes for collecting personal information are made clear at the time of collection. Perhaps for this reason, all of the respondents indicated that self-identification questions should include information about the purposes for which the information will be used. A variety of current uses and purposes for data about Aboriginal students was identified by respondents (Table 3, below). Recruitment and retention efforts were the most frequently cited use (26), followed by program planning (21), and reporting to government (21). Financial considerations were less frequently cited, among participants. It is surprising that no respondent indicated using data for social science research, as most institutional research and analysis regarding students could be considered a form of this type of research. However, if sharing institutional data with graduate students or other

researchers at a later date for the purposes of research is a possibility, it may be prudent to include this as one of the purposes for which information is being collected.

Table 3: For what purpose(s) do you use the data about Aboriginal students that is currently available to you? (Question 7, n=35)

For what reasons do you use available data about Aboriginal students? (Check all that apply)	
Recruitment /Retention efforts	26
Program planning	21
Reporting to government	21
Multi-year Accountability Agreements with MTCU	18
Performance measurement	16
Enrolment planning	14
Scholarships, bursaries and awards	12
Resource allocation	10
Finance	7
Other	6
Funding formula calculations	5
Development /alumni	4
I don't use these data	1
Social Science research	0

The survey sought insight regarding the demographic characteristics that those in Ontario's postsecondary institutions considered important to their informational needs about Aboriginal students. Question 22 was asked to elicit information about how best to phrase the Aboriginal self-identification question. "Self-declared Aboriginal identification" considered important by 27 respondents while "self-declared Aboriginal ancestry" was considered important by 22 respondents. It is important to note that *all* of the respondents who indicated that ancestry is important *also* indicated that self-declared identification is important. Because of the interconnectedness between self-perceptions of cultural identity and ancestry, some may not perceive a significant difference between the two approaches.

As Table 4 below shows, 25 respondents indicated that it was important to have information about whether students self-identify as First Nations, Métis, or Inuit persons. Respondents were less interested in Aboriginal students' identification with specific cultural or language groups, as 17 out of 32 found this to be important. However, the information most frequently cited as "not important" was the Nation or Band providing funding to sponsored students (12).

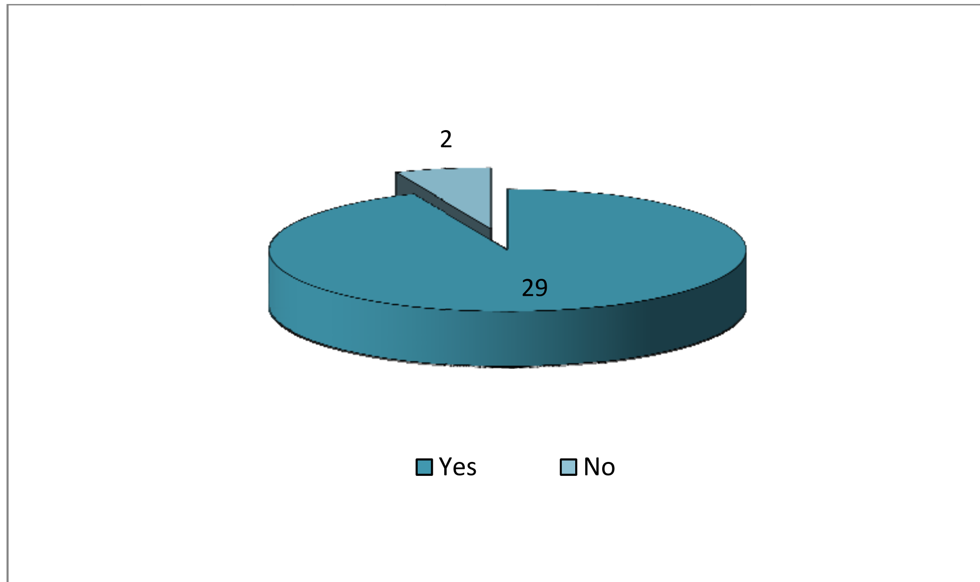
Table 4: What demographic information should be captured in the Aboriginal self-identification question? (Question 22, n=32)

Please indicate how important each of the following demographic data elements about Aboriginal students are for your informational needs:			
	Not Important	**Important**	**Not Applicable**
Self-declared Aboriginal identification	3	27	2
Self-identification as First Nations / Métis / Inuit	4	25	2
Whether the student is receiving Band funding	7	24	1
Self-declared Aboriginal ancestry	6	22	4
Place of residence prior to study (e.g., rural / urban, on- / off-reserve)	8	21	2
Registered Indian Status	8	21	3
Band / First Nations community membership	10	18	2
Which Band is providing funding	12	18	1
Identification with a specific cultural or language group (e.g., Cree, Algonquin, Ojibwe)	11	17	3

Figure 11 shows that respondents were in favour of a standardized approach to self-identification questions, with 29 indicating that it would be helpful to have the same self-identification question on all postsecondary forms and surveys. One respondent took the opportunity to voice support for standardization in an open-ended response:

> *…, it is frustrating that each institution gets left on their own to figure out ways to estimate these numbers, often using different definitions and methodologies. It seems as though it would be in everyone's best interest to have a shared definition and methodology.*

Figure 11: Would it be helpful if there were a standardized question through which an Aboriginal student might self-identify across postsecondary? (Question 25, n=31)



The same number of respondents felt that a standardized self-identification question would be helpful if it were implemented on all of Ontario's K-12 and postsecondary education provincial forms, surveys, and tests (Question 27, n=30). However, only 17 respondents were aware of the Ministry of Education's initiatives in working with school boards to develop policies for the self-identification of Aboriginal students (Question 26, n=31).

When asked what type of information, if included with the question, might encourage self-identification, most felt that it was important to list the purposes for which the information will be used and to emphasize the benefits to students of the information generated. Respondents were given an opportunity to specify alternative responses, suggestions among these were to indicate that funding provided to the Aboriginal student union is based on the figures, or that the self-identification question was being asked in response to requests from the Aboriginal community.

Table 5: Information that should accompany the self-identification question to encourage response. (Question 20, n=32)

What information should be included with a question about Aboriginal self-identification in order to encourage responses? (Check all that apply)	
Purposes for which the information will be used	32
Benefits to students of the information generated through self-identification	31
Assurances of confidentiality and personal information protection	30
Reference to promoting accessible learning opportunities for Aboriginal students	25
Emphasis that responding to the question is voluntary	23
Reference to institutional initiatives to promote equity and diversity	21

Data Collection Instrument Attributes

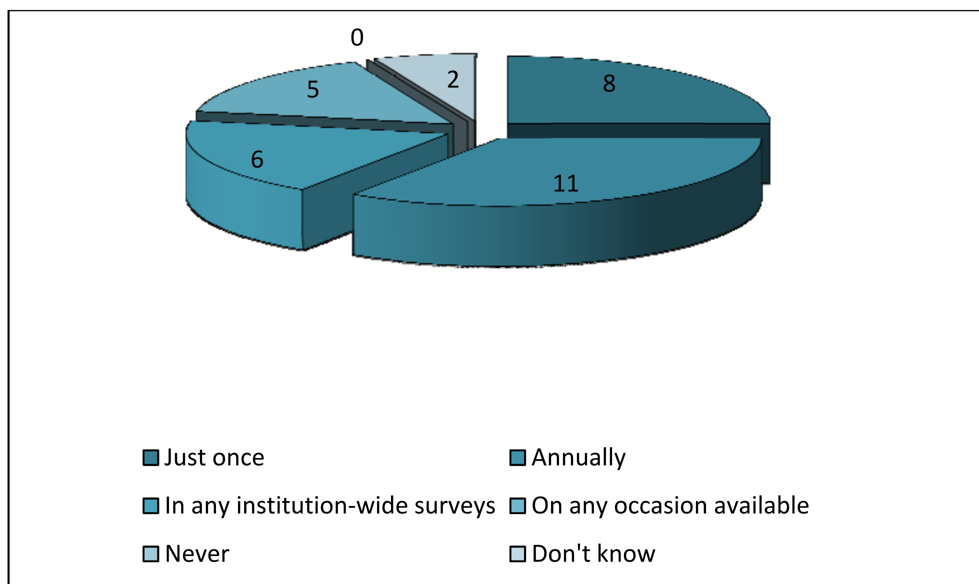
A number of questions were posed to elicit respondents' opinions about the data collection instrument that should be used to elicit Aboriginal students' self-identification. Responses indicate a preference for administrative data over survey methods of collection, with application and registration being the most frequently selected points of collection. There was a slight preference, however, for soliciting self-identification as part of the registration process through the application process. This may reflect perceptions that Aboriginal students may not wish to self-identify in advance of their application being considered, because they do not want to be treated differently as a result. This is an issue that merits further examination, as both applications services in Ontario currently collect self-identification information, and this is a potentially rich source of information.

Almost half of the respondents favoured gathering self-identification information in the process of students accessing services (Table 6, below). Fewer respondents were in support of using exit surveys to identify Aboriginal students than were in support of entrance, applicant, or first-year surveys.

Table 6: How and when is it best to ask questions about Aboriginal self-identification? (Question 18, n=32)

At what point(s) in a student's educational path do you think it best to ask questions about Aboriginal self-identification? (Check all that apply)	
As part of the registration process	25
On the application form	23
In entrance, applicant, or first-year surveys	18
In the process of students accessing services	15
In exit / graduate surveys	12

Figure 12: How often during a student's tenure should questions about Aboriginal self-identification be posed? (Question 19, n=32)



Respondents were also asked how often the self-identification question should be asked during a students' tenure (Figure 11, above). No respondent felt that the question should never be asked, and five felt that the question should be asked on any occasion available. The majority of respondents favoured limited collection, with 11 preferring annual collection and eight preferring that the self-identification question be asked only once.

A final survey question gave respondents the opportunity to provide open comments on the survey and on the issue of Aboriginal self-identification. One respondent took that opportunity to caution against wording the self-identification question in a way that engenders suspicion of institutional motives:

> *Students mentioned they are either for declaration or against it. It is simple to understand and it is a choice. It needs to promote what benefits them not the institution. Don't talk about statistics and then the same sentence dollars or funding additional.*

Through these open responses, it became clear that at least some institutions seek verification of an individual's self-reported Aboriginal heritage through other means:

> *Our institution… politely and respectfully ask[s] all those who indicate they are Aboriginal via OUAC to provide verifiable proof of Aboriginal ancestry, etc. status cards, metis cards, self - declare, letters from elders, communities, family members,*

Another respondent indicates that this approach may be problematic for encouraging self-identification, noting that "the act of having to 'prove' you are Aboriginal over and over again is in itself a barrier”.

> *In discussing the idea of a self-identification policy with Aboriginal stakeholders within and outside of our institution, much concern was given to how we would "verify" identity. There are concerns of ethnic fraud and misuse of funding provided to the institution for Aboriginal services on "quasi-aboriginal" students.*

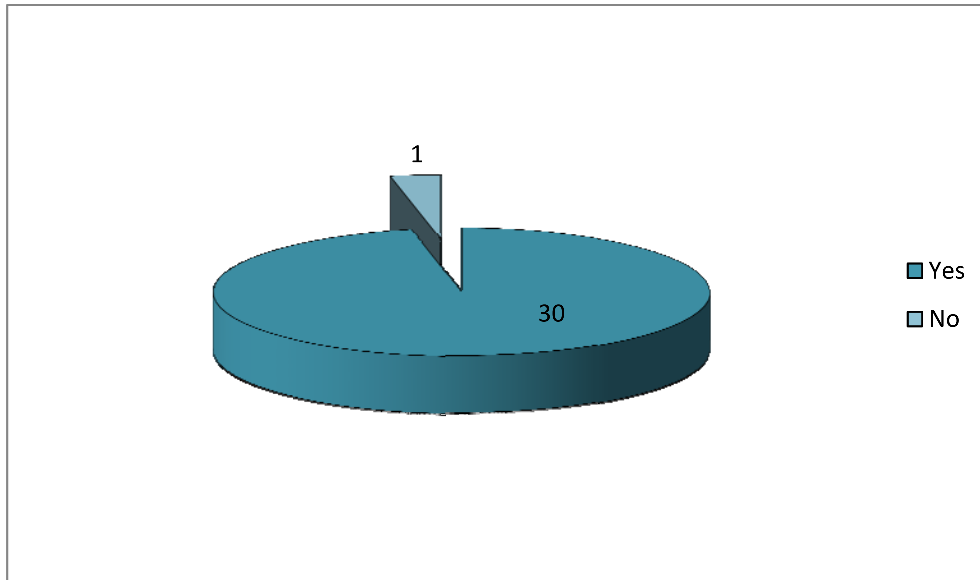
Overall responses indicate that most survey participants are more concerned that Aboriginal students are not self-identifying; however, the statement above reveals concerns, among some stakeholders, that some students are misidentifying themselves as Aboriginal in order to access certain benefits reserved for Aboriginal students. It is unclear to whom the term "quasi-aboriginal" in this statement refers; however, it would be inappropriate for an educational institution to make such determinations.

In the absence of clear and complete definitions of who is Aboriginal in Canada, political issues such as these may be unavoidable in the development of self-identification policies and instruments. Developing trusting relationships among stakeholders and being clear and transparent about the purposes for which self-identification information is gathered may be the best strategy for avoiding these issues.

Data Set Attributes

A unique Ontario Education Number (OEN) is assigned by the Ministry of Education to each student in the province's elementary and secondary education systems. The number is used as the key identifier on a student's school records. Question 28 asked if respondents felt that it would be helpful if the OEN was used in all postsecondary student records as well, only one respondent disagreed with this approach (Figure 12, below). In an open-ended question, one respondent suggested that "fast-tracking the adoption of the OEN for postsecondary institutions would be a very helpful first-step."

Figure 13: **Would it be helpful if the Ontario Education Number was used for postsecondary education student records as well? (Question 28, n=31)**



As reflected in the recent study of the postsecondary choices and pathways of Ontario secondary students by King et al. (2009), it is possible to link individual students' secondary and postsecondary education records. One way that this can be done is through matching various data fields containing identifying personal information between data sets. This is a difficult process that entails many concerns regarding privacy and the disclosure and use of personal information. These concerns are diminished where a unique student identifier is available through which to link records, as other identifying personal information is not required.

If all student records were linkable through the OEN, for instance, this would facilitate the linkage of data at the student-record level and the tracking of students throughout Ontario's public education system, year after year. It would be possible to identify students who had identified as Aboriginal in K-12 or postsecondary data, inasmuch as this information is available. However, data integration efforts such as these require extensive efforts in inter-institutional collaboration, implementation, security, and privacy protection, not to mention data cleaning.

When asked to indicate the importance various database characteristics in terms of meeting informational needs regarding Aboriginal students (Question 24, n=30), respondents were unlikely to report that any particular wish-list item was unimportant. The database characteristic that was reported to be important least frequently was a low cost or resource burden (25 respondents). Student-level data, comparability with other institutions in the province, protection of personal information, common data definitions, and the ability to link to other data sets were considered to be important or desirable characteristics of a student database by 28 and 27 respondents, respectively. This finding should not be surprising, considering that 95per cent of respondents reported using data in their day-to-day work.

Table 7: Types of information contained in currently available data (Question 6, n=35)

What types of information are contained in the data about Aboriginal students to which you have access?	
Program/course registration	29
Applicant data	26
GPAs	26
Sources of funding	20
Student survey responses	20
Student outcomes	20
Scholarships, bursaries and awards	15
Student financial aid data	11

Most respondents (25 out of 35) indicated that they had access to student-level data through their institution's student information system (Questions 8 and 9). However, respondents indicate that where they are currently able to access data about Aboriginal students, this information most frequently concerns registration, application, and grades (Table 7, above). Slightly more than half reported access to information about sources of funding, student outcomes, or student survey responses, and even fewer reported access to information about Aboriginal students' use of student financial aid, or scholarships awards and bursaries.

In an open-ended question, one respondent indicated that data to understand student progress through preparatory and transition programs are lacking, indicating a desire for this information to be available at a provincial level:

> *Data elements should distinguish between individuals granted "general admission", "program admission" or "special/alternative admission". Currently, there is no way to evaluate transition and preparatory programs at the provincial or national level, including students funded by INAC. It is important to know which routes are providing access and which strategies are successful at increasing participation.*

Although many respondents felt it desirable to have an institutional database that contains data comparable with other institutions in the province, many (14) did not indicate that they attempt to access information about Aboriginal institutions from other institutions or organizations at all (Table 8, below). Respondents most frequently reported seeking information about Aboriginal students from Aboriginal postsecondary institutions and school boards (10), but only nine reported seeking information from other universities, and even fewer sought information from colleges (8).

Table 8: Accessing data external to the institution (Question 14, n=32)

Do you ever access or attempt to access information about Aboriginal students from any of the following institutions/organizations other than your own?	
Not applicable	14
Aboriginal postsecondary institutions	10
School boards	10
Universities	9
Colleges	8
Other	5
Private postsecondary institutions	4

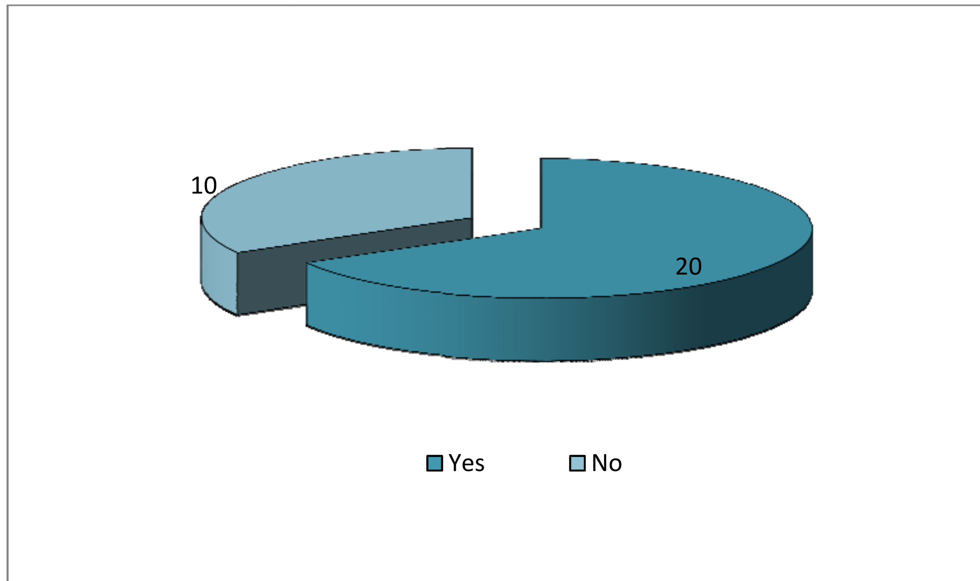
Many respondents (22) indicated that they were aware of plans to improve data collection or management at their institution (Question 34, n=31). Some institutions reported use of new technologies for collecting data about and identifying Aboriginal students. One institution is investigating methods using social media, another is in the process of developing a communications portal oriented towards Aboriginal students.

Some institutions cited the development of new survey instruments, or the enhancement of existing institutional surveys, to better identify Aboriginal students. One respondent indicated that his/her institution "as a whole is not concerned with planning any improvements to the management of Aboriginal student data collection".

Efforts and Programs to Encourage Self-Identification

In asking about efforts to improve data collection, some respondents indicated that they were making efforts to encourage self-identification among Aboriginal students outside data collection, such as promotional brochures and informational booths during orientation week. When asked whether respondents were aware of specific institutional efforts to encourage self-identification, 20 respondents indicated that they were aware of such efforts (Figure 13, below).

Figure 14: **To your knowledge, does your institution do anything to encourage self-identification among Aboriginal students? (Question 32, n=30)**



Some reported that these efforts included the inclusion of a self-identification question in a form or survey. Many cited the use of outreach services, and the use of promotional material and websites. The establishment of resource centres, offices, and spaces on campus specifically oriented towards Aboriginal students were also cited. One institution had convened student focus groups to discuss and encourage Aboriginal self-identification, another provided workshops for Aboriginal students. A "strong focus on academic and co-curricular programming for Aboriginal students" was cited by one respondent, another suggested that visible and welcoming Aboriginal staff contributed to self-identification initiatives.

In 2006, David Holmes prepared for the Association of Universities and Colleges of Canada a report containing an inventory of Aboriginal programming and support services at Canadian universities. A comprehensive review of the supports, programs, and services available to Aboriginal students at Ontario universities is available therein. Less readily available is information pertaining to the assessment or evaluation of these initiatives and their effects on Aboriginal students' participation, experiences, or outcomes. Indeed, the Holmes study reveals that 27.8per cent of responding Canadian universities report any attempt to measure the effectiveness of services and programs targeted at Aboriginal students (2006: 43). Little progress in this area is likely until more reliable and comparable data become available.

H. Discussion of Findings

Preliminary Considerations

Three findings are clear at the outset of this discussion. The first is that those involved in collecting ethnicity data must anticipate and accept a certain level of imprecision inherent to these efforts, and this is particularly true when the focus is on Aboriginal people. Imprecision arises because of a number of factors, including:

1. The fluid, subjective and context-sensitive nature of cultural identity;
2. Reluctance among some groups to self-identify in certain situations because of suspicion or mistrust towards data collection in general;
3. Imprecise definitions and ethnic classifications;
4. A lack of clarity among data collectors and subjects regarding the purposes for data collection;
5. Inconsistency of the questions and instruments used to collect data; and,
6. Inconsistency in approaches to the use and analysis of the data.

Some of these factors are amenable to changes in practices and policy, while others are not. While steps can be taken toward the standardization of data collection, clarification of the purposes for data collection, and the development of open and trusting relationships among stakeholders, little can be done about the fluid nature of cultural identity. Intermarriage and migration trends suggest that the cultural identities may become increasingly complex in the future, and this will continue to challenge the classifications and methods used to enumerate different cultural groups, as well as the rationales provided for this enumeration. A second, related finding is eloquently stated by Kukutai (2004) as follows:

> …how ethnic group boundaries are defined and delineated is an intensely political process that is tied to resources and who can access them. Implicit in this is the question of who gets to decide which criteria count (p.103).

These political issues are particularly acute for Aboriginal people in Canada, among whom there are groups who have been, and continue to be, excluded from certain programs and benefits based on externally-derived classifications and definitions. The extent to which these divisions affect institutional data collection practices and self-identification decisions is difficult to measure, but this does not necessarily mean that the effects are negligible.

Survey responses indicate that self-identification among Aboriginal persons in Ontario's public postsecondary institutions may be influenced by attitudes, among students and others, about who is "Aboriginal-enough". The development of policies for Aboriginal self-identification must achieve a fine balance so as not to permit abuse, while at the same time guarding against the

grave possibility of negating someone's cultural identity. Only by achieving this balance can trust and mutual respect be developed among all stakeholders.

Trust is key to the success of self-identification policies. With this in mind, the four Ontario school boards involved in the pilot project to develop self-identification policies undertook an inclusive approach, consulting with Aboriginal parents, communities, and organizations. While the constraints of this research did not allow for a full review of what has been learned through these processes, those who were participants in these conversations constitute a rich resource for advising any future deliberations about Aboriginal self-identification in Ontario postsecondary education, health, justice or other social programs.

Developing Trust and Informing Consent at the Time of Data Collection

In developing Aboriginal self-identification practices and policies, Ontario's school boards were advised to emphasize that self-identification is voluntary, and that all information will be treated confidentially. These considerations are equally important in the postsecondary setting, to comply with privacy legislation and to engender trust. Survey responses revealed that many in Ontario's postsecondary institutions believe that Aboriginal students may not self-identify for fear of being singled-out, or because they do not want to be treated differently; however, individuals who self-identify should have no fear of these consequences if their responses are confidential. It must be clear that self-identification in a confidential survey or form will not lead to a person being individually identifiable anywhere outside of closed and secure institutional data systems.

Such information could be made available in an explanatory brochure, webpage, and/or workshop developed to supplement self-identification policy. A program involving all three methods of communication is likely to be the best approach. Information provided in these contexts should attempt to inform people about the privacy laws and human rights codes established to protect their privacy and personal information while at the same time providing all information necessary to comply with the provisions of those laws vis-à-vis data collection and consent. As noted above, providing clear information about the purposes for which data is being collected and all potential uses of the data is key for privacy legislation compliance and developing trust.

The purposes for collecting self-identification data may vary across institutional departments and over time. Moreover, the type of information provided at the time of data collection must align with potential data uses, how the data may be linked, who will have custody of the data, and potential disclosures to third parties (e.g., HEQCO, government, other institutions). This will largely depend upon the approach to self-identification that Ontario's postsecondary sector ultimately adopts.

Data Collection Options

The New Zealand *Review of the Measurement of Ethnicity* completed in 2004 recommended that:

> …data resulting from collections should wherever possible be consistent across time and between collections. Therefore, the information collection process should endeavour to use questions and modes of inquiry that achieve such consistency (Statistics New Zealand, 2005).

To achieve consistent system-wide data, a system-wide approach is mandated. One possibility would mirror that of the Ontario school boards: a decentralized, non-standardized approach wherein individual institutions develop their own policies and practices according to established guidelines. An alternative approach would involve the development of a standardized question and data collection instrument(s) to be used by all postsecondary institutions in a uniform manner. A third approach involves the development of a standardized question and data collection instrument(s) to be administered through a centralized process such as Ontario's college and university applications services.

The third approach is preferred for numerous reasons including efficiency, expediency, and data consistency. Many survey respondents indicated that current methods of identifying Aboriginal students and estimating their numbers were laborious and time consuming. Yet, the methods are inconsistent among institutions and often unreliable.

The third, application-based, approach avoids the sampling issues of current survey-based approaches. Because all students in Ontario's postsecondary system must fill out an application form, all students have an opportunity to identify through this instrument.

A recurring theme in this report is the notion that being clear and transparent about the purposes for which self-identification data is being collected is one of the best strategies to address mistrust and suspicion. Statistics New Zealand (2005) advises that:

> Administrative collections (such as application forms) … are generally understood by respondents to have a specific purpose, a factor which influences how people respond to an ethnicity question.

Standardizing and centralizing data collection not only leads to clearer data, but also to comprehensible and more consistent messages about the reasons for collecting the information. At present, many institutions are using mixed methods to generate estimated numbers of Aboriginal students. However, the reasons for collecting this data may be presented differently across the application forms, surveys, and registration forms.

A centralized point of data collection for system-wide data would allow for uniform messaging around the purposes, use, and disclosure of the resulting information.

One drawback of centralizing data collection at the point of applying to postsecondary institutions is that applicant data does not reveal any information about who actually registers at institutions, whether they continue to be registered year-after-year, and whether students complete their programs. To understand this, applicant data must be validated against and/or linked with institutional administrative data about program and course registration. Linking data

and tracking students through their studies would be enabled through the adoption of the OEN in postsecondary student records.

The survey revealed positive attitudes toward the adoption of a standardized self-identification question as well as the adoption of the Ontario Education Number in postsecondary education institutions. Taking both of these steps concurrently would lead to greater data consistency as well as enable the creation of large, information rich data sets that would make possible the tracking of all students, including those who have self-identified as Aboriginal persons, from K-12 through postsecondary studies at a variety of institutions.

British Columbia is currently in the process of developing a government-wide standard for Aboriginal data collection and self-identification. The absence of a standard question has not limited the usefulness of linking postsecondary and K-12 data for understanding the Aboriginal student population in British Columbia. As discussed above, application of the "Aboriginal-ever tag" to the linked administrative data set that supports the Student Transitions Project allows researchers to identify those students who have self-identified as an Aboriginal person at any point in their education, regardless of the question or data collection method used for self-identification.

Because the British Columbia Personal Education Number (PEN) allows students to be tracked throughout provincial education and postsecondary education systems, British Columbia has been able to learn much about Aboriginal students' educational patterns, including the following:

> Each year in B.C., roughly 40per cent of B.C.'s Aboriginal high school graduates transition to B.C. public postsecondary education within one year of graduation. This is roughly 10 percentage points lower than the transition rate of B.C.'s non-Aboriginal graduates; however, given enough time, the transition rate to B.C. public postsecondary education of Aboriginal students approaches the transition rate of non-Aboriginal students (Heslop, 2009).

Application of the Aboriginal-ever-tag masks fluctuations in self-identification among Aboriginal students. On the one hand this simplifies data analysis and reporting; on the other, this may deliver results that oversimplify the realities of Aboriginal education in the province. For instance, the Student Transitions Project discovered that:

> By matching individual student records on PENs between the K-12 and postsecondary education systems, it is evident that students who declared Aboriginal identity at the K-12 level often do not make the same declaration at the postsecondary level (Heslop, 2009: note 22)

Nevertheless, studies that use British Columbia's longitudinal data sets to investigate patterns in self-identification year over year are possible, as is evidenced by the 2008 study of Hallett et al. (2008) referenced above. Although it may pose logistical challenges in a data collection system focussed on postsecondary applications, collecting self-identification information on an annual basis allows for research into the influences and correlates of fluctuations in self-identification.

Adopting the OEN in Ontario postsecondary education more broadly would involve significant effort —such an initiative would on its own merit a separate research project. However, lessons can be learned from the British Columbia experience, where like the OEN, the Personal Education Number originated in the K-12 sector. At a minimum, adopting the OEN in postsecondary education would require:

1. That the number be included on all K-12 student records and transcripts;
2. That application centres and institutions transcribe the OEN into their own student information systems along with other data entry at the time of application/registration;
3. That protocols be established for assigning OENs to postsecondary students from outside the Ontario school system (e.g., out-of-province, Band schools);
4. That a centralized, secure facility be established to validate postsecondary OENs on a regular basis, ensuring that no numbers are duplicated or assigned to multiple records; and,
5. That processes and protocols be established for the use of administrative datasets enabled by the OEN.

Privacy and protection of personal information remain a paramount concern, particularly in the highly sensitive context of Aboriginal self-identification. However, the Ministry of Education has a strong foundation upon which to build a secure and powerful system-wide database.[14] Adopting the OEN in postsecondary education would require significant consultation among institutions, groups such as Colleges Ontario and the Council of Ontario Universities, the application centres and the Ministry of Education.

Definitional Issues and the Self-Identification Question

The development of any system-wide question to allow Aboriginal postsecondary students to self-identify also requires extensive consultations with interested and affected parties. That this project has been undertaken indicates that there are conversations taking place among those in Ontario's postsecondary system regarding new approaches to Aboriginal self-identification and student data collection. However, a formal consultation process is advisable. These consultations would necessarily include Aboriginal students, parents, and organizations, as well as institutional representatives from different regions and sectors. It would be inappropriate for CCL to advise on the best approach to self-identification in absence of these consultations, regardless of the substantial amount of research conducted in the course of this project. The discussion to follow is intended to frame considerations for those consultations, and provide a number of options as a springboard for discussion.

[14] See the Ministry document *VOLUNTARY, CONFIDENTIAL, ABORIGINAL STUDENT SELF-IDENTIFICATION:Q And A's For School Boards To Support The Development And Implementation Of Self-Identification Policies* at:
http://cal2.edu.gov.on.ca/june2009/OnSIS_Aboriginal_Student_Self_IDQandA.pdf

First, it is essential to have clarity around why this data is being collected. Throughout this project we have assumed that the intention of gathering system-wide data regarding Aboriginal students is to be able to measure how many Aboriginal students are in the system, and to design, deliver, and monitor the effectiveness of programs directed at increasing their participation and success. We are not, however, concerned with methods for determining an individual student's eligibility for programs, opportunities, scholarships or other benefits designed for Aboriginal students.

Currently, the Ontario University Application Centre in its handbook providing advice to applicants for admission to undergraduate programs indicates that:

> The OUAC may collect information about your status as a Canadian Aboriginal, if you provide it. You are not required to provide this information, but if you provide it, the OUAC will forward it to the university(ies) of your choice to allow the university(ies) to inform you of specific services available to Canadian Aboriginal students (OUAC, 2009).

This suggests that the only reason for collecting this information is to contact students about services for Aboriginal students that they are likely more than able to discover on their own. Survey responses indicate that Aboriginal students may choose not to self-identify because they do not want to be individually identified, or singled out as Aboriginal students. However, according to the application guidelines, the primary purpose of collecting Aboriginal self-identification data is *to allow universities to identify Aboriginal individuals.* Moreover, no other benefits to Aboriginal students are suggested, such as institutions gaining a better understanding of the Aboriginal student population to support the design of better programs and services.

The information quoted above is also presented in fine print in the *Declaration and Notice of Collection, Use and Treatment of Personal Information* section of the application OUAC form itself. The fine print also specifies potential uses of all of the personal information provided in the application form, including the following:

> The OUAC uses personal information obtained from MTCU on university registration to create aggregate, non-personally identifiable information for use by Ontario's government ministries (Ministry of Training, Colleges and Universities, and Ministry of Education); the COU; Ontario universities; Ontario colleges; OCAS; and academic researchers (at the discretion of the OUAC) for admissions, enrolment and other academic policy development and research purposes (OUAC, 2009).

What of the Aboriginal student who wishes to provide information about his or her Aboriginal identity to assist in policy development and research purposes, but who does not want to be identified and contacted by their university? In this situation, there is an inherent disincentive to self-identify. An alternative approach may be for institutions to set up their own methods for identifying Aboriginal students to promote services and programs.

Institutions may also wish to set up their own methods for ascertaining students' Aboriginal identities to establish *eligibility* for certain programs. We see this as a separate purpose in

addition to system-wide data collection efforts. For instance an institution or donor may establish a specific program to offer funding exclusively to Aboriginal, First Nations, Métis, or Inuit students, and may require verification of an applicants' claimed heritage to establish eligibility. Any system-wide data collection initiative need not supersede or otherwise interfere with institutional or donor discretion in this regard.

As we have explored, defining Aboriginality in Canada has proven problematic. The constitutional definition is essentially tautological, and the only other legal definition (that is established for the purposes of registration under the *Indian Act*) excludes three major Aboriginal groups (Inuit, Métis, and non-Status First Nations). However, referring to Australia, a country where the definition of Aboriginality has "a long and contentious history", Gardiner-Garden (2003) finds that "no other comparable country seems to have a problem free definitional arrangement".

According to Gardiner-Garden (2003), in the 1980s, Australia moved beyond racially based definitions, and definitions based on blood quantum, with the development of the "three-part" definition of Aboriginal and Torres Strait Islanders. The three-parts are as follows:

> An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander **descent** who **identifies** as an Aboriginal or Torres Strait islander and **is accepted as such by the community in which he (she) lives.**

This definition may sound somewhat familiar: the Métis definition of the Métis National Council discussed above follows a similar three-part structure.

According to Gaminiratne (2000), the last element of the three-part definition was dropped from inclusion in the Census definition early on because of the logistical challenges that it poses in the context of statistical collection. To include a community endorsement criterion in Ontario's operational definition of Aboriginality would be no less problematic.

This leaves two optional approaches to the definitional issue:

A. Avoid the definitional issue altogether, leaving those who self-identify as Aboriginal to define Aboriginality on their own terms.
B. A definition based on a combination of ancestry and self-identification.

In the first case, the question posed to ascertain whether students are Aboriginal persons might look like this:

Question Structure A:

(1) Are you an Aboriginal person? __ Yes __No (2) If so, please specify: __ First Nation ___Métis ___Inuit ___Other (3) If you have declared a First Nations identity, please indicate whether you are registered under the *Indian Act*: ___ Yes ___No

Question Structure B:

(1) In the context of this application an Aboriginal person in Canada is a person of First Nation, Métis, or Inuit descent who self-identifies as an Aboriginal person. (2) Based on this definition, are you an Aboriginal person? __ Yes __No (3) If so, please specify: __ First Nation ___Métis ___Inuit ___Other (4) If you have declared a First Nations or identity, please indicate whether you are registered under the *Indian Act*: ___ Yes ___No

The benefits of Question Structure A are simplicity and parsimony. Often, space on application forms is limited—the current Aboriginal question on the university application takes up one line. Moreover, it leaves the definition of Aboriginality to Aboriginal individuals themselves. However, some who favour a more restrictive approach may argue that nothing in this question structure controls against misidentification, as in the case of international students mistakenly identifying as Aboriginal people.

While evidence supports the notion that postsecondary data underestimate the number of Aboriginal students because of reluctance to self-identify, there are concerns that non-Aboriginal people sometimes misrepresent themselves as being Aboriginal persons. This may be more of an issue where reporting Aboriginal status can provide benefits and opportunities to individual persons.

In the case of system-wide data collection, there are no individual benefits to be obtained. Better funding, programming, and services are collective benefits for Aboriginal students and communities, and the broader postsecondary community as well. Nevertheless, Question Structure B offers a more restrictive approach as self-identification is not the only criterion for being considered an Aboriginal person, an approach that some may find preferable.

Because Ontario's school boards have been advised to include in their self-identification policies indications of whether students are First Nation, Métis, or Inuit, in either question structure a second level of inquiry asks Aboriginal respondents to specify one of these categories. This will allow for comparability of data if the K-12 and postsecondary are linked. A residual category "Other" has been provided for those who do not feel that they can ascribe themselves to any one of the three categories, those with multiple Aboriginal ancestries can be advised to select this option, if they so choose, in supplementary materials. A third level of inquiry asks First Nations students about their status under the *Indian Act.*

The question structures presented will yield very clear data. Multiple identity responses are discouraged, and issues of registered status do not conflate the issue of identification as a First Nation, Métis, or Inuit person. Data analysts need not derive Aboriginal status from the selection of First Nation, Métis, or Inuit person (as is the case with the 2006 Census Aboriginal identity question), and respondents have the option of identifying as Aboriginal without specifying First Nation, Métis, or Inuit identity. Another advantage of the question structure posed is that additional elements may be added at a later date or to an institution-specific form (if they choose to adopt the standard question for institutional purposes). Should an institution be interested in language group or band membership, these additional lines of inquiry can be added to the structure.

A final consideration is whether to include in the question or as a prelude to the question, information about why the question is being asked and the benefits for Aboriginal students that may be derived through better, more accurate data. Limited space on applications should not impede the use of the question structure and supplementary information approach that is determined to be best for Aboriginal self-identification through consultation and consensus. We feel it best that information be supplied with the question that, at a minimum, explains that answering the question(s) is voluntary, that all of the information provided is confidential, and that individual students will not be identified as Aboriginal students as a result of providing the information. A transparent statement for the rationale for asking the question should also be provided in proximity to the question in clear, readable print.

I. Conclusion

The primary concern of this research project has been to improve the collection of data about Aboriginal students in Ontario's postsecondary education. Adopting a standardized self-identification question is essential to this effort. While this report has provided extensive context and background, development of a standardized question should involve Aboriginal students, community members, and organizations from across the province. While reaching a consensus about the question will not be easy, there are examples of successful consultations in Ontario's school boards. Moving towards better data about, and better relationships with, Aboriginal people will require that conversations about data collection follow principles of inclusive, open and transparent communication; clarity of purpose; and mutual respect. The objectives of data quality and consistency, as well as privacy and the protection of personal information must also factor into these conversations.

We have suggested that implementing the standardized question in college and university applications is the best place to start, for clear, system-wide data about Aboriginal postsecondary students. Because this data is validated with institutions, simply enforcing the standard question and adopting application centre data as the central resource for system-wide data will provide application, institutional registration, and program data at the student record level. This, in itself, would be a significant achievement. Currently, the approach to the self-identification question in Ontario’s university and college applications is quite similar, so harmonizing these two approaches would be a quick step toward system-wide data. However, we would encourage a review of the current approach based on considerations outlined in this report and elsewhere as well as feedback received from broad consultations with stakeholders. We have also suggested implementing the use of the Ontario Education Number across the postsecondary education level, in institutions as well as in the applications processes. Use of the OEN will allow for the tracking of students from K-12 through postsecondary education institutions. This will also facilitate tracking of postsecondary students’ year over year, so that an accurate picture of student persistence, program completion, and mobility among institutions can be gained province-wide. This will improve data for all students. The ability to identify under-represented groups within system-wide data set will be useful for measuring the

effectiveness of government initiatives to increase access and improve outcomes for these students.

Building better student data systems is a slow, iterative process. Establishing such systems requires that many issues outside the scope of this research be addressed, including issues of governance, management, technology, and policies surrounding access and data usage. Even when these difficult issues are resolved, data sets may take years to reach maturity.

Nevertheless, as a result of investment and collaboration, powerful analytical engines are emerging in provinces that have taken on this challenge. The decision to collect better data about Aboriginal students need not take this long. There is little doubt that a carefully considered, standardized approach to self-identification and system-wide data collection is the best approach. Regardless of the diversity of Ontario's Aboriginal communities or the decentralized and autonomous nature of its postsecondary education systems, we are confident that a consensus can be reached that will improve the collection of data about Aboriginal students, and provide a uniform, carefully considered approach to self-identification.

References

Aboriginal Education Office, Ministry of Education. (2007a). *Building bridges for First Nation, Métis and Inuit Students.* Toronto: Government of Ontario.

Aboriginal Education Office, Ministry of Education. (2007b). *Ontario First Nation, Métis, and Inuit Education Policy Framework.* Toronto: Government of Ontario.

Anderson, C. (2008). From nation to population: The racialization of 'Métis' in the Canadian census. *Nations and Nationalism, 14*(2), 347-368.

Brock University. (2008). NSSE 2008: An overview of the preliminary results. *Report of the Provost and Vice-President, Academic; Senate 562.* St. Catharine's, Ontario. Accessed July 28th, 2009 at : http://www.brocku.ca/secretariat/senate/agendae/2008-10-15/NSSEREPORT2008.pdf

Corntassel, J. (2003). "Who is Indigenous? Peoplehood and ethnonationalist approaches to rearticulating indigenous identity," in *Nationalism and Ethnic Policies, 15 (53),* p. 75.

Council of Ontario Universities. (2008). *Welcome to Common University Data Ontario (CUDO)*. Accessed May 13, 2009 at: http://www.cou.on.ca/_bin/home/contactPage.cfm

Data Quality Campaign, *Building a Student-level Longitudinal Data Systems - Lessons Learned from Four States* (Austin, Texas: Data Quality Campaign. National Center for Educational Achievement, 2006). Accessed September 10, 2008 at: http://www.dataqualitycampaign.org/files/State_Specific-2006_Site_Visit_Synopsis.pdf

Doughrety, C. (2008). *Information won't be used if no one can see it* (Austin, Texas: Data Quality Campaign. National Center for Educational Achievement, 2008). Accessed September 10, 2008 at http://www.dataqualitycampaign.org/files/publication-information_wont_be_used_if_no_one_sees_it-090108.pdf

Downey, J. (2008). Accountability versus autonomy. Delivered at the Meeting of Vice-presidents, Conference Board of Canada quality Network for Universities, November 13, 2008.

Dunn, M. F. (1994). *All my relations - The other Métis.* Discussion paper for the Métis Circle Special Consultation of the Royal Commission on Aboriginal Peoples. Retrieved April 24, 2009 from: http://www.othermetis.net/Papers/Dunn/Definition/4-Terminology.html

Educational Policy Institute. (2008a). *Review of current approaches to Canadian Aboriginal self-identification*. Ottawa: The Canadian Education Statistics Council.

Educational Policy Institute. (2008b). *Producing indicators of institutional quality in Ontario universities and colleges: Options for producing, managing and displaying comparative data*. Toronto: Higher Education Quality Council of Ontario.

Erickson, E. H. (1994). *Identity: Youth and crisis.* New York: W. W. Norton & Company.

Frost, F. , Taylor, V. & Fries, E. (1992). Racial misclassification of Native Americans in a surveillance, epidemiology, and end results cancer registry. *Journal of the National Cancer Institute, 84*(12), 957.

Gardiner-Garden, J. (2003). *Defining Aboriginality in Australia*. Current Issues Brief. No. 10 2002-03. Melbourne: Commonwealth of Australia. Retrieved May 12, 2009 from http://www.aph.gov.au/library/Pubs/CIB/2002-03/03cib10.pdf

Gaminiratne, K. H. W. (2000). *Comparative socio-economic profile of Aboriginals, Torres Strait Islanders and persons of mixed Indigenous origin of Australia - A census based analysis 1996.* Paper delivered at the 10th Biennial Conference of the Australian Population Association, November 28 - December 1, 2000. Melbourne, Australia.

Government of Ontario. (2005) *Reaching higher: The McGuinty Government plan for postsecondary education.* Toronto: Office of the Premier, May 13, 2005. Retrieved February 2nd, 2009 from http://www.premier.gov.on.ca/news/Product.asp?ProductID=114

Guimond, E, Kerr., D. & Beaujot, R. (2004). Charting the growth of Canada's Aboriginal populations: Problems, options and implications. *Canadian Studies in Population, 31*(1), 2004. pp. 55-82. Retrieved April 22nd, 2009 at : http://www.canpopsoc.org/journal/CSPv31n1p55.pdf

Hahn, R. A., Truman, B.I., & Barker, N. D. (1996). The reliability of ancestral identification in the United States by self, proxy, interviewer, and funeral director. *Epidemiology*, 7(1), 75-80.

Hallett et al. (2008). Identity in flux: Ethnic self-identification and school attrition in Canadian Aboriginal youth. *Journal of Applied Developmental Psychology, 29(1),* pp. 62-75.

Heslop, J. (2009). *Student Transitions Project: Education achievements of Aboriginal students in B.C.* Victoria, B.C: Ministry of Advanced Eudcation and Labour Market Development. Accessed October 19, 2009 at : http://www.aved.gov.bc.ca/student_transitions/documents/STP_aboriginal_report.pdf

Higher Education Quality Council of Ontario. (2007). *Review and Research Plan, 2007.* Toronto: Higher Education Quality Council of Ontario.

Higher Education Quality Council of Ontario. (2009). *Second Annual Review and Research Plan.* Toronto: Higher Education Quality Council of Ontario.

Holmes, D. (2006). *Redressing the balance: Canadian university programs in support of Aboriginal students.* Ottawa: Association of Universities and Colleges of Canada.

Jensen, L. A. (2003). Coming of age in a multi-cultural world: Globalization and adolescent cultural identity formation. *Applied Developmental Science, 7*(3), 189-196.

Jérôme, L. (2008). How can one be a young Aboriginal? *Horizons, 10* (1), 21.

King, A. J. C., Warren, W.K., King, M. A., Brook, J. E., & Kocher, P. R. (2009). *Who doesn't go to postsecondary education: Final report of findings for Colleges Ontario Collaborative Research Project.* Kingston, Ontario: Queen's University Social Program Evaluation Group. Retrieved February 25, 2010 from: http://www.collegesontario.org/research/who-doesnt-go-to-pse.pdf

Knernmo, S. &Heyerdahl, S. (1993). Ethnic identity in aboriginal Sami adolescents: the impact of the family and the ethnic community context. *Journal of Adolescence, 1996* (19), 453-463.

Kukutai, T. (2004). The problem of defining an ethnic group for public policy: Who is Māori and why does it matter? *Social Policy Journal of New Zealand,(December 2004)* 23, 86-108.

Lavin, S. A. & Gauthier, P. (2001). *Conducting a Census on American and Canadian Indian reservations: Comparing challenges and solutions.* Proceedings of the Annual Meeting of the American Statistical Association, August, 5-9, 2001.

Lee, S. M. & Edmonston, B. (2009). *Identifying with a national ancestry or ethnic origin: A comparative study of Australia, Canada and the U.S.* Paper prepared for presentation at the 26th International Population Conference, September 27 - October 2, 2009. Marrakech, Morocco.

Liebler, C. A. & Halpern- Manners, A. (2008). A practical approach to using multiple-race response data: A bridging method for public-use microdata. *Demography, 45* (1): 143-155.

Loue, S. (2006). Assessing Race, Ethnicity and Gender in Health. New York: Springer.

Mayrand, L. (2009). *Memorandum Re: Under-represented student groups at Laurentian.* Sudbury, Ontario: Laurentian University Institutional Research. Retrieved July 22, 2009 from: http://www.laurentian.ca/NR/rdonlyres/640A7774-8BB8-48EA-8389-DEBC9EE693D1/0/UnderrepresentedStudentsSurveyResults20090520Memorandum20090601.pdf

Mendelson, M. (2006). *Aboriginal peoples and postsecondary education in Canada.* Ottawa: Caledon Institute for Social Policy. Retrieved November 29, 2007 from http://www.caledoninst.org/Publications/PDF/595ENG.pdf.

Mendelson, M. & Usher, A. (2007). *The Aboriginal university education roundtable.* Winnipeg: University of Winnipeg. Retrieved October 7, 2009 from: http://www.uwinnipeg.ca/index/cms-filesystem-action?file=pdfs/conferences/2007/aboriginal-rt-spring-report.pdf.

Métis National Council. (2002). *National definition of Métis.* Retrieved April 24, 2009 from: http://www.metisnation.ca/who/definition.html

Morning, A. (2008). Ethnic classification in global perspective: A cross-national survey of the 2000 Census round. *Population Research and Policy Review, 27* (2008) 239-272.

National Aboriginal Health Organization. (2003). *Terminology guide*. Retrieved May 6th, 2009 at: http://www.naho.ca/english/pdf/terminology_guidelines.pdf

National Survey of Student Engagement. (2003). *The College Student Report: 2003 Overview.*

Office of Institutional Analysis and Planning, Kwantlen University College. (2004). *Data to inform development of an Aboriginal admissions policy.* Surrey, British Columbia: Kwantlen Polytechnic University. Retrieved May 6th, 2009 from: http://www.kwantlen.bc.ca/__shared/assets/Aboriginal_Admissions_Policy6356.pdf

Office of the Chief Information and Privacy Officer of Ontario. (2008). Privacy protection. *Manual.* Toronto: Queen's Printer for Ontario. Retrieved October 9th, 2009 from: http://www.accessandprivacy.gov.on.ca/english/manual/CHAPTER5.htm#intro

Ontario Human Rights Commission. (2003). *Guidelines for collecting data on enumerated grounds under the Code.*

Ontario University Application Centre. (2009). 105 - *Application for admission to undergraduate programs at Ontario universities - 2010*. Toronto: Ontario Universities' Application Centre. Retrieved November 4, 2009 at: http://www.ouac.on.ca/105/pdf/b_105_b.pdf

Porter, S.R. (2004) Raising response rates: What works? *New directions for Institutional Research, 121* (Spring), 5.

Porter, S.R., Whitcomb, M.E., & Weitzer, W.H. (2004). Multiple Surveys of students and survey fatigue. *New directions for Institutional Research, 121* (Spring), p. 5.

Purdie, N. (2003). *Self-identity and positive outcomes of schooling for indigenous Australian students*. Paper presented at NZARE AARE, Auckland, New Zealand November 2003.

Queen's University. (2008). *2007-08 Multi-Year Accountability Agreement Report-Back for Queen's*. Accessed August 18th, 2009 at: http://www.queensu.ca/irp/accountability/regcompliance/MYA_report_0708.pdf

Representative for Children and Youth of British Columbia. (2007). *Joint special report - Health and well-being of children in care in British Columbia: Educational experience and outcomes.* Victoria: co-published by the Office of the Provincial Health Officer.

Restoule, J.P. (2000). Aboriginal identity: The need for historical and contextual perspectives. *Canadian Journal of Native Education, 24 (2)*, pp.102-112.

Sax, L. J., Gilmartin, S.K., Bryant, A.N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. *Research in Higher Education 44*(4), 409-422.

Shanahan, T. (2009). *Accountability initiatives in higher education: An overview of the impetus to accountability, its expressions and implications.* Toronto: York University.

Simcoe County District School Board. (2008). First Nation, Métis & Inuit ancestry: Voluntary & confidential self-identification brochure. Accessed July 28th, 2009 at:http://scdsb.on.ca/media/files/programs-and-services/aboriginal-education/Ancestry%20BrochureJan-09.pdf

Simon, P. and Germain, M-F. (2009). *Qualitative testing of Aboriginal Identification questions, no-89-639-x.* Ottawa: Statistics Canada, Social and Aboriginal Statistics Division.

Statistics Canada. (2006). *Census Guide 2b.* Ottawa: Statistics Canada.

Statistics Canada. (2008). *Report on regional discussions on Aboriginal identification questions, no. 89-629-x.* Ottawa: Statistics Canada, Social and Aboriginal Statistics Division.

Statistics New Zealand. (2005). *Understanding and working with ethnicity data: A technical paper.* Wellington. Accessed May 20, 2009 at: http://www.statisphere.govt.nz/sitecore/content/statistics/Home/reports/analytical-reports/review-measurement-of-ethnicity/~/media/Statistics/Publications/Analytical-reports/review-measurement-ethnicity/understanding-working-ethnicity-data.ashx

Supreme Court of Canada. *Re Eskimos* [1939] S.C.R. 104

The University of Waterloo. (2008). *Multi-year Accountability Agreement Report Back for 2006/07.* Accessed May 16, 2009 at: http://www.analysis.uwaterloo.ca/docs/Accountability/Waterloo_MYAAReportback_0607_FinalApproved_Web.pdf

Weaver, H. N. (2000). Balancing culture and professional education: American Indians/Alaska Natives and the helping professions. *Journal of American Indian Education, 39*(23).

Weaver, H. N. (2001). Indigenous identity: What is it, and who really has it? *American Indian Quarterly, 25*(2), 240-255.